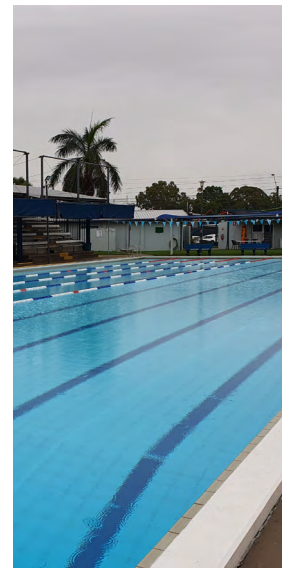


Burdekin Aquatic Facilities Strategy

February 2023





recreation
open space
and sport
specialists



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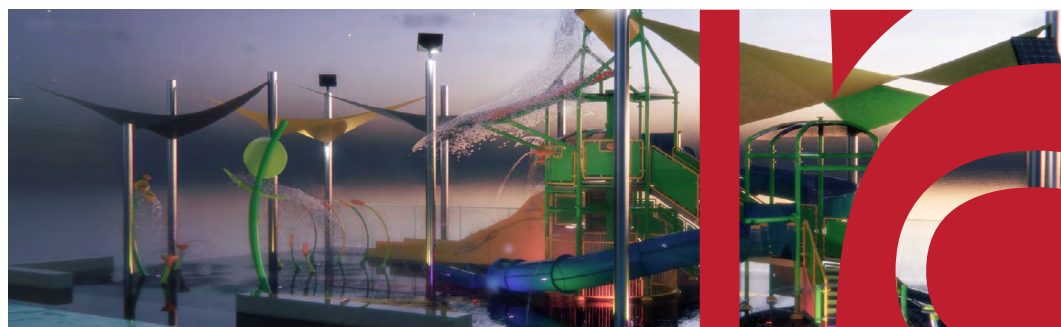




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Introduction

Project background

Located in north Queensland, approximately one hour drive south from Townsville, the Burdekin Local Government Area (LGA) is home to 16,692 residents as of the 2021 Census.

Burdekin Shire Council currently owns four aquatic facilities across the Shire:

- ☐ Ayr Swimming Pool
- ☐ Home Hill Swimming Pool
- ☐ Clare Swimming Pool
- ☐ Millaroo Swimming Pool

The Giru Swimming Pool also provides community access through a partnership with the school/Education Department.

Councils across Australia are well aware of the importance of this type of facility and the opportunities they provide to facilitate and encourage physical activity thus reducing the burden of chronic disease, especially as the LGA's population continues to age.

However, given the relatively low populations serviced by at least three of the existing facilities, Council needs to strategically plan for the future provision of aquatic facilities for a variety of reasons, with the main ones being:

- ☐ their ageing infrastructure needs to either be replaced or requires significant repair
- ☐ the costs associated with repairs/refurbishments and the development of new aquatic facilities and features is very costly
- ☐ significant ongoing maintenance costs are associated with any aquatic facility, let alone ageing, non-efficient facilities.

In addition to the above costs involved regarding the provision of aquatic facilities, the direction of this Strategy has given consideration to the fact that the Shire is currently well and truly over-supplied with such facilities.

Generally accepted provision rates for aquatic facilities across Queensland are as follows:

- ☐ District level: 1:60,000 residents
- ☐ Major District: 1:100,000 residents
- ☐ Metro: 1:150,000 residents (or LGA wide)

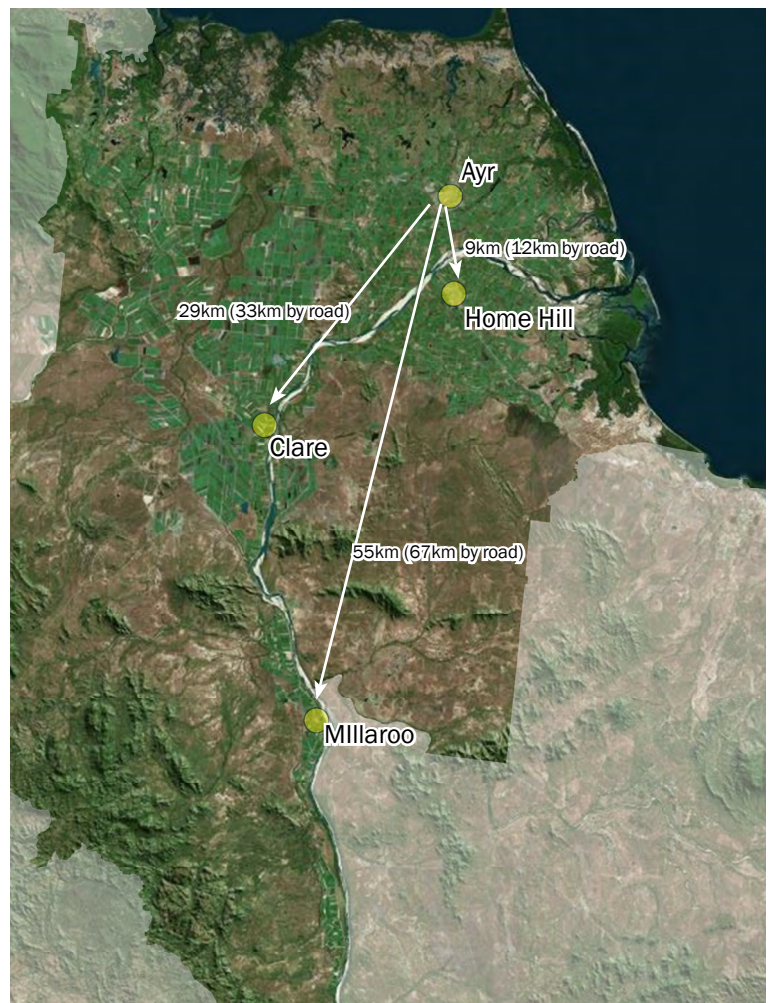
A district level facility may include a heated 25m indoor program pool and/or a 25 or 50m outdoor lap pool, leisure pool, water play area, shade structures, seating, change rooms, toilets, administration area, café or kiosk, first aid room, service facilities, storage areas and outside play area.

Therefore, Council is in a position to assess its current level of provision of aquatic facilities and ensure that it does so in the future in a viable and responsible manner.

This can occur by planning to 'spread' different types of opportunities/experiences over the facilities, and not develop facilities or features in an ad-hoc and unsustainable manner. It is also noted that more detailed consultation with the community and user groups should occur prior to implementing any specific recommendations.

Informing the development of this Strategy was an engineering and safety audit undertaken for each of the four existing facilities.

Burdekin Shire public swimming pool locations



Facilities analysis

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Current facility snapshot

The following provides a snapshot of each facility's general details and features, with the main outcomes of the engineer's audit included. The recommendations of the safety audit are provided in the Strategy's recommendations.

Aquatic engineer (J.H. Cockerell)

J.H.Cockerell (JHC) was established in 1979 and Mr Allan Cockerell, a director of JHC, has over 40 years of experience in the Australian Aquatic Industry. As a specialist Aquatic Engineer, Mr Cockerell has designed and acted as project manager for delivery of several new and upgraded council pools. In recent years, Mr Cockerell has built a reputation as Australia's leading aquatic engineer, particularly in relation to the design of public pool water treatment plants and public pools founded in poor ground conditions.

Mr Cockerell's specialist expertise has been relied upon by Australian State Health Departments, in relation to the publication of Guidelines for public pool water quality, and he has often been called upon to undertake pool audits and assessments when pools have not been designed, constructed or performed to available standards.

JHC undertook the following:

- ☐ above-water inspection of pool shell finishes for condition and suitability
- ☐ above-water inspection of pool shell structures for signs of damage or degradation
- ☐ visual inspection of the pool water treatment plant to identify, based on the requirements of the DIN19643 - TREATMENT OF WATER OF SWIMMING POOLS AND BATHS Standard, design changes that could be made to improve pool water treatment. It is noted that this International Standard is used due to there being no National Standard
- ☐ inspection of the pool water treatment plant, together with Council's Plant Operator, to identify operational issues with plant room equipment.

Safety audit (Darben Training)

Michael Darben, Managing Director of Darben Training, is a dedicated aquatic industry, vocational education professional with a Business Management and Registered Training Organisation (RTO) background including compliance, resource development and program delivery experience with a passion for water safety.

Michael was the Executive Director of Royal Life Saving Society Queensland for 10 years and brings that experience to his safety audits of public swimming pools.

Darben Training undertook facility safety assessments of the four facilities to identify how Council and pool operators could ensure they obtain and maintain compliance with the Guidelines for Safe Pool Operations.

Ayr

Located at 242 Queen Street, Ayr, the Ayr Swimming Pool offers a 50m outdoor pool and a separate children's wading pool. Both pools are shaded, with the main pool cover restricted to the shallow end.

A water play feature is currently being developed in the site, and included in this development is the relocation of the existing main entrance and kiosk to Macmillan Street.

The pool closes over the winter months from 1 May to 31 August each year.

Currently a minimum of one lifeguard is on duty at all times that the pool is operating.

Current annual usage (average of past four years):

7,075 individual entries (not including the annual average of 83 ten-session passes for adults and 110 for children, and a small number of season passes).



Engineering considerations

Water treatment

The Ayr 50 metre pool, based on the pool's dimensions, has the capacity to safely accommodate approximately 250 bathers at any one time. Advice received indicated the current daily use is below this figure, confirming the pool has significant excess capacity.

- ❑ an inline turbidity meter be installed to continuously measure turbidity of water leaving the four filters, to confirm the filters are effectively filtering pool water, between filter backwashes (i.e. pool water does not pose a public health risk due to ineffective sand filtration)
- ❑ dye tests be performed, in accordance with Standard EN15288-2 Swimming pools for public use - Part 2: Safety requirements for operation, to identify areas of inadequate water circulation in both the 50 metre and wading pools, with the solution to be investigated at that time
- ❑ to provide the Shire with water for the Ayr Pools that does not pose health risks for pool users, replacement pools will need to be designed in accordance with relevant Australian standards and a replacement pool water treatment plant will need to be designed in accordance with a standard, DIN19643 - TREATMENT OF WATER OF SWIMMING POOLS AND BATHS.

Condition of Pool Concrete Shells and Tiles

Tiles to the wading pool are generally in good condition, however, there are a few cracked and chipped tiles in the 50 metre pool. In 2018, the pool scum gutters were replaced, grout to pool tile joints was replaced, along with mastic sealant to movement joints in the 50 metre pool. They are all now still in good condition, although bathers have picked out the mastic sealant from some of the horizontal movement joints, located at the intersection of pool walls and the pool floor.

Therefore, care must be taken to prevent cuts to bathers from the sharp edges of cracked and chipped tiles, and when the 50 metre pool is next emptied, mastic sealant should be made good where bathers have picked out the mastic sealant from some of the horizontal movement joints, located at the intersection of pool walls and the pool floor.

The pool concrete shells appear to be watertight and there does not appear to be any loss of water from pipework connecting the pools to the pool water treatment plant.

Home Hill

Located at 63 Eleventh Avenue, Home Hill, this facility has a 50.3m (55 yard) pool and a separate children's wading pool. Both pools have shade cover, with the main pool covered only over the shallow end.

The pool has a basic kiosk and a lifeguard is on duty when the pool is open. Due to the pool's circulation system taking advantage of a naturally occurring artesian bore, the water maintains a constant temperature of approximately 27° Celcius. This allows the pool to be the only facility in the Shire open year-round (with reduced hours over winter).

Current annual usage (average of four past years):

9,973 entries (not including the annual average of 212 10-session passes for adults and 79 for children, and a small number of season passes).



Engineering considerations

Water treatment

The Home Hill 55 yard pool, based on the pool's dimensions, has the capacity to safely accommodate approximately 170 bathers at any one time. Advice was received that the pool is, on average, currently used by less than 170 bathers per day, confirming the pool has significant excess capacity.

Main water treatment considerations at Home Hill are:

- ☐ testing of pool water in both pools must be carried out in accordance with the Queensland Health's current "Water Quality Guidelines for Public Aquatic Facilities"
- ☐ there is substandard circulation of water in both pools.

Condition of Pool Concrete Shells and Tiles

A significant number of the 55 yard pool's floor and wall tiles have chips and cracks, as do several of precast scum gutter units.

All of the pool shell construction joints need resealing with a suitable mastic sealant.

Considerations

- ☐ Council should not waste money trying to upgrade the pools, given they were constructed approximately 60 years ago and both have substandard circulation of water in the pools, creating a public health risk
- ☐ in order to capitalise on what appears to be a good supply of bore water to the site, Council in the long term give consideration to replacing the 55 yard pool with an appropriate pool designed in accordance with relevant Australian standards and the DIN 19643 - TREATMENT OF WATER OF SWIMMING POOLS AND BATHS Standard and that meets community needs.

Clare

Located on the corner of School Road and George Road, Clare Pool is a 25m pool with shade cover over the shallow end.

A very basic and ageing facility, it is open from 1 September to 30 April each year. Users obtain a key by signing an agreement and paying a seasonal access fee to the Clare Pool committee which gives them access to this pool at their convenience.

There is no kiosk or lifeguard on duty.

Accurate entry numbers are unable to be determined from available data, but the revenues received from the current system indicate very low patronage.



Engineering considerations

Water treatment

The Clare 25 metre pool, based on the pool's dimensions, has the capacity to safely accommodate approximately 84 bathers at any one time. Although precise daily usage numbers are not able to be determined (due to the current entry management processes), the pool is currently used by significantly less than 84 bathers per day, confirming the pool has significant excess capacity.

It was reported that the pool is losing a significant quantity of chemically treated pool water (a procedure has been suggested to the pool supervisor to quantify the water loss).

Improvements could be made to Clare's 25 metre pool water treatment plant to reduce pool water quality health risks, however, the only way to eliminate the health risks would be to replace the pool and pool water treatment plant.

Condition of Pool Concrete Shells and Tiles

- ☐ the pool's tiles are badly damaged. JHC's 2006 Report recommended pool tile replacement. The condition of pool tiles has further deteriorated, with many tiles having now lost their applied glazed finish.
- ☐ the pool's steel shell sand filter, that is over 50 years old and losing sand into the pool, has reached the end of its useful life. A replacement filter should be a suitably sized pressurised sand filter, designed manufactured and operated in accordance with Standard DIN19643 - TREATMENT OF WATER OF SWIMMING POOLS AND BATHS.

Considerations

- ☐ the pool and its water treatment plant have both reached the end of their useful lives and require replacement
- ☐ replacement of the pool is the only way to eliminate pool water quality and the associated health risks associated with substandard circulation of water in the pool.

Millaroo

Located at 4-8 Cartys Street, Millaroo Pool is a 25m pool with shade cover over the shallow end.

Very similar to the Clare facility, it is a very basic and ageing facility, open from 1 September to 30 April each year. Users obtain a key by signing an agreement and paying a seasonal access fee to the committee which gives them access to this pool at their convenience.

There is no kiosk or lifeguard on duty.

Accurate entry numbers are unable to be determined from available data, but the revenues received from the current system indicate very low patronage.



Engineering considerations

Water treatment

The Millaroo 25 metre pool, based on the pool's dimensions, has the capacity to safely accommodate approximately 84 bathers at any one time. As in the case for the Clare Pool, although precise daily usage numbers are not able to be determined (due to the current entry management processes), the pool is currently used by significantly less than 84 bathers per day, confirming the pool has significant excess capacity.

The pool's original steel shelled sand filter has been replaced with an under-sized, fibreglass shelled sand filter that the manufacturer only recommends for domestic pools. The filter should be replaced by a suitably sized, pressurised sand filter, designed, manufactured and operated in accordance with Standard DIN19643 - TREATMENT OF WATER OF SWIMMING POOLS AND BATHS.

The automatic chemical dosing equipment has reached the end of its useful life.

Condition of Pool Concrete Shells and Tiles

If widespread black spot algae in the pool's pebblecrete finish cannot be removed by the use of an algaecide, the pebblecrete must be considered to have reached the end of its useful life.

Considerations

Improvements can be made to Millaroo's 25 metre pool water treatment plant to reduce pool water quality health risks however the only way to eliminate the health risks would be to replace the pool and pool water treatment plant.

3 Trends influencing aquatic design and usage

When developing and implementing an aquatic facility strategy, Council needs to be mindful of the encompassing range of functions that such venues can provide to the Burdekin community. As any venue aims to cater to a broad range of users within its catchment over a long period of time, it is important that Council is aware of the current and projected community needs and of all the prevailing trends (social and aquatic) over the forthcoming years.

Burdekin Shire profile

As of the 2021 Census¹, the population of the Burdekin Council Shire area was 16,692, a decrease of 672 persons since the 2011. An overview of selected demographics and characteristics for the Burdekin LGA, as of 2021, is provided below. No population growth is projected through to 2041².

Characteristics	Queensland	Burdekin local government area
Population	5,156,140	16,692
Median age	38	45
Age profile		
0 - 4 years	5.7%	4.9%
5 - 14 years	13.0%	11.7%
15 - 24 years	12.4%	10.9%
25 - 34 years	13.6%	10.8%
35 - 44 years	13.3%	10.5%
45 - 54 years	13.1%	13.0%
55 - 64 years	11.9%	14.4%
65 years and over	17.0%	23.8%
Household/family composition		
Couples without children	40.3%	48.0%
Couples with children	41.2%	36.4%
One parent families	16.8%	14.0%
Median weekly income		
Personal	\$787	\$723
Family	\$2,024	\$1,804
Household	\$1,675	\$1,345

Population considerations

- ☐ opportunities offered should consider the older and ageing population of the Shire
- ☐ there is no foreseeable increase in demand for aquatic facilities due to population growth
- ☐ the resident population has less ability than many areas to pay for 'high end' aquatic experiences.

¹ 2021 Census QuickStats, Australian Bureau of Statistics (2022)

² Projected Populations (medium), Queensland Government Statistician's Office (2022)

Facility and usage trends

Changing population

Ageing population

Almost a quarter of the Shire's population is aged over 65 years, with this percentage projected to increase to almost 28% of the population in 2041¹.

An ageing population and high proportion of people requiring assistance are important considerations. This group of people:

- ☐ are more likely to participate in recreational swimming
- ☐ prefer heated indoor or covered outdoor pools
- ☐ require a pool suitable for therapy and older adult exercise
- ☐ desire the inclusion of improved design features to increase accessibility to and within the Facility
- ☐ require an array of low impact programs and activities targeting older adults and people requiring assistance, such as aqua aerobics.

Variety of experiences

Dry experiences

Aquatic facilities in major population centres are no longer a place for the stand alone 50m swimming pool. The inclusion of dry features, such as meeting rooms, medical and therapy clinics and gyms are seen as greatly improving the operations and subsequent viability of aquatic centres.

However, due to the relatively small population of the Burdekin Shire, the provision of such dry features should be at a lower level and include features such as multi-purpose grassed areas, shade and the provision of barbecues, tables and seating.

While these types of dry features do not generate significant revenue streams, they do add to the user's experience and should result in longer duration visits, resulting in increased secondary spends at kiosks.

Wet experiences

Aquatic facility users are becoming more exposed to and aware of new recreation experiences and opportunities. As a result, the residents of Burdekin Shire are more likely to seek a facility that provides a variety of recreation activities.

While it is impractical to develop such features at every facility, their inclusion in the facility servicing the major population centre (such as the water park in Ayr) expands the experiences currently available to residents.



¹ Projected Populations (medium), Queensland Government Statistician's Office (2022)

Different types of aquatic facility users

Aquatic users are typically defined by four main groups, each with a different need configurations for aquatic spaces and different water temperatures.

The four types of users are:

1. recreation and social users
 - families and friends
 - gather for fun and/or social gatherings such as birthday parties
2. fitness and competition users
 - club members
 - competitive swimmers
 - users that swim to keep fit
 - participate in aquatic fitness classes
3. education users
 - swimming lessons (private and/or done through the school)
 - school carnivals
 - first aid, surf lifesaving and CPR courses
4. therapy users
 - rehabilitation
 - elderly
 - disabled

Recreation users

Recreation users make up the majority of aquatic users accounting for approximately 60 to 70% of users. These users often recreate in the warmer months and cover a wide variety of age groups, from toddler to seniors. Often families, they require a range of aquatic features for children of varying ages to play and interact with. Shaded picnic and BBQ areas, lockers, kiosk and lounge chairs are extra comforts desired by parents and encourage extended stays.

Fitness and competition users

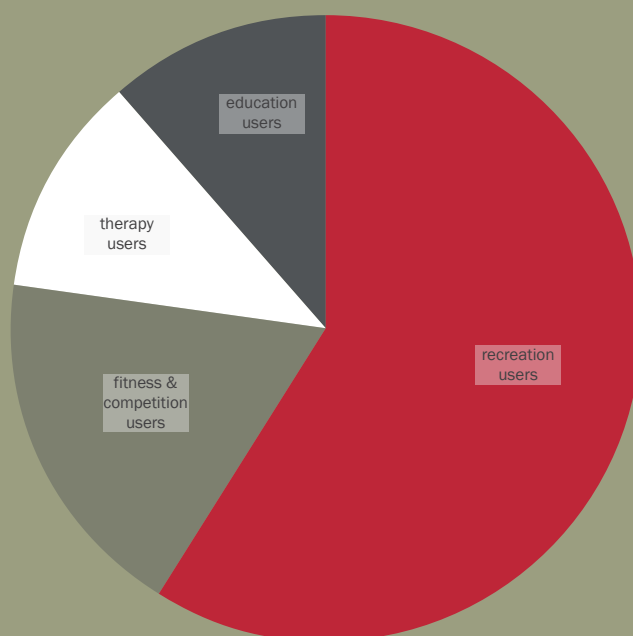
Fitness and competition users account for 20 to 25% of aquatic centre patrons. This group doesn't often bring in a lot of revenue however, they are often the most consistent users, particularly if the facility is built for all-year use.

Education users

Learn to swim, water safety and CPR training are important and essential education programs. The aquatic centre users that normally partake in these programs range from babies to seniors. These programs can either be private or conducted through local schools, making them a popular revenue earner for aquatic centres. A good design that allows all-year round use (heated pool) and protection from the weather can further increase the number of this user type.

Therapy users

Therapy users are a targeted group of individuals that require specific facilities and programs. Currently the fastest growing user group it consists mainly of older adults, people with a disability and/or medical conditions.



Source: Pennsylvania Department of Conservation and Natural Resources, Bureau of Recreation and Conservation.

Management considerations

4

The following outlines key considerations for Council when entering into future agreements for the management of its two main aquatic facilities, the Ayr and Home Hill Pools.

It is noted that the Clare and Millaroo Pools currently operate under a different arrangement. This arrangement of providing access to the facilities with no supervision is one that opens Council to public safety risks. The recommendations of this Strategy following addresses this and the long term future of these two facilities.

The engagement of a facility manager, usually through a lease agreement, can be an effective manner to manage and operate aquatic centres. This is due to the fact that such facilities are highly specialised in their operational nature, requiring specialists with the adequate experience, qualifications and resources available to ensure the facility's ongoing viability.

A significant advantage of utilising this management model (assuming satisfactory tender responses are received) is the ability of these managers to accurately determine the appropriate facilities, services and programs that should be offered by a facility. This is due to the fact that they will be highly driven by 'the market'. That is, they have to offer popular attractions to ensure that people will come and pay to use the facility and the programs being offered. Another advantage of this model is the 'distancing' of Council from the day to day issues associated with aquatic facility management, including the risk of litigation through personal injury claims.

Other major benefits of employing a contractor to manage the facility include, but are not necessarily limited to:

- ☐ access to specialised staff in various program and facility management areas
- ☐ a proven ability to develop and effectively manage quality programs
- ☐ a knowledge of the importance of, and an ability to, apportion revenues across different areas, such as admission fees, membership fees and program participation fees
- ☐ the employment of strategies to ensure effective marketing and promotion of the Centre and its services, including the use of social media (facebook, twitter, etc)
- ☐ greatly enhanced ability to access appropriate training needs for staff through established networks.

Consideration should be given to inviting tenders from operators of aquatic facilities. It would be anticipated that two main 'types' of organisations may submit offers under this process:

- ☐ community operators (such as currently in place)
- ☐ community organisations (e.g. YMCA/PCYC)/professional management companies.

The success of any commercial or community operator is highly dependent on the terms and conditions, and structures, of the associated management agreements negotiated by Council. It is imperative that the agreement clearly defines performance criteria in relation to community obligations and access, quality of service levels, financial performance, program outcomes, fees and charges, asset management (including maintenance), quality control and reporting protocols. There is also a need to ensure that skilled in-house staff resources are available to effectively manage the contract.

Community and commercial operators need to clearly demonstrate their capacity to manage a facility including access to the resources required to deliver the outcomes established under the agreement. There is considerable capital outlay required with the fit-out of facilities including information and communications technology to support the management of the venue, hospitality equipment and resources, facility management operating systems (e.g. bookings), furnishings and fixtures.

There is a recognised expectation that Council will provide an on-going level of operating subsidy with major maintenance and capital works (provided by Council).

It should be noted there are a limited number of successful commercial providers delivering these services. The past two decades has seen a gradual decline in the number of commercial operators in the market, principally due to issues surrounding poor delivery standards and lack of financial resources.

The need to provide community service obligations for Council whilst achieving commercial returns for the operator are very difficult to manage. The management agreement will need to clearly define these areas and performance outcomes. Council's decision making processes and systems can inhibit the commercial operator in their ability to make independent and quick business decisions.

There are advantages and disadvantages involved with both types of organisations, with the main issues identified (in no particular order) in the table below.

Management type	Advantages	Disadvantages
Community operators (CO)	CO's can be more interested in a balance of community benefit and profit, not just profit alone. However, this focus is changing.	In recent times, CO's have developed a much higher 'business' focus and may well expect Council to subsidise the facility's operations.
	CO's usually have extensive networks within a local community.	CO's have in the past, assumed an unreasonable level of control over a facility, reducing access to other community groups. This has however, been diminishing over recent years.
	The CO usually operates with a regular, small group of people, building familiarity with customers at the facility and creating a greater presence.	Some CO's may have limited resources, especially in comparison to commercial organisations, and can be affected by changes in the political landscape.
	COs have experience with the community's needs and wants and it is usually in their best interest to provide benefits to the community through their operations.	PM's are usually well resourced in all the relevant areas of facility management (administration, financial control, asset management, etc).
	Usually have established systems for the business-related aspects of managing a facility such as marketing, financial management, asset management and effective administration processes.	Potential for obtaining a capital contribution from the PM in return for a long-term lease/contract.
Management types	Advantages	Disadvantages
Professional management/ community organisation (PM)	Suitable PM's are generally staffed by personnel with facility management experience.	PM's reason for involvement in such centres is to make a profit – sometimes community organisations can suffer as a result through high hire fees, lack of access, etc.
	PM's are usually well resourced in all the relevant areas of facility management (administration, financial control, asset management, etc).	PM's are likely to have a higher level of skill in negotiations than Council staff and users of the facility. This may result in a PM achieving a higher level of control than intended.
	Potential for obtaining a capital contribution from the PM in return for a long-term lease/contract.	Conditions of the arrangement must be well documented to ensure capital development meets expectations and is managed appropriately.

While it is recommended that Council continues to lease its two main facilities to community operators, there are important considerations to include in any future arrangements:

- ☐ there are major risks involved in estimating accurate projected revenues and expenses for the operation of any aquatic facility
- ☐ these projections will guide the development of the terms and conditions of the management contract and the amounts payable by both Council and the contractor and subsequently must be as realistic as possible.

Summary & Recommendations



This Strategy represents an opportunity for Council to provide appropriate aquatic facilities for locals and visitors in a realistic and affordable manner.

As mentioned previously, the Shire is currently over-supplied with such facilities. In fact, the provision of a single, district level facility in the population centre of Ayr would be an appropriate level of provision for the population of under 17,000 residents. Given the lack of projected growth in the Shire it is not feasible to develop major aquatic facilities to cater for this, so Council should focus on the development of appropriate facilities that don't result in significant capital and ongoing operational/maintenance expenses.

It is proposed that, over time, Council rationalises the Clare and Millaroo facilities and concentrates on providing aquatic opportunities via the Ayr and Home Hill facilities. Given the proximity of the Ayr and Home Hill facilities, Council has the opportunity to develop both facilities in a complementary manner that provides a range of features for the community without the duplication of facilities and features, and without over-embellishing/investing in a single facility.

It must be recognised that this is a long term goal, due both to the costs involved and to provide Council the opportunity to effectively communicate the intended process to residents, especially those in the Clare and Millaroo areas.

For ease of reference, the recommended actions for Ayr and Home Hill are provided separately, with those for Clare and Millaroo combined. The safety audit recommendations are provided following.

Implementation of the recommendations outlined in this Strategy will require strong leadership, appropriate resources from Council and a commitment to making some difficult decisions.

Ayr Swimming Pool

As mentioned previously, the Ayr facility will soon have a new water park, entrance and kiosk. In addition to the recommendations made in the 2022 Business Plan (provided separately), the following is also recommended:

- ☐ an inline turbidity meter be installed to continuously measure turbidity of water leaving the four filters, to confirm the filters are effectively filtering pool water, between filter backwashes (i.e. pool water does not pose a public health risk due to ineffective sand filtration)
- ☐ dye tests be performed, in accordance with Standard EN15288-2 Swimming pools for public use - Part 2: Safety requirements for operation, to identify areas of inadequate water circulation in both the 50 metre and wading pools.

Home Hill Swimming Pool

Given the significant repairs/improvements identified in the engineering audit of the facility, the long term goal for the Home Hill Pool is the replacement of the existing 50.3m pool with an appropriate modern pool.

It is believed this is a preferable outcome for not only the facility, but for the overall provision of aquatic facilities in the Shire. The significant costs associated with shortening the existing pool shell do not address other issues identified with the facility.

Replacing the existing main pool with a modern pool that complements other aquatic facilities in the Shire widens the variety of aquatic facilities in the Shire and is supported by the local swimming club. If this development is to proceed in the future, further consultation with the community and user groups will need to be undertaken at that time to ensure all relevant feedback is considered.

However, given that this is a long term goal, the outcomes of the engineering audit should be undertaken for the interim period of operations.

They include:

- ☐ testing of pool water in both pools must be carried out in accordance with the Queensland Health's current "Water Quality Guidelines for Public Aquatic Facilities"
- ☐ replace chipped and cracked floor and wall tiles
- ☐ all of the pool shell construction joints need resealing with a suitable mastic sealant.

Clare and Millaroo Swimming Pools

Both facilities are out-dated, costly and at the end of their useful lives. They are also significantly under-utilised.

The engineering audits for these facilities identified that money spent upgrading either the pool or the pool water treatment plants would do little to reduce public health risks for pool users, given they were constructed approximately 50 years ago, without the use of design standards that are now available.

While it is understood that such community pools are often seen as historical components of communities, this can not outweigh the need for their rationalisation.

The long term rationalisation of these two facilities is based on need, current utilisation, asset condition and liability risk. It is recommended closing the Millaroo Pool in the shorter term and re-allocating its operating budget to the Clare Pool to ensure compliance with supervisory standards. The medium-long term goal for Council should then be to close the Clare Pool.

Giru Pool

It is recommended that Council should clarify the roles and responsibilities for community access to the Giru State School Pool through the development and execution of a Memorandum of Understanding with the Giru Progress Association and Education Queensland.

Rationalisation

Given all of the above, and that the current access process puts Council at risk in regard to public safety, it is proposed that both facilities are replaced with more appropriate community facilities over time so that the community is provided other recreation opportunities in their stead. Facilities that may be considered at that time may include:

- ☐ recreation parks designed as community gathering spaces and providing features such as playgrounds, picnicking furniture and barbecues
- ☐ low level skate bowls or pump tracks
- ☐ quiet, reflection spaces with enhanced shaded areas and grassed, open spaces.

It is recommended that a high level of community engagement occur to achieve two main outcomes:

- ☐ explanation of the rationale behind removing the pools
- ☐ seek input into the features to replace the pools.

As mentioned, this will be a long term process and in the interim period, it is suggested:

- ☐ that both pools operate under approved supervision arrangements, with qualified lifeguards possibly being sourced through the current operators of the Ayr and Home Hill facilities
- ☐ that pool water testing be carried out in accordance with Queensland Health's Water Quality Guidelines for Public Aquatic Facilities. The recommended daily tests include free and combined chlorine, pH and turbidity, and recommended weekly tests include calcium hardness, total alkalinity, TDS and temperature.

Safety audit recommendations

Recommendation 1

It is recommended that the facility operators and/or Council continue their subscription to the online version of the Guidelines for Safe Pool Operations. The RLSSA Guidelines for Safe Pool Operations clearly set out the requirements for a safe aquatic facility and are a must for managers of aquatic facilities. The GSPO also contains invaluable information for local government, facility owners, architects, engineers, duty managers and pool lifeguards.

Recommendation 2

The facility operators should ensure Risk Assessments are completed on all tasks, activities, premises and utilities including:

- ☐ Safe work procedures (use of pool vacuum; use of gardening equipment)
- ☐ Supervision
- ☐ Activities: Free swim; Learn to Swim; Aqua Aerobics; School Swimming
- ☐ Premises: Pool; Changing rooms; storage cupboard; plant room
- ☐ Utilities: Lights; fire equipment; Pool Equipment
- ☐ Specific People: Young workers; pregnant workers, disabled workers and specific at risk groups:
- ☐ Recommend that a risk assessment is done on the delivery, use and Storage of chemicals at the Facility. This should be done in accordance with the requirements of relevant state government regulations:
 - Workplace Health and Safety Act 2011
 - AS/NZS 4801:2001 Occupational Health and Safety Management Systems
 - AS/NZS 4360:2004 Risk Management
 - AS/NZS 31000:2018 Risk management Principles and Guidelines
 - COP : How to Manage Work Health and Safety Risks (2011)
 - COP: Hazardous Manual Tasks (2011)
 - COP: Managing Risks of Hazardous Chemicals in the Workplace (2013).

Recommendation 3

It is recommended that an Operations Manual is developed that outlines all aspects of the facility operations. This may include:

- ☐ Facility floor plan including pool's dimensions
- ☐ Maximum number of patrons including bather loads
- ☐ Location of alarms, exits, fire fighting equipment and first aid areas
- ☐ Communication equipment
- ☐ Incident control and reporting protocols
- ☐ Supervision Plan
- ☐ Emergency Response
- ☐ Roles and Responsibilities
- ☐ Personal directory
- ☐ Call out procedures.

Recommendation 4

It is recommended that an Emergency Action Plan (EAP) be developed to be included in the facility's Operations Manual in compliance with the RLSSA Guidelines for Safety Pool Operations. The EAP should be able to be used as a stand-alone document. It should include procedures for various scenarios in different locations in the facility and provision for different staffing levels in the facility. The EAP should be developed in compliance with the RLSSA Guidelines for Safe Pool Operations Guidelines. Recommend that an EAP is developed to include alternative plans for each staffing level or activity. It is recommended that the duties of all staff present should be explicitly stated. Extra provisions, such as raising a remote alarm, should be made if only one staff member/ person is present. The EAP should include, but not limited to:

- ☐ Drowning
- ☐ Spinal Injuries
- ☐ Cardiac Arrest
- ☐ Chemical Spill or Leak
- ☐ Minor Incident
- ☐ Overcrowding
- ☐ Disorderly behaviour
- ☐ Lack of water quality
- ☐ Chemical irregularities.

Recommendation 5

It is recommended that signage specifying the conditions of entry be posted at the facility entrance. Conditions may include, but are not limited to:

- ☐ Age under which child must be supervised by a guardian (10 is recommended)
- ☐ Minimum age of guardian (16 years or older recommended)
- ☐ Responsibilities of guardians
- ☐ Responsibilities of other customers
- ☐ Disclaimer
- ☐ Desirable behaviour and rules.

N.B. Given the facilities are used by schools and the general public it would be important that a sign covers for both groups.



Recommendation 6

It is recommended that depth markings be clearly visible from within and outside the pool from all angles. The depth markings should be at the deep and shallow ends of the pools and intermittently along all sides of the pool at 10-15 metre intervals or where there is a change of depth.

Recommendation 7

It is recommended that the shallow water and deep water signs be compliant with AS2416 Water Safety Signs and Beach Safety Flags 330mm high or sufficiently large to be visible from intended viewing distance. Positioned close to observer's line of sight, visible from within the pool, utilises appropriate references to improve comprehension, co-located with prohibition signs where appropriate and free of additional signage or marketing material.

Recommendation 8

It is recommended that signs notifying recreational swimmers of No Diving in water depth less than 1.8m be prominently displayed. No Diving signs used should be compliant with AS2416 Water Safety Signs and Beach Safety Flags.



Sample No Diving sign

Recommendation 9

It is recommended that a risk assessment is completed to determine the supervision needs at the facility to manage patron safety. The risk assessment should consider, but not be limited by, the following:

- ☐ Users of the facility and swimming ability
- ☐ The type of activities undertaken
- ☐ The size, number and layout of pools
- ☐ The design of the pools
- ☐ Environmental factors such as surface reflection
- ☐ Average and anticipated attendance
- ☐ The duties, or procedures of staff to facilitate appropriate and sufficient supervision

This risk assessment should be recorded and retained as part of the facilities overall risk management process. A Supervision Plan should be developed aligning to the supervision risk assessment.

It was noted that two of the facilities are currently not supervised when in use. Whilst a waiver is signed, without trained personnel on site if drowning, medical emergency, or major injury occurs, an adequate response will not be available. There is not adequate rescue equipment, access to First Aid kits or a defibrillator.

Recommendation 10

It is recommended that adequate equipment is supplied to perform safe rescues and perform first aid and resuscitation. This will include but not limited to:

- ☐ First Aid kit
- ☐ Rescue tubes and reach poles
- ☐ Spinal rescue equipment
- ☐ Resuscitation equipment
- ☐ Access to a defibrillator.

Recommendation 11

It is recommended that there is an increased presence of signage and communication regarding parental supervision. This should include but not limited to:

- ☐ Entry signage
- ☐ Signage throughout the facility with an emphasis on child play zones
- ☐ Staff advising and enforcing of the rules
- ☐ PA announcements.

Recommendation 12

It is recommended that there should be consistency of documents and processes across the locations. This will enable ease of transition of operators and or staff as well as an increased ability for the council to track compliance.



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