FINAL REPORT

Business Case for a New Aquatic Facility

Part One: Needs Assessment

FEBRUARY 2020

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1.0 EXECUTIVE SUMMARY

The City of Kalamunda commissioned CCS Strategic in association with Gresley Abas Architects, Geoff Ninnes Fong and Partners Aquatic Engineers and NBQSS Quantity Surveyors to prepare a business case for a new Aquatic Facility in the City of Kalamunda.

This report provides an assessment of need to provide a new aquatic facility within the City of Kalamunda when the existing Kalamunda Water Park ceases to be of service to the community.

The need to provide a new aquatic facility has been assessed using five measures, all of which demonstrate a strong case for a new aquatic facility. The assessment further identifies three fundamental design requirements. The facility must be universally accessible, offer heated indoor water and be open year round.

The specific features within the facility are open to some interpretation. The selection of element and their size and design will be influenced by the preferred hierarchy of provision (local, district or regional), the location and site characteristics and whether all the features of the facility are indoors and open all year round.

There is a broad call from the community to provide pools for fitness and competitive swimming, water bodies for recreational swimming and water play, spaces for learn to swim activities and rehabilitation and for unique or high value tourist features that set the facility apart and draws visitors to the City.

The ultimate design of the facility and its location will be subject to a response to these various approaches.

This report provides four options for consideration, each responding to and interpreting the information captured in the assessment of need in an appropriate but different manner.

It will be necessary to determine the City's preference regarding these alternatives before proceeding to the feasibility stage of the study.

2.0 STUDY OBJECTIVES

Kalamunda Water Park (KWP), comprising outdoor seasonal swimming pools and water slides, is owned by the City of Kalamunda and operated under a management agreement by Belgravia Leisure. The facility is nearing the end of its useful life and the management agreement with Belgravia Leisure (the operation of the facility) expires in 2022.

Accordingly, the City of Kalamunda is seeking to determine the appropriate location, level of amenity and cost to service the current and future aquatic needs of the community with a view to providing a replacement facility. This study is to identify the community's need; a facility solution to meet that need; and a suitable location for the development of an aquatic facility to service the community. The cost of developing a concept design on the preferred location is to be identified together with a projection of annual operating and whole of life costs under a suitable management model.

The concept design, site selection, management options, and funding and implementation strategies are to be tested through a detailed risk and cost benefit analysis to form a business case for future development.

In building the business case, consideration is to be given to the demographic profile and future population of the City, industry trends in aquatic facility provision and design, and the current and likely provision of alternative facilities in surrounding areas

3.0 METHODOLOGY

The study has been tackled in a manner that brings clarity and understanding to options for a new facility, addressing:

- what is required — facilities or elements and their importance
- for whom — target audience or user group
- why — the rationale or justification
- where — the preferred site and location and orientation on that site
- when — timeline and sequence of delivery if staging is required
- and at what cost — the budget allocated to each element and how it is funded

The methodology for the needs assessment phase of the study is focused on gathering information, including utilisation and community sentiment regarding the Kalamunda Water Park, expectations and aspirations for a new aquatic facility in terms of location, function and design elements from a broad range of stakeholders, trends in aquatic facility provision, and an analysis of the demography of the City and the potential target market for a new aquatic facility.

The next phase of the study will focus on helping all stakeholders develop an understanding of the key components and most advantageous site for the development of a highly functional, attractive and activated aquatic facility to service the Kalamunda community.

4.0 LITERATURE REVIEW

The following documents have been reviewed.

4.1 Aquatic Centre feasibility study in 2007 by CCS Strategic Management

This study acknowledged the deteriorating condition of Wet'n'Wild and recommended that the [then] Shire make the facility available under lease to a contract operator in an 'as is' condition and at no cost to the Shire for the remaining term of its functional life.

In lieu of redeveloping the Kalamunda facility, the study proposed the development of aquatic facilities at Hartfield Park in Forrestfield in two stages. The first stage was to focus on water play and learn to swim and program activities in 2011 and the second stage, an indoor heated 10 lane x 25m lap pool in 2015. The concept design reflected the constrained nature of the site. Cost estimates developed in 2007 identified the construction of stage 1 at $5.2 m and stage 2 at $7.27 m. These costs were then escalated at the prevailing inflation rate of 12% per annum with a forecast total cost of $34.7 million.

This proposal was not pursued due financial constraints.

4.2 Hartfield Park Master Plan in 2010 by ABV Leisure Consulting

This study focused on the future role and capacity of Hartfield Park in meeting the Shire's sport and recreation needs. The report identified a range of key issues including a growing population base and a corresponding growth in local clubs, levels of overuse of the existing sportsfield and the need for additional and alternative grounds, limited water supply, a variety of constraints on the development of Hartfield Park including Bush Forever and conservation needs, lack of parking, and the ageing nature of the buildings on site. The future of equestrian activities at Hartfield Park was questioned.

A masterplan for the precinct was prepared for implementation over a 10-year period at an estimated cost of $5.87 million.

The report identified that expanded indoor recreation centre facilities would be needed in the Shire as the population grew but that Hartfield Park is abutted by Bush Forever and instances of rare and threatened flora. The potential for development of an indoor swimming pool (and other features that require large land areas) in this location was limited without loss of playing fields. The study called for a Needs and Feasibility study to be prepared for Hartfield Park Recreation Centre.

4.3 Future of Hartfield Park Recreation Centre Study in 2013 by Creating Communities

As recommended by the 2010 study on the overall Hartfield Park Reserve precinct, a study into the future of the recreation centre was completed in 2013. The report noted that gym membership and participation in centre programs was limited by the location, functionality and size of existing spaces. The review focused on medium and

long-term solutions together with a rationalisation of administration and customer service areas and sought to establish the recreation centre as a hub within the precinct offering expanded facilities and services.

The report noted that aquatic facilities as well as new indoor facilities would be needed to meet demand created by localised population growth in the future. Co-location of these facilities at Hartfield Park Recreation Centre would facilitate good regional distribution of aquatic facilities and achieve functional benefits of these facilities being co-located.

The preferred redevelopment proposed new gym facilities on the first floor above a reconfigured building entry and administration area, a complete refurbishment of existing facilities. The concept plan showed an increase in floor area of 515 m^2. The option for future expansion and potential aquatic facilities on the western side of the sports courts was shown. An order of probable cost for the redevelopment, excluding future aquatic facilities was cited as $7.725 million, however the cost estimate did not include fit-out costs, staging, temporary facility and escalation costs or service upgrades. These and other elements were excluded from the estimate and could increase the total project cost by as much as 15-30%.

4.4 Community Facilities Plan 2011 – 2031 in 2011 by Community Perspectives

This strategic plan includes a rationale and suite of principles for the provision of community facilities across the City. The report references and adheres to the Hartfield Park Master Plan and notes that improving the aquatic centre was identified as one of the highest priorities by residents.

Implementation of the Community Facilities Plan to 2031 requires an overall capital works program of $165.6 million including the allocation of $14.5 million to aquatic centres. In the period to 2016, aquatic centre expenditure works of $300K relate to the beautification and revitalisation of the existing aquatic centre. The remaining $14.2 million was forecast for expenditure in 2026/27 for a new aquatic facility at Hartfield Park.

4.5 Community Facilities Plan 2019-2039 – Community Engagement Summary December 2018

Whilst the City had made some progress on implementing the CFP 2011-2031, the plan did not respond to the requirements of SPP3.6 dealing with developer contributions for community infrastructure. A new round of engagement was undertaken to update the CFP and extend its horizon to 2039. Comments made specifically about Aquatic facilities are captured below:

- Kalamunda pool is outdated and freezing
- Kalamunda Water Park could do with some more things

- Pools are unclean and gross
- City has good community facilities – maybe more swimming pools needed
- Need a swimming pool and cinema
- A new aquatic centre at Hartfield Park
- Need an aquatic facility for Wattle Grove residents
- A public indoor pool for recreation swimming would be great
- City needs to invest in an Aquatic Centre for the foothills
- We need a therapeutic pool
- Have stopped going to the Water park due to concerns of the water slide safety etc.

Specific questions that captured views on Kalamunda Water park included:

- Accessibility was good - including affordability, availability of space, sufficient car parking and disabled access
- The standard of maintenance and presentation of the facility
- Capacity to meet resident's needs

The following responses were returned.

	Accessibility		Standard of Maintenance		Can meet your needs	
Rating	No.	%	No.	%	No.	%
Very good	15	8.9%	12	7.6%	19	12.3%
Good	45	26.8%	49	31.0%	41	26.6%
Average	48	28.6%	34	21.5%	27	17.5%
Poor	5	3.0%	11	7.0%	10	6.5%
Very Poor	2	1.2%	3	1.9%	3	1.9%
Do Not Use	53	31.5%	49	31.0%	54	35.1%
Total	168	100%	158	100%	154	100%

In summary, more than 35% of residents score KWP good or very good in terms of accessibility, standard of maintenance and the facility's capacity to meet their needs.

Utilisation of KWP is recorded as follows with very few regular users and 37% never making use of the pool.

In the past 12 months how often did you / your family use KWP	No.	%
Weekly	4	2%
Monthly	20	11%
Not Often	90	50%
Never /Do not use	66	37%
Total	180	100%

Residents were asked to identify the three most important facilities to them and then where to invest the city's funds on community infrastructure. The responses revealed the following hierarchy.

Rank	Importance			Where to invest	
	No.	Percentage		No.	Percentage
1. Neighbourhood Parks	113	21.6%	1	89	18.2%
2. Sports Grounds	83	15.9%	3	59	12.1%
3. Libraries	72	13.8%	5	51	10.5%
4. Kalamunda Water Park	50	9.6%	2	60	12.3%
5. Recreation Centres	50	9.6%	4	58	11.9%
6. Skate Parks	36	6.9%	6	46	9.4%
7. Kalamunda Performing Arts Centre	35	6.7%	8	30	6.1%
8. Community Centres and halls	30	5.7%	7	42	8.6%
9. BMX Tracks	17	3.3%	9	26	5.3%
10. Kalamunda Library	8	1.5%			
11. Men's Sheds	7	1.3%	10	18	3.7%
12. Forrestfield Library	6	1.1%			
13. Other	6	1.1%	11	9	1.8%
14. Hartfield Park Recreation Centre	4	0.8%			
15. High Wycombe Rec Centre	2	0.4%			
16. High Wycombe Library	1	0.2%			
17. Jack Healey centre	1	0.2%			
18. Zig Zag cultural Centre	1	0.2%			
Total	522	100.0%		488	10%

4.6 KWP feedback

Residents and current users of the facility occasionally provide written feedback to the City and the facility manager. The messages received highlight the following main points:

- The pool is too cold – heat it!
- The pool is only open two mornings a week for early morning swimming – provide more early morning swimming options
- The pool is not open long enough each season – heat it and extend the swimming season
- There is not enough shade over or around the pool during the summer months
- Bees and ducks are a nuisance / danger at the pool
- Return the diving boards

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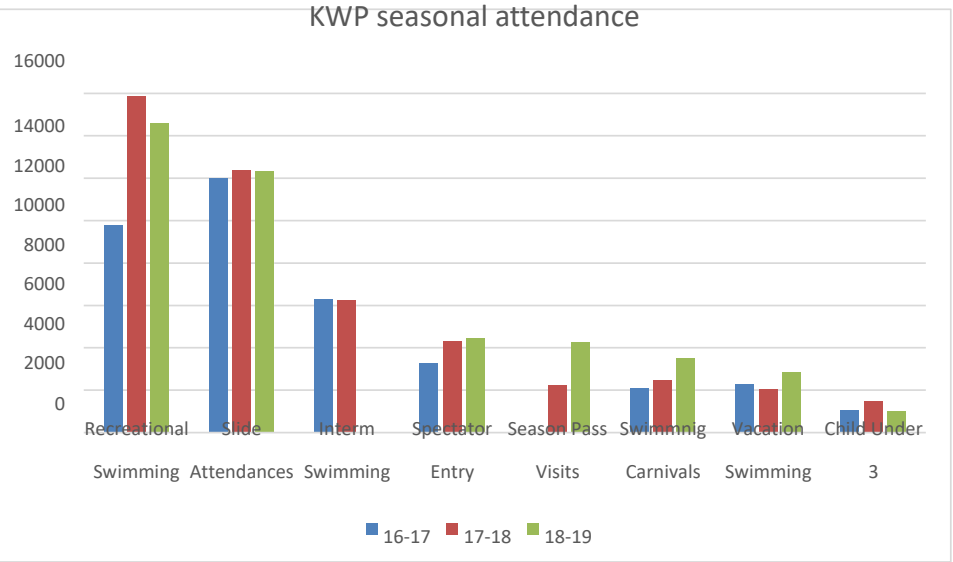
4.7 KWP usage data

Belgravia Leisure has been operating Kalamunda Water Park under a management agreement with the City of Kalamunda since September 2017. The term of the agreement is for five years with an option for a further two years.

Attendances have been variable at 36,887 in 2016-17, 47,135 in 2017-18 and then down to 43,053 for 2018-19, noting that there was no In-term swimming in 2018-19. The breakdown by category is shown in the chart below:



Except for the cost of goods for the kiosk, Belgravia achieved all performance measures for the 2018-19 year. Income received (including a Council subsidy of 201,996) totalled $549,836 and exceeded the approved budget of $540,615 by $9,221. Expenditure of $545, 486 returned a better than budget outcome, before depreciation, of $1,876.

In summary, attendances are roughly 40,000 per year and the centre requires an annual subsidy of $200,000 per annum in an operating expense of around $500,000. The user subsidy is around $5.00 per entry.

4.8 Social, Economic, Health and Safety and Community Benefits of Aquatic Facilities[2]

There have been a variety of studies published into the social, economic, health and safety benefits of sport and recreation and aquatic facilities in recent years. These studies have a predominantly Victorian genesis driven by Tertiary institutions, Royal

[2] KSM Advisory, April 2019, Revitalise and Reimagine the Town Pool, Official White Paper

Life Saving Society[3], Aquatics and Recreation Victoria[4] and a variety of consulting firms[56].

Key points include:

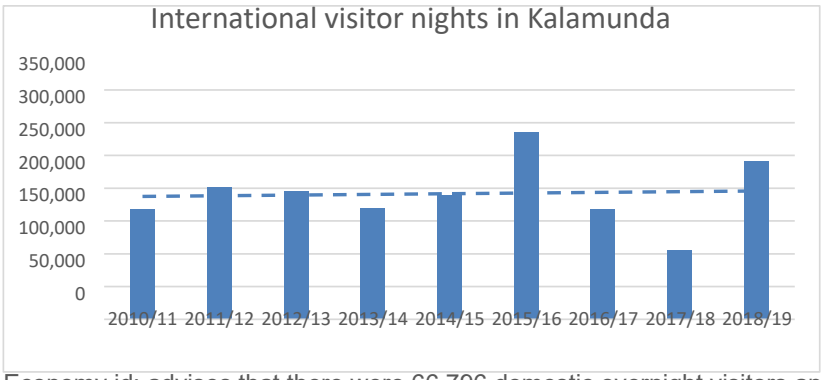
- The local pool is where children learn to swim, a vital lifelong skill that prevents drowning and promotes healthy active living
- The average regional town aquatic facility creates $2.72 million per annum in value to the community
- Vibrant aquatic centres are the epicentre or many communities
- Aquatic centres benefit the overall health of local communities, with users likely to be healthier, fitter and stronger with lower health care costs
- The economic burden of physical inactivity in Australia costs the health system $3.7 billion each year; while Australia's aquatic facilities produce $2.8 billion in health benefits each year, over and above their value as sources of recreation, community and aquatic education.
- Community sport infrastructure is estimated to generate an annual value of more than $16.2 billion to Australia, with $6.3 billion worth of economic benefit, $4.9 billion worth of health benefit and $5.1 billion worth of social benefit.
- There are more than 550 public access pools in Victoria of which 300 are Council owned.
- 74% of Aquatic centre members live within a 10-minute drive of a pool. They had an average membership life of just 9.4 months and on average cancelled their membership after an inactive period of 49 days.
- Swim participant demand is expected to increase by 16% from 2021 to 2033.
- Of the 20 drowning deaths recorded in Victoria in the past 20 years, 85% were male with a median age of 29 years.

4.9 Economic and tourism data of City of Kalamunda

The economic output from Kalamunda due to tourism is recorded at $117.7 m[7].

Domestic day trippers expend on average $97 and domestic overnight visitors contribute $231 with an average stay of 4 nights. The international visitor spend is on average $85 per night[8].

[3] Royal Life Saving Society, 2017: Economic Benefits of Australian Public Aquatic Facilities, Industry Report
[4] Victorian Public Pools, State of the Sector Report 2017-2018
[5] Value of Community Sport Infrastructure, KPMG 2018
[6] KSM Advisory, April 2019, Revitalise and Reimagine the Town Pool, Official White Paper
[7] Remplan
[8] TRA 2015 Experience Perth Region Regional Tourism Profile



Economy.id: advises that there were 66,796 domestic overnight visitors and 294,379 domestic daytrip visitors on average over the past 5 years. International visitor numbers fluctuate significantly but are trending slightly upwards over the past decade.

The limited data indicates that 60% of day trippers were on holiday and 29% were visiting friends and family. There is no data to indicate any relationship with Kalamunda Water Park and it is unlikely that the principal cause for the trip to Kalamunda would be to visit Kalamunda Water Park.

In essence there is no evidence to support the view that Kalamunda Water Park is a visitor attractor.

4.10 Australian Teenagers Alarmingly Inactive[9]

A damning new report from the World Health Organization shows that Australian youth are among the most inactive in the world. The world first global report published in the Lancet Child Adolescent Health journal has provided damning statistics that physical activity among Australia adolescents sees them ranked 140 out of 146 countries. Researchers from the University of Western Australia (UWA) and the Imperial College in London analysed data on the physical activity of 11 to 17-year olds from 298 school surveys on physical activity levels from 146 countries, representing 1.6 million students. Australia was one of the worst performers, ranking in at 140.

The World Health Organization, which funded the survey, recommends adolescents do moderate or vigorous physical activity for an hour or more each day. However, 89% of young Australians did not meet this recommendation. Out of 25 high-income western countries, Australia had the highest number of teenagers - nine out of 10 - not meeting physical activity guidelines, with 91% of girls not meeting these activity targets, compared to 87% of boys.

[9] Australasian Leisure Management e-news 21 November 2019

4.11 South Perth Recreation and Aquatic Facility

The South Perth City Council has resolved to develop a premier regional recreation and aquatic facility (RRAF) that serves the City of South Perth, Curtin University and parts of Victoria Park and Canning. The RRAF is proposed to be:

- A unique and vibrant social hub where physical activity and lifestyle experiences meet
- A place for community, sport and education partnerships
- A dynamic destination and meeting place that connects communities
- A leading centre for sport education and research
- An economically efficient and financially viable multi-purpose facility
- A social space for every member of the community, accessible to all abilities and age groups.

In reviewing potential locations, six sites were evaluated on criteria such as available space, funding partnership opportunities, traffic management, accessibility to main roads, public transport and bike lanes/paths. Due to the strong additional funding opportunities it offers, the City identified Collier Park Golf Course in Como as the preferred site with links to a large population base. This site is about 25km from Kalamunda Water Park and 15km from Hartfield Park Recreation Centre, outside the principal catchment for a facility in the City of Kalamunda.

4.12 Trip Advisor

This on-line advisory service lists KWP as No. 9 in the 10 best things to do in Kalamunda, scoring an average 4 out of 5 across the 14 reviews posted including:

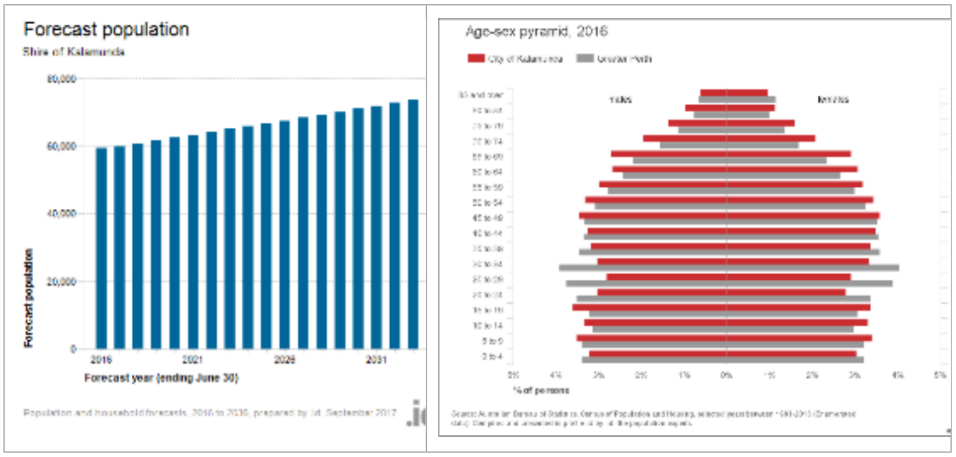
- Pools and gardens are clean and tidy
- A great day out for the family especially on a hot day
- Love the slides
- Great for all ages
- Staff are friendly
- The water is freezing
- Pity there are only 2 slides
- Food is very expensive

5.0 TECHNICAL REVIEW

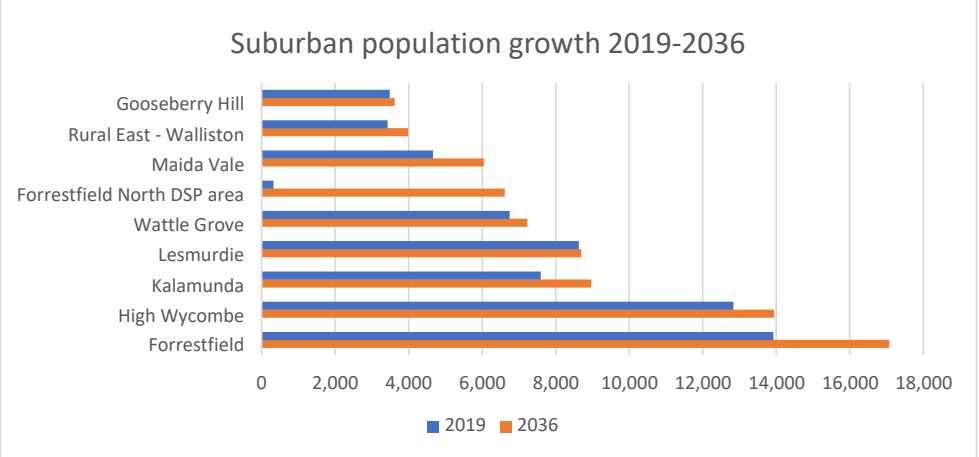
5.1 Demographic analysis of the Kalamunda community

The population of the City of Kalamunda is anticipated to grow steadily at an average annual rate of 1.26% from the current 61,000 in 2019 to more than 76,000 by 2036.

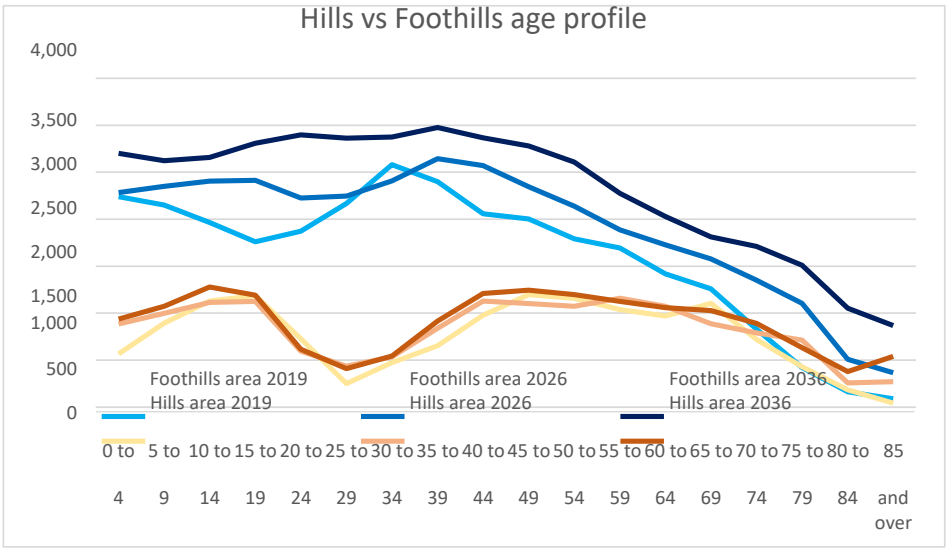
The population profile shown in the age-sex pyramid below is like that of Greater Perth, however Kalamunda presents a slightly older population with more aged over 45 and significantly more aged over 65 than Greater Perth. Kalamunda also has fewer young adults aged 20 to 44 and fewer infants and children under 4.



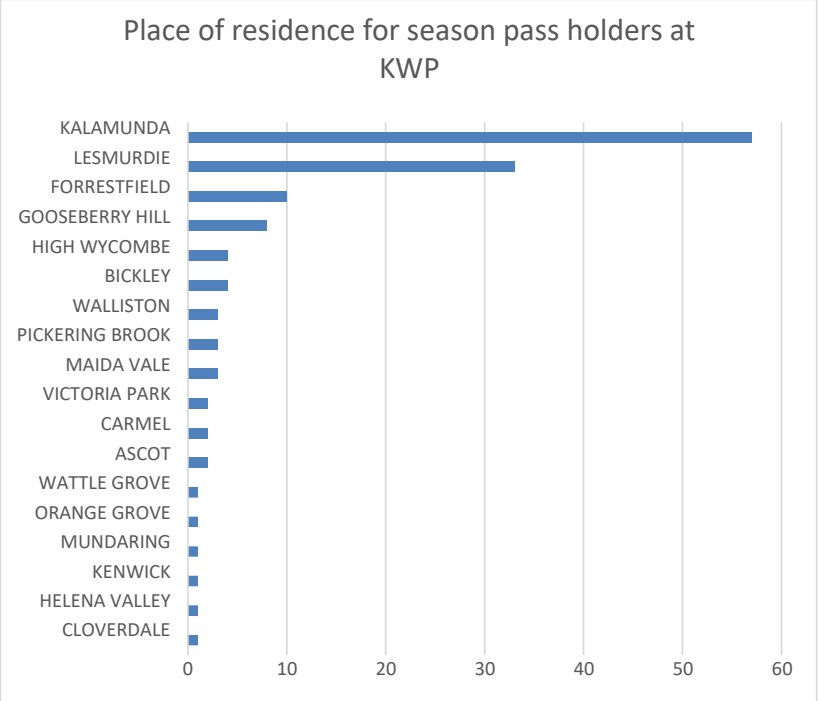
The growth areas within the City are primarily in the foothills with the hills area already approaching build-out. A comparison between the hills area (Kalamunda, Gooseberry Hill, Lesmurdie, Walliston and Rural East Suburbs) and the foothills (Maida Vale, Forrestfield, High Wycombe and Wattle Grove) shows that population up the hill will increase from 23,131 to 25,274 (9.26%) by 2036, while the foothills will grow from 38,495 to 50,905 (32.5%). Clearly the largest population will be in the foothills, primarily as a result of dramatic growth in Forrestfield.



Further, in addition to the community in the foothills being much larger, it is also comparatively younger. The hills community has a significant loss of residents aged 20 to 45 while the foothills population has the highest representation of residents aged in their late 30's.



5.2 Precinct catchment for potential pool users



Currently there are 137 season-pass holders for Kalamunda Water Park. Their place of residence is shown in the chart below. The data indicates that 80% of season pass holders live in the hills, 13% live in the foothills and 7% live outside the City of Kalamunda.

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5.3 Public Transport opportunities

The City of Kalamunda currently has bus services only, with the airport link rail line and Forrestfield North train station currently under construction. There are no plans for train services to suburbs in the hills. Transperth have advised that they will be reviewing their bus routes to align to the new train station, however they probably won't be finalizing this until near completion of the station – mid 2021.

Bus services into the City of Kalamunda emanate from Elizabeth Quay, Maddington and Carousel Shopping Centres and Midland Station.

Bus routes that terminate in the City stop at Forrestfield Village, near the corner of Hawtin and Berkshire Roads (286 and 288), the Kalamunda Bus Depot on Godfrey Rd in Walliston (295 and 299) or at the Kalamunda Bus Station. Bus routes to or from the bus station include 279, 282, 283, 291, 295, 296, 297 and 299. Route 294 passes through the city.

Route	Terminus A	Terminus B	Suburbs serviced
279	Maddington Shopping Centre	Kalamunda Bus Station	Lesmurdie, Kalamunda
282	Elizabeth Quay	Kalamunda Bus Station	Wattle Grove, Lesmurdie, Walliston, Kalamunda
283	Elizabeth Quay	Kalamunda Bus Station	Wattle Grove, Lesmurdie, Walliston, Kalamunda
286	Elizabeth Quay	Forrestfield Village/ Hawtin + Berkshire Rd	Forrestfield, Maida Vale
288	Elizabeth Quay	Forrestfield Village/ Hawtin + Kalamunda Rd	Forrestfield, Maida Vale
291	John St Gooseberry Hill	Kalamunda Bus Station	Gooseberry Hill to Kalamunda, (one way only)
294	Carousel Shopping Centre	Midland Train Station	Wattle Grove, Forrestfield, Maida Vale, High Wycombe
295	Kalamunda Bus Depot Godfrey St Walliston	Elizabeth Quay	Walliston, Lesmurdie, Kalamunda, Maida Vale, High Wycombe, (one way only)
296	Elizabeth Quay	Kalamunda Bus Station	High Wycombe, Maida Vale, Gooseberry Hill, Kalamunda
297	Midland Station	Kalamunda Bus Station	Maida Vale, Gooseberry Hill, Kalamunda
299	Elizabeth Quay	Kalamunda Bus Station / Senior High School	High Wycombe, Maida Vale, Kalamunda, Lesmurdie, Walliston

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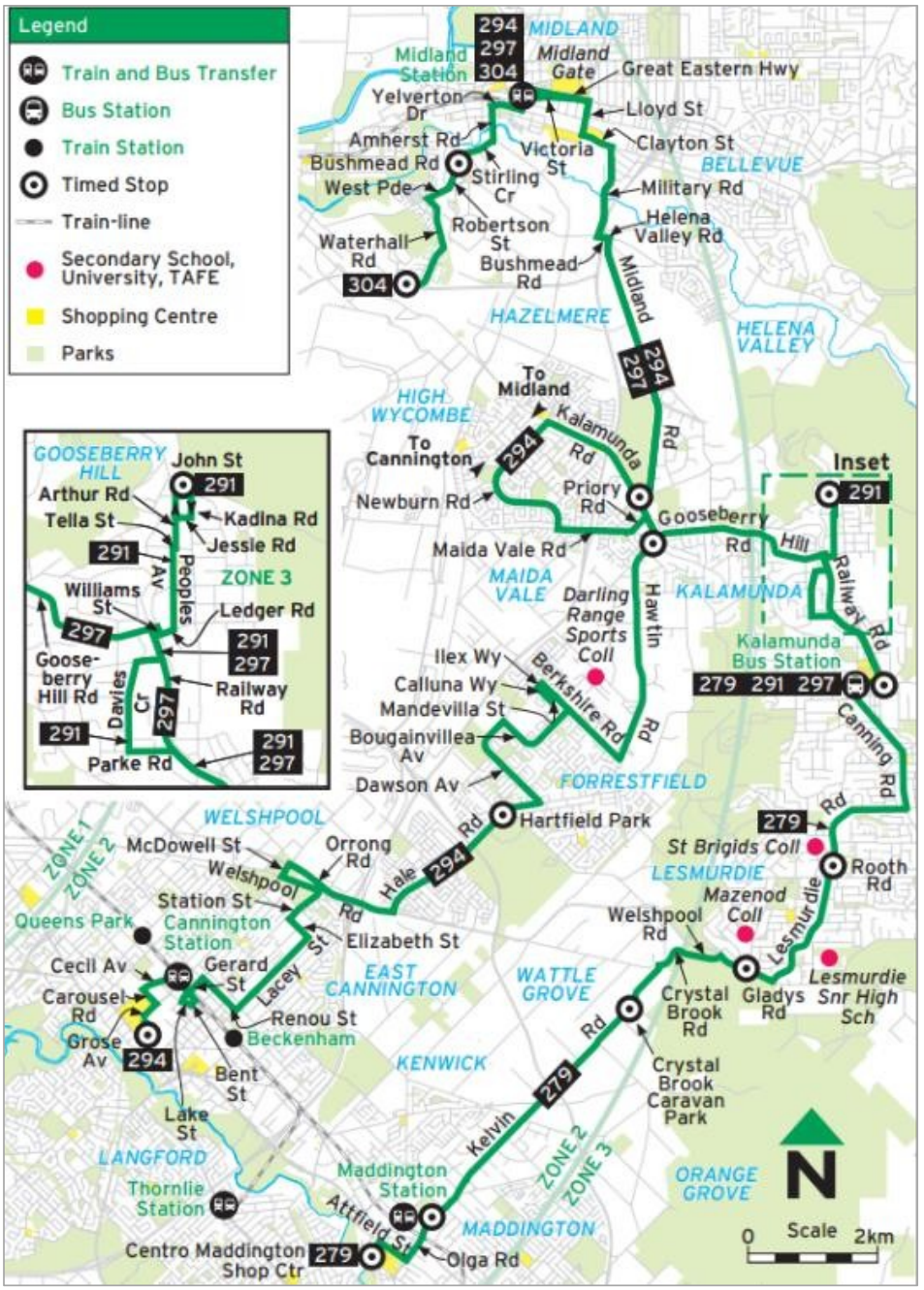
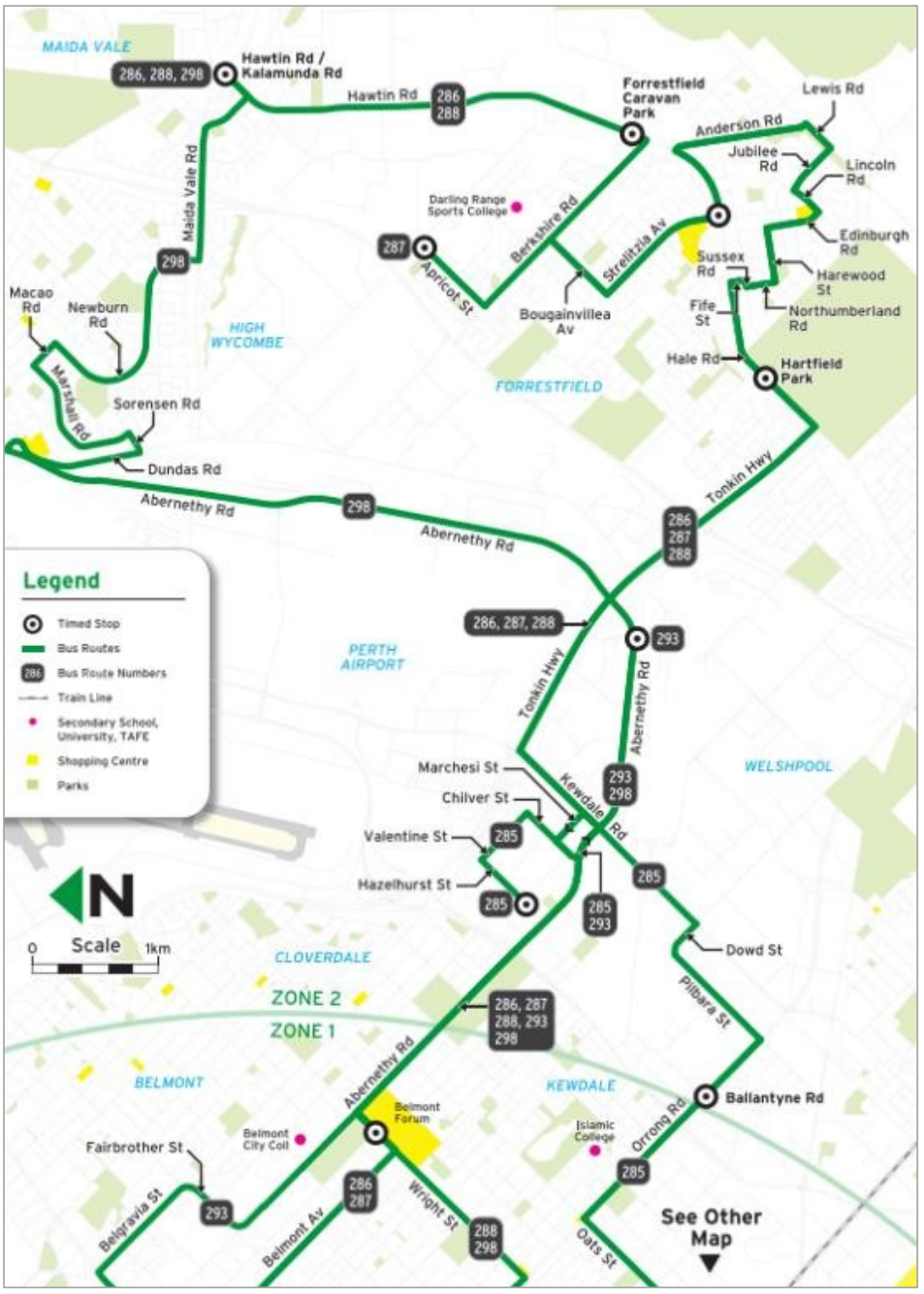
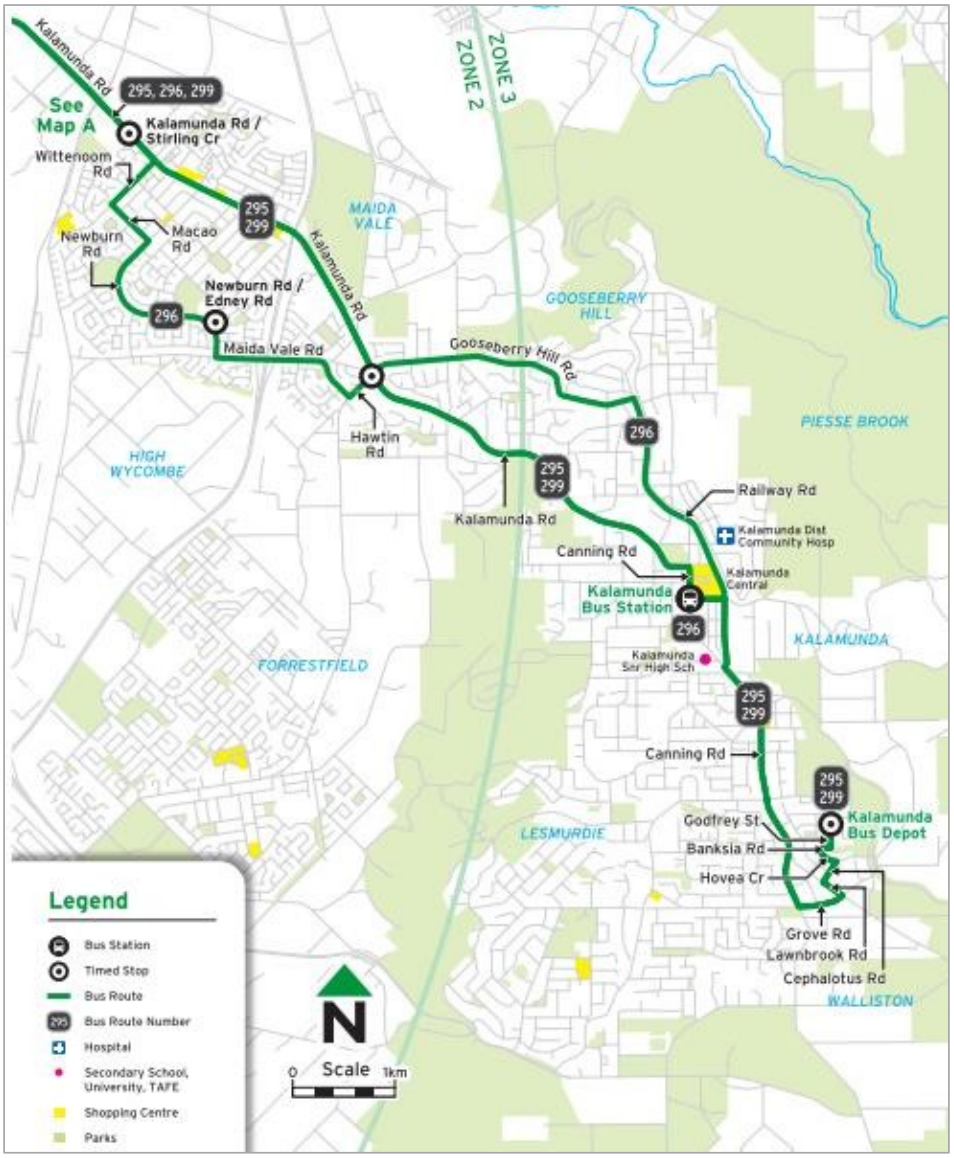
The map below describes the routes on timetable 89 that service Kalamunda town centre, Lesmurdie and Wattle Grove; and separately, Forrestfield, Maida Vale, and High Wycombe.



This map describes the routes on timetable 108 that service Forrestfield and High Wycombe.



This map describes the routes on timetable 109 that service High Wycombe, Maida Vale, Gooseberry Hill, Kalamunda, Lesmurdie and Walliston.



Of note is the fact that it is not possible to catch a bus that runs from Forrestfield (either Forrestfield Village or Hartfield Park) to the Kalamunda Town Centre and vice versa. Connections are possible by changing buses from 288 to 296 at the corner of Hawtin and in effect this is no connection between the centre of hills area and the centre of foothills area. The hills and the foothills are functionally disconnected and accordingly operate more like two separate and discrete communities. Facility provision in one location will not effectively service residents in the other location.

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5.4 Benchmarks for facility provision

The draft Community Facilities Guidelines publication from Parks and Leisure Australia WA includes references to the hierarchy of aquatic centre provision and a measure of accessibility.

The hierarchy table below summarises the proposed benchmark and the level of accessibility experienced by City of Kalamunda residents. Accessibility is measured by the percentage of the population that can access a facility type within the nominated catchment area. These measures have been derived from industry review and the guidelines promote high levels of accessibility with a good rating requiring more than 90% of the population being serviced within the catchment.

Accessibility	**Poor < 60%**	**Average 60-90%**	**Good > 90%**

At the neighbourhood level, a 25m pool, potentially unheated and seasonal, would be deemed minimum provision. A district facility has multiple water spaces of varying types and sizes and could operate seasonally or offer all year swimming in heated water. A regional facility is expected to include a 50m pool and a variety of indoor and outdoor water spaces.

Hierarchy	Neighbourhood	District	Regional
Features	25m pool	Multiple water spaces	50m pool, indoor and outdoor water spaces
Catchment	5km	5-10km	10km+
Kalamunda Residents	**Poor 33.7%**		**Good 99.06%**

As indicated in the Guidelines, the foothills area of the City is currently underserviced with only 33.7% of the population able to access any aquatic facility within 5km.

If Forrestfield is considered to be the centre of the foothills, all of the nearest district level facilities (Kalamunda Water Park, Belmont Oasis, Cannington Leisureplex, Gosnells Leisure World and Swan Active) are in excess of 10km away. The existence of private pools such as St Brigid's College, Mazenod College, Darling Range Sports College and Maida Vale Swimming Pool brings the percentage of the population able to reach a pool within 10km to 99.06%, however they are not public pools and access to these facilities is at times severely restricted or denied.

The Guidelines advise that the need for aquatic space should not be determined solely on population and accessibility criteria. Consideration should also be given to:

- 'All at one time' bather capacity space.
  This should consider the capacity of water space to accommodate the maximum level of activity at any one time i.e. calculating the maximum overall

programmable water space (m^2) available at any one time for learn to swim, aquarobics, lap swimming, water polo etc.

- Level of utilisation
  An assessment of the current programming and the actual capacity of the existing water space, having regard to present say operations. This should identify spare capacity when assessed against maximum actual usage.
- Local competition
  Whether the proposed service is complementary to or in direct competition to existing or proposed aquatic infrastructure within the catchment.
- Unique service opportunities
  Assessing the capability of proposed services to generate additional income to offset the operational subsidy. In metropolitan Perth, there are many aquatic centres which provide similar service opportunities. The lack of diversity in provision can undermine the potential to provide viable water spaces.
- A scenario assessment.
  To assess the implication of the closure of one or more pools and the impact it potentially could have in the displacement of use and change to accessibility of all resident users.

The guidelines also identify that the catchment for a regional scale recreation facility with six or more sports courts, a large gym and fitness centre, meeting rooms, creche and an aquatic centre requires a catchment of 250,000. Even though a true regional standard facility will attract patrons from further afield, the 10km catchment identified for a district level facility should provide the lion's share of the catchment population. It is worth noting that almost the City's entire population live within a 10km radius emanating from the intersection of Kalamunda Road and Lesmurdie Road.

6.0 INDUSTRY TREND ANALYSIS

6.1 Wollongong Future Pools Strategy

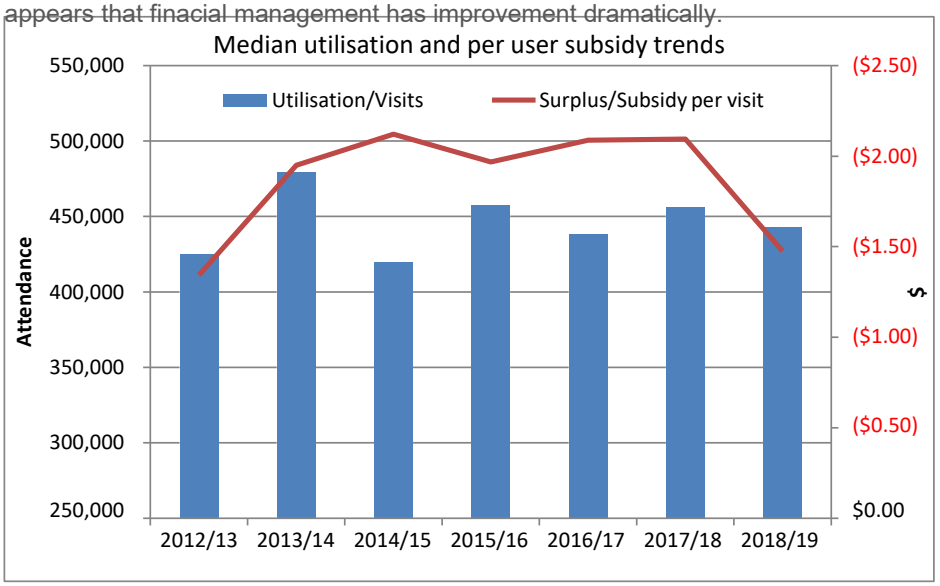
"Many Councils across Australia are confronted with the challenge of ageing swimming pools, increasing annual maintenance costs and, more often than not, falling attendance. The primary focus in modern aquatic facility design is on expanding the facility mix to include a combination of 'wet' and 'dry' options. These include heated water spaces that accommodate a range of activities such as lap swimming, aquatic programs/ learn-to-swim, adventure water, 'leisure water' with interactive water play elements and beach entry, café with quality furnishings and menu choices, merchandising/ retail areas, health and fitness centres, wellness services, multi-purpose program spaces and meeting rooms.

Contemporary aquatic leisure facilities are becoming community destinations and meeting points for a range of physical activity and socialising needs. These types of facilities provide more reasons for people to visit and stay longer, thus facility viability is improved"[10].

6.2 PLA WA Aquatic Centre Benchmarking

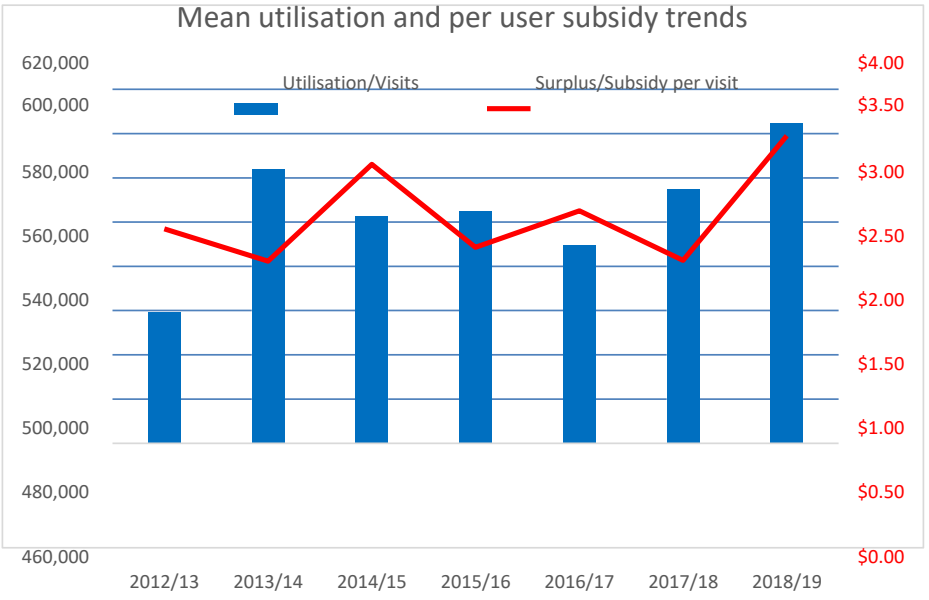
Facility Managers in the major aquatic centres in metropolitan Perth have voluntarily shared operational data for a number of years. In 2017 the number of participating centres increased to 22 and the collation of data was assumed by industry association Parks and Leisure Australia WA.

Kalamunda Water Park is not involved in this annual survey noting that KWP is a seasonal facility and all particpating venues offer, as a minimum, year round indoor heated swimming facilities. The following chart summarises the annual attendance and operational subsidy on a per visit basis. Interestingly, in 2018/19, despite median attendance numbers falling by 3%, the median user subsidy dropped by 30%. It appears that finacial management has improvement dramatically.



However when mean data is considered, a significantly different picture emerges. Average atendances have risen by 5% but the mean user per visit user subsidy has risen by 68%. This is perhaps influenced by the closure of the pools at Wanneroo Aquamotion for a significant portion of the 2018/19 year.

[10] Excerpt from City of Wollongong Future of our Pools Strategy 2014-2024



6.3 IAKS Future Trends for Pools

The International Association for Sports and Leisure Facilities (IAKS) is a global non-profit organisation and source of information about planning, design and management of sports and leisure facilities. In November 2019 IAKS published its expert panel's findings on the future trends for public pools. The publication identifies 16 key trends which are summarised as follows:

(i) Swimming is regaining importance

The individualisation of our society and new ways of working, with blurring boundaries between work and leisure, are leading to stronger on-demand activities like swimming, jogging and cycling. These are often performed in public spaces that are not limited by opening hours. This means that more access to lap swimming for all (not only for competition) is needed and that opening hours should be extended.

(ii) Immersing in a lifelong healthy lifestyle

Water sports and swimming fit in perfectly with the trend of people leading more healthy lifestyles coupled with an ageing society with more active seniors. This is why water-based exercise classes, as a gentle start to an active lifestyle, and swimming lessons for adults are becoming more popular. As many children are not taught to swim any more by their parents, swimming lessons for children (in school or as a leisure activity) are becoming more important. These activities can often be

accommodated in learner/teaching pools and are better supported with an adjustable/movable floor (multifunctional pools).

(iii) Pools are turning into wellness hubs'

The increasing importance of 'preventive health care' (including mental health/stress reduction) is encouraging holistic life-style activities. The combination of sports with relaxation activities is gaining in importance, so wellness offerings are being added more frequently to classical competition pools, e.g. warm water spa pools, sauna, steam rooms, treatment areas, lounging zones. However, the added wellness offerings at smaller and more competition-oriented pools should be closely analysed for their economic benefits. The healthy eating trend is boosting demand for healthier food offerings at pools.

(iv) Fun for children and families

In addition to the wellness trend, children and families are a core target group for pools. Having fun is important for children and families as an introduction to the water and for leisure. To support this, facilities need to be more attractive and provide amenities focused on fun.

(v) Designing for inclusivity

The original conception of accessibility focused on the needs of people with visual and mobility impairments. This has expanded significantly in recent years as society becomes more inclusive. This has also been driven by demographic change, migration and increasing cultural diversity. Social sustainability and inclusion have become important goals for public leisure facilities. The political decision-making process is therefore increasingly involving all stakeholders and the public from the beginning. It should start by defining the socio-economic outcomes and political goals of a new project. Inclusivity requirements are resulting in new design strategies for many aspects of pools including stairs, lighting, signage, surfaces and acoustics, as well as for universal changing areas and toilets. Cultural and demographic differences are also driving increasing demand for privacy strategies so that certain groups can be better accommodated.

(vi) Pools as place for socialising

The social function of sports and leisure facilities is growing in importance. Facilities need to be multifunctional and serve as a 'social hub' for the community. This is best accomplished if the facility integrates all stakeholders and seeks close relations with users. Sports and leisure facilities also play an important role in supporting and encouraging participation by adolescents, and this has many positive social outcomes in the broader community.

(vii) Sustainable and healthy pool facilities

Climate change places a new focus on ecological sustainability. This necessitates a holistic approach from planning and construction through to the operation of pools with a minimal ecological footprint. Important strategies include water conservation, heat recovery, combined heat and power generation, solar energy, passive house

principles, and waste / plastic reduction. Health consciousness also calls for better air and water quality and includes a desire for reduced concentrations of by-products of chlorine disinfection. Consequently, higher technical standards (together with tighter regulations) are resulting in increased investment costs for pool projects. In some regions, the increasing awareness of climate change is resulting in a call for more protection of facilities from the sun and rain. Air pollution poses new challenges and imposes limitations on outdoor activities.

(viii) Safe and secure pools

The potential for antisocial behaviour calls for measures such as video surveillance and security teams. The increasing responsibility and liability of leisure facilities towards their users raises the need for more surveillance staff, surveillance technology (e.g. underwater surveillance systems), and more complex building construction and makes the use of certified products more important.

(ix) Competing demands on public finances

The competing demands on public finances call for a prioritisation of investments. In competition for public funding, promoters of pool projects have to communicate the significant 'public value' of pools (also known as the 'social return on investment', see report from Davies, Larissa (2016): Social Return on Investment in Sport, Sheffield Hallam University) to government and other stakeholders. In response to financial pressures, new projects can be executed in partnership models with not-for-profit or private commercial companies.

(x) Improving economics

Long-term business plans (including life-cycle costing and financing) are crucial steps towards achieving a good long-term financial outcome. Financial performance can also be improved in multicomponent facilities by combining profitable life-style sports with traditionally unprofitable activities and sports, e.g. adding leisure elements or a fitness club to a competition pool, or by combining pools with other non-sport municipal functions. Sport England promotes this kind of combination, e.g. combining the pool, sports hall and fitness club with a library. Furthermore, regional pool planning increases effectiveness. Especially where seasonal outdoor and indoor pools are in different locations, it makes sense to manage them jointly at one location. Also, the duplication of similar pools should be avoided in the same catchment area.

Revisiting the business case is also important when old pools need refurbishment. Finally, pool management usually has the highest economic leverage on revenues, and especially admission fees (rather than costs), and pools should be managed professionally (rather than politically).

(xi) Digital transformation

The omnipresence of digital technology makes the digital accessibility of sports and leisure facilities indispensable, before, during and after the visit.

Furthermore, virtual and augmented reality will make inroads into sports and leisure (facilities), e.g. the first virtual reality water slides are being installed. Another development is an increasing demand for sports tracking/performance measurement. New admission control and (non-cash) payment systems will transform service quality for users and reduce staffing requirements. In marketing, mass media communication is declining, and individualised marketing is increasing, e.g. social media, Google Ads. All this collected data raises the complexity of data security, privacy expectations and regulatory compliance (e.g. General Data Protection Regulation in Europe).
In project design, the use of building information modelling (BIM) is increasing and may lead to better integration with operational systems, but its consequences for the business concept should be closely watched.

(xii) International harmonisation of demand

Globalisation, the internet and people's increasing mobility are influencing user expectations. Users' demands are heavily influenced by international best-practice pools. Global trends should therefore be monitored closely, with the growing harmonisation of international quality standards.

(xiii) Diverse development of market segments

Commercial life-style sports are often serviced by privately financed and operated sports and leisure facilities such as fitness clubs, wellness/sauna facilities and thermal baths. This trend can leave municipal and school facilities lagging with the more unprofitable sports segments (e.g. competition pools) and without the opportunity for cross-financing with profitable sport segments. This puts additional strain on municipal facilities where the return on investment is more social than purely financial. In these cases, an assessment of the public value is necessary.

(xiv) Scarcity of space

Increasing urbanisation is putting pressure on limited public open space. These spaces therefore need to become more multifunctional and to allow physical activities of many kinds. For example, seasonal outdoor pools can be used outside their normal operating season as park space or in winter for ice skating.

(xv) Fight for talent

Demographic change and in some regions a thriving economy have led and will lead to significant difficulties for leisure facilities in recruiting and retaining skilled staff. This means that pools will have to improve employee loyalty and develop new ways of attracting and retaining staff, e.g. employer branding, in-house staff training. In some areas, new technologies may reduce staff requirements or result in the revision of job responsibilities.

(xvi) Good design

The delivery and operation of successful pools are complex tasks. Good design is an essential part of providing an enhanced user experience that fosters long-term loyalty

and high participation. The complete quality of the swimming experience is a critical component for long-term success.

6.4 Facilities of Tomorrow[11]

The following trends in aquatic facility design are extracted from a paper prepared by New Zealand based architect Alex Head.

(i) Carbon Zero and highly efficient

Aquatic facilities of tomorrow are going to have to be more efficient to own, operate, maintain to serve a more diverse and aging demographic; be universally accessible; provide for rehabilitation, wellness and varied recreation spaces; and to encourage people to get active.

These design drivers need not be in competition with Carbon Zero sustainable facilities. Careful planning of recreation facilities can achieve both sustainability and 'operator nirvana'. Master planning is vital.

The Carbon Zero facility of the future must be a community hub, integrated into the local network of walking, cycling, bus and train transport systems. Facilities of the future will have E-bike hubs, electric car fleets and charging stations and community share initiatives. The feasibility and site selection phase of the project is critical to minimising the carbon footprint not only of the building but also of the community that uses it.

(ii) Master planned for expansion

A robust masterplan considers the inevitable need to expand the facility and makes allowance for the logical and staged expansion of the facility over time. Facilities must be integrated into the local (green) transport networks can serve as a catalyst for changing transport modes and encouraging the appeal of diverse inner city living.

(iii) Facilities as community wellness hubs

Co-locating a diverse range of aquatic, fitness, recreation and sporting activities under one roof creates synergies, encouraging participation and results in a facility that is efficient to own and operate.

Recreation facilities are taking a holistic approach to health, allowing people to optimise their wellbeing, by including allied health functions such as nutrition, naturopathy, massage, meditation, podiatry and physiotherapy consultation spaces.

[11] Excerpts from a paper prepared by Alex Head of New Zealand based Architects Warren and Mahoney which appeared in Australian Leisure Management.

(iv) Maximising utilisation

Designing spaces to be flexible and adaptable, with features such as moveable floors in swimming pools, flexible storage solutions and floor surfaces that cater to as wide a range of community use as possible rather than catering to a single specialised use. Increasingly, operators are considering how to innovate with scheduling and programming to maximise the utilisation of spaces and co-locating facilities next to schools to benefit increasing daytime usage.

(v) Ensuring accessibility

A universal design approach recognises human diversity and designs for life scenarios. This requires special consideration for life stages such as pregnancy, childhood, injury, disability and old age to ensure facilities are accessible to all.

(vi) Durability

The facility must be designed from the outset for ease of inspection and maintenance. In aquatic centres this means designing timber structures (inherently more resistant to corrosion or degradation in indoor swimming pool environments) minimising bolted structural steel connections and where required ensuring these are visible, from ground level for ease of inspection. Minimising the number of bolts, chloramine ledges and crevices and dissimilar metals reduces the requirement for ongoing maintenance is essential.

(vii) Prioritising quality

There are always trade-offs between up front capital costs and the impact on long term operational expenditure. The lowest cost solution is not the most economical when considered over the 50-year life of the building. Higher investment in more efficient energy systems, higher performing windows and the thermal envelope and plant will be repaid many times over the life of the building. Prefabricated components built in controlled factory environments and assembled on site offer significant advantages in terms of speed of build, the quality of the product and improved durability.

(viii) Sustainable energy source innovations

Waste Water Heat Recovery (capturing waste heat from the municipal sewer main) has been used for pool heating in Europe for years. This technology is now available within Australasia.

Photovoltaics (solar panels that produce electricity) are increasingly efficient and on-site battery storage is becoming increasingly affordable.

(ix) Commissioning and handover phases of the project

The design teams of the future will continue working with the client over a year of operation to optimise the health and wellbeing of the building and its systems to ensure the facility is operated as intended, and lessons are learned for the next

refinement and to close the feedback loop. Training of staff in efficient facility operation is critical.

Examples of innovation already in use:

- Prefabricated stainless steel pool tanks. These are being widely adopted for their improved seismic resilience, the speed of installation and the quality and low maintenance of the finished stainless steel surfaces.
- Glulaminated timber structures provide a durable low maintenance solution to the highly corrosive atmosphere of an indoor chlorinated swimming pool.
- Highly insulated thermally broken window systems (European technology) are now becoming commonplace and the whole of life benefits of investing more on these high performance products to reduce the 50 year energy bill of the facility is being recognised.
- Composite and warm roof and wall assemblies paired with a simple and economical building form provide excellent thermal performance and good levels of airtightness which is critical to minimising energy loss.
- Airtightness is achieved through careful detailing and selection of European window suites with super high insulation values. This provides significant savings over the 50-year life of the building, paying back the investment 10 fold.
- A simple, repetitious building form has significant benefits including improved visibility for lifeguarding and the option for modular construction. This minimises complexity in the thermal envelope, and hence cost, and improves the ease of achieving the airtightness and thermal performance requirements which are so critical in a corrosive swimming pool environment.

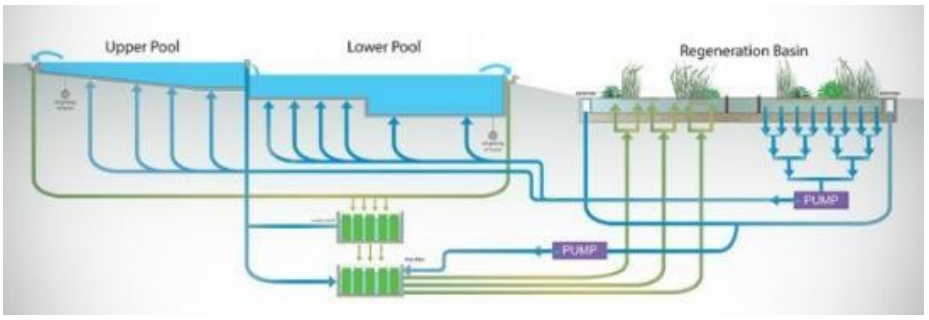
6.5 Organic Pools Movement

Public swimming pools are traditionally provided by local government and subject to health regulations requiring sanitisation by chlorine and other sterilising agents. There is, however, an alternative natural approach as would be found in accessible rivers and lakes or swimmable dams and other man made pools.

Natural swimming pools are characterised by their simple and natural design, rounded forms and pool edges that merge with the surroundings. Water quality is achieved by careful planting of a special regeneration zone, separated from the swimming area by a dividing wall. In this zone aquatic plants not only oxygenate the water but along with microorganisms, act as living filters and organic cleansers, naturally and continually filtering the water removing impurities and excess nutrients[12].

[12] http://www.naturalswimpools.com.au/

Webber Park, Minneapolis – North America's first natural public pool opened in 2015



More than 130 public natural swimming pools have been built in Europe and the UK, and a handful in North America – all regions with strict policies on public swimming pool safety[13]. These pools are used by thousands of swimmers each day in summer and need to meet rigorous guidelines for bacteria and nutrient levels. Public natural pools have been overwhelmingly incident-free since the first one opened in 1998.

[13] https://www.choice.com.au/outdoor/pools/cleaning-and-maintenance/articles/natural-swimming-pools

ccs strategic

6.6 Energy Efficient Aquatic Facility Design

In an aquatic centre, a heat pump is a particularly attractive heat source, able to capture the large amounts of waste heat energy from humid exhaust air and "pump" it back into the pool, all while using a relatively small amount of electricity.

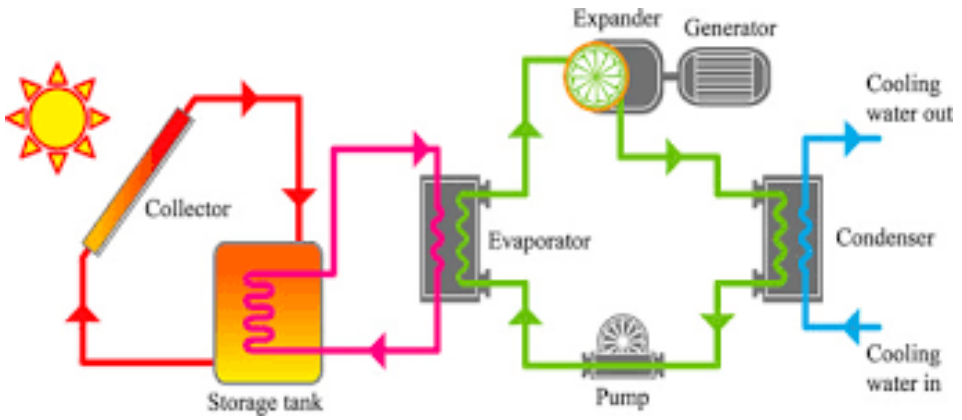
Top-end heat pumps can have a Coefficient of Performance as high as 9.5 to 11 (950-1100%), compared with traditional gas boilers that have an expected efficiency of around 50-75%[14].

The efficiency of heat pumps increases again if used as an integrated building-wide system for both heating and cooling. Many Councils are turning to ammonia heat pumps because the "natural" refrigerant doesn't contribute to global warming.

Having a tighter building envelope and minimising the use of glass and steel framing which create thermal bridges and attract condensation and rust also helps.

A fully integrated and optimised system has the potential to make an aquatic centre 80% more efficient when compared with an equivalent gas system.

Combining solar panels (photovoltaic/thermal) to provide a solar-assisted heat pump system (PV/T- SAHPS) is now a proven technology[15]. The solar evaporator/collector extracts the thermal energy required from the heat pump, while the cooling effect of the refrigerant reduces the working temperature of the PV cells (see the diagrammatic below). This integrated PV/T-SAHPS exhibits a relatively high thermal performance with improved coefficient of performance (COP) and PV efficiency. Simulation results indicate that the maximum efficiency of PV system and heat pump performance are both enhance when applied in tandem.

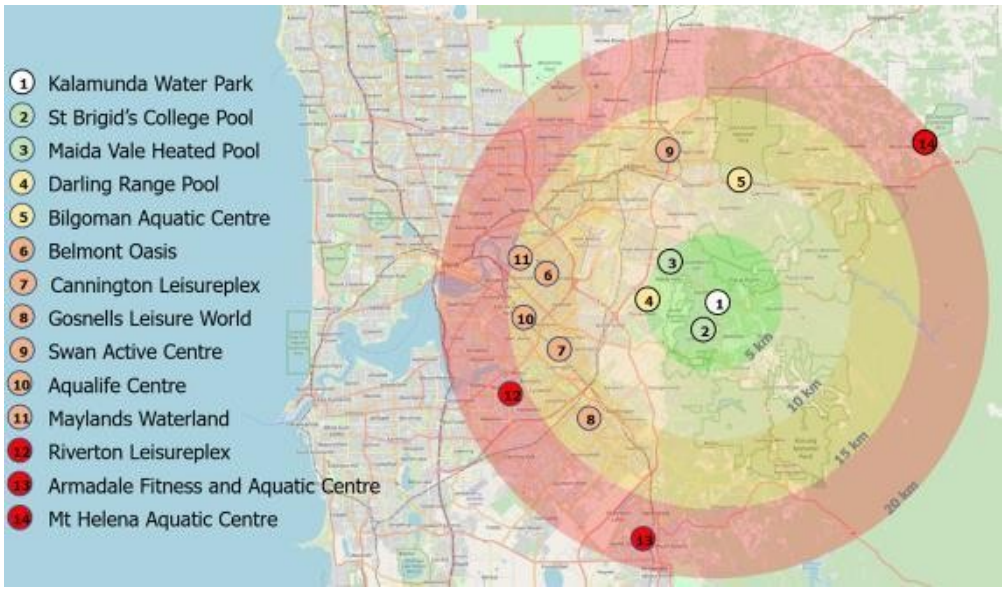


[14] Summarised from https://www.ausleisure.com.au/news/gas-bill-shock-triggers-revolution-in-energy-efficient-aquatic-centre-design/

[15] Performance study on photovoltaic/thermal solar-assisted heat pump system https://link.springer.com/article/10.1007/s10973-018-7741-6

7.0 CONDITION AND OPERATIONAL STATUS OF NEARBY POOLS

There are currently 14 aquatic facilities within 20 km from KWP, excluding the pool at Mazenod College which is largely off-limits to the public.



Of these facilities, the three closest to Kalamunda Water Park are owned privately or by an education institution. They are not able to be classified as public facilities and the community access that is afforded is limited. All three have resident clubs which take much of the community access time as follows:

Map No.	Venue name	Resident Club
2	St Brigid's College	Lesmurdie Legends Swimming Club
3	Maida Vale Heated Pool	Maida Vale Masters Swimming Club
4	Darling Range Sports College	Guildford and Kalamunda Districts Swimming Club
Note	Mazenod College has a 6 lane x 25m solar heated pool that is seasonally operated	The pool is generally not available for public use – there are no accessible change or toilet facilities on site

These 14 existing facilities are intended for extended operation, unlike KWP which is slated for demolition in the near future.

A new regional scale Recreation and Aquatic Facility (RAF) is proposed for development at Collier Park in South Perth will add a further facility within the 15-20 km ring, just over 3 km from Aqualife in Victoria Park (10). The adopted plan recommends the City to investigate provision of a facility to include:

- Six to eight indoor sports courts to accommodate netball, basketball, volleyball, badminton, table tennis and other relevant sports
- Outdoor and indoor swimming pools, leisure water, spa / sauna and other necessary aquatic sports
- Education spaces, commercial spaces, entertainment spaces (function areas, golf), gymnasium, health and wellness space.

This RAF has received a $20m allocation from the federal government under the Female Facilities and Water Safety Stream (FFWSS) program. Partnerships with State and regional stakeholders such as Curtin University and the Town of Victoria Park and commercial operators to assist in capital and life cycle funding are being pursued.

Advice from local governments within the Kalamunda catchment area indicate that, other than the RAF for South Perth, there are no future municipal aquatic facilities proposed. There are however future aquatic facilities of some significance proposed in other areas, however these are well outside the catchment zone for Kalamunda.

City of Swan is proposing a new indoor leisure centre to service the Ellenbrook community[16]. The federal government has made a $25m commitment to this project[17]. This facility will be more than 30km distant by road.

Aquatic facilities	$16m
25m lap pool, leisure pool, learn to swim pool, warm water pool, spa pool, sauna and steam rooms, change rooms, toilets.	
Sports Courts	$7m
4 court indoor stadium	
Community facilities	$1m
Community meeting and professional consulting rooms for hire.	
Other infrastructure	$16.2m
Gymnasium, childcare, kitchen, café, party room, valley bowls club facility, fire and water management systems, plant equipment, general building requirements and site works	
Professional fees and overheads	$10m
Total project cost	**$50.2m**

[16] https://www.gapp.org.au/Projects?page=2
[17] Australasian Leisure Management e-News 7 February 2020

City of Gosnells is proposing a new Aquatic and Recreation Centre within the regional sporting precinct at Sutherlands Park[18]. This facility will be more than 20km distant.

Aquatic and recreation facilities	$50m
Indoor and outdoor pools, outdoor play pool, kiosk, change rooms; indoor sports court and gymnasium	
Community hub	$10.4m
Retail and commercial lease spaces; community centre	
Active reserves	$16.4m
Three sports fields, change rooms, club rooms, kiosk, lighting and umpires' rooms	
Passive recreation	$11.4m
Playground, dog park and picnic areas	
Other infrastructure	$31.4m
Storm water management, drainage, operations facility, skate park, car parking and improved traffic management.	
Total project cost	$119.6m

In the commercial realm there is a proposed development on Hawtin Road in Forrestfield (refer section 8.1.5 for details). This development, should it be realised, would significantly influence aquatic opportunities for City of Kalamunda residents.

Of the existing facilities within the catchment area, a number of their operators participate in an annual benchmarking survey coordinated by Parks and Leisure WA. A summary of the facility type and 2018-19 performance data is shown in the tables below for the five facilities within a 20km radius from Kalamunda Water Park.

Facility description	Aqualife Vic Park	Cannington Leisureplex	Gosnells Leisureworld	Riverton Leisureplex	Swan Active
Overall size	2,325	1,654	1,536	2,240	1,439
Outdoor pool	8 x 50 m Swim wall	-	Seasonal Lagoon	-	Seasonal lagoon
Indoor pool	6 x 25m	10 x 25m	8 x 25m	10 x 50m 6 x 25m	8 x 25m
Indoor leisure pool	✓	✓	✓	✓ + hydro + deep pool	✓
Gym size (m^2)	800	400	455	600	495
Special features	Hydro pool, Sauna, Steam Spa	Splashpad + indoor play + 2 sports court	✓	Water Slides, Sauna, Steam, Spa hydro pool	4 sports courts
History	Built 1966 Rebuilt 2006 Refurb 2017	Built 2012	Built 2000 Refurb 2014 Refurb 2020	Built 2002 Refurb 2019	1983 $16m Refurb 2020-23

[18] https://www.gapp.org.au/Projects?page=2

Note that Swan Active undertakes a biannual survey of customers revealing that 7% of their patrons reside in the City of Kalamunda. Belmont Oasis has indicated that 5% of their health club members and 15% of the swim school enrolments are from the City of Kalamunda. They cannot advise on the source of casual entries.

The City of Canning's latest postcode survey of patrons in May 2017 showed 2.61% of attendees at Cannington Leisureplex and 1.64% of attendees at Riverton Leisureplex were City of Kalamunda residents.

Performance measures		Aqualife Vic Park	Cannington Leisureplex	Gosnells Leisureworld	Riverton Leisureplex	Swan Active
Facility details	LGA Ratepayers	17,559	38,000	65,800	38,000	58,126
	LGA Population	36,690	98,506	126,200	98,506	136,676
	5km Catchment Pop^{n}	136,216	76,075	80,000	81,363	38,815
	SIEFA Percentile	85	39	44	82	12
	Facility Size	2,325	1,654	1,536	2,240	1,439
	Health & fitness (m^2)	800	400	455	600	495
	Water space (m^2)	1,525	1,254	1,081	1,640	944
Utilisation	Total Admissions	367,000	409,058	407,189	661,114	393,021
	Visits per m^2	158	176	170	208	247
	Members	2,781	1,023	2,464	2,174	1,259
	Swim school enrolments	5,855	3,358	7,891	9,337	6,127
	Members per m^2	3.5	2.6	5.4	3.6	2.5
	Enrolments per m^2	3.5	2.6	5.4	3.6	6.5
Financials ($)	Total Revenue	2,248,135	2,093,860	2,572,538	4,378,573	2,560,434
	OpEx - ex Corp O'heads	2,598,652	3,529,419	3,577,519	5,216,199	3,733,171
	Corporate O'heads	1,900,000	553,787	979,182	410,280	394,777
	Total cost incl O'heads	4,498,652	4,083,206	4,556,701	5,626,479	4,127,948
	Income Per Visit	6.13	5.12	6.32	6.62	6.51
	OpEx per Visit	7.08	8.63	8.79	7.89	9.50
	Subsidy ex O'heads	350,517	1,435,559	1,004,981	837,626	1,172,737
	Subsidy Per Visit	0.96	3.51	2.47	1.27	2.98
	Total Labour Costs	2,206,190	2,499,366	2,715,095	3,964,379	2,430,217
	Cost per FTE	86,551	79,929	100,559	82,402	72,328

Performance measures		Aqualife Vic Park	Cannington Leisureplex	Gosnells Leisureworld	Riverton Leisureplex	Swan Active
	Staff Training Costs	8,006	30,010	23,444	36,710	11,840
	Training Cost per FTE	314.08	959.71	868.30	763.04	352.38
	Marketing Spend	6,372	14,267	34,000	16,696	57,000
	Marketing Cost/visit	0.02	0.03	0.08	0.03	0.15
	Cost Recovery	87%	59%	72%	84%	69%
Staff	Facility FTE	25.49	31.27	27	48.11	33.60
	FTE per 10,000 Visits	0.69	0.76	0.66	0.73	0.85

All five venues operate year-round, and all run at a loss. Expense recovery, defined as the percentage of operating costs (excluding corporate overheads and depreciation) met by the facility's revenue is in the range 56% to 87%.

Of the 22 metropolitan venues that participate in the benchmarking exercise, only six achieve break even or better. These are large multipurpose facilities with a high catchment population. Kalamunda Water Park's 5km catchment population is less than 30,000.

Facility name	Expense recovery	5km catchment	Facility name	Expense recovery	5 km catchment
1. Terry Tyzack Aquatic Centre	114%	150,276	2. Leisurefit Booragoon	105%	101,000
3. Cockburn ARC	112%	59,244	4. Scarborough Beach Pool	105%	79,000
5. Craigie Leisure Centre	109%	120,290	6. Beatty Park Leisure Centre	102%	167,575

8.0 STAKEHOLDER ENGAGEMENT SUMMARY

The principal focus of the consultation program was to gain a clear understanding of the community's aspirations and expectations for aquatic facility provision and most importantly how they would use the facility. The consultation program focused on the needs of both organised groups within the community and the community at large via community workshops and an on-line survey.

8.1 Key stakeholder engagement

8.1.1 Darren Beazley, CEO Swimming WA 9328 4599

Aquatic Sports Advisory Group comprises representatives from swimming, water polo, diving, synchronised swimming, masters swimming and the Royal Life Saving Society (RLSS).

Swimming WA is looking to decentralize competitions to allow swim meets to be held locally.

In the metropolitan area there are three zones - northern (Joondalup Arena), central (HBF stadium) and southern (Cockburn ARC)

Swimming WA currently runs around 40 major meets per year in the pool and open water. This load has a huge impact on staff turnover - at best 18 months for an events staff member. Swimming WA is moving to run only 10 meets per year – with the rest farmed out to local clubs in their own local venues.

WAIS promotes swimming as the most likely sport to win medals in international competition, however access to water space is a critical issue and a significant limiting factor for squad training. Squads ideally need access to 4-5 lanes for 2 hours, twice per day at peak times with each lane accommodating 8-12 swimmers per lane. Based on 11 training sessions per week with an average of 8 swimmers per lane this delivers 352 pool entries per week.

Swimming WA is also seeking high performance (HP) centre developments.

The Guildford and Kalamunda Districts Swimming Club developed a solid business case to establish an eastern zone high performance centre at Guildford Grammar pool - but the pool is not good enough.

Midland / Guildford is an ideal location for a high-performance centre in the east, however, a facility in the City of Kalamunda would be highly regarded. Such a centre needs full competition facility set up with offices, meeting spaces, World Anti-Doping Agency (WADA) facilities and full timing equipment - ideally 10 lane x 50m pool but 25m (short course) would be suitable.

Waters slides and splash pads are good fun activities, but they are perhaps best developed commercially.

8.1.2 Sophie Rowe, Executive Officer, Masters Swimming WA 9328 9469

Masters Swimming WA is a member of the ASSG working together with all other aquatic disciplines. Master's needs are much aligned to that of Swimming WA. They don't have a preference for location (up or down the hill) but recognise a need for a competition venue in the eastern suburbs.

There is only one venue in the state with capacity for international events across all disciplines and that is **hbf** stadium. Swimming needs to have more venues like Joondalup, Mandurah and Cockburn – but not Armadale as the floor slope is across the pool – which is in the wrong direction for competitive swimming.

Masters tends to use the pool at down times when no one else wants to – late morning, early afternoon, late evening.

Masters Swimming WA sanctions about 12 competitions per year hosted by the individual clubs. For a club to host a sanctioned event it must have a membership of

more than 30 and a suitable venue. The pool can be 25m or 50m and must meet certain technical specifications such as water depth, block height, etc.

8.1.3 Steven Rose, Executive Officer, Diving WA 6424 9090

There are only 3 FINA standard diving pools in Western Australia at present, **hbf** – full suite of boards and towers; St Mary's College - 1m and 3m springboards; and Bilgoman -1m springboards. Many other facilities (especially in regional areas) have 1m and 3m boards but are inaccessible (e.g. Claremont) or are not deep enough to comply with current standards.

A compliant board with adjustable fulcrum wheel is in the vicinity of $20,000 plus the cost of the structure and installation – all up around $30,000 for 1m and $35,000 for a 3m board. Water depth needs to be 3.7m for both 3m springboard and 5m platform diving. A 10m tower requires a water depth of 5m.

Diving WA's strategic plan includes a pillar that seeks access to up to 5 FINA standard diving facilities with suitable dry side infrastructure. The aim is for a central stadium (**hbf**) with satellite facilities in the north, south and east and one regional centre.

Kalamunda would be an ideal location for the eastern satellite centre. Recommendations would be for 1m and 3m springboards and a 5m platform.

Kalamunda has a long history of having diving boards with 1m and 3m springboards in situ.

Diving has grown significantly in the past 4 years and now has 400+ members. A diving squad with a resident coach would initially attract around 20 learn to dive athletes and then a further 20 senior athletes. Each learner diver would attend twice per week with senior divers mirroring swimmers with up to 11 sessions per week. This would contribute around 200 dive athlete entries to the aquatic facility per week.

The dive boards also provide an attraction for general recreational swimmers.

Diving WA has no capacity to provide an immediate financial contribution but would certainly lend support and lobby for state government funding to include diving facilities in a Kalamunda Aquatic Centre.

8.1.4 Tom Hoad, Chair, Water Polo WA 9387 7555

Water polo a sport for juniors is booming in the western suburbs. On Monday night at **hbf** stadium water polo has access to 4 pools. This program is fully subscribed and overflowing to Hale School.

The national league team is fully funded by profits from the flipper ball competitions. There is a strong commercial case for water polo being catered for in an eastern suburb's development.

Note that Christchurch and MLC have built a shared 40m x 25m x 1.8m pool for growing demand for water polo. This gives 2 x 25m x 20m junior water polo spaces.

Aquinas is looking to provide indoor heated water space to match their outdoor 50m pool and is proposing a 25m x 16m program pool with two deeper water wells of 7m x 7m around the goals. These wells can be covered by removable PVC platforms for LTS. Senior water polo needs a minimum of 1.8m, however kids water polo can be serviced with 1.6m. A shallow pool of 1.2m in the middle with two deeper water wells around the goals is possible for learning to play water polo and for junior games.

Flipper ball needs a 15m x 10m court and this is critical to growing the sport.

WP is the fastest growing summer sport in schools. Tom is keen to talk with the owners of the proposed development at the old Altona Hatchery.

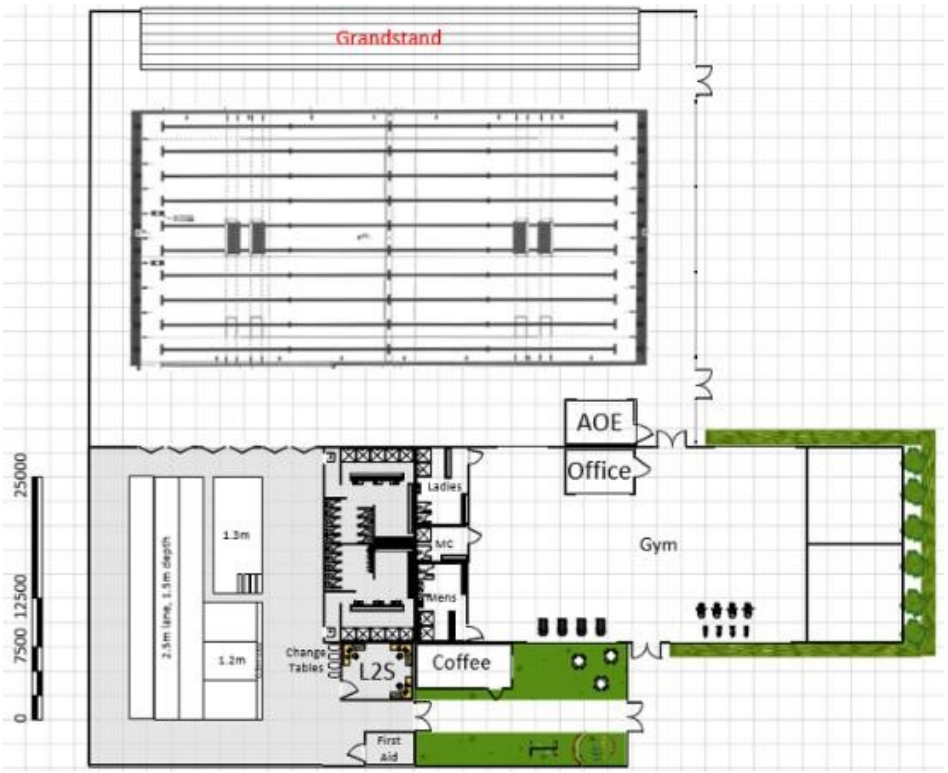
8.1.5 Trevor and Trish and Verran – Owners Altona Hatchery

President and Secretary - Guildford and Kalamunda Districts Swimming Club

The Altona Hatchery sits on a 4ha site on Hawtin Road, Forrestfield and ceased operations at the end of January 2020.

The owners are investigating a commercial development on site in the form of an indoor heated, purpose designed, learn to swim and program pool and an outdoor heated, water polo capable, 50m competition pool. The aquatic programs will be supported by allied health service professionals in tenanted office spaces including physio, nutrition and massage and a café with a clubhouse function room on the upper level connected to the outdoor pool by a tiered grandstand.

A concept plan is shown below.



The site owners are also office bearers of the Guildford Kalamunda Swimming Club and the Club is being targeted as a key user group of the proposed facility, expanding their operations whilst retaining space at both Guildford Grammar ((6 lane x 25m plus 8 lane x 25m outdoor heated pools) and Darling Range Sports college (8 lane x 25m indoor heated pool).

Issues to be resolved before a commitment is made to develop include:

- Financial viability – influenced by whether council might build a competing facility nearby – e.g. Hartfield Park?
- The management of TECs on site
- Availability and timing of internal funding

The potential for this facility to be developed (possibly with some council involvement to secure public access) and meet the needs of the local community is to be presented to the Council in February as part of the Needs Assessment report.

8.2 Community Workshops

Open community workshops were held on 18 and 21 November 8 participants at Woodlupine Community Centre Forrestfield and the 38 participants at the City Administration Centre in Kalamunda respectively.

Across both workshops there was a preference for a more innovative regionally focus for the facility (30) as opposed to a locally focused development (16).

From comments related to residents' ideas and visions for a new aquatic facility the following statements have been collated and ranked in priority order based on the number of responses.

Feature	Score
Long opening hours for before and after work access	13
Outdoor 50, indoor 25, gym, cafe, meeting /club rooms	10
Build it up the hill - current location	10
Have attractions to entice visitors	8
Build it down the hill	4
Manage capital costs carefully	3
Outdoor 50 + water slide in the trees	2
Eco-friendly, carbon zero, sustainable development	2
Competition equipped 50 + 25 indoors	2
Solar panels on the roof for heating	2
Wave pool	1

There were also numerous environmentally sensitive comments such as the pool being zero carbon in design and construction, operating with a non-chlorine sanitisation system, and being energy and water efficient in design and operation.

In terms of design, participants were asked to prioritise the focus of the facility which revealed the following results. The lower the score the more important:

	Priority function	Example activity	W/shop 1	W/shop 2	Total
1	Fitness	Lap swim and gym	22	179	201
2	Safety	LTS, RLSS Quals	22	218	240
3	Sport	Swim, polo dive, synchro, UWH	20	229	249
4	Recreation	Water play	21	282	303
5	Entertainment	Rides and slides	20	357	377

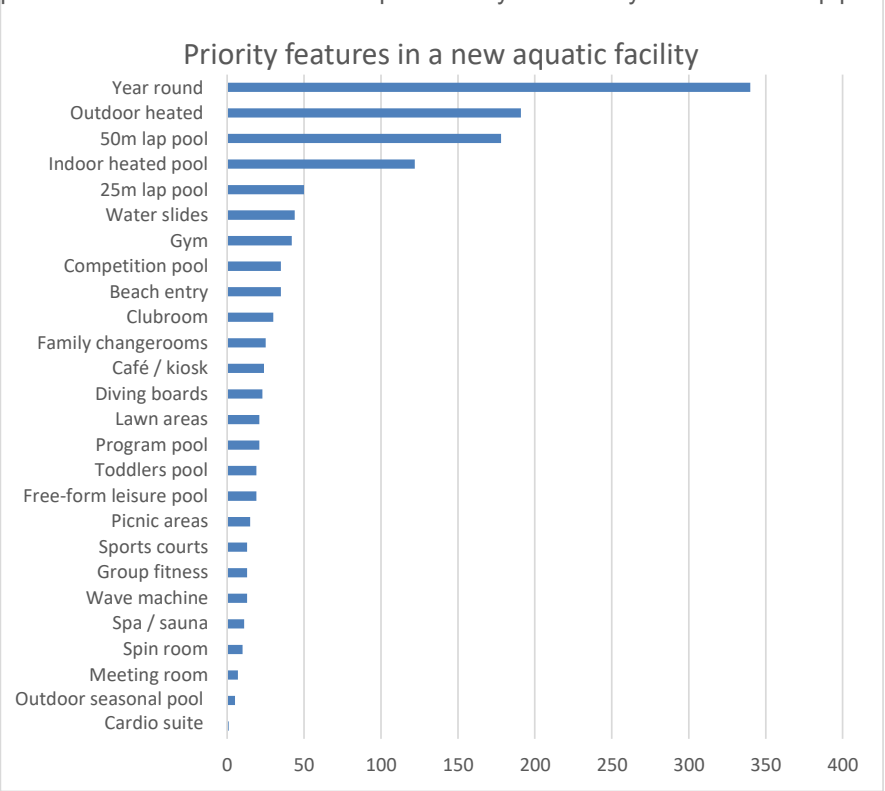
Of note is the variation in responses between the two workshops. Those from the Forrestfield workshop prioritised sport and entertainment while the workshop up the hill focused on fitness and safety. The much greater level of participation up the hill skews the total ranking in favour of the view of residents up the hill.

A series of comments were also recorded against this question calling for the following considerations in design.

- Lawned gardens, BBQ and picnic areas for family gatherings
- Provide meeting rooms and a home for clubs, more clubs = more members
- Ensure it is accessible for people with a disability
- Indoor sports courts

- If we want to be 'tourism and sport'[19] then design the pool for that purpose
- Add a tall slide that looks out over Perth
- Community hub
- Splash pad
- Sauna spa and hydrotherapy for rehabilitation

In terms of design features the following items were ranked in priority order. Acknowledging that the new facility must be open year-round, the highest priority is placed on an outdoor heated 50m pool closely followed by a 25m indoor lap pool.



In terms of location, participants in the two workshops responded similarly with accessibility being the number one requirement as indicated in the table blow. The lower the score the higher the importance.

	Location	W/shop 1	W/shop 2	Total
1	Easily accessible	16	101	101
2	Near public transport	23	114	114

[19] ~~Reference to Tourism as a key~~ driver in the Strategic Community Plan

3	Proximity to you	22	138	138
4	Near to schools	29	147	147
5	With other facilities	26	151	151
6	Close to shops	31	205	205

Comments made regarding location include:

- Align with a Tourism outlet
- In the Town centre
- Create a Pool in the Forest
- Where the Highest Population is
- Sustainable development goals - on a public transport route
- Co-locate with aged care to share costs

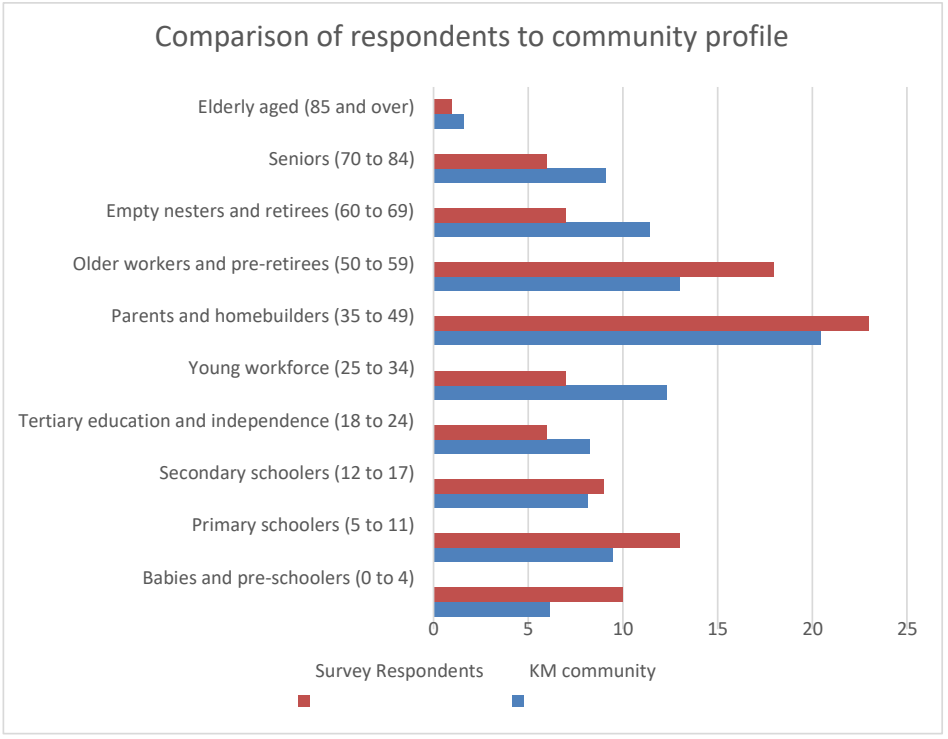
In summary and despite slight differences in the views emerging from the two workshops the consensus view is that a new aquatic facility should offer:

- Year-round access with long opening hours (before and after work access)
- Outdoor heated 50m pool suitable for competition plus
- Indoor heated 25m and/or indoor heated program pool
- Dry side amenities including gym, meeting / club rooms, sports courts
- Amenities including café / kiosk and creche
- A special attraction to bring visitors to Kalamunda – this is very much an up the hill issue - slides, splashpad etc.
- A dominant up the hill request overall – but – a sentiment for 'hills like outdoor-trees-eco-family' facility up the hill and a 'regular' aquatic facility down the hill

8.3 On-line Survey

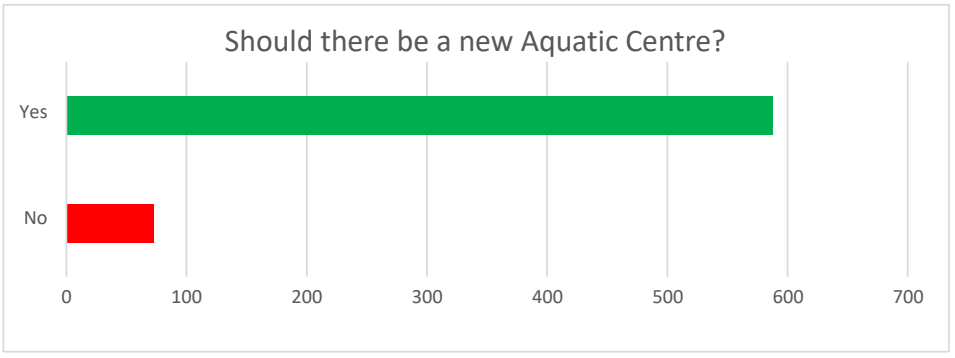
An on-line survey was prepared and available to the community for response in the period 30 October to 23 December 2019. In that period 1,114 people visited at least one page of the City's web-based engagement tools and 679 people completed the Aquatic Facility Survey. This number of survey respondents ensures that the information received is statistically significant and representative of the Kalamunda community at the 95% confidence level +/- 5%. It needs to ne noted that 74% of respondents live in the hills suburbs of the City.

In terms of who responded, the age profile of survey respondents is similar to the age profile of the City of Kalamunda community when looking at service age groups. Notable differences are a higher percentage of children, parents and homebuilders and older workers and pre-retirees and a lower representation of the young workforce and elderly. The variation is not considered significant in a way that would bias the survey results.

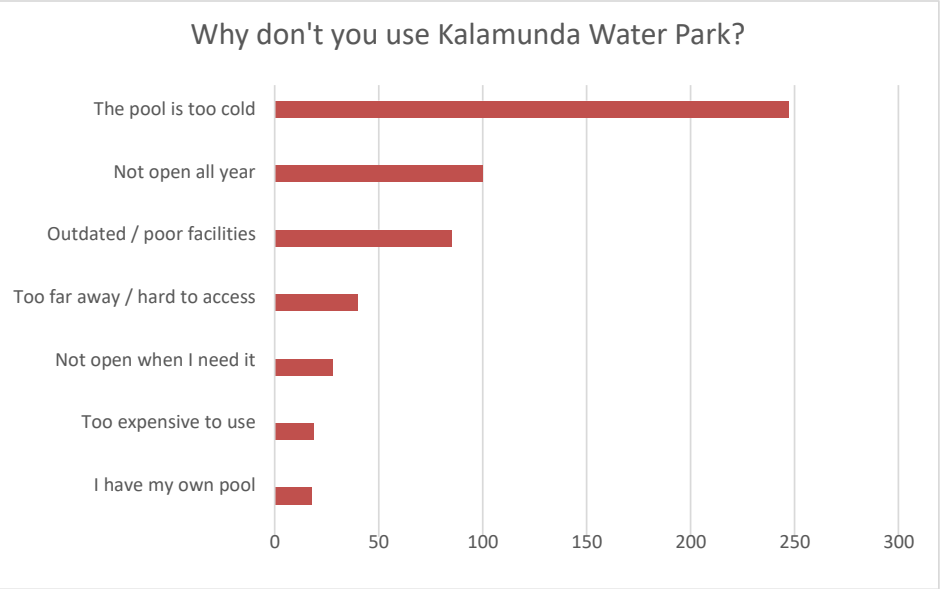


The full survey results are provided as Attachment One. A summary of the key findings is shown below.

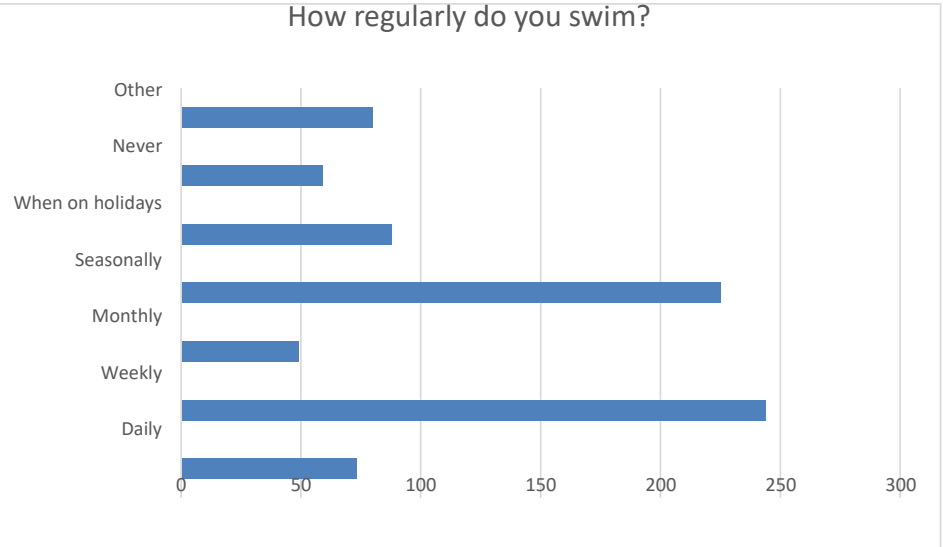
There is overwhelming support for a new aquatic facility in the City of Kalamunda.



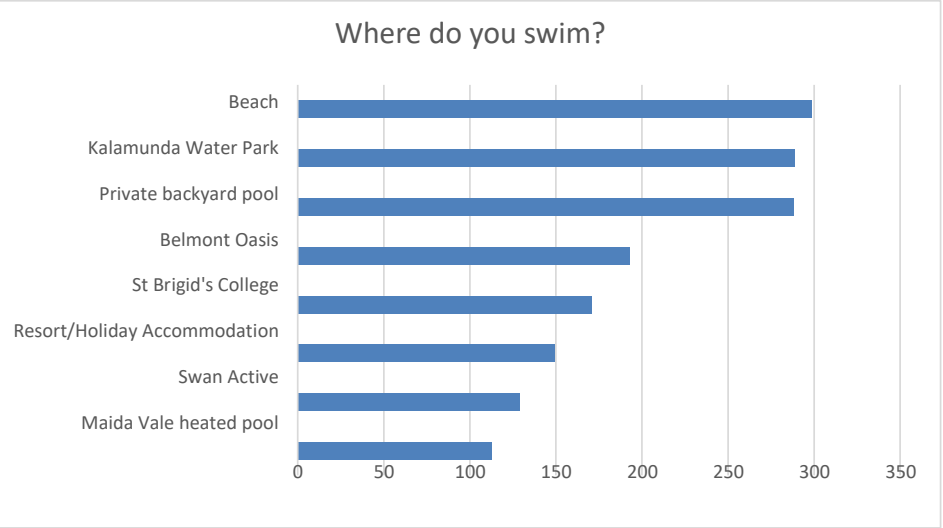
In terms of current use, there are many people that don't use Kalamunda Water Park. The principal issue is the water temperature.



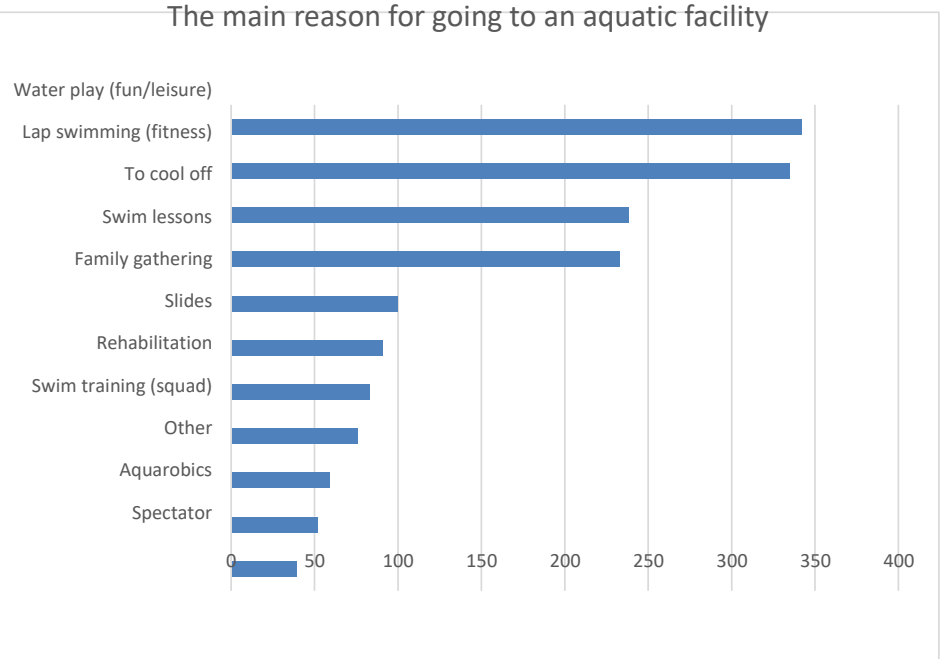
Of the 400 survey respondents, 7% never swim. For those who do swim, 45% swim regularly throughout the year (at least monthly) and this number increases to 72% when seasonal swimmers are included.



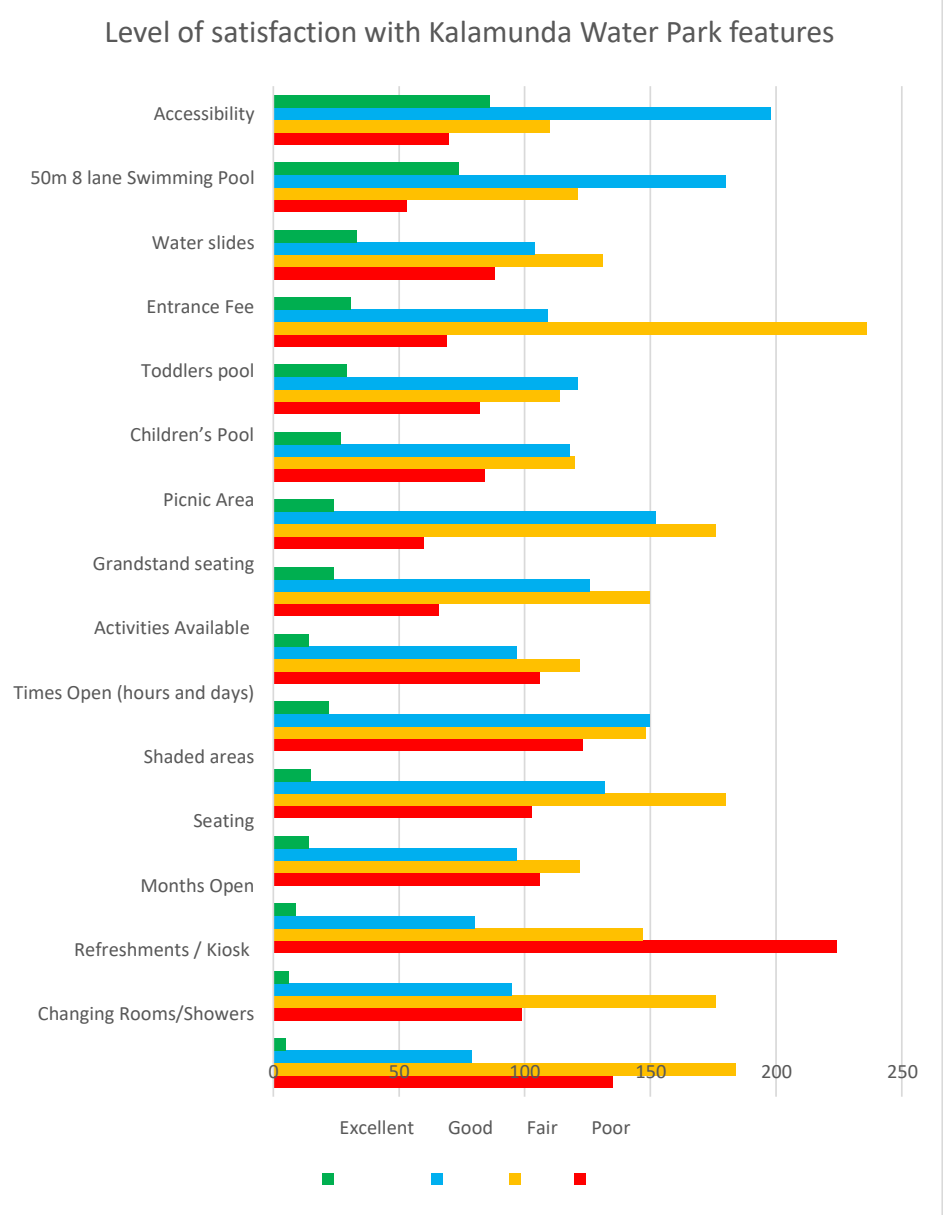
More people swim at the beach than anywhere else, closely followed by Kalamunda Water Park and then in a backyard pool. Other frequently used pools are Belmont Oasis, St Brigid's, Swan Active and Maida Vale Pool. These aquatic facilities are located closest to Kalamunda residents.



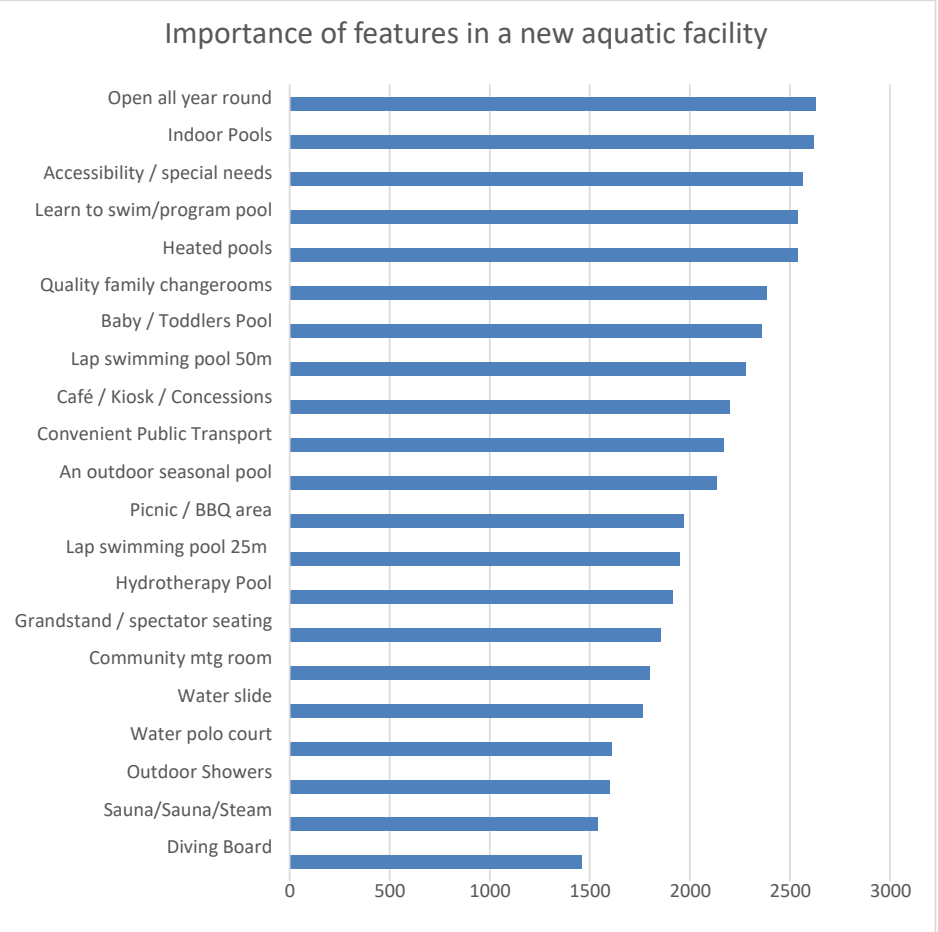
The most common reasons people go to an aquatic facility are for fun, fitness, to cool off and for lessons. Those involved in squad training account for less than 5% of respondents.

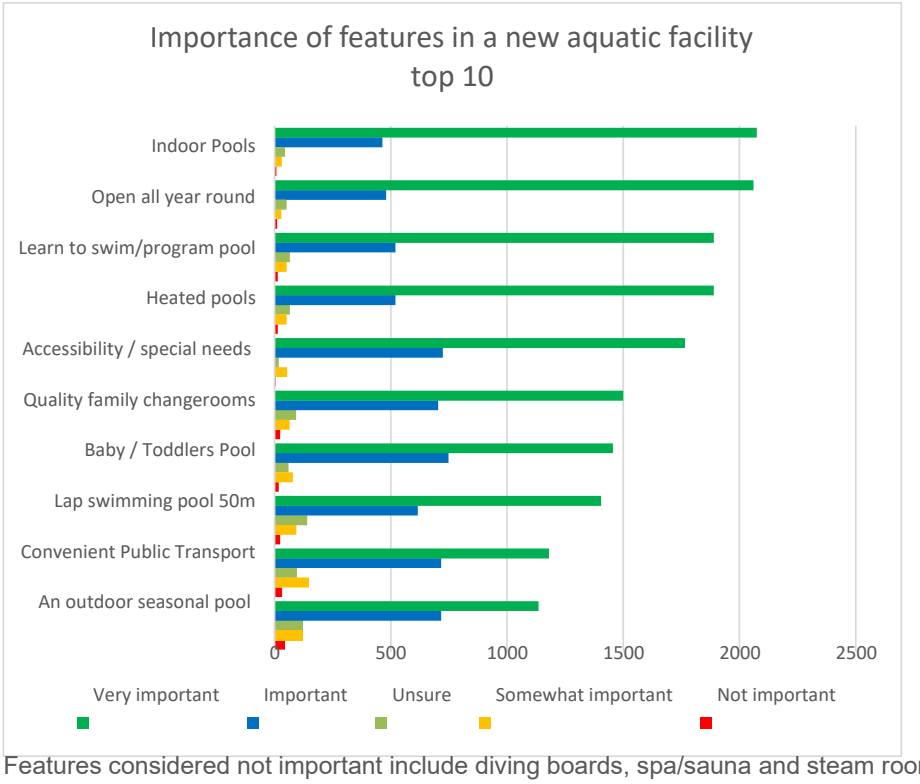


The following chart describes the current level of satisfaction with the Kalamunda Water Park and is listed in order of best at the top to worst at the bottom of the chart.

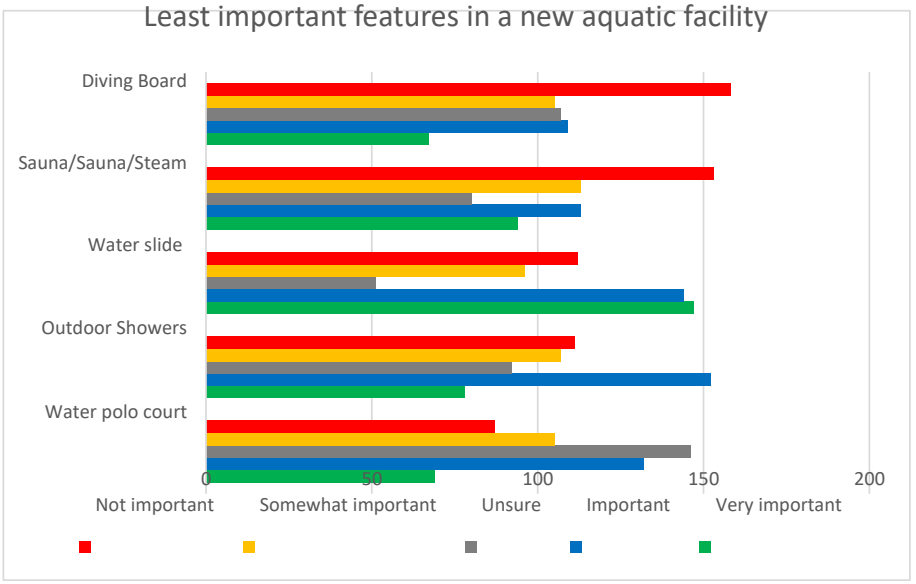


When asked about the importance of a variety of features they would like to see in a new aquatic facility the responses strongly reflect what the community feel about the shortcomings of the existing facility. The priorities are for easily accessible heated water, open year-round with a focus on learn to swim, accessibility for all and 50m lap swimming for fitness, which could reasonably be an outdoor seasonal facility. Quality changerooms and a kiosk / café are also important.





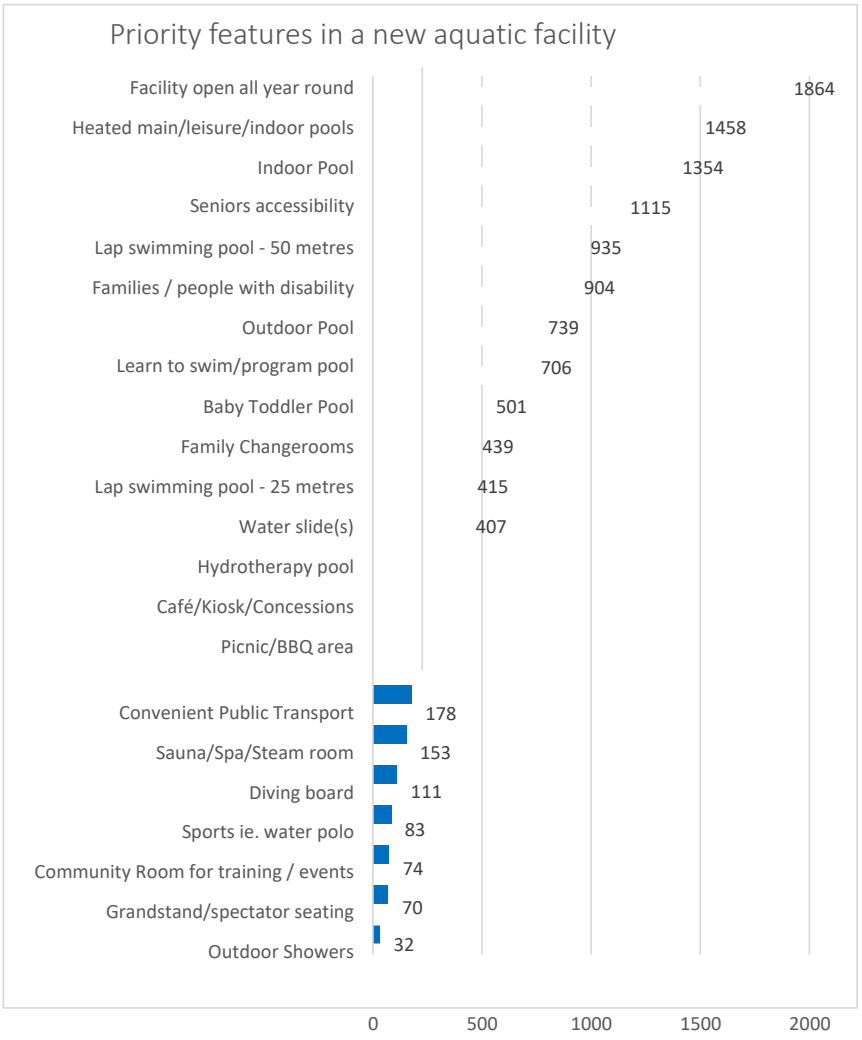
Features considered not important include diving boards, spa/sauna and steam room facilities, water slides, outdoor showers and water polo facilities. These features are however highly valued by some, e.g. water slides, where importance is high.



Respondents were asked to select the 7 most important features they would like to see in a new aquatic facility. The facilities with the highest score in the chart below are the most important. Acknowledging that indooor heated water that is open all year round is fundamental, the first preferences is for a facility that is universally accessible (infants, seniors, special needs). In terms of water bodies, a 50m pool is a priority, noting that this could be outdoor and potentially seasonal.

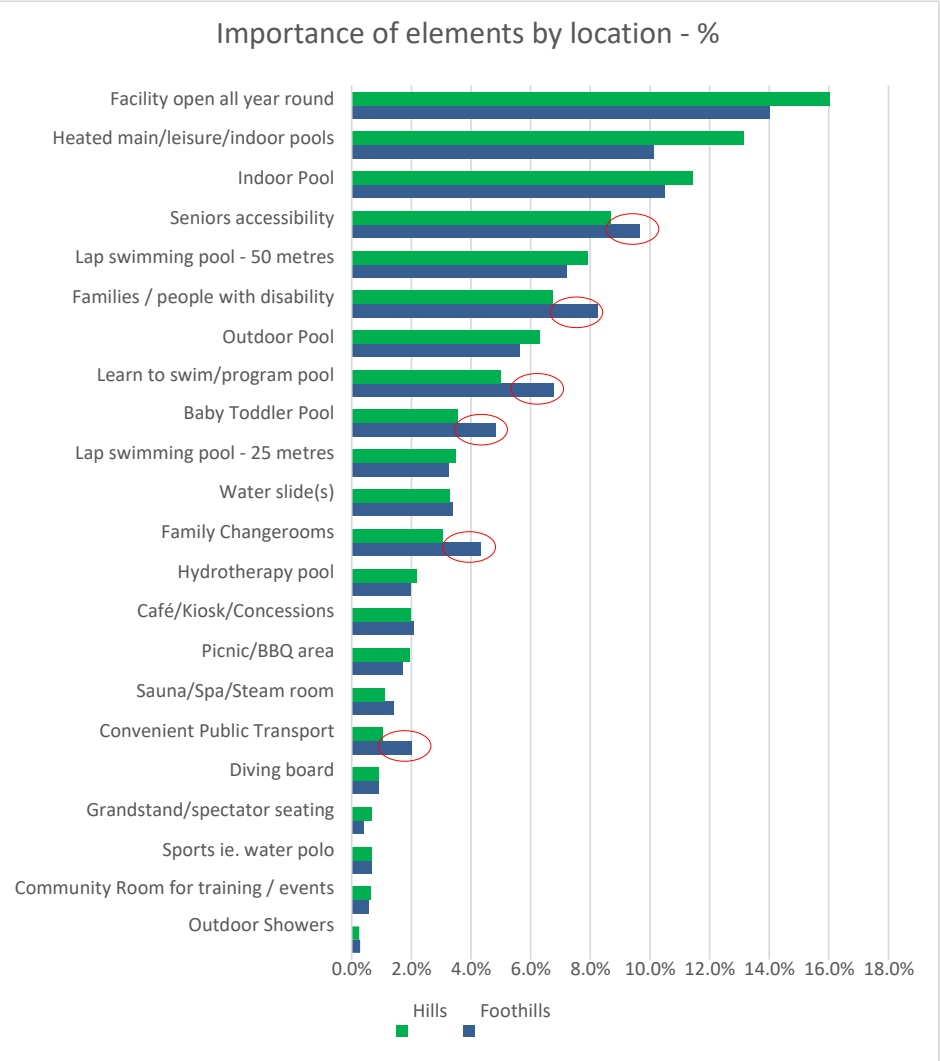
Indoor pools that offer 25m lap swimming, water spaces suitable for children and infants, program opportunities (learn to swim, aquarobics) and hydrotherapy are ranked next.

In terms of features and attractions, water slides rank highest above café / kiosk facilities, picnic and BBQ areas, sauna, spa steam facilities. Then comes facilities for sports and clubs including diving, water polo, meeting facilities, grandstand seating and finally, outdoor showers.



This data has also been manipulated to see if there are variations in the views of respondents living in the hills versus those living in the foothills.

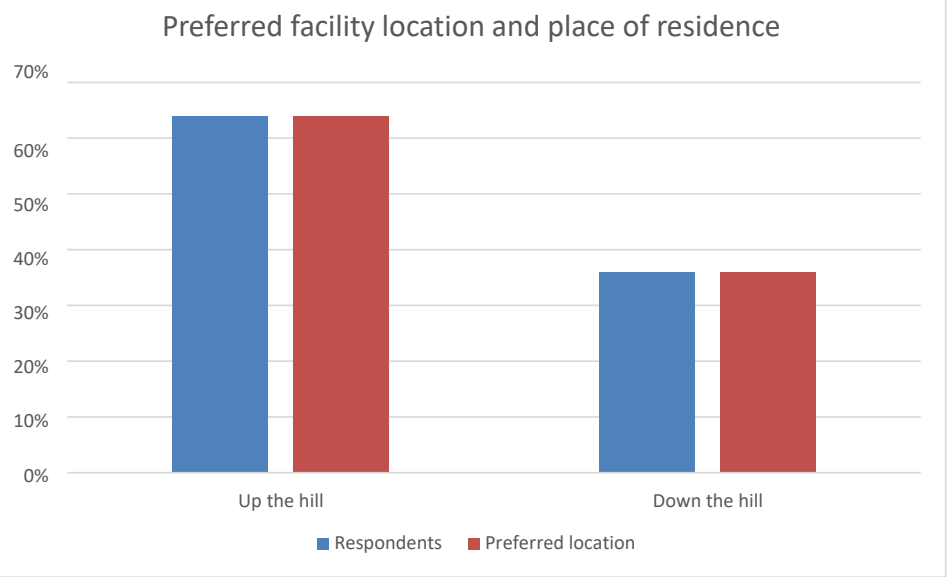
Note in this exercise the most popular elements scores reflect the percentage of responses to remove the bias of more hills than foothills respondents.



There are only minor differences between the priorities for those who live in the hills versus those who live in the foothills. Hills residents, who are used to having a pool in their immediate neighbourhood, value heated water that is available all year round more than foothills residents. Foothills residents value accessibility for seniors and those with disability more strongly than hills residents as well learn to swim, a toddler's pool and family change facilities. This is reflective of the demographic profile of younger families in the foothills.

Those living in the hills favour lap pools, both 50m and 25m, an outdoor pool (heated of course) and a hydrotherapy pool more than the foothills residents. Convenient public transport is also more important to foothills residents as there are no services that link the foothills (Forrestfield) to the hills at present.

When respondents were asked where a new aquatic facility should be located, the responses were (predictably) correlated with where they lived. With 64% of respondents nominating a location up the hill, and 64% of respondents living up the hill, there is a uniform correlation between place of residence and preferred location for a new aquatic facility.



However, note that 62% of the city's population actually live in the foothills, and only represented 36% of total survey respondents. Therefore, the chart above illustrates an over representation of resident responses from the hills.

Moreover by 2036, 85% of the growth will occur in the foothills and the percentage split will move to 67% of residents living in the foothills and only 33% living in the hills.

9.0 NEEDS ASSESSMENT

9.1 Is there a need?

The need for a new aquatic facility in the City of Kalamunda once the existing Kalamunda Water Park ceases to be of service is certain. This can be expressed through five qualified measures.

1. Overwhelming Community Sentiment

The stakeholder consultation program revealed that almost 90% of residents support the construction of a new aquatic facility. Moreover, as evidenced in the public workshops, there is an expectation that there will be a continuation of aquatic opportunities in the City.

Experience has shown that removing a community service or facility without replacement may result in dissatisfaction amongst the community. Not replacing an existing facility with something newer, better or more appropriate can similarly lead to falling community satisfaction

2. Strategic Alignment

The City's strategic community plan to 2027 indicates that priority areas include investing in recreation facilities and community hubs to connect and maximise the wellbeing of community.

The objective of being a community that "advocates, facilitates and provides quality lifestyles choices" requires the provision of safe and healthy environments for the community to enjoy. This includes high quality and accessible recreational and social spaces and facilities.

Tourism is an industry predicted to grow in the future, and products supporting cycle tourism, eco-tourism and food and wine tourism will become a competitive advantage for the Kalamunda Hills. Accordingly, marketing activities targeting recreation, agribusiness and tourism are proposed. The addition of an aquatic facility in the hills that includes a tourist attraction would align with this intent.

3. Health and Wellbeing Benefits

Providing an aquatic facility in a community tends to improve the landscape and aesthetics of the surrounding area, but the real gains are in terms of social, psychological and physical benefits and come from active use of the features available.

The socialisation, relaxation and stress relief opportunities from being in an aquatic environment are considerable and well researched[20]. Swimming and water play as a physical activity is also known to offer the following benefits[21]:

[20] https://qz.com/1347904/blue-mind-science-proves-the-health-benefits-of-being-by-water/
[21] https://www.healthline.com/health/benefits-of-swimming

Benefits of physical activity in an aquatic facility	
Works your whole body and increases your heart rate without stressing your body and exercise	Appropriate for people with injuries and physical limitations (arthritis, asthma MS and pregnancy)
Efficient way to burn calories, strengthen muscles and your cardio system	Improves your sleep, your mood and reduces stress
Suitable for all ages	It's fun and affordable

Whilst swimming is not an activity for everyone, indeed only 15% of the population swim, it is the number one participation activity across the nation ahead of running, cycling and golf. It is an all ages activity and is undertaken by more women than men.

As the population ages, the suitability of swimming as a physical activity, increases. This is certainly the forecast for residents in the City of Kalamunda which already has an older population (more aged over 45 and significantly more aged over 65) than greater Perth.

4. Minimal Competition – Limited Alternatives

The opportunity for aquatic sport and recreation activity is linked to facility availability. It is demonstrated in sections 5.4 and 7.0 that a large portion of the Kalamunda community have poor access to aquatic facilities. Most often, people will use their nearest community service or facility. Alternatively, they will bypass the geographically nearest to visit the nearest facility that best suits their needs.

Proximity and convenience significantly influence participation frequency. Travel times exceeding 10 minutes are known to limit participation.

Despite Kalamunda being roughly 30km from the nearest beach, this remains the most frequented swimming destination, albeit very seasonally influenced. It must also be acknowledged that there are other attractions at or on the way to the beach and many beach goers are not regular swimmers.

The next most frequented facilities are private backyard pools and Kalamunda Water Park – generally representing the closest most accessible facilities for Kalamunda residents.

Despite there being 14 swimming venues within 20km of Kalamunda Water Park, the closest three (within 5km) are all privately (or school) owned. Public access to these pools is limited, and they are presently at or close to capacity for public use. The nearest public facility (Bilgoman) is 15km distant and only open seasonally. The nearest indoor heated year round facilities (Belmont Oasis and Cannington Leisureplex) are roughly 18km away, a journey which will routinely take more than 20 minutes. This is generally unattractive unless the aquatic centre is a way point on a longer journey, such as travelling to and from work or school.

In short, the City of Kalamunda is poorly serviced, particularly in terms of year round swimming opportunities.

5. Community Facility Guidelines

Leading industry professional body Parks and Leisure Australia (WA) has prepared guidelines for the provision of community facilities, including aquatic centres (refer to section 5.4). The facility hierarchy included in the guidelines refers to a 25m pool with a 5km catchment as a neighbourhood facility. Facilities with multiple water spaces (e.g. 25m + leisure) and a catchment extending to 10km are considered district. Regional facilities have a catchment that extends beyond 10km and tend to have a 50m pool, water slides and both indoor and outdoor water spaces.

At present 99% of the City of Kalamunda population have access to an aquatic facility within 10km. However only 34% of the population have access to an aquatic facility within 5km. As the population in the foothills grows this percentage will increase. Foothills residents are poorly serviced.

If a facility is maintained on the Kalamunda Water Park location, foothills residents will require at least a neighbourhood level facility to meet their needs.

9.2 What is required?

The consultation program has clearly identified community sentiment regarding what is needed. There are three principal requirements that must be met under all circumstances and a variety of other indications that are subject to further interpretation:

1. Accessible to All

Accessibility incudes BCA compliant facilities for ambulatory and visually impaired patrons, but the design should also consider the special needs of seniors, parents with infants and toddlers, and family groups.

Accessibility also relates to location which affect travel time and includes considerations such as population density and distribution, public transport services, bicycle and footpath connections and carparking. Whilst there is universal demand for a readily accessibility facility, there are disparate views on the optimum location.

2. Heated Water - Open Year Round

The two greatest criticisms of the Kalamunda Water Park are that it is seasonal and cold. These two criteria must be addressed in any new facility. A facility that is open all year, will by default (community expectation) require heating to maintain patronage.

3. Indoor Water Space

Heated pool water is only part of the winter swimming attraction. An environment that is protected from the elements and comfortable to be in is also essential. An indoor facility with controlled water and air temperatures creates such an environment. The design of

the water space and its enclosure is dependent upon its purpose, be it for swimming lessons, water play, hydrotherapy, fitness swimming or competitive swimming.

These three findings are essential components of any new facility provision.

Below are elements that require further investigation and interpretation.

4. Priority features

Whilst the variations in the priorities identified by residents in the hills versus the foothills are relatively minor, the nuanced preferences reveal the following differences between the two locations.

Hills Residents	Foothills Residents
Lap swimming (50m and 25m)	Seniors and disabled access
Outdoor pool	Learn to swim / program pool
Hydrotherapy Pool	Toddler's pool
Picnic/ BBQ Area	Family changerooms
Grandstand seating	Spa / Sauna / Steam Room
Community room for training and events	Convenient public transport

The analysis suggests that there is a stronger influence from clubs and regular fitness swimmers in the responses from residents in the hills. The foothills residents have placed higher priority on accessibility for all, learn to swim and children's activities with family changeroom and special features (spa/sauna/steam) for parents. Water slides remain the most favoured attraction across both locations.

5. Requirements unresolved

While there is certainty about some requirements for a future aquatic centre there remains a series of unresolved issues.

(a) Preferred location – hills or foothills.

Acknowledging the volume bias of respondents from the hills area and the almost uniform correlation between where you want the facility to be built and where you live, the options are:

(i) Build it where the majority of the people will live (in the foothills)

(ii) Build it where it will help attract visitors and stimulate economic activity (to align with the City's strategic community plan) in the hills

Both are reasonable options to be considered and can be variously justified. There is, however, a third option that may be worthy of consideration:

(iii) Build two distinct but complementary facilities

- one which features 'hills living and bushland elements' including fitness swimming options, hydrotherapy pool and a unique tourist attraction (as the water slides did when they were originally installed at KWP); and
- a second facility in the foothills to meet the learn to swim, recreational water play and family needs of the foothill's residents.

These options were explored at the first of the Council Forum sessions in February 2020.

The next step required will be for a decision on site location to enable site analysis be meaningfully undertaken noting the decision will influence site size, orientation, and design requirements.

(b) Regional or local focus

In addition to considerations regarding location, a decision needs to be made as to whether the pool(s) have a regional, district or neighbourhood focus.

(i) A regional focus facility will have both 50m and 25m lap swimming options together with learn to swim and program / hydrotherapy pool areas. All or part of these water bodies will be indoor and all or parts of the venue will be heated and open year round. Allowance can be made in design for the lap pools to be equipped for club level competition swimming and with sufficient depth they will accommodate water polo and potentially springboard diving. A successful regional facility that caters to the tourist market will require a special feature or attraction to bring patrons from outside the immediate catchment area. Water slides are one option and are well regarded by Kalamunda residents, however they are no longer unique in metro Perth and other options would be worth investigation.

(ii) A district focus facility will provide a combination of lap swimming, learn to swim and water play areas and be supported by additional features such as outdoor water spaces to attract more than the local community. Kalamunda Water Park is best defined as a district facility (albeit seasonal) with the water slides serving as a regional attraction.

(iii) A neighbourhood focus facility will likely be an indoor 25m lap pool with learn to swim area that can be adapted for recreational swimming and water play. It will be open all year and if possible, be built adjacent to or integrated with another facility to create a community hub.

Size does matter in this regard. For example, a neighbourhood facility comprising a 25m indoor heated pool with a small body of leisure water can be accommodated in an area of approximately 10,000m^2. A district facility requires as much as 20,000m^2 and a regional facility needs more than 30,000m^2.

Site availability will need to be factored into the design and location decisions. The table below provides an indication of approximate site areas occupied by existing facilities.

Neighbourhood and	District scale facilities	Regional scale facilities	
Venue Name	Site area (m^2)	Venue Name	Site area (m^2)
Maida Vale Pool	2,000	Belmont Oasis	30,000
Ballajura Aquatic Centre	6,000	Cannington Leisureplex	30,000
Bold Park Aquatic Centre	15,000	Melville Aquatic Centre	30,000
Wanneroo Aquamotion	15,000	Bayswater Waves	37,000
Gosnells Leisure World	15,000	Armadale Aquatic	35,000
Kalamunda Water Park	17,000	Riverton Leisureplex	40,000
Bilgoman Aquatic Centre	22,000	Terry Tyzack	45,000
Aqualife	25,000	Craigie Leisure Centre	65,000

(c) Fully operational all year or partly seasonal

The very strong sentiment about year round access to heated water is somewhat clouded by a similarly strong demand (especially by hills residents) for 50m lap swimming in an outdoor pool. If a 50m pool is provided, heated and operated year round, the most sensible option from an operating cost perspective is to enclose the pool. The capital cost of an enclosure is, however, approximately double the cost of the pool itself.

Running a heated pool outside in the winter, even with the use of windbreaks and blankets is highly inefficient. Moreover, aquatic patronage tends to fall dramatically in the winter and correspondingly user subsidies rise dramatically.

One option is to consider is an outdoor heated 50m pool that operates for just 8 months of the year – mid-September to mid-May (summer and the spring and autumn shoulder periods) - and closes in winter. This initially saves on capital costs and subsequently on staffing, cleaning, chemical and heating costs and external ground maintenance when the outdoor 50m pool and surrounds are closed.

This decision needs to be taken up front and communicated to the community as part of the design process.

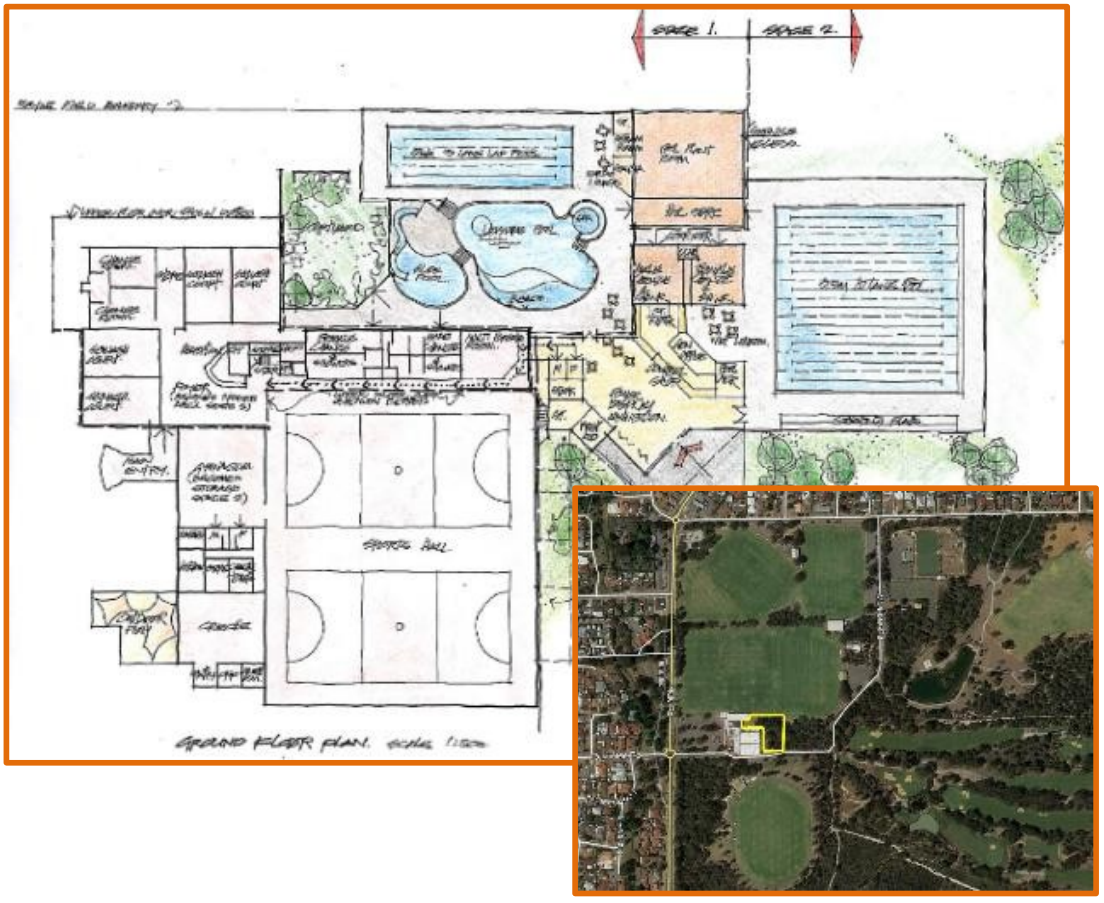
10.0 DEVELOPMENT OPTIONS

Based on the Needs Assessment it can be concluded that there is no single absolute facility provision solution. There are, however, a number of plausible options.

10.1 Option 1 Local facility in the foothills

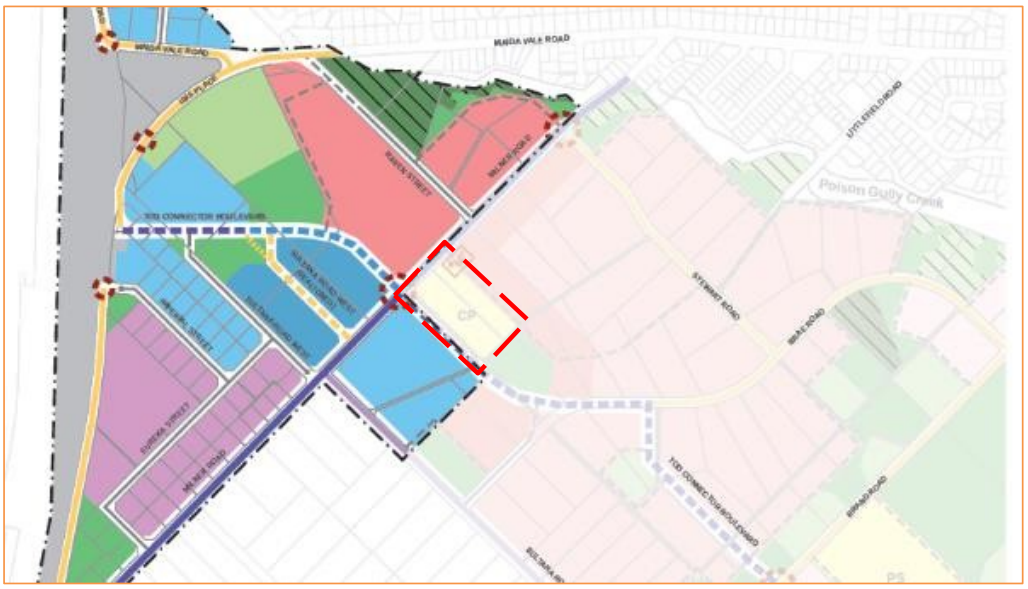
One option is to develop a new aquatic facility in the midst of the greatest concentration of the City's population. With more than 60% of residents already living in the foothills and forecast to increase, the population driven solution is to build a facility in the foothills.

It would ideally be located adjacent to an existing or proposed community facility to form a hub. The feasibility study prepared in the 2007 proposed the construction of an aquatic facility at the Hartfield Park Recreation Centre. The concept plan prepared at that time is shown with the inset image highlighting in yellow an area of approximately 3,500m^2 nestled into the side of the existing recreation centre. As indicated in the location options assessment (refer section 18.0) this site is highly constrained and unable to accommodate a large district or regional facility.



A second option in the foothills would be to take advantage of the proposed community purposes site in Forrestfield North. The image below is taken from the Forrestfield North structure plan the dotted red rectangle shows the community purposes site measuring approximately 1.65ha. This site is currently proposed to accommodate a library, community centre and parkland area. Adding an aquatic centre would be possible with careful planning and multi-storey development.

A location closer to the train station would be advantageous.



A contemporary example of this scale of facility is the recently refurbished Gosnells Leisure World. It is a district scale facility on a relatively small site adjacent to a library, shopping centre and skatepark.

Gosnells Leisure World

- Aquatic centre
- Water slide (small)
- Gym
- Group fitness area
- Sauna spa and steam area
- Café
- Area approximately 1.5ha

ccs strategic

	**Main Pool** • 8 lane x 25m lap pool • Water depth 0.95m to 1.3m • Water temp Summer: 29.6° • Water temp Winter: 30.6° • Air Temperature: 27.5° • Dedicated Lap Lanes • Dedicated Walking Lanes • Early Bird Water Workout • The pool or individual lanes available for hire
	**Leisure Pool** • Beach access • Depth 0.0 m to 0.95 m **Features** • The UFO • The water spray • Island • Can be divided into program areas by lane ropes • Volleyball net available • Giant Pool Inflatable available on weekends and for parties
	**Water slide** • Single concrete formed water slide for small children discharging into a circular splash pool

	Outdoor Pool • There is a small (40m^2) outdoor unheated seasonal pool • There is a beach entry and a maximum depth of 1m • The water area is mostly shaded by sails • Interactive water cannons are installed for kids to play with • Adjacent to grassed area with shaded picnic tables
	Café • Now permanently closed • Previously operated by lessee

This facility is popular, attracting more than 400,000 visits per annum from a 5km catchment population of 80,000. It has sauna, spa and steam room facilities and a gym (all recently upgraded) but does not offer a 50m pool or sports courts.

Gosnells Leisure World incurs an annual operating loss of just less than $1.2m per annum, which is roughly 25% higher than the mean and median for metropolitan centres.

10.2 Option 2 Local facility in the Hills

Should the preference be to maintain the aquatic facility in the hills, a local facility would be similar to that proposed for the foothills with the following differences.

- Hydrotherapy pool in lieu of program pool.
  This water space is in fact a specialised program pool. Generally, hydro pools are slightly smaller, slightly deeper and maintained at a slightly higher temperature than a generic program pool. A ramp entry (preferred) or hydraulic lift is usually installed for disabled persons access in lieu of a beach entry in a program or leisure pool.
- 50m lap pool, ideally outdoors
  Hills residents expressed a greater demand for swimming club and fitness swimmer accommodation and ranked a 50m pool higher than a 25m pool. The practicalities and costs of a 50m pool suggest an indoor 25m pool and an outdoor 50m pool, potentially operated seasonally. The existing KWP site measures in excess of 3ha. It could readily accommodate this scale of district or even regional scale development. It is not constrained like Hartfield Park.
- Family and club facilities
  A combination of grandstand seating, picnic and BBQ areas in a parkland setting and meeting / function facilities would help attract user groups year round.

An example of this type of facility is the recently redeveloped district scale Bold Park Aquatic centre. The original 8 lane x 50m outdoor pool has been expanded to 10 lanes with ramp access and a new covered open air water space (not a full indoor enclosure) comprising a leisure pool connected to a 4 lane x 20m lap pool has been added. Kiosk and BBQ facilities are also provided in the covered area. The grounds include an adventure playground, and half-court basketball facilities.

Bold Park Aquatic Centre

- This facility has recently undergone a $12.25m redevelopment
- Refurbished 10 lane x 50m outdoor heated pool
- New 4 lane x 20m indoor "open air" covered pool (not fully enclosed)
- Leisure pool
- Water walking lanes
- Adventure playground
- Basketball court
- BBQs
- Universal access and family change facilities

	Main 50m pool • 10 lanes • Ramp access • Grandstand seating on one end and one side • Shades sails over grandstand seating and potion of the pool
	Covered open air 20m pool • 4 lanes • Leisure water • Beach entry
	Leisure pool • Contiguous with 20m lap pool under cover • Beach entry • Water play space

	Half-court basketball
	Adventure playground

In 2018-19 Bold Park attracted almost 250,000 patrons from a 5km catchment population of 98,975. It does not offer a gym, sauna, spa or steam room facilities or sports courts. Learn to swim and aquatic fitness programs are offered and supported by a creche, café and swim shop.

Heating is provided by 129 evacuated tube solar panels integrated with three 200kW heat pumps, maintaining the covered pool at 30°C and the outdoor pool at 27°C.

Bold Park incurs an annual operating loss of just over $400,000, which is roughly half the mean and median loss for metropolitan centres.

ccs strategic

10.3 Option 3 Regional facility in the Hills

There is a very strong sentiment in the hills community to retain the City's aquatic centre on the current site in Kalamunda, and for it to be tourist attraction.

The fundamental elements of a redeveloped site would include a 50m outdoor pool with grandstand seating in landscaped gardens complete with shaded picnic and BBQ facilities.

Indoors there would be an indoor 25m lap pool with separate learn to swim, water play and hydrotherapy pools. Additional features would include meeting and function room facilities, a café and a creche. A wellness centre comprising a gym, group fitness studio, spin room, sauna, spa, and steam room suite and consultation rooms for allied health professionals would complete the complex.

In terms of a tourist attraction, there are many elements that could serve that purpose, such as the water slides that previously provided a regional attraction. Recent examples of aquatic developments that have a tourist attractor as part of the development include:

Water Slides	
	
Northam	Cockburn ARC
	
Fantastic Waterworld, Phnom Penh, Cambodia	Mountain Creek, Vernon, New Jersey USA

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Wave Pools

Aloha Indoor surfing in Joondalup – also offers indoor adventure rock climbing

Darwin Waterfront Wave pool

Urbnsurf Tompkins Park - proposal rejected

Man-made natural swimming pools

Borden Park Natural Swimming Pool, Edmonton, Alberta, Canada

Riehen, Switzerland
An outdoor pool kept clean using water plants as well as layers of gravel, sand and soil, rather than with machinery and chemicals.

Webber Park Natural Swimming Pool, Minneapolis, USA

The most comparable facility of this scale in metropolitan Perth is perhaps Beatty Park Aquatic Centre. Originally constructed for the 1962 British Empire and Commonwealth Games, the centre has been through many upgrades and transformations, most recently with a $17.5m expansion to the fitness centre facilities and upgrade to the pools in 2012.

Sitting within Beatty Park sporting reserve in North Perth, this facility occupies an area of around 35,000m^2. Beatty Park enjoys the highest 5km catchment population in the state - almost 170,000 - and attracts in excess of 800,000 patrons per year. Beatty Park has an annual operating surplus (excluding corporate overheads and depreciation).

Cardio equipment in the Gymnasium

Group fitness training centre

Café serves to both the indoor pool area and the fitness suite lobby

The Swim Shop stocks swimwear and accessories

The crèche offers indoor and outdoor play areas

10 lane 50m outdoor pool with grandstand

Deep water activity and program pools

Indoor 8 lane x 25m lap pool

Leisure pool and lagoon area

Water slides and splash pool with bridge connecting to lagoon and 25m pool areas

Beatty Park offers sauna, spa and steam room facilities

10.4 Option 4 District facility in the Hills – Private facility in the Foothills

Option 3 provides a high quality regional scale facility in the City of Kalamunda, located on the current KWP site. As discussed elsewhere, a facility in the hills does not provide a readily accessible local facility for foothills residents.

Should the proposed commercial facility in Hawtin Road Forrestfield eventuate, an option may be to develop a district, rather than regional scale facility in the hills and seek to secure public access to the commercial facility in the Forrestfield by way of arrangement with the owner.

Under this scenario, Option 4, the City would only build one aquatic facility, a district scale facility in the hills. The principal needs of the foothills community in terms of learn to swim and participation in water polo and swimming clubs would be met by the private operator.

This would be the target market for the operator, capturing community use to ensure bookings are high and therefore maintaining utilisation and revenue. Keen fitness swimmers could secure regular access by becoming a member of one of the resident cubs to whom priority access is likely to be allocated.

Community access for casual and recreational swimming and water play would be at the discretion of the owner; and would perhaps only be offered in off-peak times when organised groups were not interested. The City may deem this to be an acceptable outcome, or perhaps seek to compensate for the lack of a local pool in the foothills by 'hiring' the pool from the owner at select on-peak times to guarantee public access; and in doing so provide a guaranteed income to the owner.

This option is somewhat similar to a previous arrangement with Darling Range Sports College where public access was negotiated for a contribution by the City. In the case of the proposed Hawtin Road development the scale of facilities is significantly larger offering both indoor and outdoor pools, including a 50m pool.

10.5 Comparative Summary of Options

Summary	Option 1	Option 2	Option 3	Option 4	
Location	Hartfield Park (add to recreation centre) **OR** Forrestfield North near train station	KWP site	KWP and	KWP site Altona Hatchery site Hawtin Rd	
Scale	Local in the foothills	Local in the hills	Regional in the hills	District in the hills District in the foothills (private provider)	
Outdoor water	Nil	10 x 50m lap - seasonal	10 x 50m lap - year round Seasonal tourist attraction	KWP Site 10 x 50m lap - seasonal	Hawtin Rd Site 10 x 50m lap -year round
Indoor Water	• Stage 1 4 x 25m lap Leisure +beach 400m^2 Slide splash pool 70m^2 • Stage 2 10 x 25m lap / comp Sauna, spa, steam	• Develop as 1 Stage 6 x 25m lap Leisure +beach 500m^2 Hydro pool 50m^2 Slide splash pool 40m^2 Sauna, spa, steam	• Develop as 1 Stage 10 x 25m lap Leisure +beach 650m^2 Hydro pool 50m^2 LTS pool 90m^2 Sauna, spa, steam	8 x 25m lap Leisure +beach 500m^2 Hydro pool 50m^2 Sauna, spa, steam	3 x 25m lap Program pool 90m^2 LTS pool 70m^2
Dry side	Upgraded fitness and gym to 600m^2+ Family changerooms Café – in conjunction with HPRC	Fitness and gym 600m^2+ Clubhouse 150m^2 Cafe	Fitness and gym 600m^2+ Clubhouse 150m^2 Cafe	Fitness and gym 600m^2+ Clubhouse 150m^2 Café	Fitness and gym 600m^2+ Café Allied health tenants
Defining Features	Connection to HPRC No outdoor area	Retain site - add indoor pools + gym Landscaped gardens Grandstand seating to outdoor pool	Large facility with a Key tourist attraction – Options include - waves, water slides, lookout, natural pool Outdoor 50m pool open year round	Retain site - add indoor pools + gym Landscaped gardens Grandstand seating to outdoor pool	Learn to swim and Club focused
Hub elements	Hartfield Park Recreation Centre **OR** Relocated FF library + new community centre	Only to the extent of existing gymnastic venue and new gym	Only to the extent of existing gymnastics venue and new gym	Only to the extent of existing gymnastic and new gym	
Current Example	Gosnells Leisure World	Bold Park	Beatty Park plus tourist element	N/A	
Pros	Development creates a new hub at FFN Causes refurbishment of HPRC Services largest population location Cheapest pool option	Retains existing unconstrained site	Meets local, district and regional community needs Adds a key tourist feature	CoK only builds 1 facility but 2 new aquatic facilities provided CoK services hills area Private provider services foothills area	
Cons	Hills area not serviced No outdoor area Site constrained	Foothills area not serviced Poor public transport access from foothills More expensive than local facility in foothills	Foothills area not serviced Poor public transport access from foothills Will compete with other regional facilities Most expensive option	Public access to foothills pools not guaranteed CoK may need to secure public access	

11.0 SITE INVESTIGATION ANALYSIS

11.1 Land parcels title and tenure

City of Kalamunda staff identified a total of 19 potential sites for development of a new aquatic facility, of which 6 are in private ownership. Further detail regarding these sites can be found in Attachment Two.

The preliminary analysis identified 5 sites as worthy of further detailed investigation.

Site 1 – Kalamunda Water Park, Kalamunda;

Site 8 – Hartfield Park Recreation Centre, Forrestfield;

Site 10 – Woodlupine Community Centre, Forrestfield;

Site 11 – Forrestfield North Sporting Precinct, High Wycombe;

Site 12 – Forrestfield North Transit Oriented Development (TOD) Precinct;

Further investigation has commenced with respect to site 19, the Altona Hatchery site in Hawtin Road, due to a proposed commercial aquatic facility development on that site (refer section 8.1.5).

Further site analysis will be undertaken in the next phase of the study once the broad parameters of the required facility design are known. This assessment will include investigations into size site, orientation, service availability, heritage and cultural implications and environmental considerations.

12.0 DESIGN BRIEF

High level concepts can be shown through a busines case process.

13.0 CONCEPT PLANS

High level concepts can be shown through a busines case process.

14.0 ORDER OF PROBABLE COST

The following elements will be required to be estimated through a busines case.

14.1 Capital costs

14.2 Project delivery costs

14.3 Life cycle costs (50 years)

14.4 Proposed fees and charges

14.5 Operational income and expenditure

14.6 Project staging and cost escalation considerations

15.0 BUSINESS CASE

The nest stage of analysis required will be the preparation of a busines case that would contain the following elements:

15.1 Facility development and management options

15.2 Cost benefit and risk analysis on management options

15.3 Risk and SWOT analysis on the options

15.4 Funding sources and a sensitivity analysis on these sources

15.5 Debt servicing requirements if applicable

15.6 Cost benefit and risk analysis on development options

15.7 Staged development Timetable.

15.8 Policy, procedure and management practice requirements

16.0 RECOMMENDATION

That City of Kalamunda undertake a business case to further refine options identified through the Needs Assessment process.

Yet to be prepared.

17.0 Attachment One – On-line Survey Results

This attachment contains the survey results report generated by the City's on-line engagement tool Bang the Table Engagement HQ.

Analysis and interpretation of these results is contained in section 8.3.

18.0 Attachment Two – Potential Aquatic Centre Sites

This attachment contains information on a suite of 19 potential sites that were identified by the City of Kalamunda staff.

A preliminary analysis of this information is contained in section 11.

19.0 Attachment Three – Recent and proposed Aquatic Facility Developments

This attachment contains a collection of aquatic facilities that are proposed for development or have recently been built, upgraded or refurbished. The collection is not exhaustive.

It merely aims to provide an overview of development trends, designs and costs.