Capital Insight Pty Limited
ABN 76 056 297 100
77 Berry Street
North Sydney NSW 2060
t 02 9955 2300
f 02 9955 5574
www.capitalinsight.com.au

Berowra Pool Feasibility Report

Hornsby Shire Council

July 2017

CONTENTS

Sydney
77 Berry Street
North Sydney NSW 2060
t 02 9955 2300
f 02 9955 5574

Melbourne
89 High Street
Kew Vic 3101
t 03 9854 6126
f 03 9854 6399

Brisbane
126 Margaret Street
Brisbane QLD 4000
t 07 3009 5700
f 07 3211 8788

1 EXECUTIVE SUMMARY

The Berowra and District Community Association has prepared a feasibility study (the BDCA Study) for the proposed development of a new aquatic centre at Berowra, with a proposed capital cost not greater than $6 million, and a net operating profit of approximately $100,000 per annum.

This Feasibility Report was commissioned by Hornsby Council to review the BDCA Study and present updated and independent estimates of user demand, net operating costs, and capital costs for a new Berowra Pool.

Consistent with previous feasibility studies, the Feasibility Report concluded that there would be sufficient user demand to support the operation of a new Berowra Pool. The estimated visitation (up to 180,000 visits per annum) is approximately three times that of the Galston Aquatic and Leisure Centre (GALC), but significantly less than estimates proposed by the BDCA Study. The visitation estimates are subject to a number of significant uncertainties, including:

- uncertainties regarding user behaviour, where users may still prefer to attend the Hornsby Aquatic and Leisure Centre (the HALC) because:
  - they also travel to Hornsby to access other services
  - the HALC offers a 50m lap pool
  - the HALC offers a leisure pool that is more attractive for young children.
- lack of an appropriate parking solution at Berowra, with the potential for parking capacity at Berowra to be more problematic than for the HALC, with resultant impacts on user preferences.

A new Berowra Pool would have the potential to reduce user demand for the HALC by up to 15%, allowing the HALC to better respond to unmet demand for learn-to-swim classes, reducing overcrowding, and potentially deferring future investment at the HALC. However, reductions in HALC attendance will also have a negative effect on operational efficiencies at the HALC, and could reduce annual HALC revenues by up to $600,000 per annum.

Table 1 provides a summary comparison of demand and net operating costs derived from this Feasibility Report, the BDCA Study, and from a previous (Council-commissioned) 2006 Feasibility Study.

Table 1: Berowra Pool Scenario Summary

Berowra Pool Scenario	Annual Visitation Projection	Estimated Net Operating Expenditure ($/annum)
2006 Feasibility Study	146,000	$190,000 (year 1) reducing to $75,000 (year 3)
BDCA Study (2015)	240,000	*($100,000)*[1]
BDCA Study (with operating costs amended to reflect current cost benchmarks)[2]	240,000	$230,000
This 2017 Feasibility Report (Scenario 1)	130,000	$120,000
This 2017 Feasibility Report (Scenario 2)	180,000	$170,000

Contrary to estimates included within the BDCA Study, estimates of operating revenues and expenses indicate that a new Berowra Pool will require substantial Council subsidies (in the order of $120,000 to $170,000 per annum) – with greater subsidies during the first years of operation, but with the potential to operate at significantly lower levels of subsidies in the medium to long term. The revenue

[1] The BDCA Study estimated a net operating profit of $100,000 per annum.
[2] With net annual operating expenditure calculated based on CERM benchmark expense recovery ratios for this type and size facility.

and expense estimates developed within this Feasibility Report are also subject to a number of uncertainties, including:

- the risk that projected levels of activity (and associated revenues) will not be achievable within a relatively small facility, due to operational inefficiencies and perceptions of overcrowding
- the usage profile, and assumed proportion of visitors paying full casual rates
- anticipated significant increases in utility charges impacting all Council venues.

It is significant to note that industry benchmark data collected from Councils across Australia indicates that operating revenues will only exceed operating expenses for very large established aquatic centres (such as the HALC) with site areas typically exceeding 6,000m^2 (more than three times the size proposed for Berowra).

A review of BDCA capital cost estimates has identified a number of omissions and suggests that the capital cost for a new Berowra Pool will significantly exceed the estimates provided in the BDCA Study. Council is yet to commission a detailed capital cost estimate, however a review of site-specific planning and construction issues has identified a number of risks (including car parking capacity, bushfire protection, site conditions, and the preferred staging strategy) that require further investigation and have the potential to significantly increase capital costs beyond those identified in the BDCA Study.

Finally, a review of Council's Community and Cultural Facilities Plan (2015) indicates Council's commitment to explore opportunities to reconfigure the Berowra Community Centre and Library to increase library space and improve useability. Progression with the above initiative would involve redevelopment of the same undercroft space proposed for the pool, would increase community use of the site, and would preclude progression of the Berowra Pool proposal in its current form.

In summary, while there appears to be sufficient demand to support a new Berowra Pool, the BDCA Study appears to have significantly underestimated the associated capital and recurrent costs. It is recommended that the BDCA proposal for a new Berowra Pool should only be considered subject to:

- agreement on preferences for redevelopment of the site, giving due consideration to commitments provided in Council's Community and Cultural Facilities Plan
- identification of a parking strategy that could effectively respond to both a reduction in parking capacity, and increased parking demand on the site
- further site investigations as a basis for an updated and comprehensive capital cost estimate.

2 INTRODUCTION

This report has been prepared for Hornsby Shire Council in response to the BDCA Study submitted to Council on behalf of the Berowra and District Community Association (BDCA).

The BDCA Study presents a case for Council to build, own and operate a new aquatic centre in Berowra to serve the needs of the local community. In summary, the BDCA Study:

- claims significant local support for a new pool in the Berowra area
- has projected (based on estimates of population and usage) high levels of utilisation for a new Berowra pool
- includes estimates of operating costs and revenues which suggest that a new Berowra pool could operate without the need for ongoing Council subsidies
- has identified the existing Berowra Community Centre as the most suitable location for a new pool
- includes suggestions for alternative methods of construction of the new pool, with the aim of significantly reducing the capital cost (relative to previous estimates).

This report has been prepared to provide an independent assessment of user demand for a new Berowra pool, with associated estimates of annual operating costs, and a review of estimated capital costs for implementation.

The report includes an examination of assumptions applied as a basis for the BDCA Study and provides a commentary on the validity of those assumptions, and associated conclusions.

The methodology used for the preparation of this report included:

- a review of the BDCA Study to clarify the scope and justification for the BDCA proposal, and clarification of the proposal's alignment (or otherwise) with Council's policies and preferences for the operation of aquatic centres
- determination of an appropriate catchment to be used to estimate user demand for a new Berowra pool
- use of ABS data to confirm the current and projected catchment population and demographics
- use of industry benchmark data, combined with attendance data from the Hornsby and Galston aquatic and leisure centres and an understanding of competing facilities, to prepare estimates of annual attendance for a new Berowra pool
- use of attendance estimates to prepare estimates of annual revenue for a new Berowra pool
- use of industry benchmark data, combined with financial data from the Hornsby and Galston aquatic and leisure centres, to prepare estimates of annual operating costs for a new Berowra pool
- a review of site characteristics and previous design concepts to provide a commentary on the likely capital cost (and cost risks) associated with the construction of a new Berowra pool.

This report does not include:

- an assessment of the social, health and economic benefits potentially derived from a new Berowra pool
- exploration of alternative solutions in response to the issues raised in the BDCA Study
- detailed designs or capital cost estimates
- identification of potential sources of capital funding for a new Berowra pool

- an assessment of the impact of the proposed investment on Council's Long Term Financial Plan.

The following background information was used to inform this report:

- Feasibility Study Update for the Berowra Aquatic Centre, prepared by Recreation Planning Associates for Hornsby Shire Council (April 2006).
- Concept Sketch Plans of the proposed Berowra Aquatic Centre, prepared by Glendenning Group Architects for Hornsby Shire Council (December 2006).
- correspondence prepared by Building Code and Bushfire Hazard Solutions (dated July 2007) providing advice regarding the setback and physical design characteristics to be achieved in order to allow for relaxation of Asset Protection Zone requirements for bushfire protection.
- Centre For Tourism and Leisure Management (CERM) Aquatic Centres Operational Management Benchmarks, prepared by the University of South Australia (2014).
- Hornsby Aquatic and Leisure Centre Market Research Summary, prepared by the Otium Planning Group for Hornsby Shire Council (October 2016).
- Attendance data for Hornsby and Galston Aquatic Centres for 2015/16 and 2016/17 YTD, provided by Hornsby Shire Council.
- Council's current schedule of fees for use of the Hornsby and Galston Aquatic Centres.
- Council's financial records (budget and actual income and expenditure) for Hornsby and Galston Aquatic Centres for 2016/17 YTD
- Council's Community and Cultural Facilities Plan (2015).

3 THE BDCA FEASIBILITY STUDY

The BDCA study was developed and submitted to Hornsby Shire Council in September 2016. The BDCA Study highlights the substantial history of proposals for a new pool at Berowra, and includes references to prior investigations, announcements and decisions. An outline of key elements of the BDCA Study is provided below.

The BDCA Study cites a number of justifications for a new Berowra pool, including:

- increasing demand for a pool due to population growth
- opportunity to relieve pressure on highly utilised facilities in the Hornsby Aquatic and Leisure Centre
- improved access to learn-to-swim (LTS) programs (for children and adults)
- evidence of local support for a pool
- social, physical and mental health benefits of swimming
- poor access to Hornsby pool (high travel times, infrequent public transport options and lack of on-site parking).

The BDCA Study proposes that a new Berowra Pool be constructed adjacent to the existing Berowra Community Centre. The proposal includes a suggested location for the new pool (refer page 28 of the BDCA Study) and proposes that the new indoor pool should comprise either:

- a larger 25x18 metre lap pool (with lanes being set aside for program activities), or
- a smaller 25x15 metre lap pool combined with a 8 x 12 metre program pool.

The BDCA Study also proposes that the new Berowra Pool should include support facilities typical of a small indoor aquatic centre, namely a recreation area, kiosk, gymnasium and associated amenities. Table 2 provides a comparison of features of the proposed Berowra Pool with other nearby facilities.

Table 2: Aquatic Centre Feature Comparison

Features	Hornsby Aquatic Centre	Galston Aquatic Centre	KidSwim Mt Kuring-Gai	BDCA Berowra Pool
50m lap pool (8 lanes, heated)	Yes	-	-	**-**
25m lap pool (indoor heated)	-	Yes	-	**Yes**
Program pool (indoor heated)	Yes (25m)	Yes (14m)	Yes (20m)	**Yes (12m)**
Leisure pool	Yes	-	-	**-**
Gymnasium	Yes	Yes	-	**Yes**
Kiosk/Cafe	Yes	Yes	Yes	**Yes**

It is noted that the BDCA Study suggested that the new indoor pool should include either:

- a larger 25x18 metre lap pool (with lanes being set aside for program activities), or
- a smaller 25x15 metre lap pool combined with a 8 x 12 metre program pool.

Following discussions with centre management, Council has a preference for a separate program pool (similar to the configuration at Galston), which will allow freedom to conduct program activities in a fit-for-purpose program pool without impacting squads or recreational swimmers. This is the assumed configuration adopted in this report, and is consistent with earlier studies conducted in 2006.

With respect to operating costs, the BDCA Study provides estimates of operating costs and suggests that a new Berowra Pool would break even (as a minimum) or be profitable (that is, requiring no ongoing operational subsidies from Council). The BDCA Study claims that Hornsby pool is operating at a profit and that Galston pool is expected to operate at a profit once the new learn-to-swim (LTS) pool is operating efficiently.

The BDCA Study identifies opportunities for minimising the capital cost of a new Berowra Pool by:

- constructing the pool on the Berowra Community Centre site, taking advantage of Council's land ownership and opportunities to leverage from existing facilities (including use of the Community Centre undercroft)
- locating the new pool at the southern end of the site to comply with setback requirements for an asset protection zone and to eliminate impacts on the war memorial
- using an alternative, above-ground pool design.

By adopting the above initiatives, the BDCA Study proposes that a new aquatic centre can be delivered with a capital cost in the range of $4.8 million to $5.8 million.

4 PREVIOUS INVESTIGATIONS

The following sections provide a summary of outcomes from previous studies and investigations that provide valuable input for this report.

4.1 THE 2006 FEASIBILITY STUDY

In 2006, Recreation Planning Associates prepared a Feasibility Study Update for the Berowra Aquatic Centre. The study examined the demand for new indoor aquatic and fitness facilities in the northern catchment, taking into account:

- the lack of year-round water space in the residential corridor between Hornsby and Brooklyn
- the size and demographics of the population in that corridor
- the specific aquatic recreation and fitness needs of the corridor population – including the need for year-round facilities for schools, swim clubs, sports people, fitness swimmers and recreational swimmers
- the need for year-round warm water for the area's growing (older person) therapy and rehabilitation markets
- the travel distances to existing aquatic facilities.

The study used industry benchmarks to confirm sufficient user demand for a new Berowra Pool, with visitation estimates ranging from 118,000 to 146,000 per annum.

In conclusion, the 2006 Feasibility Study identified "the need [for Council] to provide:

- Heated water for year round lap swimming and club/school programs,
- Indoor heated water (for warm water therapy, LTS and leisure),
- Gym and fitness facilities, and
- Support services including change/amenities, spa/sauna and café/kiosk facilities."

The conclusions were supported by "traditional planning benchmarks, the experience of other communities with similar sized populations and the needs and aspirations expressed in the consultations undertaken for this study." In particular, the conclusions and recommendations in the 2006 Feasibility Study were supported by two key drivers, namely:

- the importance of access to heated water, and the absence of indoor heated water at the nearest available major aquatic facility (the HALC)
- the importance of travel time and the assumption that a 15-20 minute travel time to the nearest facility is considered unacceptable, and a significant factor in consumers' decisions to partake in swimming activities.

The relevance of accessibility (including travel time) continues to be a significant driver, with its importance reinforced by the qualitative feedback provided in the recent Market Research Summary (refer Section 4.3 of this report).

However, the 2006 Feasibility Study was completed prior to the major redevelopment of the HALC (completed in 2014), and the HALC now provides a much broader service offering, including a leisure pool and heated indoor and outdoor pools. Therefore, the ability for the proposed Berowra Pool to offer a service that differentiates itself from nearby facilities (and attract a higher proportion of visitation) has diminished.

Accordingly, the current situation (post redevelopment of the HALC, and with low rates of population growth in the Berowra catchment) presents a less compelling case for a new Berowra Pool, relative to the conclusions reached in 2006.

4.2 ARCHITECTURAL CONCEPTS (2006)

In 2006, Hornsby Council commissioned Glendenning Group Architects to prepare concept sketch plans of the proposed Berowra Aquatic Centre.

The 2006 concept plans place the new pool in a slightly different location on the site, relative to the pool location proposed in the BDCA Study, but are the only detailed concepts that have been developed for the proposed Berowra Pool. A copy of the plan is provided at Attachment A, and has been used at Section 6.4 of this report to estimate the proposed internal area, and resultant annual visitation.

4.3 HORNSBY ACQUATIC AND LEISURE CENTRE MARKET RESEARCH SUMMARY

Council recently commissioned a Market Research study for the Hornsby Aquatic and Leisure Centre (HALC). The resultant Market Research Summary was finalised by the Otium Planning Group in October 2016. The stated purpose of the study was to investigate opportunities to increase patronage at the HALC.

The methodology included a telephone survey, surveys of HALC users, and a postcode survey. The survey findings provide insight into the preferences and behaviours of the population of the Hornsby LGA (including the proportion of that population that would form the catchment for the proposed Berowra pool). The HALC would also be the main competitor for a new Berowra pool, and the survey findings provide important insights into factors that make HALC attractive (or otherwise) to users. As such, the market research findings are relevant to an investigation of the proposed Berowra pool.

Telephone Survey Findings

The telephone survey was conducted by a specialist market research company and obtained specific feedback from 382 randomly selected residents, with 89% of survey respondents living in the Hornsby LGA and the remaining 11% living in the Ku-ring-gai LGA. Approximately 11% of the survey respondents reside within the proposed Berowra pool catchment. Selected, relevant findings from the survey are summarised under the following headings.

Reasons for Non-use of Aquatic and Leisure Centre Facilities

Of the respondents surveyed, 53% had not used or visited a public swimming pool in the preceding 12 months. The main reasons for non-use of aquatic and leisure centres included: using their own pool (32%), not being interested (16%), being too busy (15%), don't like swimming (12%) and go to the beach (12%). 7% of respondents indicated that they did not use an aquatic and leisure centre because there were no suitable facilities nearby.

HALC Attendance and Performance

One half of all the respondents who had used a public swimming pool in the previous 12 months had used the HALC, with the vast majority of survey respondents (91%) rating HALC facilities, programs and services as either good or excellent.

Reasons for Choosing to use HALC

Of those survey respondents who use the HALC, survey findings indicated that a majority (71% of users) chose the HALC over other facilities because of it's close proximity to their home, with 12% choosing HALC primarily to attend it's aquatic program.

HALC Modes of Travel

Of those survey respondents who use the HALC, survey findings indicated that 89% travel by car, 8% travel by public transport, and 3% walk.

HALC User Survey

The market research study collected 426 completed surveys from HALC users. A total of 96.8% of survey respondents lived in the Hornsby LGA, with 3.2% living in other LGAs. Approximately 19% of survey respondents lived in postcodes north of HALC, including Mt Colah (6%) and the remaining 13% from Mount Ku-ring-gai, Berowra, Cowan, Berowra Creek, Berowra Heights, Berowra Waters and Brooklyn. Selected, relevant findings from the survey are summarised under the following headings.

Reasons for Choosing to use HALC

Consistent with the telephone survey, user survey findings indicated that a majority (77% of respondents) chose the HALC over other facilities because of it's close proximity to their home, with 23% nominating the LTS program as a primary reason for attending.

HALC Modes of Travel

85% of respondents travelled to the HALC by car (either on their own or with others), with 3% arriving by bus or other public transport, and 9% walking.

HALC Frequency of Visitation

The user survey found that two thirds of users (66%) were regular visitors, attending the HALC at least once per week, or more. The largest proportion attended the HALC two to three times per week (28%), followed by weekly attendance (24%). At the other extreme, 12% of users only visited the HALC during the summertime.

HALC Performance and Suggested Improvements

The vast majority of survey respondents (76%) rated HALC facilities, programs and services as either good or excellent.

Of significance when considering a new Berowra pool, the survey sought suggestions for areas of improvement, with notable issues being:

- overcrowding of indoor swimming pools (29%)
- insufficient car parking on site (28%)
- general overcrowding in the centre (17%).

Postcode Survey

HALC centre management assisted the market research study by collecting the postcodes of the place of residence for HALC users over a period of approximately two months. For this survey, every user was asked to enter their postcode at every visit, with results highlighting postcodes where users visited the HALC more frequently. The Centre registered almost 90,000 user entries, with more than 50% (46,000) of visits being from users living nearby in the suburbs of Hornsby, Hornsby Heights or Waitara (postcode 2077).

Mt Colah (postcode 2079) registered approximately 6-7% of visits (similar to the result achieved from the user survey).

However, the suburbs of Berowra, Cowan, Berowra Creek, Berowra Heights and Berowra Waters (postcodes 2081 and 2082) only registered approximately 4% of total visits. This is a much lower proportion of users relative to the user survey, potentially indicating that (on average) users from this northern catchment use the HALC much less frequently than other users who live closer to the HALC, and reinforcing other survey findings indicating that close proximity is the dominant determinant for choosing to visit the HALC.

5 MARKET REVIEW

The following sections identify Council and private aquatic facilities that offer similar services for the target catchment population.

5.1 COUNCIL FACILITIES

Hornsby Shire Council operates two aquatic centres, located at Hornsby and Galston. Epping Aquatic and Leisure Centre (identified in previous reports) is now owned and operated by Parramatta City Council. A fourth pool in Cherrybrook is operated by Carlile Swimming School on land leased to it by Council.

Hornsby Aquatic and Leisure Centre

The $30 million redevelopment of the HALC was completed in August 2014, with the new centre now providing three heated pools, play equipment for children, a cafe, a gym and a water slide. Key features include:

- heated eight lane 50 metre outdoor pool for lap swimming and water polo
- outdoor seating for 500 spectators
- a heated, ten metre by 25 metre indoor pool for LTS activities
- a leading edge gymnasium
- a heated leisure pool with zero depth entry leading into a walking zone
- a multi-purpose room for club activities and dry recreation activities
- a kiosk, café and child minding service
- parking on site for 100 vehicles.

Galston Aquatic and Leisure Centre

The GALC provides a 25-metre, six-lane, covered outdoor heated pool. A new LTS pool was opened in October 2015 at a cost of $450,000, and is similar in size to the LTS pool proposed for Berowra (14.4m x 8.7m, and 1.1m deep). Key features include:

- 25-metre six-lane indoor pool heated to 28°C
- purpose built LTS indoor pool heated to 31°C
- fully equipped gymnasium
- on site car parking
- accessible facilities for people with disabilities.

Cherrybrook Pool and Epping Aquatic and Leisure Centre

Cherrybrook pool is operated by Carlile Swimming School and is located approximately 5km south of the GALC. The Cherrybrook pool is sufficiently remote from Berowra, that it would not compete for attendance, however it does compete with the GALC with respect to squads and LTS programs. Similarly, Epping Aquatic and Leisure Centre is not a direct competitor to Berowra and does not warrant further investigation.

Hornsby and Galston Attendance

Council visitation data for the HALC and GALC is summarised at Table 3. For both the 2015/16 and 2016/17 financial years, total visitation at the HALC is approximately five times the total visitation at the GALC.

Table 3: HALC and GALC Annual Visitations

Facility	Actual Visitation 2015/16 full year (000's)	Actual Visitation to April 2017 (000's)	Projected Visitation 2016/17 full year (000's)
HALC	343	307	354
GALC	73	53	61

Visitor usage data for the HALC and GALC is summarised at Table 4, in both absolute and percentage terms. The table highlights the very different usage profiles for each centre, and indicates that:

- LTS activity at HALC is approximately four times greater than for the GALC, but comprises a similar percentage of total utilisation for both centres (approximately 30%)
- squad activity is approximately the same for both centres in absolute terms, but a much higher proportion of total usage for the GALC (25%)
- rates of casual attendance at the GALC are much lower than the HALC
- the HALC has a much higher proportion of attendance by members.

Table 4: Visitor Usage for HALC and GALC (2015/16)

	HALC Activity (000's)	HALC Activity (% of total)	GALC Activity (000's)	GALC Activity (% of total)
Learn-to-swim	98	29	24	33
Members	73	21	8	11
Squad	15	4	18	25
Casual Swimmers	93	27	6	8
Other	64	19	17	23

5.2 OTHER COMPETING FACILITIES

Other Public Pools

Based on telephone survey results from the 2016 Market Research study, other pools utilised by Hornsby LGA residents include (in order of % most used):

- Ku-ring-gai Fitness and Aquatic Centre (20%)
- Sydney Olympic Park (4%)
- Cherrybrook Aquatic Centre (4%)
- Ryde Aquatic and Leisure Centre (3%)
- Epping Aquatic Centre (3%)
- Macquarie University Sport and Aquatic Centre (3%)
- Lane Cove Aquatic Leisure Centre (2%).

Private Facilities

The Berowra catchment is also serviced by a small number of private facilities that offer LTS services. These competing facilities are recognised in the BDCA Study and are summarised below.

Kidswim Mt Kuring-Gai

KidSwim Mt Kuring-Gai is a LTS pool in Sydney's Northern Suburbs, located inside Action Indoor Sports at Gundah Road Mt Kuring-Gai, and operates seven days per week.

The indoor complex provides a range of leisure facilities, including a heated indoor pool. Kidswim offers LTS classes targeted to children from 6 months, ranging through to stroke correction and private one-on-one lessons. Kidswim offers 10 week LTS programs during school terms, and also offers school holiday intensive swimming lessons.

Kidswim has not been requested to provide information as input to this report, however Hornsby Council had recently made some preliminary enquiries with Kidswim to gauge their capacity for LTS programs, with Kidswim indicating that they have spare capacity to offer additional programs.

Mt Wilga

Mt Wilga Private Rehabilitation Hospital operates two indoor heated pools for group and individual hydrotherapy treatment with attached change room and shower facilities.

Mt Wilga has established partnerships with external providers that offer LTS and aqua aerobics classes. LTS classes are currently offered twice a week, catering for children from 2 years to 10 years of age.

Other Private Facilities

A number of other private facilities are located in the south of the Hornsby Shire catchment. Some of these facilities (such as Knox Grammar) are expected to re-commence LTS programs in the future, with the effect of moderating LTS demand at the HALC, but are expected to have little or no impact on consumer preferences in the Berowra catchment.

6 DEMAND PROJECTIONS

6.1 CATCHMENT POPULATION

Berowa is located within the Hornsby LGA, 11.7km from the HALC. The current population of Hornsby LGA is 149,650 (in 2016). Both the BDCA Study and the 2006 Feasibility Study assumed a catchment population of 20,000 for the new Berowra Pool (based on 2001 ABS data).

The proposed facility is expected to draw primarily from the north-eastern suburbs of Hornsby Shire, with the primary catchment including Berowra, Berowra Waters and Berowra Heights and the secondary catchment including the other areas between Mt Colah in the south to Brooklyn in the north. Given that HALC facilities now include three heated pool areas, it is assumed that a new Berowra Pool will offer no significant attractions or benefits relative to the HALC that would encourage potential users from the south of the LGA catchment area to bypass the HALC and travel a significant additional distance to attend the Berowra Pool. The following areas are assumed to be within the catchment for the new Berowra Pool:

- Postcode 2081: Berowra, Cowan
- Postcode 2082: Berowra Creek, Berowra Heights, Berowra Waters.

With respect to the Mt Colah/Mt Ku-ring-gai area (postcode 2079 and 2080), many parts of the Mt Colah area would be closer the HALC than a new Berowra Pool, with Mt Colah comprising the larger portion of the Mt Colah/Mt Ku-ring-gai total population. Previous estimates of the Berowra Pool population catchment appear to have included Mt Colah in the catchment, on the basis that Berowra would offer an indoor heated pool that would be more attractive than the HALC during the winter months.

Given the recent improvements to the HALC, and assuming similar levels of access and quality of service for both the HALC and the new Berowra Pool, it would be unrealistic to assume that the entire Mt Colah/Mt Ku-ring-gai catchment would prefer the Berowra Pool over the HALC. Therefore, the Berowra Pool catchment population has been calculated on the basis that 50% of the Mt Colah/Mt Ku-ring-gai population would prefer to travel north and form part of the Berowra Pool catchment, with the remaining 50% preferring to travel south to the HALC.

Figure 1: Catchment Population and Projections

	2016	2026	Total Δ 2016-26	Total % 2016-26	2036	Total Δ 2016-36	Total % 2016-36
Hornsby LGA[3]	149,650	164,650	+15,000	10.0%	178,100	+28,450	19.0%
Potential Berowra Pool Catchment							
Berowra / Cowan	5,000	5,500	+500	10.0%	5,950	+950	19.0%
Berowra Heights/ Creek/ Waters	7,400	8,150	+750		8,800	+1,400	
Mount Kuring-Gai[4]	4,650	5,100	+450		5,500	+850	
Total Catchment	**17,050**	**18,750**	**+1,700**		**20,250**	**+3,200**	

[3] NSW Department of Planning and Environment Population Projections (2016)
[4] Assumed 50% of the Mount Colah – Mount Kuring-Gai area would reside within the Berowra Pool potential catchment

Calculations based on the above assumptions (using 2016 NSW Department of Planning and Environment Population Projections) indicate that the potential primary catchment of an aquatic centre in Berowra is approximately 17,000 persons in 2016. This potential catchment is to grow by 1,700 to 2026, or by 3,200 to 2036.

The above catchment population estimate is lower than the catchment population estimate assumed for the BDCA Study and the 2006 Feasibility Study (20,000 persons in 2016), and reflects the fact that the redeveloped HALC now presents a much more attractive proposition for potential users, subject to concerns regarding accessibility.

The Berowra Pool catchment population is projected to continue to experience very low rates of growth. Although growth for Hornsby LGA is projected to be almost 20% over the 20 years from 2016 to 2036, much of that growth is expected to occur in designated higher-density growth corridors in the south of the LGA. This will impact utilisation rates for the HALC, but will have little impact on the catchment population for the Berowra Pool.

Assuming that a new Berowra Pool may not be operational until 2020 (say), and assuming that the pool should be designed for a 20 year operating life, a catchment population of 20,000 would be appropriate for modelling longer term visitation and revenues. For this reason, and for consistency with the BDCA Study and the 2006 Feasibility Study, this report has assumed a catchment population of 20,000 persons.

6.2 CATCHMENT DEMOGRAPHICS

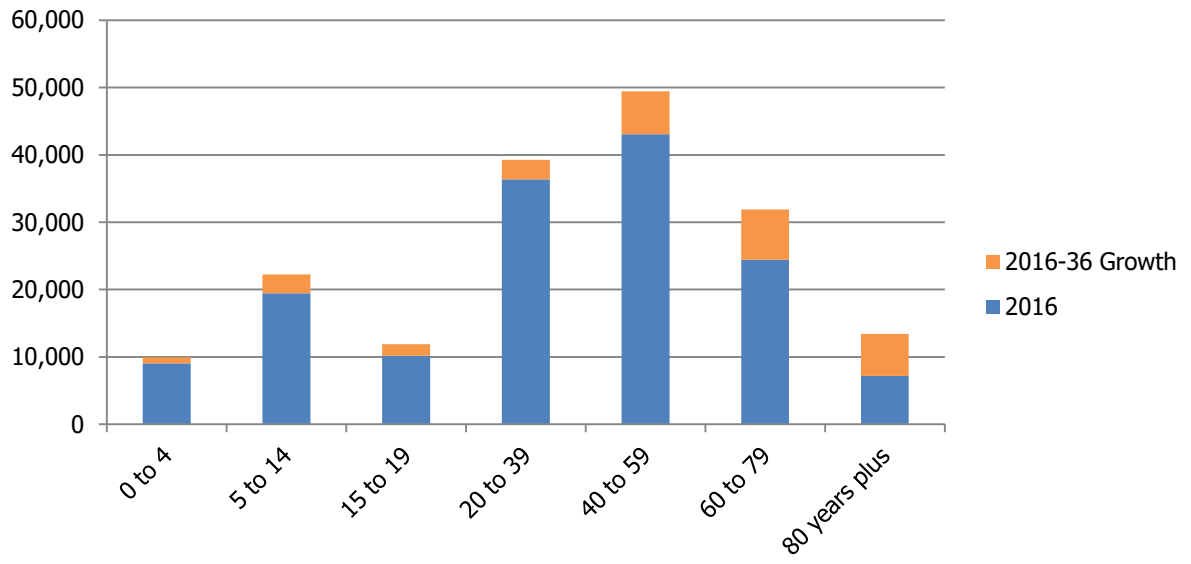
The age distribution for the proposed catchment (using ABS census data, 2011) is summarised at Table 5.

Table 5: Population age distribution for the Berowra Pool catchment

Service Age Group (years)	Berowra (%)	Berowra Heights (%)	Mt Kuring-gai/ Mt Colah (%)
Babies and pre-schoolers (0 to 4)	7.8	7.2	7.2
Primary schoolers (5 to 11)	12.1	11.5	9.3
Secondary schoolers (12 to 17)	8.4	8.5	8.9
Tertiary education and independence (18 to 24)	8.5	6.8	9.8
Young workforce (25 to 34)	8.4	9.2	10.1
Parents and homebuilders (35 to 49)	24.2	24.9	23.2
Older workers and pre-retirees (50 to 59)	14.6	14.1	15.6
Empty nesters and retirees (60 to 69)	9.8	11.4	8.3
Seniors (70 to 84)	5.4	5.5	6.1
Elderly aged (85 and over)	0.6	0.9	1.5

Figure 2 illustrates the age distribution for the Hornsby LGA, and projected growth (within discrete age groupings) to 2036. The highest rates of population growth (both in absolute and % terms) are projected in the 60+ age categories.

Figure 2: Hornsby Shire Council Population (2016 - 2036)



A comparison of the current population profile with previous reports confirms that the population profile has changed very little since the 2006 Feasibility Study, with the population age distribution in 2011 being very similar to the data presented in the 2006 study (based on 2001 census data).

The 2006 Feasibility Study also included a comprehensive review of other catchment characteristics, and concluded that the catchment population included:

- a much higher than average child and youth market with 29% of the catchment population under the age of 18 years
- a significant school market, with nearly 2,000 students attending primary schools in the catchment
- a relatively high 'couples with children' family market
- a relatively low proportion of 'older" people, 60 years and over
- well above-average rates of vehicle ownership
- above average household incomes
- much lower than average levels of ethnic diversity.

The above conclusions suggest:

- relatively strong demand for LTS programs (child and youth market)
- relatively high growth in the proportion of 'older' people, 60 years and over
- that affordability is not a barrier to attendance
- a mobile population who will rely heavily on private vehicles to attend a pool.

6.3 BDCA VISITATION PROJECTIONS

The BDCA Study (page 30) includes an estimated visitation of 240,000 per annum for a new Berowra Pool. To provide some perspective, the BDCA visitation estimate for the proposed Berowra Pool is equal to approximately two-thirds of the annual visitation for the HALC, and is approximately four times the annual visitation for the GALC.

The 2006 Feasibility Study assumed the same catchment population (20,000) and used CERM catchment multiples to estimate a projected annual visitation range between 118,000 per annum (low end) and 146,000 per annum (high end).

A review of the BDCA Study estimation methodology (page 29 and 30) indicates an apparent inconsistency in the calculation. On page 29 of the BDCA Study, it states "Information from [the] above reports suggest that average adult swimming may be 10% [of the population] and 16% for children ....". The visitation calculations on page 30 of the BDCA Study apply the 10% participation rate for adults, but apply a much higher 50% participation rate for children.

It is possible that the 50% participation rate for children may have been drawn from Reference R (Roy Morgan Research, 2015). A review of the Roy Morgan report confirms their survey findings that "Just under half of kids 6-13 regularly go swimming (48.8%)..". However, the use of this participation rate for children is inappropriate because:

- the survey does not stipulate a specific swimming venue, and therefore considers all potential venues for regular swimming, which would include swimming in public aquatic centres, swimming in private pools (including backyard pools), swimming at beaches, and other locations
- the survey did not include children under 6 years of age
- the survey appears to classify children 14 years and over as adults, with the resultant swimming participation rate for respondents 14 years and over being only 10%.

If the BDCA Study had adopted its own recommended 16% participation rate for children, the calculations on page 30 of the BDCA Study would have yielded the following visitation estimates:

- 1,380 regular swimmers (900 adults and 480 children)
- 2,760 visits per week (assuming an average of two visits per swimmer)
- 144,000 visits per annum.

This adjusted estimate aligns with upper limit estimates from the 2006 Feasibility Study (146,000 visits per annum), but is double the 2015/16 GALC full year attendance.

6.4 BENCHMARK VISITATION PROJECTIONS

CERM Benchmark Rates

The preferred methodology for calculating visitation rates for aquatic and leisure centres involves the application of operational management benchmarks published by the Centre for Environmental and Recreation Management (CERM).

CERM operational benchmarks are derived from the results of annual surveys of aquatic centres around the nation. The 2014 CERM report is based on responses from 93 aquatic centres, and (due to slight changes in respondees from year to year) the 2013/14 data is combined with data from the previous two financial years to derive the resultant 2012-14 benchmarks. The participating aquatic centres for 2014 are identified at the back of the report, with the vast majority appearing to offer a similar (or greater) range of functions relative to the proposed Berowra pool.

CERM benchmarks are used by Local Governments around Australia for planning new and expanded aquatic centres, and for benchmarking operating costs and revenues for existing aquatic centres. The CERM report differentiates benchmarks for indoor, outdoor, and mixed (indoor/outdoor) aquatic centres. It also differentiates operational benchmarks for small, medium and large aquatic centres.

The Berowra Pool is proposed to be a fully indoor aquatic centre, and is therefore classified within the CERM report as a Group 7 (indoor) aquatic centre, with operational benchmarks derived from a total of 129 surveys of indoor centres over the period 2012-14.

Annual visitation estimates for Berowra pool can be derived from CERM benchmark data using two different operational benchmarks – catchment multiples, and visits per m^2.

Visitation Estimates based on Catchment Multiples

The CERM "catchment multiple" is a measure of the estimated number of visits per annum, divided by the estimated population within a 5km catchment radius of the aquatic centre.

As noted above, the 2006 Feasibility Study assumed a catchment population of 20,000 and used two CERM catchment multiples (5.9 and 7.3) to estimate a projected annual visitation range between 118,000 per annum (low end) and 146,000 per annum (high end).

The average CERM catchment multiples for a Group 7 indoor pool have increased since 2006, with a current 2014 median catchment multiple of 8.9. Note that this catchment multiple is significantly higher than for an equivalent outdoor pool (or an indoor/outdoor pool) in recognition that a protected indoor environment should contribute to higher levels of year-round visitation.

Assuming a catchment population of 20,000, the 2014 CERM catchment multiple indicates potential for 178,000 visitors per annum for the proposed Berowra Pool.

Visitation Estimates based on Area

The CERM report includes a visitation benchmark based on the total area of the centre. The benchmark is based on the concept that a larger centre will offer greater capacity and more features, and will therefore attract more visitors.

In 2006, Council commissioned the preparation of concept plans for the proposed Berowra Aquatic Centre. Although the resultant concept differs in location and configuration from the sketch layouts provided in the BDCA Study, the 2006 concept plans include space for two pools (a lap pool and separate LTS pool), a reception and kiosk/cafe, change rooms, and a gymnasium/dry exercise area built within the undercroft of the existing Community Centre.

The total internal area dedicated to the new Berowra Pool (including areas for the gymnasium and other support functions) can be measured from the plans. After some adjustment (the concept plans allowed for a wider 25 metre lap pool than contemplated by the BDCA Study) the total internal area required for the new Berowra Pool is estimated at approximately 1,900m^2.

Applying the CERM benchmark (for a Group 7 centre of 96 visits per m^2) results in an annual visitation estimate of 182,400.

Summary

Table 6 provides a summary of the above visitation estimates, and proposes to use a visitation estimate of 180,000 per annum as a basis for further calculations within this report.

Table 6: Summary of Visitation Estimates

Method	Visitation (estimated visits per annum)
BDCA Study (2015)	240,000
BDCA Study (2015) - adjusted	144,000
Feasibility Study (2006)	118,000 – 146,000
Estimate using 2014 CERM Catchment Multiple for all Group 7 pools	178,000

Method	Visitation (estimated visits per annum)
Estimate using 2014 CERM visits per m^2 for all Group 7 pools	182,400
Visitation estimate for use in this report	**180,000**

6.5 SENSITIVITIES

The visitation estimate (above) is subject to a number of uncertainties which may negatively impact annual visitation to Berowra, including:

- uncertainties regarding customer behaviour, where customers may prefer to attend the HALC because:
  - they also travel to Hornsby to access other services
  - the HALC offers a 50m lap pool
  - the HALC offers a leisure pool that is more attractive for young children
- lack of an appropriate parking solution at Berowra, with the potential for parking capacity at Berowra to be more problematic than for the HALC
- lack of interest in using the gymnasium due to the existence of other larger and established gyms in the area
- climate – residents will be more tolerant of indoor/outdoor centres such as HALC and GALC when the weather remains favourable.

In contrast, the collocation of the pool with the Berowra Community Centre, together with its close proximity to the Berowra retail centre and railway station should impact positively on visitation.

6.6 CONCLUSIONS REGARDING DEMAND PROJECTIONS

Assumptions regarding the population catchment for a proposed Berowra Pool have evolved since previous studies in 2006. This is not a reflection of population growth in the Berowra corridor, but reflects the fact that the HALC now offers broader range of facilities. In particular, the HALC provides a range of heated swimming facilities that will be more attractive to residents in the north of the Hornsby catchment, and there will be relatively less opportunity for a new Berowra Pool to differentiate itself as a preferred venue.

Taking the above factors into account, this report (and previous studies) has applied benchmark data to estimate annual visitation projections. The analysis concludes that there will be sufficient visitation to support the operation of a new Berowra Pool, with projected visitation substantially higher than achieved at the GALC, but at levels significantly lower than suggested by the BDCA Study.

A number of uncertainties are identified in Section 6.5 that may have a significant impact on utilisation of a new Berowra Pool. In particular, user surveys have indicated that ease of access and travel times are significant factors in decision making. Therefore, in the absence of other significant differentiating factors, the lack of adequate parking capacity at the HALC or at Berowra Pool will be a significant factor in determining user preferences for one venue over the other.

7 AFFORDABILITY

7.1 REVENUE PROJECTIONS

Usage and revenue projections for the Berowra Pool were developed with consideration of:

- current levels of activity being achieved at GALC (in particular for LTS, school swimming, squad activities, and casual attendance)
- membership attendance estimates as a proportion of Hornsby
- previous visitation estimates developed for the 2006 Feasibility Study (for example gym).

The review of projected visitation at the Berowra Pool yielded an upper limit attendance estimate of approximately 130,000 visits per annum. The upper limit was based on consultation with Council's Aquatic Centre Manager, considering the practical limitations of increasing LTS, squad and casual swimming activity at the proposed Berowra Pool, relative to the GALC.

The upper limit estimate was similar to the attendance estimates developed for Berowra Pool in the 2006 Feasibility Study, and is twice the annual visitation currently achieved for the Galston Aquatic Centre, but is also significantly lower than the 180,000 per annum visitation estimate calculated for Berowra Pool in Section 6.4 of this report. Therefore, this report considers two visitation scenarios:

- Scenario 1, assuming 130,000 visitations per annum, and
- Scenario 2, with 180,000 annual visitations (aligned with the earlier demand projections) which was developed by:
  - increasing LTS to 20% of total visitation (an increase of 15,000 visits per annum relative to Scenario 1, and equal to 150% of GALC's current LTS activity)
  - increasing the assumed frequency of visitation for members and squads
  - increasing the number of casual swimmers to 10% of total visitation
  - doubling assumed gym attendance rates.

For comparison, the Scenario 2 visitation estimate is equal to approximately half the annual visitation for the HALC, and is approximately three times the annual visitation for the GALC.

Revenue estimates for both scenarios were developed using Council's current schedule of fees, with calculation details provided at Attachment B, and outcomes summarised in Table 7.

Table 7: Revenue Estimates for Scenario 1 and 2

Scenario	Annual Visitation	Estimated Annual Revenue
Scenario 1	130,000	$1.39 million
Scenario 2	180,000	$1.95 million

Average Revenue per Visit

In addition to the above revenue estimates, benchmark indicators considering average revenue per visit provide a useful comparison of the estimated financial performance of each pool, and are summarised in Table 8.

Table 8: Average Revenues per Visit

Facility/Scenario	Annual Visitation	Annual Revenue	Revenue per Visit
HALC (2016/17 full year estimates)[5]	354,000	$4.03 million	$11.38
GALC (2016/17 full year estimates)[5]	61,000	$0.80 million	$13.05
Berowra Pool Scenario 1 (estimates)	130,000	$1.39 million	$10.69
Berowra Pool Scenario 2 (estimates)	180,000	$1.95 million	$10.83

All of the above indicators are significantly higher than the average receipts per visit identified in the 2014 CERM report for indoor pools, which were generally in the range of $7 to $8 per visit. The higher rates of return noted above likely reflect the higher than average levels of disposable income within the catchment, and higher attendance fees, relative to the other surveyed locations around Australia.

The higher revenue per visit for GALC (and to a lesser extent for HALC) is likely due to the significantly higher levels of LTS activity (with LTS generating the highest levels of revenue per visit) as a proportion of overall activity.

The BDCA Study included visitation projections of 240,000 per annum. This level of utilisation would be very difficult to achieve for a relatively small centre however (should this utilisation target be achieved) approximate revenues could be estimated as 240,000 x $11/visit = $2.64 million per annum.

Sensitivities

The above revenue estimates are sensitive to a number of uncertainties, including:

- uncertainties regarding Berowra Pool visitation (refer Section 6.5)
- the risk that Scenario 2 visitation and revenues will not be achievable due to the practical limitations of high levels of activity within a relatively small facility – leading to a perception of overcrowding
- the proportion of visitors paying full casual rates – the model assumes that 100% of visitation for gym, fitness and aquarobics classes will be purchased at full casual rates, however regular visitors may choose to purchase services in blocks of 10 visits, which would reduce revenue per visit for these services by 50% (from $18/visit to $9/visit)
- anticipated significant increases for power and gas utility charges from 1 July 2017.

7.2 EXPENDITURE PROJECTIONS

The 2006 Feasibility Study for the proposed Berowra Pool included a detailed "bottom up" estimate of annual operating expenses – taking into account salaries and wages costs, administration overheads, facility costs, and the cost of contracted services.

For two of the scenarios considered in this report, namely Scenario 2 (180,000 visits per annum) and the BDCA Study Scenario (240,000 visits per annum), annual operating expenses are difficult to estimate because the high levels of assumed activity are not considered to be operationally practical or achievable.

[5] 2016/17 full year estimates of visitation and revenues for HALC and GALC are based on actual year to date visitation and revenue data to April 2017, which has been escalated by a factor that reflects full year visitation patterns for 2015/16.

As an alternative approach, full year financial data for HALC and GALC have been reviewed to determine real life expense recovery ratios[6] for these centres. These ratios have then been compared with benchmark expense recovery ratios published in the 2014 CERM Report, to determine an appropriate expense recovery ratio to be applied for the proposed Berowra Pool. Results of this analysis are provided in Table 9.

Table 9: Expense Recovery Ratios

Facility/Scenario	Annual Revenue ($ million)	Annual Expenses ($ million)	Expense Recovery % (revenue/ expenses)
HALC (2016/17 full year estimates)[5]	$4.03	$3.56	113%
GALC (2016/17 full year estimates)[5]	$0.80	$0.87	92%
2014 CERM benchmarks: - average for large indoor/outdoor centres (similar to HALC) - average for all indoor/outdoor centres - small indoor centres (similar to proposed Berowra Pool)			 102% 84% 89%

A review of the expense recovery ratios for HALC and GALC indicates that they are relatively strong financial performers, with estimated financial performances for the 2016/17 financial year (113% and 92% expense recovery ratios, respectively) exceeding the average CERM performance data for indoor/outdoor aquatic centres (102% and 84%, respectively). For comparison, the CERM average expense recovery ratio for indoor centres similar to Berowra is 89%.

Further, a review of 2014 CERM benchmark data indicates that:

- indoor centres (of varying sizes and visitation) will typically achieve superior expense recovery ratios, relative to similarly-sized indoor/outdoor centres
- expense recovery ratios exceeding 100% (i.e. where operating revenue exceeds expenses) are only recorded for very large established aquatic centres (such as the HALC) with areas exceeding 6,000m^2 (more than three times the size proposed for Berowra).

Based on the information above, and assuming professional management of the centre, it appears reasonable to assume that (in the medium term) the expense recovery ratio for a new Berowra Pool:

- will exceed the 89% CERM benchmark for small indoor centres, but
- may not exceed the 92% outcome achieved by the GALC.

On this basis, an expense recovery ratio of 92% is recommended for Berowra Pool to derive estimates of annual operating expenses over the medium/long term.

7.3 ESTIMATED OPERATIONAL SUBSIDIES

Estimates of annual Council subsidies necessary to support the operation of a new Berowra Pool are summarised in Table 10.

[6] The expense recovery ratio represents the proportion of operational expenses that are covered by operational revenues, expressed as a percentage. The expense recovery ratio is calculated by dividing total annual operating revenue by total annual operating expenses.

Table 10: Estimated Council Subsidies

Berowra Pool Scenario	Annual Visitation	Estimated Annual Revenue (A) ($ millions)	Assumed Expense Recovery Ratio	Estimated Annual Expenses (B) ($ millions)	Estimated Annual Subsidy (=B-A) ($)
Berowra Pool Scenario 1	130,000	$1.39	92%	$1.51	$120,000
Berowra Pool Scenario 2	180,000	$1.95	92%	$2.12	$170,000
BDCA Study	240,000	$2.64	92%	$2.87	$230,000

For comparison, the 2006 Feasibility Study anticipated that the Berowra Pool proposal (with assumed visitation of 146,000 per annum) would require an operational subsidy of approximately $190,000 in the first year of operation, reducing to approximately $75,000 by year three.

Sensitivity Testing

A number of uncertainties have been identified in the preceding sections with the potential to impact annual visitation and revenues. Council should also expect that relatively lower levels of visitation, and lower operational efficiencies, will have a negative impact on revenue generation during the initial years of operation, with improved outcomes achieved over time.

It is suggested that sensitivities be expressed as variations in the expense recovery ratio, with:

- a low-end (pessimistic) ratio of 86%, reflecting the ratio derived by the 2006 Feasibility Study, representing low revenues during the first year of operation
- a high-end (optimistic) ratio of 98%, reflecting the potential to increase the proportion of high-revenue earning services over time to achieve a expense recovery ratio superior to the GALC.

Table 11: Berowra Pool Sensitivity Analysis

Berowra Pool Scenario	Estimated Annual Subsidy ($)	Annual Subsidy Pessimistic Scenario (86%)	Annual Subsidy Optimistic Scenario (98%)
Berowra Pool Scenario 1	$120,000	$230,000	$30,000
Berowra Pool Scenario 2	$170,000	$320,000	$40,000
BDCA Study	$230,000	$430,000	$55,000

7.4 AFFORDABILITY CONCLUSIONS

The BDCA Study claimed that the HALC is operating at a profit and that the GALC is expected to operate at a profit once the new LTS pool is operating efficiently. The BDCA Study also proposed that a new Berowra Pool may return a net operating profit of approximately $100,000 per annum.

Based on 2016/17 visitation and financial data, the HALC is performing at an expense recovery ratio >100%, but the GALC has not yet achieved break-even performance and 2016/17 attendance data indicates that GALC visitation (and revenue) for 2016/17 may prove to be lower than levels achieved in 2015/16.

A number of uncertainties influence revenue and expenditure estimates (and resultant Council subsidy requirements) for a new Berowra Pool. Calculations indicate a reasonable prospect for Council subsidies in a range between $230,000 and $320,000 per annum during the first years of operation. In the longer term, Council has demonstrated the ability to achieve expense recovery rates for the HALC and GALC that significantly exceed the relevant CERM benchmark rates. Although full cost

recovery has yet to be achieved for the GALC, the annual subsidy (based on 2016/17 data) appears to have been constrained below $100,000 per annum. The proposed Berowra Pool facilities will be similar in size to the GALC, but will be an indoor pool. CERM data confirms that indoor pools can achieve improved cost recovery relative to an equivalent indoor/outdoor pool.

Therefore, all else being equal, it would be reasonable to expect that in the medium term the subsidies required for the proposed Berowra Pool would not exceed those required for the GALC, and may be further reduced to levels identified for the optimistic scenario (refer Table 11).

Given the uncertainties identified above, it would be premature to suggest that Berowra Pool could achieve operational break-even, even in the longer term.

Redirected inflows to a new Berowra Pool will have an impact on HALC attendance, with potential for a reduction in HALC attendance in the order of 15%. Reductions in HALC attendance will have a positive impact for the remaining HALC users, including:

- increased ability to meet unmet demand for LTS programs
- reduced overcrowding
- increased car parking availability
- potential to defer proposed expansion or improvements to the HALC that might be required to improve capacity.

However, unless redirected demand is compensated by new demand sourced from elsewhere within HALC catchment, reductions in HALC attendance will also have a negative impact on operational efficiencies, and may reduce annual HALC revenues by up to $600,000 per annum.

7.5 CAPITAL COSTS

Berowra Pool Concept Designs

2006 Concept Designs

The Concept Sketch Plans prepared for Council by Glendenning Group Architects in December 2006 provide the only sound basis to estimate the required size of the pool facilities, support functions and surrounding space, and with sufficient detail of the proposed interface with the Berowra Community Centre. Therefore, the 2006 Concept Sketch Plan has been used for estimating area-based demand projections on page 17 of this report, and a copy of the plan is provided for information at Attachment A.

The concepts located the new Berowra Pool to the north and east of the Berowra Community Centre and proposed a two stage development process – commencing with a LTS pool, gym and support facilities (Stage 1), and concluding with the addition of a 25 metre pool (Stage 2).

Records of capital cost estimates for Stage 1 and Stage 2 are not available, however page 26 of the BDCA Study indicates that Council staff and Councillors had suggested a capital cost in the order of $12 to $15 million. Page 27 of the BDCA Study also references minutes of a Council meeting (dated 13 August, 2008) where the cost of Stage 1 of the Berowra Pool was estimated at $2.9 million.

Building Code and Bushfire Hazard Assessment

The proposed location of the Berowra Pool was in close proximity to a known bushfire hazard. Subsequent correspondence prepared by Building Code and Bushfire Hazard Solutions (dated July 2007) provides advice regarding the setback and design specifications required for the new pool to remain in the proposed location and sufficient to achieve a relaxation of Asset Protection Zone requirements for bushfire protection for a non-residential structure.

The proposed design requirements (including setback of the structure, higher specification structural elements, fire resistant materials, and shutters to protect glazed areas) would add additional cost to the construction, however a detailed estimate of the incremental cost had not been prepared.

The BDCA Proposal

The BDCA Study proposes a slightly different location for the new pool, relative to the 2006 Concept Sketch Plans. Page 26 of the BDCA Study notes that "the pool will be positioned at the Southern end instead of the initial position at the Northern end of the community centre to abide by Fire Zone requirements and to keep it away from the War Memorial."

The BDCA Study identifies opportunities for minimising the capital cost of a new Berowra Pool by:

- constructing the pool on the Berowra Community Centre site, taking advantage of Council's land ownership and opportunities to leverage existing facilities (including use of the Community Centre undercroft)
- locating the new pool at the southern end of the site (refer site sketch at page 28 of the BDCA Study) to comply with setback requirements for a bushfire asset protection zone – eliminating the cost of additional design requirements that had been identified in the Building Code and Bushfire Hazard Assessment (above), and eliminating impacts on the war memorial
- using an alternative, above-ground pool design (refer page 28 of the BDCA Study).

By adopting the above initiatives, the BDCA Study proposes that a new aquatic centre can be delivered with a capital cost in the range of $4.8 million to $5.8 million.

Review of BDCA Cost Estimates

Page 27 of the BDCA Study includes details of two different methods for estimating capital costs, with resultant capital cost estimates of $4.8 million and $5.8 million.

The estimates appear to include an elemental breakdown, allowances for preliminaries, project management and contingency. However, there are a large number of items that have not been adequately accounted for that will have a significant impact on the total cost. Significant errors or omissions include:

- functional area allowances that reflect the 2006 Concept Design
- consultant costs for site investigations, feasibility, design and approvals processes
- building interface costs and engineering services costs
- furniture, fittings and equipment (including gymnasium, kitchen, amenities fitout, etc.)
- cost of external areas, including landscaping and new and replacement car parking capacity
- escalation costs (assuming earliest commencement by 2019/20).

These omissions suggest that, even if the proposed cost saving measures are adopted, the total capital cost will significantly exceed the estimates provided in the BDCA Study.

Capital Cost Issues and Risks

A detailed capital cost estimate has not been commissioned subsequent to the receipt of the BDCA Study, but would not add value to Council's decision making process until a number of outstanding issues are resolved. The following headings provide an outline and discussion of selected issues and risks having significant capital cost implications for the construction of a new Berowra Pool, and requiring further investigation, or direction as input to the decision making process.

Car Parking

The survey findings referenced earlier in this report reinforced the importance of access and travel time as major factors when deciding to attend an aquatic centre. This issue will be as relevant at Berowra as it is at Hornsby.

Discussions with Council have confirmed that the existing at-grade car park adjacent to the Berowra Community Centre is subject to very high levels of use during certain periods. Car park users include commuters (parking and walking to Berowra train station), users of sports facilities, and users of the Community Centre.

A traffic and parking study has not been conducted to identify the required car parking capacity, or suggested parking controls. Using car parking demand at the HALC as a simplistic benchmark (with HALC visitation approximately double that projected for Berowra), the required car parking capacity for a new Berowra Pool may be in the order of 50 to 80 additional spaces.

Unless Council delivers additional parking capacity and introduces new parking controls that eliminate car park use by commuters, there will be inadequate parking capacity at the site to accommodate the projected levels of visitation. This accessibility constraint will deter users who rely on vehicular transport, or will encourage them to travel to the HALC.

Exacerbating this challenge is the fact that both development concepts (i.e. the BDCA Study, and the 2006 concepts) necessitate the permanent loss of some of the existing car parking capacity.

Therefore, the feasibility of a new Berowra Pool on this site will be influenced by Council's appetite to introduce additional parking controls, an investigation to determine the required aggregate parking capacity for the site, and the capital cost of delivering that capacity.

Car Parking/Bushfire Protection Tradeoff

As noted above, the BDCA Study proposes a slightly different location for the Berowra Pool, with the aim of reducing or eliminating additional design costs in response to the identified bushifire hazard at the north of the site. While this initiative may be effective in minimising the capital cost of the pool and associated protective measures, it is important to note that the alternative location results in the permanent loss of a larger number of existing at-grade parking spaces. Replacement of this lost parking capacity will place an additional cost burden on the project. An analysis and comparison of costs for both options would be required to confirm which option provides the overall best value for money.

Community Expectations for Quality Assets

The BDCA Study proposes alternative construction methods with the aim of minimising capital cost, and improving affordability for Council. Examples of initiatives mentioned in the BDCA Study include precast tilt-up methods of construction, lower specification amenities, and construction of an above ground pool similar to the example provided for the Central Coast private LTS pool (refer page 28 of the BDCA Study).

The BDCA Study identifies potentially worthwhile alternatives that could have a material impact on capital costs. However, it is unclear whether the resultant facilities would meet broader community expectations for quality and functionality, and hence may impact the demand for the facility. A failure to meet community expectations may introduce significant reputation risk for Council, or may result in users developing a preference for the HALC, with negative implications for ongoing attendance.

As a specific example, discussions with Council have identified other examples of large above-ground pools (using a liner and steel support structure) where the structure has corroded, resulting in the need for premature asset replacement. Therefore, an assessment of value for money must include consideration of community expectations and total lifecycle costs.

Site-Specific Risks

Significant uncertainty exists regarding the feasibility and costs associated with interfaces between the new pool and the Berowra Community Centre. Examples include the cost of excavating the Community Centre undercroft area, and costs associated with the various structural and services interfaces.

Capital cost estimates will also be subject to a range of other site-specific risks, including geotechnical conditions, location and capacity of services infrastructure (power, water, stormwater, gas), and the presence of hazardous substances. These items have yet to be investigated.

Funding Availability and Staging

The 2006 Concept Sketch Plans conceived of the Berowra Pool being delivered in two stages. Decisions to stage the development (potentially in response to affordability concerns) will also have a significant impact on the total capital cost – including impacts on the design, and cost escalation.

Capital Cost Conclusions

In conclusion, the BDCA Study includes a number of suggestions that may assist in achieving improved value for money, subject to meeting community expectations.

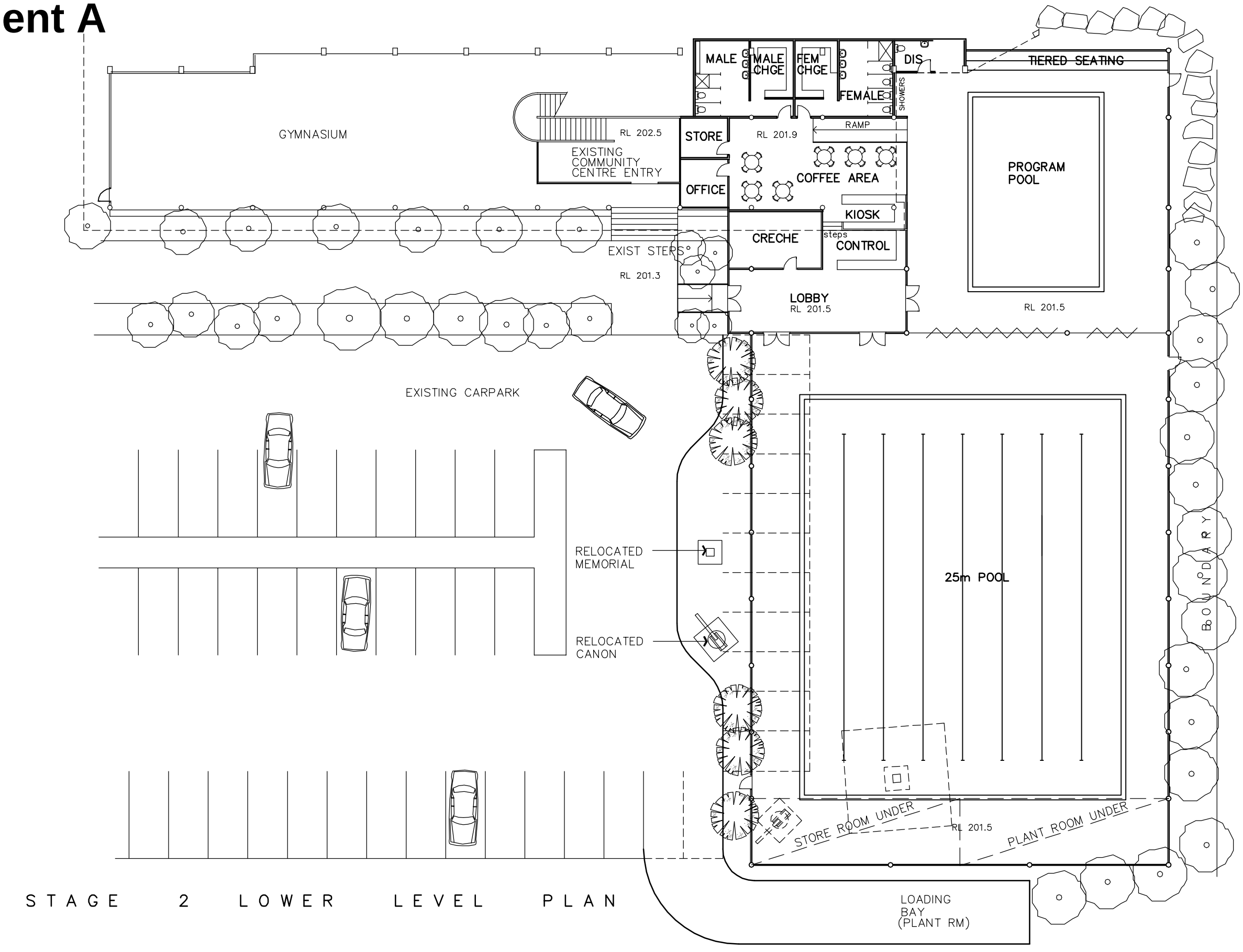
A review of BDCA capital cost estimates has identified a number of errors or omissions, suggesting that the actual implementation cost will significantly exceed the estimates provided in the BDCA Study.

Finally, a review of site-specific planning and construction issues has identified a number of issues and risks that require further investigation and have the potential to significantly increase capital costs.

8 ATTACHMENTS

Attachments	Title
Attachment A	Concept Sketch Plans prepared for Council by Glendenning Group Architects (December 2006) – Stage 1 and 2
Attachment B	Berowra Pool – Annual Revenue Estimates

Attachment A



STAGE 2 LOWER LEVEL PLAN

STAGE 2 – 25m POOL
SKETCH PLAN OF THE PROPOSED AQUATIC CENTRE AT BEROWRA
FOR HORNSBY SHIRE COUNCIL

0 1 2 3 4 5 10
scale : metres

GLENDENNING GROUP ARCHITECTS PTY. LTD. SCALE 1:250 DECEMBER 2006
2/605 PACIFIC HWY, MT. COLAH. 2079. PH.(02) 9482 7033 FAX.(02) 9482 7201.

ISSUE A – FOR DISCUSSION – 13/12/06

N

1013 \ SK02(A)

Attachment B - Berowra Aquatic Centre Annual Revenue Estimates

Operating Forecasts (June 2017)

Revenue

	Scenario 1 ("realistic" total visitation projection)					Scenario 2 (Total annual visitation of 180,000)				
		Unit Sales	Fee	Income	Comments/Assumptions		Unit Sales	Fee	Income	Comments/Assumptions
Health and Fitness										
Memberships	23%	30240	$ 20.00	$ 218,400	700 members at Hornsby. Berowra = 30% of Hornsby attendance. Assume Berowra members = 0.3 * 700 = 210 @ $20/week	24%	43200	$ 20.00	$ 312,000	700 members at Hornsby. Assume 300 @ $20/week
Fitness Assessments										
Casual Gym	9%	5000	$ 18.00	$ 90,000	Average 100 casuals per week - as per 2006 Feasibility	9%	10000	$ 18.00	$ 180,000	Average 200 casuals per week
Casual aerobics/pump/circuit		2500	$ 18.00	$ 45,000	As per 2006 Feasibility		2500	$ 18.00	$ 45,000	As per 2006 Feasibility
Gentle exercise classes		2500	$ 18.00	$ 45,000			2500	$ 18.00	$ 45,000	
Fit kids/kindygym/etc		1440	$ 16.00	$ 23,040			1440	$ 16.00	$ 23,040	
Sub-Total				**$ 421,440**					**$ 605,040**	
Aquatics										
General Admissions										
Adults	11%	5000	$ 7.50	$ 37,500	SH estimate - 5,000/annum	10%	7000	$ 7.50	$ 52,500	Total General Admisssions = 10% of total
Children		5000	$ 5.50	$ 27,500	SH estimate - 5,000/annum		7000	$ 5.50	$ 38,500	Total General Admisssions = 10% of total
Pensioner		3000	$ 5.00	$ 15,000	SH estimate - 3,000/annum		3000	$ 5.00	$ 15,000	Total General Admisssions = 10% of total
Spectator		800	$ 3.00	$ 2,400	Based on Galston spectator attendances of approx 800/annum		1000	$ 3.00	$ 3,000	Total General Admisssions = 10% of total
Learn to Swim	16%					21%				
School Terms										
Tiny tots		1500	$ 12.00	$ 18,000	SH realistic estimate (total = 16,000 for school terms)		3000	$ 12.00	$ 36,000	Assume total LTS = 20% of total admissions = 36,000
Pre-school and school aged		14500	$ 18.00	$ 261,000	SH realistic estimate (total = 16,000 for school terms)		29000	$ 18.00	$ 522,000	Assume total LTS = 20% of total admissions = 36,000
School Holidays										
Pre-school and school aged		4500	$ 18.00	$ 81,000	SH estimate = 100 students x 45 days total per annum.		4500	$ 18.00	$ 81,000	SH estimate = 100 students x 45 days total per annum.
Private LTS		800	$ 55.00	$ 44,000	SH estimate = 20 one-on-one lessons per week x 10 weeks x 4 terms = 800		800	$ 55.00	$ 44,000	SH estimate = 20 one-on-one lessons per week x 10 weeks x 4 terms = 800
Squad					$ 8.78					
Squad Program (Shark / Junior)	34%	5760	$ 115.00	$ 50,600	SH estimate = Average of 140 squad members. Assume 40@ 2 or 3 times per week (juniors) and 100@ 6-11 times per week (seniors) - for 11 months of the year.	30%	5760	$ 115.00	$ 50,600	SH estimate = Average of 140 squad members. Assume 40@ 2 or 3 times per week (juniors) and 100@ 6-11 times per week (seniors) - for 11 months of the year.
Squad Program (Seniors)		38400	$ 155.00	$ 170,500	as above (average of 8 visits per week for seniors)		48000	$ 155.00	$ 170,500	as above (average of 10 visits per week for seniors)
Aqua Fitness										
Aquarobics	4%	4800	$ 18.00	$ 86,400	SH estimate of 10 classes per week for 48 weeks with 10 per class paying casual rates	3%	5760	$ 18.00	$ 103,680	Assuming 10 classes per week for 48 weeks with 12 per class paying casual rates
School Programs										
Intensive LTS	4%	4000	$ 10.00	$ 40,000	5 schools/term x 1 term x average 80 students x 10 visits x $100/student	3%	4000	$ 10.00	$ 40,000	5 schools/term x 1 term x average 80 students x 10 visits x $100/student
School sport		1200	$ 5.50	$ 6,600	5 schools x 1 term x 8 weeks x average 30 students x $5.50/student		1600	$ 5.50	$ 8,800	5 schools x 1 term x 8 weeks x average 40 students x $5.50/student
Totals		**130,940**		$ 1,261,940			**180,060**		$ 1,770,620	
Other Services										
Kiosk				$ 129,693	Relative to Galston, which had sales of $52k for first 9 months of 2016/17 - then proportionally increased by relative attendance (Galston = 70,000 per annum)				$ 178,345	Relative to Galston, which had sales of $52k for first 9 months of 2016/17 - then proportionally increased by relative attendance (Galston = 70,000 per annum)
Other										
Sub-Total				$ 129,693					$ 178,345	
Total				**$ 1,391,633**					**$ 1,948,965**	
				$ 10.63	Average revenue per visit				**$ 10.82**	Average revenue per visit