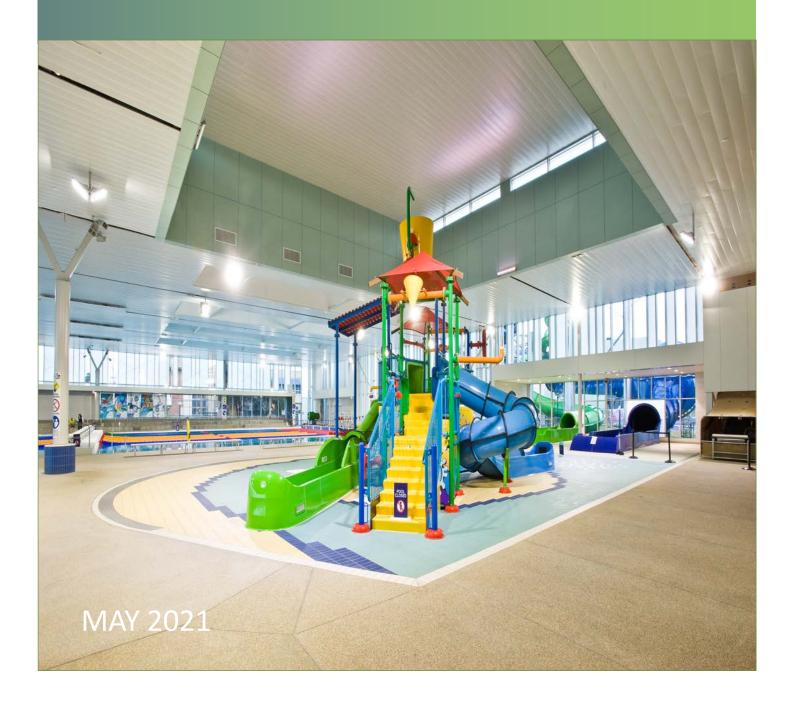
PHILLIP ISLAND AQUATIC LEISURE CENTRE FEASIBILITY STUDY

FINAL DRAFT REPORT







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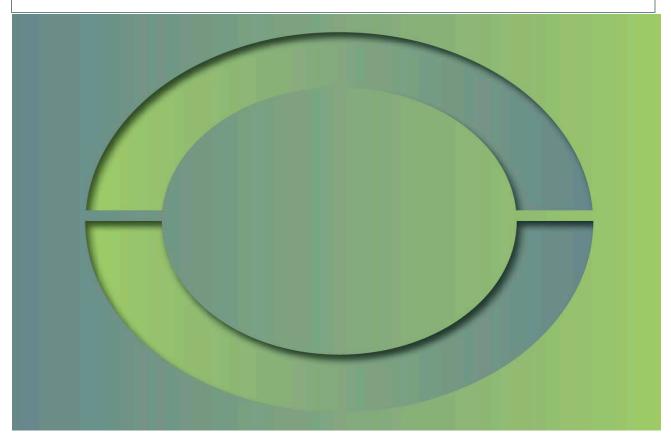
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Document History				
Document Version	Date	Checked	Distribution	Recipient
1.0 PIALC Scope & Component Review	28/08/20	M King	Bass Coast Shire Council	D Prendergast
2.0 PIALC Scope & Component Review	23/09/20	M King	Bass Coast Shire Council	D Prendergast
Update Report				
3.0 PIALC First Draft Report	07/01/21	M King	Bass Coast Shire Council	D Prendergast
4.0 PIALC First Draft Update Report	18/01/21	M King	Bass Coast Shire Council	D Prendergast
5.0 PIALC Final Draft Report	04/05/21	M King	Bass Coast Shire Council	D Prendergast

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Otium Planning Group acknowledges the Australian Aboriginal, Torres Strait and South Sea Islander peoples of this nation. We acknowledge the traditional custodians of the lands on which our company is located and where we conduct our business. We pay our respects to ancestors and to Elders, past, present and emerging. Otium is committed to national reconciliation and respect for indigenous peoples' unique cultural and spiritual relationships to the land, waters and seas, and their rich contribution to society.



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1. Introduction

In 2015 Council adopted a 10 year Bass Coast Aquatics Strategy (completed by Otium Planning Group) that combined all of the previous studies and consultation on the various aquatic leisure facilities across the shire, into a single planned and sequential strategy.

The strategy made a number of integrated facility, program and service recommendations on the priority area/s for aquatic and leisure centre development in Bass Coast Shire over the next ten years. These included:

- Redevelop the Bass Coast Aquatic Leisure Centre as the Shires main aquatic leisure centre to service the LGA's largest population catchment.
- Construct a new district aquatic leisure centre at Phillip Island that has a range of facilities to meet local and district aquatic leisure user's needs but also has a range of facilities that cater for the island's tourist and visitor markets

Bass Coast Shire Council area has currently only one existing aquatic leisure facility, which is located in Wonthaggi.

The Bass Coast Aquatic and Leisure Centre (BCALC), Wonthaggi was opened in 1975 (45 years old) and incorporates the following approximate sized main areas:

- Indoor 25m x 14m (6 lane pool) = 350m2
- Indoor toddlers pool (5m x 4m) = 20m2
- Indoor sports court (34m x 22m) = 748m2
- Gym (was originally youth club/hall) 18m x 11m = 198m2
- Indoor Amenities 220m2
- Program Room 17m x 7m = 119m2
- Tennis Pavilion 15m x 5m = 75m2
- Meeting Room and Office
- Entry/Reception/Circulation/Storage

This BCALC is currently managed by the YMCA who has a management contract with Council until 30 June 2021. The Centre offers a range of services, which include Aquatic Education programs, lap swimming, casual swimming, swim club activities, aqua aerobics, school group bookings, group fitness, gymnasium, personal training, gymnastics, vacation care and stadium sports.

There are currently also three outdoor swimming pools within the Shire, but these are located at Primary Schools at Wonthaggi Primary School (no public use), Bass Valley Primary School (Corinella -no public use) and Cowes Primary School (limited public use during holiday periods).

There are three commercial learn to swim pools in the Shire being one at Inverloch (Invy Swimmers 5 Lindsay Close Inverloch) and two on Phillip Island Infinity Swim School (232 The Esplanade Surf Beach) and Cowes Concourse (4/24 the Concourse Cowes)

The Shire also has a Leisure Centre at Cowes that is also managed by the YMCA. It has dry activity facilities only including a health club, offices, group fitness room, crèche, single court stadium and sauna.

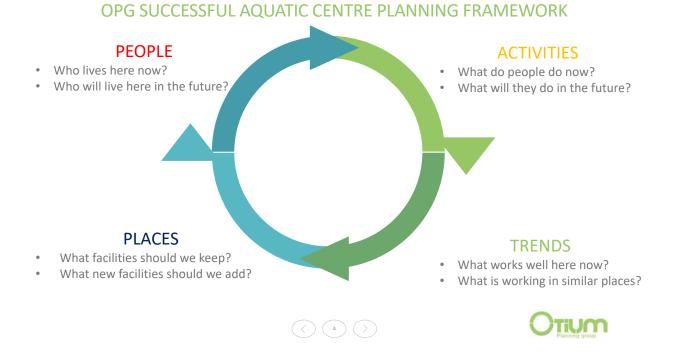
1.1 Report Scope

This report covers the final draft report to guide the development of the Phillip Island Aquatic and Leisure Centre. A separate report has been prepared for the proposed redevelopment of the Bass Coast Aquatic Leisure Centre at Wonthaggi.

A Phillip Island Indoor Stadium Feasibility Study is also underway to help determine the demand and timing for the indoor sports courts proposed in the future Phillip Island Aquatic Leisure Centre.

1.2 Otium Planning Group's Aquatic Leisure Centre Planning Model

In line with the project methodology offered by Otium Planning Group this review has been completed based on the following successful aquatic leisure facility planning framework as listed on the next page.



Project Area & PIALC User Catchment Review

2.1 Project Area Overview

Bass Coast Shires website describes the area and its people "as a vibrant community within easy commuting distance from Melbourne. Bass Coast has demonstrated consistent growth over the past decade. As the Gippsland region grows, so do the opportunities to invest, live and work in the Shire.

Bass Coast is changing from a rural community based on agriculture, fishing and tourism. It is now a dynamic, modern community with options for commuting, greater opportunities and evolving services and technologies - while still maintaining a rural community feeling.

Less than ninety minutes' drive from the Melbourne CBD, Bass Coast Shire encompasses a unique combination of coastline and rural hinterland. The area has been a popular holiday destination for a long time with over three million visitors annually travelling to the area and experiencing the coastal and rural lifestyle that is attracting more permanent residents annually.

With a population of over 31,010 people, Bass Coast Shire covers over 860sq km spanning rich farmland, stunning coastline, a large range of smaller townships and tranquil hinterland. In the main holiday seasons the population is estimated to increase substantially.

The main town centres of Cowes, Inverloch, Grantville, San Remo and Wonthaggi provide quality housing, shopping and services.

Bass Coast Shire Council's high-level vision is to "be recognised as a unique place of environmental significance where our quality of life and sense of community is balanced by sustainable and sensitive development, population and economic growth".

2.2 Project Area Population Overview

Bass Coast Shire is located in south-eastern Victoria, about 130 kilometres south-east of the Melbourne CBD. Bass Coast Shire is bounded by Western Port Bay in the north and west, Cardinia Shire in the north-east, South Gippsland Shire in the east, and Bass Strait in the south.

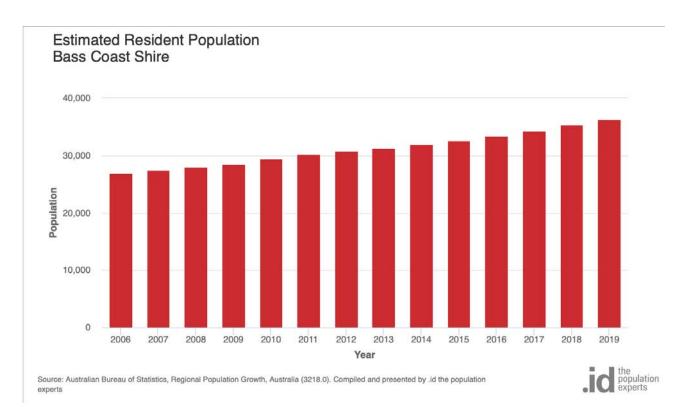
Council has commissioned **id** to develop information on current and future population. A review of the website https://profile.id.com.au/bass-coast/population highlights

The Census usual resident population of Bass Coast Shire in 2016 was 32,804, living in 25,817 dwellings with an average household size of 2.17.

The current resident population as at June 2019 was estimated at 36,320 residents.

The graph on the next page plots the Shire population over the past 14 years. The population trends indicate there was an estimated 26,491 people living in the LGA in 2006 and this had increased to 36,320 people by 2019.

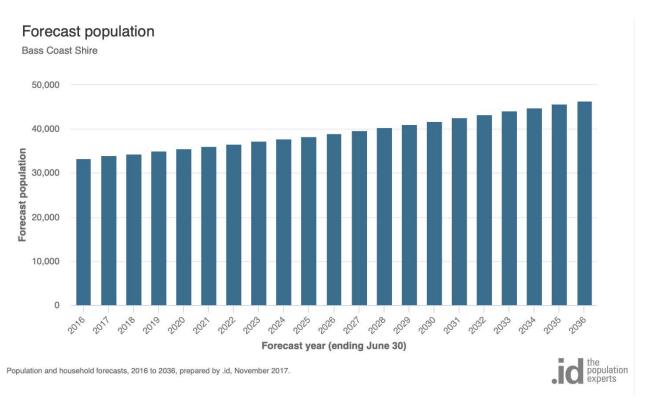
This indicates the area population has increased by 9,829 people which is an increase in population of 37% or 2.6% annually which is well above the Victorian state average population increase for this period.



2.3 Project Area Future Population Overview

The Bass Coast Shire population is projected to continue to increase from an estimated 33,311 people (2016 ABS) to 46,429 people by 2036. This is an increase of 13,118 or a population increase between 2016 and 2036 of 39.4% or an annual average of 1.96%.

These population trends are detailed in the following graph.



2.3.1 Bass Coast Shire Age Profile Review 2016 to 2036

The following table provides an overview of the Bass Coast Shire Council population age profile from 2016 to 2036.

Table 1: Bass Coast Population Age Profile 2016 to 2036

Age Group	2016		20	26	20	36	Change Between 2016 & 2036
	Number	%	Number	%	Number	%	Number
0 to 4	1,774	5.3	2,164	5.6	2,637	5.7	863
5 to 9	1,955	5.9	2,266	5.8	2,732	5.9	777
10 to 14	1,807	5.4	2,102	5.4	2,561	5.5	754
15 to 19	1,620	4.9	1,793	4.6	2,129	4.6	510
20 to 24	1,239	3.7	1,534	3.9	1,829	3.9	590
25 to 29	1,485	4.5	1,733	4.4	2,059	4.4	573
30 to 34	1,651	5.0	1,933	5.0	2,347	5.1	696
35 to 39	1,600	4.8	2,207	5.7	2,672	5.8	1,073
40 to 44	1,851	5.6	2,273	5.8	2,764	6.0	913
45 to 49	2,058	6.2	2,112	5.4	2,694	5.8	637
50 to 54	2,202	6.6	2,232	5.7	2,734	5.9	533
55 to 59	2,478	7.4	2,581	6.6	2,920	6.3	442
60 to 64	2,694	8.1	2,971	7.6	3,348	7.2	654
65 to 69	2,914	8.7	3,125	8.0	3,547	7.6	633
70 to 74	2,281	6.8	2,757	7.1	3,194	6.9	914
75 to 79	1,530	4.6	2,331	6.0	2,642	5.7	1,112
80 to 84	1,049	3.1	1,592	4.1	1,978	4.3	929
85 and over	1,126	3.4	1,233	3.2	1,643	3.5	517
Total persons	33,311	100.0	38,939	100.0	46,429	100.0	13,118

Note: Population and household forecasts, 2016 to 2036, prepared by .id , the population experts, October 2017.

The Bass Coast Shire Council population age profile review between 2016 and 2036 indicates:

- In 2016 people in their most active years 0 to 39 years old accounted for 13,131 people or 39.4% of the Shires population. People aged 40 years to 64 years accounted for 11,283 people or 33.8% of the Shires population. People aged 65 years and greater accounted for 8,897 people or 26.7% of the Shires population.
- In 2036 it is projected that people in their most active years 0 to 39 years old will account for 18,966 people or 40.8% of the Shires population. People aged 40 years to 64 years will account for 14,460 people or 31.1% of the Shires population. People aged 65 years and greater will account for 13,003 people or 28.0% of the Shires population.

The age profile trends indicate by 2036 there will be the following main age groups living in the shire compared to 2016:



The age profile review indicates there will be slightly more people aged in their most active years (0 to 39 years old) + 5,835 (+8.4% of the total population). There will be +3.177 people aged 40 to 64 years old (-2.7% of the total population) and +4,106 people aged 65 years plus (+1.3% of the total population.

2.4 PIALC User Catchment Population Overview

The Bass Coast Aquatic Strategy 2015 to 2024 adopted the following locality/planning areas would be serviced by the Phillip Island Aquatic Leisure Centre Development.

- Cowes, Ventnor and District
- Phillip Island balance of areas
- San Remo

A review of Councils 2019 estimated resident population reports (id profile) indicates the current (2019) and future (2036) population for these planning areas is listed in the following table.

Table 2: PIALC Population Catchment Review by Planning Area

Planning Area	2019 Population	% of Total Shire 2019 Population	Projected 2036 Population	% of Total Shire 2036 Population	Population Change between 2016 and 2036
Cowes, Ventnor District	7,272	20.0%	9,219	19.8%	+1,947
Phillip Island balance of areas	4,478	12.4%	4,550	9.8%	+72
San Remo	1,410	3.9%	2,025	4.4%	+615
Total Population	13,160	36.3%	15,794	34.0%	+2,634

The review of estimated people living in the PIALC projected user catchment zone indicates there were 13,160 people or 36.3% of the Shires population living in this area.

Future population projections for the PIALC user catchment area indicate a further 2,634 people are projected to be living in this area by 2036. This would see the area's population as a percentage (%) of the total Shire population decrease slightly by 2.3% to 34.0%.

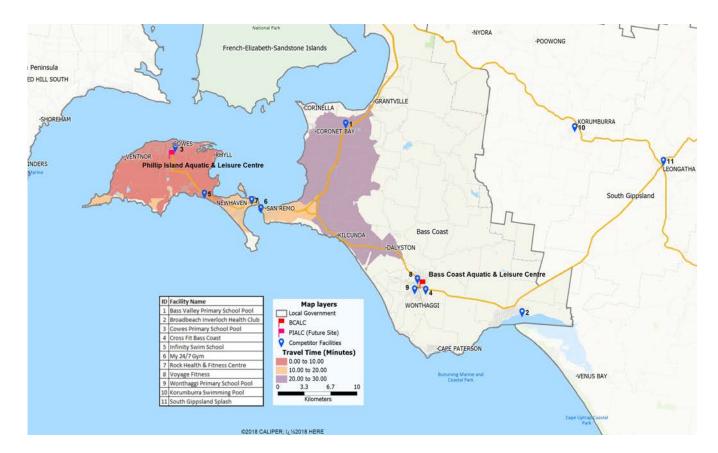
The population review reconfirms Councils aquatic strategy that the PIALC should be developed to meet the Shires smaller combined area population than BCALC that will be planned as the largest facility to cater for 66% of the Shires population.

2.5 PIALC User Catchment Travel Time Overview

Aquatic Industry Trends indicate that the main user for aquatic leisure centres will come from close by through to about 30 minutes travel time. OPG have developed PIALC user travel time catchment maps based on the following user catchment areas:

- Primary catchment zone: 0 to 10 minutes travel time
- Secondary catchment zone: 10 to 20 minutes travel time
- Tertiary catchment zone: 20 to 30 minutes travel time

The PIALC user catchment travel time map is listed on the next page. It also provides location details for the future PIALC site (corner Ventnor Road and Phillip Island Road as well as competitor aquatic and health and fitness centres in this catchment zone.



The PIALC user catchment by travel time mapping highlights:

- Primary Catchment Zone (0 to 10 minutes travel time): 1 school pool, 1 Commercial learn to swim pool & 1
 Commercial health & fitness facilities in the zone.
- Secondary Catchment Zone (10 to 20 minutes travel time): 1 school pool and 1 Commercial health & fitness facility in the zone.
- Tertiary Catchment Zone (20 to 30 minutes travel time): No competitor facilities .

2.5.1 BCALC User Catchment Travel Time Population Review

The following user catchment population has been detailed for 2019 in the following table and compared against the projected 2036 population for these catchments.

Table 3: PIALC Population Catchment Review by User Catchment Area

Population		20	16		2036				
Age Profile	0-10 Kms	10-20 Kms	20-30 Kms	Total 2016	0-10 Kms	10-20 Kms	20-30 Kms	Total 2036	
Total Population	8,207	3,344	2,052	13,603	10,723	4,369	2,681	17,774	
Male	3,930	1,638	1,015	6,583	5,135	2,140	1,326	8,601	
Female	4,282	1,713	1,024	7,019	5,595	2,238	1,338	9,171	
Age <5	358	187	109	654	532	278	162	972	
Age 5 to 14	921	394	220	1,535	1,296	554	310	2,160	
Age 15 to 19	352	153	102	607	463	201	134	798	
Age 20 to 24	216	125	81	422	319	185	120	623	
Age 25 to 34	670	310	193	1,173	940	435	271	1,647	
Age 35 to 44	834	387	238	1,459	1,319	612	377	2,308	
Age 45 to 54	1,034	427	305	1,766	1,449	598	427	2,475	
Age 55 to 64	1,342	530	341	2,213	1,625	642	413	2,679	
Age 65 to 74	1,443	486	315	2,244	1,889	636	412	2,937	
Age 75 to 84	677	224	122	1,023	1,223	405	220	1,848	
Age 85+	356	84	29	469	519	123	42	684	

The PIALC user catchment population reviews highlight:

- In 2016 there were 13,603 people living in the PIALC combined user catchment zones and this is projected to increase to 17,774 by 2036.
- In 2016 there were slightly more females (51.6%) than males (49.4%) living in the PIALC user catchment zone and these gender population ratios are projected to stay at the same rates in 2036.
- In 2016 a total of 2,796 people (20.5% of total population) were aged 0 to 19 years old and this is expected to increase to 3,930 (22.1% of total population) by 2036.
- In 2016 a total of 4,820 people (35.4% of total population) were aged 20 to 54 years old and this is expected to increase to 7,053 (39.7% of total population) by 2036.
- In 2016 a total of 5,949 people (40.9% of total population) were aged 55 years plus and this is expected to increase to 8,148 (39.2% of total population) by 2036.

3. Phillip Island Leisure Centre Review

3.1 Centre facilities

The Phillip Island Leisure Centre (PILC) is located on the Cowes Recreation Reserve off Church Street Cowes. The centre includes health and fitness facilities including a gym, group fitness classroom, cycle studio and single court stadium and squash courts.

The aerial map below highlights the Cowes Recreation Reserve with the PILC located to the west of the adjacent to the oval and pavilion.



This PILC is currently managed by the YMCA who has a management contract with Council until 30 June 2021. The Centre offers a range of services, which includes a large range of programs, , club activities, school group bookings, group fitness, gymnasium, personal training, gymnastics, vacation care, squash courts and stadium sports activities.

The following section provides an operational overview of the centre based on information supplied by centre management.

3.2 PILC Attendances

3.2.1 Annual attendances

The figure on the next page presents total annual attendances from 2016/17 to 2018/19. The data has been sourced from the centre counters provided in the YMCA monthly and annual statistics.

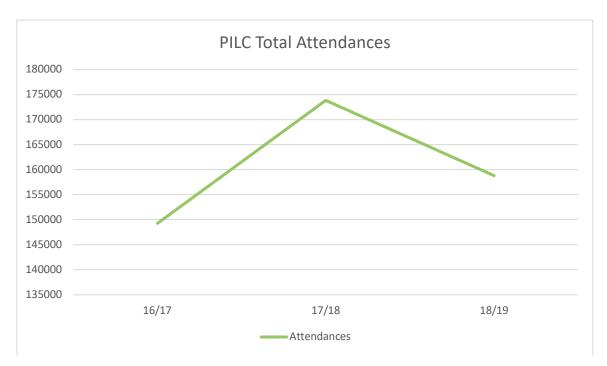


Figure 1: PILC Total Attendances

Note – Centre counter installed 9/8/16. The 16/17 year only has 10.75 months of data.

A review of the annual attendance data indicates total attendances decreased from 173,848 in 17/18 to 158,792 in 18/19. This represents a decrease of 15,056 (8.6%).

Average annual attendances to PILC is in the order of 165,500.

3.2.2 Monthly attendance trends

Figure 7 below presents total program users from 2016/17 to 2018/19.

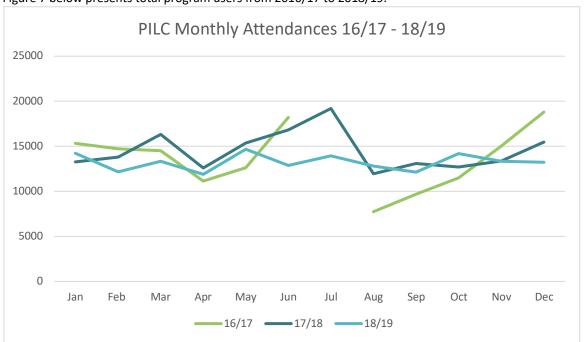


Figure 2: PILC Monthly Attendances

Note – Centre counter installed 9/8/16. The 16/17 year only has 10.75 months of data.

A review of the data indicates:

- June, July and December are, on average, the busiest months with an average attendance of approximately
 15,950 per month
- August, on average, has the lowest attendances each year with an average attendance of 10,800
- There are no significant trends due to school holidays or weather seasons

3.2.3 Program trends

The figure below presents total program users from 2013/14 to 2018/19.

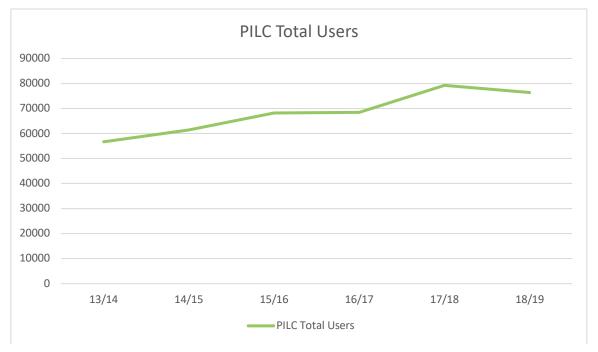


Figure 3: PILC Total Users

A review of the data indicates there was an increase of 26% between 13/14 (56,679) and 18/19 (76,384)

3.2.4 Usage by program area

Table 4 on the following page presents monthly attendances in 2018/19 as provided by the YMCA.

Table 4: PILC 18/19 Program Attendances by Area

Category	JUL	AUG	SEPT	ОСТ	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	TOTAL
Door counter	13933	12807	12138	14182	13348	13222	14231	12156	13336	11885	14677	12877	158,792
Membership Visits	3,090	3,776	3,521	3,427	3,138	3,165	3,395	3,147	2,933	2,665	3,236	2,867	38,360
Health Club Visits – Casual	55	54	71	62	75	114	211	68	55	74	46	49	934
Active Adults – Casual	105	103	88	91	83	77	98	125	101	98	95	86	1,150
Body Pump	258	270	273	269	241	289	280	256	250	230	246	201	3,063
Body Balance	216	212	194	202	214	220	220	240	205	178	204	162	2,467
Body Combat	176	168	178	213	211	194	188	169	171	165	202	129	2,164
Kickboxing	38	70	54	70	68	67	0	63	57	62	86	63	698
Spin	0	0	0	0	0	9	27	20	14	0	0	0	70
Pilates	136	156	125	114	194	150	155	158	137	113	138	128	1,704
Y Max	69	113	68	91	72	94	107	85	89	88	76	59	1,011
Yoga	16			30	20	15		16	33	18	21	7	176
EMT	103	118	132	159	175	135	182	161	140	123	152	146	1,726
Group Fitness Participants	1,012	989	1,024	1,148	1,195	1,173	1,159	1,168	1,096	977	1,125	895	12,961
Virtual Group Fitness Participants	250	381	399	414	414	410	493	386	364	395	478	410	4,794
8 week Corporate challenge	16	36	34	90	90	48	0	62	96	0	40	40	552
Personal Training	32	20	41	44	48	19	32	28	38	30	36	36	404
Basketball – Junior	396	264	60	567	570	380	0	720	0	0	0	0	2,957
Basketball – Men's	75	220	108	0	90	90	0	96	77	13	75	84	928
PIF&NC Training		70					0	0	112	190	150	86	608
Aussie Hoops	24	80	48	25	36	34	0	90	68	28	38	33	504
Kids Kickboxing	26	45	45	42	32	34	0	41	46	11	24	32	378
Gymnastics	178	334	215	230	467	175	52	364	381	107	461	389	3,353
Ed Gym	59	147	80	92	120	44	15	100	110	22	104	78	971
Badminton	57	70	53	69	39	30	57	68	68	67	52	50	680
Kung Fu	12	28	22	24	25	15	5	24	24	18	20	0	217
Kinder Soccer	16	24	16	38	17	13	0	9	23	7	20	20	203
PINC Stadium Games	0	0				0	0	0	0	200	200	200	600
Squash	58	110	111	97	75	58	25	85	91	95	127	104	1,036
Stadium Entry – Casual	45	38	51	77	44	64	196	23	42	75	12	18	685
Sauna Usage	33	150	150	93	103	77	80	78	105	73	108	107	1,157
Childcare	195	233	227	274	240	52	195	150	140	65	181	162	2,114

Category	JUL	AUG	SEPT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	TOTAL
Vacation Care Participants	141		66	99			263		0	151		0	720
Group Fitness Outreach Program	73	102	111	94	107	52	60	109	93	70	88	54	1,013
Total Users	5,948	7,392	6,541	7,097	7,008	6,124	6,336	6,941	6,063	5,431	6,716	5,800	76,384
Average Daily Visits	198	246	218	237	234	204	211	231	202	181	224	193	2546

A review of the data indicates:

- 50% (38,360) of users visit the centre for memberships
- 23% (17,755) of users visit the centre for group fitness classes (live and virtual classes)
- 4% (3,353) of users visit the centre for gymnastic programs
- 3.9% (2,957) of users visit the centre for junior basketball

These 4 activities currently account for 81% of the centres' total use.

3.3 Membership trends

The table below presents the membership numbers at PILC by category as at 1 March 2020.

Table 5: PILC Membership March 2020

Membership category	Male %	Female %	Total Number
Health & Wellness Adult	58	42	296
Health & Wellness Concession	66	34	165
Active Adult (over 50's)	30	70	122
Health & Wellness Teen	40	60	63
Other (virtual / childcare)	10	90	45
Total			691

A review of the data indicates:

- There are 691 total members
- There are 40% more females in the over 50's membership category
- There are 48% more males in the health and wellness membership category

3.4 Occupancy

The PILC gym is approximately 160m2. Adjacent to the gym is a smaller group exercise studio which is approximately 100m2. The areas are divided by a curtain.

Industry trends indicate the capacity for gym areas are between 2 to 3 members/m2 subject to equipment provision.

Based on this membership capacity for gyms the current floor space would see the area suitable to meet the needs of 320 members to 480 members. The memberships base in March 19/20 was 691 which is above the theoretical capacity of the gym area and equipment.

This over subscription of members use of the area may be leading to overcrowding at peak times which may result in member dissatisfaction.

3.5 PILC Financial trends

Detailed financial trends have been reviewed for the centre. These have been removed from the public document as they are regarded as commercial in confidence as they are part of a financial contract between Council and the contract management group.

A review of the financial data indicates:

- Revenue has increased 47% over the 5-year review period at an average of 9.4% p/a
- Expenditure has increased 32% over the 5-year review period at an average of 6.4% p/a
- The operating deficit has increased by 10% over the review period

3.5.1 Revenue performance

A review of the revenue data indicates the top 5 program areas by revenue are:

- Health & Wellness Memberships at \$473, 019 (62% of total revenue)
- Gymnastics at \$129,765 (17%)
- Out of school hours program at \$71,224 (9.3%)
- Stadium & Sports Programs and Rental at \$24,451 (3.2%)
- Group Fitness at \$19,502 (2.6%)

3.6 PILC Summary

A review of the data collated for PILC can be summarised as follows:

- Total attendances at PILC average 165,500 visits per annum
- Health and Wellness Memberships and Group Fitness programming constitute approximately 73% of centre
 visits and memberships are the highest revenue source. These cohorts and supporting program and amenity
 areas should be supported in any future re-development plans.
- The centres operating deficit has been increasing annually and was at \$331,000 in 2018/19.

4. PIALC Future Development Component Brief

This section reviews Councils Current Aquatic Strategy in relation to PIALC development reports and recommended facility improvements and then links in an updated aquatic trends review and recommended future components to help form a facility options redevelopment brief.

4.1 PIALC Development Update

There have been a number of Council decisions since Council adopted the Bass Coast Aquatic Strategy 2015 to 2024 that have direct impacts to future BCALC redevelopment components. These include:

- Ceasing further design and development work on a proposed Phillip Island Aquatic Leisure Centre at the rear
 of the Council offices in the Cowes Activity Centre Zone in mid 2017.
- Planning now underway for a new Phillip Island Aquatic Leisure Centre on a "high profile gateway site to
 Cowes" on a large allotment on the corner of Ventnor Road and Phillip Island Road to be acquired for this
 development as well as a large range of community sporting and recreation spaces will enable Council to
 provide adequate area and carparking for the proposed district size facility.

These issues are considered in further detail in this section of the report.

4.2 PIALC Proposed Development Site

Council has completed planning documentation to review and acquire a large land holding on the corner of Ventnor and Phillip Island Road historically referred to as the "Carnival site" and link this to Council land adjoining at the Hilton Chadwick Reserve.

In November 2017, Council resolved to commence the process of acquiring the Carnival Site via a planning scheme amendment. The amendment seeks to apply a Public Acquisition Overlay to the land, which would then enable acquisition of the land under the Land Acquisition and Compensation Act 1986.

It was Council's intent to utilise this land, together with the abutting 16 hectares of land at 49 Ventnor Road, Cowes in order to meet the future recreational and open space needs for Phillip Island. An aerial map of the proposed land is listed below, and the future Phillip Island Recreation Hub land is bordered in red.



Source: Near Maps

4.3 PIACF Inc Aquatic Centre Concept

The Phillip Island Aquatic Centre Fund Inc. completed the "Phillip Island Aspirational Recreational Park Plans" for a range of Phillip Island Sporting communities in May 2020. It is noted in the plans introduction that the document was produced in goodwill in pursuit of a public swimming pool on Phillip Island for the health and wellbeing of residents and visitors to the area.

In relation to a future Phillip Island Aquatic Centre the plan covered two facility options as listed in the following table.

Option	Aquatic Components	Health/ Fitness and Wellbeing	Other Facilities
1	 25 metre indoor pool x 8 lane Learn to Swim Pool Warm water pool Spa, sauna and steam room Aqua play / Splashpad 	 Multi-purpose room Wellness Centre visible and accessible to warm water pool hall Changing places and universal accessible change are mentioned in the legend for concept design drawings) 	 Café Retail space Administration area Changerooms/amenities Pool storage Plant rooms School group change Tiered spectator seating Swim club meeting and equipment store Creche
2	 50 metre indoor pool x 8 lane with ramp Learn to Swim Pool Warm water pool Spa, sauna and steam room Aqua play / Splashpad 	 Multi-purpose room Wellness Centre visible and accessible to warm water pool hall Changing places and Universal accessible change are mentioned in legend for concept design drawings) 	 Café Retail space Administration area Changerooms/amenities Pool storage Plant rooms School group change Tiered spectator seating Swim club meeting and equipment store Creche

The two facility option plans covered the following areas and preliminary capital cost estimate guide (using Rosebud Aquatic Centre as a capital cost guide).

Option	Building Footprint with gym	Preliminary QS estimate	Other site costs (including ESD)	Gym cost	Total prelim cost estimate including gym (2017 figures)
1 (25 metre option)	5,860m2	\$26.9m	\$3.71m	\$3.34m	\$33.95m
2 (50 metre option)	6,830m2	\$34.4m	\$3.83m	\$3.34m	\$41.57m

The recreational park plans also included a separate 3 indoor court sports stadium, amenities & management areas

4.4 Industry Trends Guiding Successful & Sustainable Facilities

Aquatic leisure facilities provide a range of values and benefits for communities including:

- Health and fitness services allowing people to enjoy the benefits of physical activity.
- The provision of a safe and welcoming spaces, supporting social inclusion and a sense of connection for all members of the community.
- Opportunities to participate for recreation, competition or sport.
- Community development that contributes to the development of social capital, helping to create links.
- Positive impacts on physical and mental wellbeing.
- Water safety/education and water confidence programs that can reduce the incidence of drownings.
- Fostering community pride.

The primary focus in contemporary aquatic facility design is on expanding the facility mix to include a combination of 'wet' and 'dry', community and commercial activity options that are also scoped by the current and future user market.

These include spaces that accommodate a range of activities such as:

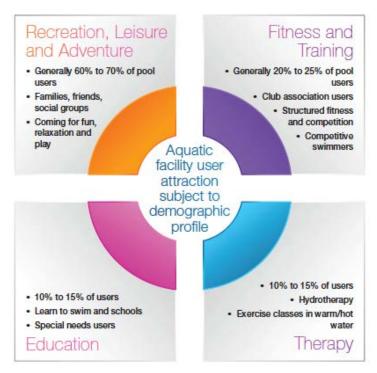
- Lap and fitness swimming,
- Aquatic programs such as learn-to-swim and older adult exercise,
- Leisure/adventure water, with interactive water play elements,
- Health and fitness gymnasium providing cardio and weight training areas
- Group class spaces,
- Wellness services,
- Multi-purpose program spaces, community
- Meeting rooms/spaces,
- Creche,
- Quality and healthy food and beverage options
- Appealing merchandising/retail areas.

Successful and sustainable contemporary aquatics and leisure facilities are also community destinations and meetings points for a range of physical and social activities.

OPG aquatic facility research and reviews of more than 500 aquatic leisure centres highlights that there are 4 distinct key user markets you need to attract to the facility if you wish to develop if for high use and sustainable operations. These are:

- Recreation, Leisure and Adventure
- Fitness and Training
- Education
- Therapy

Facilities that are designed to include these elements will attract the four key user markets outlined in the graphic below.



4.4.1 Operationally Sustainable Facility Trends

Historically many aquatic leisure centres are operationally unsustainable as they have built limited market user facilities such as long course swimming pools (50 metre pools) or small health and fitness areas and have not included other higher user attractor water such as leisure pools, warm water program pools, splash pads and water play areas, spas and saunas etc.

Many of these operationally unsustainable facilities have also not been sized for the likely current and future user catchment population and therefore face low usage and associated low operating revenue and high operating costs.

Industry benchmarking for example indicates you need an 70,000 to 100,000 population catchment to attract enough users to help pay the operational costs of a 50 metre pool due to its high staffing, services and maintenance costs.

You can reduce the operational subsidy of this high cost water area by adding in more commercial high attractor activities such as programmable water, health and fitness and wellness services but again such large capital and operational cost areas require significant user catchment populations to improve sustainability.

Adding in more multi-use and high user market attractor facilities and are most likely to provide more reasons for people to visit and stay longer, improving health and wellbeing and financial sustainability.

Major increases in energy and water costs in recent years (and predictions of higher energy costs into the future) require aquatic and leisure facilities to also incorporate modern, environmentally sustainable features.

4.4.1.1 Long Course and Short Course Swimming Pools

Usually, the most contentious issue when replacing or redeveloping an existing community swimming pool is the question of providing a long course (50 metre pool) or a short course (25 metre pool). Historically when most swimming pools were developed in Australia it was in the period of the late 1950s to the mid 1970s.

During this time some 360 plus community swimming pools were developed across the country with many facilities in the 1960s supported by Federal Government Memorial Pool funding matching local funding. It was also a time when we were coming off Melbourne hosting the 1956 Olympics and Australian major medals success in the swimming competition events.

The majority of these facilities built were outdoors and offered similar swimming facilities being:

- 50 metre pool 7 or 8 lanes wide (2m to 2.1m wide lanes).
- Learn to swim program pool (usually 10m x 10m)
- Toddlers/wading pools

Some facilities in larger communities may also have had a diving pool added with up to 10m diving platform.

In these times most people recreated and played sport locally and the community swimming pool became a much loved social and activity hub for the community with a real family feel to come and cool down on hot Australian summers.

The majority of these facilities are now 55 to 65 years old, and many are past their construction life and have been replaced with more modern and contemporary facilities that provide much more varied water areas for the broader markets of users.

This has seen, particularly in Victoria the replacement of the outdoor 50m pool with indoor aquatic leisure facilities, available to be used all year round and with multiple water areas to attract maximum user markets whilst also adding more commercial components such as health and fitness and indoor sport courts to help subsidise the high operational costs of water areas.

In most of these projects planning stages there is a community push for a 50m pool -even pushing for them to be outdoors in Victoria's limited user summer weather. This is clearly driven by a number of issues being:

- Our historical attachment to 1960s pool we all grew up with and visited with the family.
- The constant media during major events showing swimming always in a 50m competition pool
- The organised swimming club movement looking for more-long course and lane space
- The lack of community knowledge of the capital and long term operating and maintenance costs of such facilities particularly in smaller regional population areas.
- The lack of knowledge of how communities with modern and contemporary aquatic facilities with multiple indoor aquatic areas make so much more regular use of swimming pools than the low patronage 50m outdoor pool models.

Where the population is limited, and the age profile of residents is spread between young and old it is critical that developers of swimming pools that wish to attract maximum use and operate as sustainably as possible make sure they invest in multiple water areas of different lengths, configuration, depth and water temperature.

Our reviews of more than 500 projects as well as industry trend research by Government, Education and Aquatic Organisations is that we should be providing (or if funds do not permit master planning for) for at least 3 water areas in any new project to cater for:

- Recreation and leisure water
- Lap swimming and fitness water
- Therapy and education water

Section 4.4 above shows the likely take up by the user markets of these 3 water areas. It also highlights that the trigger for expanding the lap swimming and fitness water area is where the facility can draw on a 70,000 to 100,000 potential user population catchment and in this catchment, there are no major competitor facilities offering similar options.

4.4.2 **Regionally Located Facility Trends**

In areas of smaller or limited populations OPG notes it is essential that the future facilities development take into account:

- Facility components that best match the user catchment population markets are chosen
- Competing facilities within and close to the user catchment need to be reviewed to ensure facilities they offer are taken into account in demand assessment and visitation modelling.
- Sizing facility components for likely size of user markets.

4.4.3 **Sport and Recreation and Facility Provider Trends**

Community expectations about recreation and how leisure time is spent is changing. This is driven by several factors, as identified below.

port and Recreation Trends

- gradual ageing of the population
- Increased variety in leisure options.
- Constraints to leisure participation.
- Changing employment structures,
- financial subsidy whilst health and fitness usually profitable.
- Different people want different
- · Provision of high standards and quality of facilities and services.
- Desire for activities to be affordable.
- Recognition of strong links between physical activity and health.
- Expectations of equity and access.
- Technology developments and
- More sustainable and eco-friendly infrastructure.

Challenges for

- Consumer Expectations low cost/ long operating hours.
- Changing population demographics.
- Competition for participants.
- · High cost of aquatic areas due to labour and services costs
- Need to operate commercial activities to help subsidise aquatic area costs.
- Maintaining and upgrading ageing and outdated facilities
- Need for new facilities to accommodate population growth.
- Well-trained personnel volunteers and paid staff.
- Keeping 'pace' with technology development.
- Environmental sustainability to reduce energy and water usage and
- Rate capping impact and competing priorities on Council budgets.

4.5 PIALC Component Recommendations

The updated Shire Demographic profile and travel time user profile review for a future PIALC development has highlighted that this centre should be planned to cater for a likely catchment of 14,000 people increasing to 18,000 residents by 2036.

The centre would also need to be designed to attract and cater for the large number of overnight stay tourists and weekend and holiday homeowners that are not allowed for in these resident population numbers, especially during Christmas, Easter and long weekend holiday periods.

The updated demographic reviews and user catchment mapping confirms that the future PIALC Replacement facility will service a smaller user catchment than the proposed redevelopment of BCALC at Wonthaggi.

At say an upper catchment of 20,000 people this is still well below the 70,000 plus population catchment required for a sustainable 50 metre pool and therefore we recommend an 8 lane short course pool for this facility.

We note the Phillip Island Aquatic Centre Fund Inc have recommended a 50 metre pool be included in the components for the future aquatic centre. It is uncertain from the plans provided if this is an indoor or outdoor pool. They have used the example of the Rosebud Aquatic Centre as a user catchment and capital cost case study.

OPG have provided detailed facility advice, business and operational planning for the Rosebud Aquatic Centre now renamed the Yara Centre and note:

- The Yara Centre user catchment population is 70,000 people increasing to 85,000 people by 2036. This is 3 times plus the user catchment identified for the Phillip Island facility.
- The capital cost of the Yara Centre when all construction and development costs are taken into account was \$50M. The indoor 50 metre pool, pool hall and plant is estimated to cost approximately \$13M of this cost.
- The operational financial projections for Yara Centre indicate this facility even with the larger catchment population is likely to run at an operational deficit (now proven from management tender).

OPG therefore would not recommend the development of a 50 metre pool either indoors or outdoors for the Phillip Island Aquatic Leisure Centre project. Please also note that the Victorian State Government Better Pools Funding Scheme only considers indoor aquatic centre development and outdoor pools are not eligible for state funding support.

From a long term best practice planning perspective we would recommend that Council design the facility and place it on site to enable the potential future extension of the 25m competition pool to a 50m pool (as has been also planned at Wonthaggi).

Due to catchment population being up to 20,000 people plus Phillip Island being a high tourist and holiday home destination we have recommended a 25m x 8 lane (Short course FINA compliant 2.5m wide lanes) and this facility also have larger children's, youth and family water areas including:

- Larger splashpad and water play area than BCALC
- Indoor/outdoor water slides to increase leisure, amusement and adventure water

Due to the high age profile of the community as well as significant younger age profile concentrations we have recommended a multi-use program pool with moveable floor to enable it to cater for both adults and children.

The PIALC should not only offer contemporary aquatic leisure facilities for this level of user catchment population but should also ensure all health and fitness and indoor sports facilities located at the Cowes Recreation Reserve are colocated at this new site and sized accordingly for the current and future user catchment.

The component brief recommendations for the PIALC are covered in the following tables on the next pages and are based on two stages of development being:

- Stage 1: Aquatic, leisure and health and fitness facilities
- Stage 2: Future development stage including two indoor sport courts (subject to future feasibility and business assessment review underway).

Table.6 PIALC Stage 1: ALC Development Component Recommendations

ACTIVITY AREA	FACILITY COMPONENTS	TARGET MARKETS	FACILITY OBJECTIVES	FUNCTIONAL RELATIONSHIPS	OTHER FEATURES TO CONSIDER	AREA SCHEDULES	BASE FACILITY AREA (m²)
Aquatic Facilities	Main Competition Pool with 25m x 8 lanes (2.5m/lane) and access ramp (1.5M wide)	Education Lap swimming Health and fitness Events Training Programs	Provide indoor activity areas for residents, schools and leisure users Provide club and fitness activity area.	Adjacent to spectator areas Deep pool areas located away from shallow water pools	Disabled access/ramp/hoist/other Note feasibility and cost benefit analysis review to determine if built as a 6 or 8 lane indoor pool. Ensure pool layout and site placement would allow for a 25m extension.	Pool – 25m x 20m Ramp 1.5m wide downside line Wet Deck – 0.5m around pool edge Concourse – 3.0m sides, 4.0m ends Water depth 1.1m to 1.8m	538m² Plus concourse surrounds
	Spectator Area for 25m pool	Education Competition Events Casual spectator	Provide seating provision (100)	Adjacent to side of 25m pool Ensure no pool hall columns in vision lines	Consider range of options for providing more spectator seating for school events	Seating area down sideline of pool plus walkways etc Allow 3 rows 31m x 4m	124m²
	Warm Water/leisure/Learn to Swim Program Pool (Catering for older adults, leisure and learn to swim areas with moveable floor)	Leisure activities Social groups Entertainment Education/LTS Programs Infants Families Programs Therapy	Provides a combined Warm water LTS pool to attract older adults and families and young children Provide broad leisure and education experiences Provide program area for exercise/swim lessons	Adjacent to 255m pool Close to change rooms Consider enclosing in own pool hall	Access via adjustable depth ramp linked to moveable floor	Pool 20m x 12m (0mm to 1.4m deep. Ramp 1.5m wide Concourse average 3m around pool area Water temperature range 30 to 35C	270m² Plus concourse surrounds
	Water Play Unit and Splash Pad with adjoining Toddlers Pool	Children Youth Families	Provide a play space with water and sprays	Adjacent to the warm water/leisure/LTS pool	Nil depth access to splash pad Toddlers pool 0mm to 300mm deep	23m x 23m splash pad area based on AP750 Unit Toddlers pool approx. 60m2	600m2 Plus concourse surrounds
	Dry and Steam Saunas	Older adults Social Therapy Sports recovery Non-organised leisure	Provide hot water pool, steam room and dry sauna for social/ relaxation and therapy Capacity for approx. 16 people	Close to change facilities Zone away from children's areas (planter areas) Spa saunas close to program pool	Landscape area Concourse shower close by	 Sauna – 20m² dry Sauna – 20m² steam Concourse shower 5m² 	45m²
	Inground Spa	Older adults Social Therapy Rehabilitation	Provide inground spa adjacent to dry and steam sauna Cater for up to 16 people	Locate next to warm water/leisure/LTS pool	Concourse shower close by	• Spa -30m2	30m2 Plus concourse surrounds

ACTIVITY AREA	FACILITY COMPONENTS	TARGET MARKETS	FACILITY OBJECTIVES	FUNCTIONAL RELATIONSHIPS	OTHER FEATURES TO CONSIDER	AREA SCHEDULES	BASE FACILITY AREA (m²)
	Covered in Water Slides and Tower	ChildrenYouthFamilies	Provide an adventure water area	Need to be located adjacent to the main pool hall with closed in tower and fully enclosed slides that are outside but crash down zone is inside the pool hall	Consider future slide installation to increase number of slides	2 slides 120m to 130m long off 12m tower. Crash down area on concourse via flumes with step out. Provide crash down area 10m x 10m and tower footplate 10m x 10m	200m²
	Other support facilities - Storage - First aid room - Pool office - Wet lounge - Party Room - Plant rooms	Service areas	Service areas	Storage adjacent to program pool First aid providing direct concourse access and external ambulance access Pool office close to program pool Wet lounge adjoins café and leisure pool	Link circulation and wet lounge areas Consider issues of access to outdoor pools Provision of security lockers on the concourse	 Storage – 80m² First aid – 15m² Pool office – 20m² Wet lounge - 60m² Party room – 40m² Plant – 350m² 	565m²
Subtotal Aquatics							2,372m² plus concourse surrounds
Health Fitness & Wellness	Weights Room (requires 24-hour access design	Health and fitness Therapy Competition/clubs Industry training	Provide general fitness area incorporating weights, cardio equipment and circuit area Major revenue area	Located close to reception Located close to dry change Close to multipurpose room Shared storage Requires 24-hour access design for gym and change areas	Ensure provision for future extension opportunities	 Gym - 600m² Office - 20m² Fitness test X 2 - 40m² 24-hour access corridor - 30m² Store - 30m² 	720m²
	Multipurpose Rooms / Function Rooms	Health and fitness Therapy Competition / clubs Industry training Social group Events/social	Provide multi-use timber floor area suitable for classes and functions. Major revenue area.	Locate close to reception Locate close to dry change Adjacent to weights room Shared storage Close to meeting/club room	Kitchenette with servery to multipurpose and meeting/training room Provision of acoustic treatment to limit sound breakout.	Group fitness room 1 200m² Group fitness room 2 200m² Stores – 40m²	440m²
Subtotal Health Fit	ness and Wellness						1,160m²

ACTIVITY AREA	FACILITY COMPONENTS	TARGET MARKETS	FACILITY OBJECTIVES	FUNCTIONAL RELATIONSHIPS	OTHER FEATURES TO CONSIDER	AREA SCHEDULES	BASE FACILITY AREA (m²)
Front of House Areas	Foyer / Reception / Merchandising/Café (shared café and reception)	All customers	Provide welcoming entry area that allows users to relax and socialise Social areas for casual Shared reception/café	Links to dry lounge and café Links to meeting/training/clubroom Airlock between public front of house and pool hall.	Merchandise located on moveable displays	 Foyer/Merch area 120m² Reception – 40m² Admin Store – 30m² Dry lounge – 60m² Café serveries – 40m² Kitchen – 40m² Café/Merch store – 40m² 	370m²
	Offices/Administration/ Staff Rooms	Centre staff	Provide areas for staff and centre administration	Close to reception Vision into activity circulation spaces.	Possible extension of areas if further centre activity areas added	 Offices x 4 - 60m² Work area - 50m² Storage - 40m² Staff amenities - 25m² 	175m²
	Meeting/Training Room	Centre management and staff Swimming Clubs Training orgs	Provide a flexible multi-use space that can be used for meetings and functions	Need to be located close to centre entry	Trophy cabinet for swimming & triathlon club's memorabilia Lock up cupboard kitchenette	Meeting area 10m x 8m	80m²
Subtotal Front of H	ouse						625m²
Amenities / Change	Main Pool Hall/Change Rooms and Amenities	Aquatics hall users	Provide modern amenities easily maintained	Adjoining pool concourse and close to reception	Lockable links to dry facilities to open up all amenities	 Male – 90m² Female – 90m² Service areas – 10m² 	190m²
	Warm Water/Leisure/LTS family and DDA Change	Pool users Families People with disabilities Older adults	Provide separate change for Program Pool users.	Close to Program Pool Within enclose Program Pool zone	Ensure fully accessible	4 cubicles @ 12m² 2 x changing places @ 14m2	74m²
	Dry Change Rooms and amenities	Health and fitness users Meeting users Café users	Provide modern amenities easily maintained	Adjoining weights and aerobics room	Use as group change in high user periods	 Male – 50m² Female – 50m² Service areas – 10m² 	110m²
Subtotal Amenities							374m²
Other Areas	Dry Plant Room	-	-	-	-	Allowance	200m²
	Comms Room/store					Allowance	50 m ²
Subtotal Other Area							250m²
Total Dry Spaces							2,409 m²
Total Aquatic Space	s (Note does not include conc	ourse surrounds that wil	l be added during design)				2,372m²
ESTIMATED TOTA	AL PIALC DEVELOPMENT A	REA					4,781m ²

4.5.1 PIALC Stage 2 Indoor Sport Courts

Council officers have noted in the longer term there will be need to allow for a two court indoor sport court area plus storage areas. These could be developed as a 2nd staged extension to the Aquatic Leisure Centre or if funding allows developed as one stage construction project. These facilities need to be incorporated into a site master plan design and in next stages of detailed design and feasibility, determined if they should be staged or developed at the same time as the aquatic centre development.

OPG recommends the need for an indoor sport court feasibility study to quantify user catchments and current and future competitor facilities to guide the final number of indoor sport courts and their viability.

Any link to the courts would need to be from the main foyer and OPG and the design team have ensured the ALC layout allows for the opportunity to connect the facilities as well as consider the need to increase size of dry change areas to also meet sport court needs. The recommended component areas for these facilities are listed in the following table.

Table.7 PIALC Stage 2: Development OF Indoor Sport & Squash Courts Components Review

ACTIVITY AREA	FACILITY COMPONENTS	TARGET MARKETS	FACILITY OBJECTIVES	FUNCTIONAL RELATIONSHIPS	OTHER FEATURES TO CONSIDER	AREA SCHEDULES	BASE FACILITY AREA (m²)
Indoor Stadium	Two Indoor Sport Courts	Education Competitions Health and fitness Events Training Programs	Provide indoor sport court areas for residents, schools and leisure users Provide competition and events activity areas.	 Located off main foyer. Located close to dry centre (health and fitness amenities and change facilities. Storage directly off main courts. Link foyer to squash court access. 	Timber sprung floors Court markings to be considered for Netball, Basketball, Badminton, Volleyball and Futsal. Consider court 1 only having markings for Netball & Basketball.	 Court playing area 30.5m x 15.25m Court clearance sidelines 3.05m and between courts 3.65m. Total floor area 36.6m long x 40.25m 	1,475m²
	Spectator Area for Sports Courts	Competition Events Casual spectator	Provide seating provision (200)	Adjacent to side of court 1 Ensure no columns in vision lines	Consider range of options for providing more spectator seating for events on court 2	Seating area down sideline of courts Allow 3 rows 40m x 3m plus walkways	160m²
	Indoor Sports Court Storage	Storage of equipment and furniture	Provide high roof storage area	Adjacent to sports courts Roller door access to courts. Consider exterior access via roller door.	Concrete floor. Roller door internal and external access.	• Allow 100m2	100m²

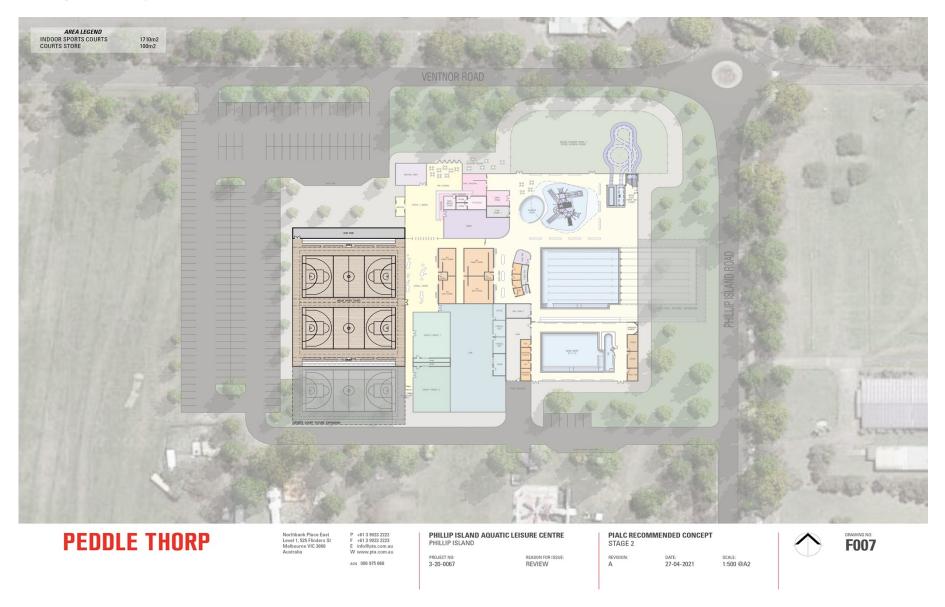
4.6 PIALC Development Combined Stages Concept Plan

The PIALC Stage 1 and 2 concept plans and the combined stages future masterplan have been developed by Peddle Thorp Architects based on the detailed component brief as listed in section 4.5 of this report and is detailed on the following pages.

PIALC Stage One Aquatic and Health and Fitness Areas



PIALC Stage Two Indoor Sport Court Areas



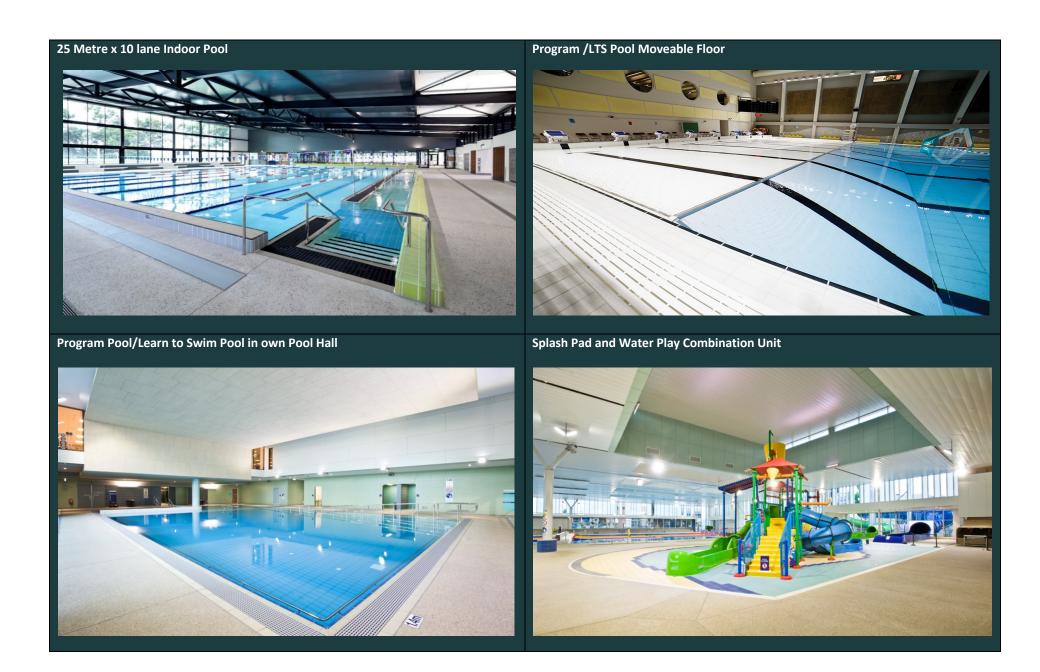
PIALC Combined Stage Masterplan



PIALC New Facility Concept Elevation



Images of the main activity areas proposed at the PIALC are detailed on the following pages.



Group Fitness/Multi-Purpose Room



Gym and Fitness Area



Indoor/Outdoor Waterslides



Reception/Shared Cafe



4.7 PIALC Stages 1 & 2 Indicative Capital Cost Estimates

Turner and Townsend Quantity Surveyors have completed an indicative capital cost plan for the PIALC facility stages. The detailed cost plans are listed in appendix one of this report.

A summary of the proposed option 1 new aquatic leisure facility and option 2 including indoor sports courts and combined facility option indicative cost plans are listed in the following table.

Table.8 PIALC New Facility Development Stages Indicative Capital Cost Summary

Cost Category	Stage 1 Aquatic Leisure Facilities	Stage 2 Additional Indoor Sport & Squash Courts	Stage 1 & 2 Combined Facilities
Total Building Works	\$20,474,905	\$4,451,194	\$24,474,099
Total Aquatic Works	\$9,360,800	\$0	\$9,360,800
Total External Works & Services	\$4,000,460	\$718,940	\$4,719,400
Design Contingencies	\$3,383,000	\$518,000	\$3,901,000
TOTAL CONSTRUCTION COSTS	\$37,219,165	\$5,688,134	\$37,844,000
Contingencies, Fees & Permits	\$8,567,000	\$1,342,000	\$9,910,000
TOTAL PROJECT COSTS (Excl GST)	\$45,786,165	\$7,030,134	\$52,817,299

Note: All costs are based on April 2021 and no cost escalation has been added as project design & construction timelines are unknown. Cost plans allow for 6% of capital for ESD but do not allow for geothermal as this will require a specialist study to confirm scope of works and costs.

The review of facility stage indicative capital costs indicates the total project cost comparisons for each stage are:

Stage 1: Aquatic Leisure Facilities: \$45,786M
 Stage 2: Indoor Sport & Squash Courts: \$7,030M
 Combined PIALC Masterplan Stages 1 & 2 Facilities: \$52,817M

4.8 PIALC Facility Option 10 Year Financial Modelling

Otium Planning has developed a financial model for the new facility development at PIALC that has been developed to highlight likely base case business performance for the two component stage options.

The 10 year financial models have been developed using OPGs Aquatic and Leisure Centre electronic financial software. The model was first established in collaboration with KPMG via the development of the Business Case for Melbourne Sports and Aquatic Centre (MSAC) in 1996/97.

Over the last 24 years the model has been constantly used and refined for in-excess of 250 aquatic and health facility projects and is recognised by local, state and federal governments as a reliable business forecasting financial operational tool.

4.8.1 Global Impacts

The 10-year projections are developed using the following global impact assumptions.

Business Growth

Industry trends indicate it can take up to 3 years to establish new facilities usage, programming, membership and operating income and expenditure as there will need to be an establishment year, a development year and in year 3 a consolidation of business year.

As PIALC is a new facility business it is assumed business will increase annually and from year 4 onwards it is assumed the business growth will slowly increase.

Table 9: PIALC Business Growth Annual Allowances

Year									
1	2	3	4	5	6	7	8	9	10
94%	97%	100%	101%	101.5%	102%	102.5%	103%	103.5%	104%

Price Growth/Increases

Fees and charges for accessing the Centre and programs and services price growth are set at 1% annually from year 2 onwards.

Consumer Price Index (CPI)

The financial models are annually impacted by a CPI increase. This has been set at 1.8% from year 2 to year 10. An additional 1.2% is provided every year to account for salary increases. An additional 2.5% is provided every year to expense items that may increase above CPI such as services and utilities.

4.8.2 Key Business Assumptions

The following business and management assumptions impact on the BCALC 10 year financial modelling.

4.8.2.1 Operating Hours

The PIALC is estimated to be open 92.5 hours per week and operating all days except Christmas Day and Good Friday. The facility would vary between the hours of 6.00am to 8.30pm Monday to Friday and 8.00am to 6.00pm Saturday and Sunday. The gym would be open 24 hours a day, every day.

4.8.2.2 Entry Charges

Entry charges are based on current BCALC fees. An assumption has been made that the Wonthaggi and Phillip Island Centres will operate under an integrated service model and offer the same fees and charges for like programs and services.

4.8.2.3 Recurrent Operating Expenditure

The majority of recurrent operating expenditure including utilities, chemicals, administration, marketing, maintenance, and cleaning and are based on the industry benchmarks for similar facilities. Current actuals at BCALC were used as a starting point also for these assumptions.

4.8.2.4 Maintenance Allowances

Industry trends indicate that high use aquatic and health centres usually require an annual programmed maintenance allowance to ensure they are presented at a high standard.

To compensate for this an annual programmed maintenance an allowance of \$127,000 has been allowed for at PIALC per annum.

4.8.2.5 Management/Staffing

There are a range of management models that could be implemented for the "day to day" management and operation of the proposed facility. For this modelling, a Contract Management Model has been assumed and average contractor labour rates are used for each role.

The contract management model is where Council contracts or leases out management rights of the facilities to either a professional contract management company or an individual to operate the facilities on their behalf. This is usually done through a contract for an agreed term and set of conditions detailed in a specification and contract that binds each party.

The specification is tailored to include the key operating, health and wellness and asset management objectives of Council. The main operators in the Victorian market include:

- YMCA
- Belgravia Leisure
- Aligned Leisure
- Bluefit
- Clublinks

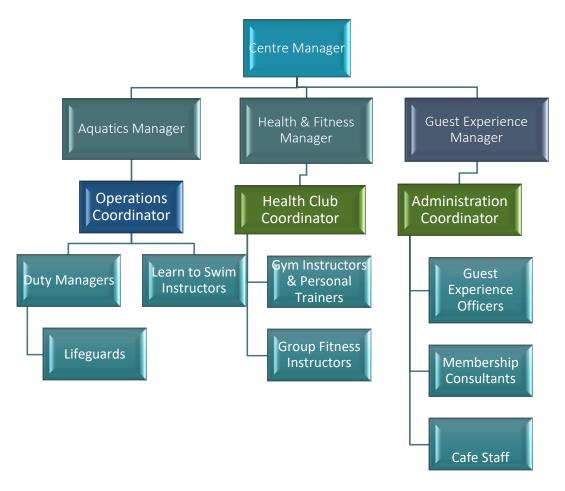
Please note a separate facility organisational structure for each BCSC ALC has been developed. Pending future decisions regarding construction and timing.

OPG would recommend subject to development timing both Centres operating under one integrated management structure that could deliver economies of scale benefits to Council.

But to ensure each centre can be analysed as a separate development OPG have modelled standalone management for each facility.

It should be noted an integrated model that shares some senior management positions across both centres (i.e. Health & Fitness Manager, Customer Services Manager, Operations Manager) would be expected to save salary costs and improve the operating performance of the combined centres.

The proposed standalone staffing structure for BCALC is listed as follows.



Please note no allowance of Council staff costs required to manage the contract on Council's behalf is made in this model. A summary of key staffing positions and allocations by Full Time Equivalent (FTE) positions salary is listed in the table on the next page.

Table 10: Proposed Staffing FTE

Staff Position	PIALC FTE Staff (Full Time Equivalent)
Centre Manager	1
Guest Experience Manager/Coordinator	1
Customer Service	2.2
Operations Coordinator/Team Leader	1
Aquatics Manager/Coordinator	1
Duty Managers	0.4
Lifeguards	6.2
Aquatic instructors	2.3
Café/kiosk	2
Health and Fitness Manager/Coordinator	1
Health Club Coordinator/Team Leader	1
Membership consultants/Admin Team Leader	0.6
Gym instructors	1.4
Group fitness instructors	0.7
TOTAL	21.7 FTE

4.8.2.6 Insurance

The model includes an allowance for public liability insurance by the operator.

4.8.2.7 Food and Beverage/Merchandising

Due to the number of visitors to the Centre the model assumes secondary spend income based on a percentage per spend per visitor. The model assumes the operator will be responsible for the café and merchandise.

The staffing structure includes a staffing allowance for the café which are based on customer service providing café services in off-peak periods and dedicated café staff present for service peak periods.

The assumptions for secondary spend include:

Café

\$1.50 per spend with a 55% penetration

Merchandise

\$1.10 spend with a 35% penetration

4.8.2.8 Sponsorship

No allowance for sponsorship has been included in this model. There may be the opportunity to attract sponsorship as the project develops further.

4.8.2.9 Asset Management

The operating models do not include an allowance for Asset Management or depreciation.

4.8.2.10 Usage Assumptions

The usage for the Centres is based on the current and predicted future user catchment populations living in the 15 minute travel time of PIALC (primary user catchment zone) and 15 to 30 minute travel time of PIALC (secondary user catchment zone) as well as guided by benchmarking of similar size and capacity facilities in regional areas within Victoria.

4.8.3 PIALC New Facilities Stage One 10 Year Financial Models

The stage one aquatics & health and fitness facilities 10 year base case is detailed in the following table.

Table 11: PIALC Stage 1: Base Case 10 Year Operational Business Projections

	YEARS												
CATEGORY	1	2	3	4	5	6	7	8	9	10	PER ANNUM		
	(000)	(000)	(000)	(000)	(000)	(000)	(000)	(000)	(000)	(000)	(000)		
Revenue	\$2,638	\$2,796	\$2,960	\$3,071	\$3,169	\$3,271	\$3,377	\$3,485	\$3,597	\$3,712	\$3,208		
Expenditure	\$3,029	\$3,110	\$3,193	\$3,273	\$3,353	\$3,436	\$3,520	\$3,607	\$3,696	\$3,788	\$3,401		
Operational Profit/Loss	(\$391)	(\$314)	(\$233)	(\$202)	(\$183)	(\$164)	(\$143)	(\$122)	(\$99)	(\$75)	(\$193)		
Visitations	241	249	257	259	261	262	263	265	266	267	259		

The stage one - 10-year base case business projections indicate:

- Revenue is expected to increase annually ranging from \$2,638,000 in year 1 to \$3,712,000 by year 10.
- Expenditure is expected to increase annually ranging from \$3,029,000 in year 1 to \$3,788,000 in year 10.
- The Centre is expected to operate at an annual operating deficit from the first year. The average operating deficit is estimated to be approximately \$193,000 per annum.
- Centre attendances are expected to gradually increase from 241,000 in year one to a high of 267,000 in year ten.

4.8.3.1 PIALC Stage 1 Business Case Scenario Comparisons

The following tables provide a 10-year impact comparison for the following different business scenarios:

- Optimistic Case 10% more use than the base case
- Conservative Case 10% less use than the base case

Optimistic Case Option

The following table details the 10-year optimistic case option.

Table 12: PIALC Stage 1 Optimistic Case - 10% More Use

CATECORY		YEARS											
CATEGORY	1	2	3	4	5	6	7	8	9	10	PER ANNUM (000)		
	(000)	(000)	(000)	(000)	(000)	(000)	(000)	(000)	(000)	(000)	(000)		
Revenue	\$2,902	\$3,075	\$3,256	\$3,378	\$3,486	\$3,599	\$3,714	\$3,834	\$3,957	\$4,084	\$3,528		
Expenditure	\$3,064	\$3,146	\$3,231	\$3,312	\$3,393	\$3,477	\$3,563	\$3,651	\$3,741	\$3,834	\$3,441		
Operational	(\$161)	(\$70)	\$25	\$65	\$93	\$121	\$151	\$182	\$215	\$249	\$87		
Profit/Loss	(+/	(4.0)	7	7.00	,,,,	<i></i>	,	,	,	7-10	7		
Visitations	266	274	283	285	287	288	290	291	292	294	285		

Note Does not include development costs such as depreciation, capital cost repayments, land tax, Council rates.

The 10-year stage 1 optimistic case business projections indicate:

- Revenue is expected to increase annually ranging from \$2,902,000 in year 1 to \$4,084,000 by year 10.
- Expenditure is expected to increase annually ranging from \$3,064,000 in year 1 to \$3,834,000 in year 10.
- The Centre is expected to operate at an annual operating deficit in years 1 and 2 and in surplus from year 3. The average operating surplus is estimated to be approximately \$87,000 per annum.
- Centre attendances are expected to gradually increase from 266,000 in year one to a high of 294,000 in year
 10.

Conservative Case Option

The following table details the PIALC Stage One 10-year conservative case option.

Table 13: PIALC Stage 1 Conservative Case - 10% Less Use

		YEARS										
CATEGORY	1 (000)	2 (000)	3 (000)	4 (000)	5 (000)	6 (000)	7 (000)	8 (000)	9 (000)	10 (000)	PER ANNUM (000)	
Revenue	\$2,374	\$2,516	\$2,664	\$2,764	\$2,852	\$2,944	\$3,039	\$3,136	\$3,237	\$3,341	\$2,887	
Expenditure	\$2,995	\$3,074	\$3,155	\$3,234	\$3,313	\$3,395	\$3,478	\$3,564	\$3,652	\$3,742	\$3,360	
Operational Profit/Loss	(\$620)	(\$557)	(\$491)	(\$470)	(\$460)	(\$450)	(\$439)	(\$427)	(\$414)	(\$400)	(\$473)	
Visitations	217	224	231	233	235	236	237	238	239	240	233	

The PIALC stage one 10-year conservative case business projections indicate:

- Revenue is expected to increase annually ranging from \$2,374,000 in year 1 to \$3,341,000 by year 10.
- Expenditure is expected to increase annually ranging from \$2,995,000 in year 1 to \$3,742,000 in year 10.
- The Centre is expected to operate at an annual operating deficit from the first year. The average operating deficit is estimated to be approximately \$473,000 per annum
- Centre attendances are expected to gradually increase from 217,000 in year one to a high of 240,000 in year ten.

4.8.3.2 PIALC Facility Business Scenario Comparison

The following table provides a comparison of the average operational performance over the 10-year period of each stage 1 business scenario model based on:

- Optimistic Case = 10% more use
- Base Case = Average predicted use
- Conservative Case = 10% less use

Table 14: PIALC Stage One; Base Case Facility Business Scenario Comparison

	FACILITY BUSINESS SCENARIO									
FACILITY STAGES	Conservative Case 10% Less Use Average Over 10 years (000)	Base Case (Average Use) Average Over 10 years (000)	Optimistic Case 10% More Use Average Over 10 years (000)							
Revenue	\$2,887	\$3,208	\$3,528							
Expenditure	\$3,360	\$3,401	\$3,441							
Operational Profit/Loss	(\$473)	(\$193)	\$87							
Visitations	233	259	285							

The above PIALC stage 1 facilities business scenarios provide Council with a range of annual average projected business performance targets including:

- Revenue is projected to range from \$2.887M to \$3.528M
- Expenditure is projected to range from \$3.360M to \$3.441M
- Operational profit/(loss) is projected to range from a loss of (\$473,000) to a profit of \$87,000.
- Visitations are projected to range from 233,000 visits to 285,000 visits.

4.8.4 PIALC Combined Stages 1 & 2 Ten Year Base Case Financial Models

The PIALC combined stages 1 and 2 ten-year business projections are detailed in the following table on the next page.

Table 15: PIALC Stages 1 & 2 Base Case 10 Year Operational Business Projections

YEARS												
CATEGORY	1	2	3	4	5	6	7	8	9	10	PER ANNUM	
	(000)	(000)	(000)	(000)	(000)	(000)	(000)	(000)	(000)	(000)		
Revenue	\$2.857	\$3.027	\$3.205	\$3.324	\$3.430	\$3.540	\$3.654	\$3.771	\$3.891	\$4.016	\$3.471M	
Expenditure	\$3.124	\$3.207	\$3.292	\$3.373	\$3.455	\$3.540	\$3.626	\$3.715	\$3.806	\$3,899	\$3.505M	
Operational												
Profit/Loss	(\$267)	(\$180)	(\$87)	(\$49)	(\$25)	\$0	\$25	\$56	\$85	\$117	(\$32,000)	
Visitations	290	298	308	3311	313	314	316	317	319	320	310,000	

The combined PIALC stages 1 & 2 - 10-year base case business projections indicate:

- Revenue is expected to increase annually ranging from \$2.857M in year 1 to \$4.016M by year 10.
- Expenditure is expected to increase annually ranging from \$3.124M in year 1 to \$3.899M in year 10.
- The Centre is expected to operate at an annual operating deficit in year 1 to year 5, break even in year 6 and then operate at an annual surplus from year 7. The average operating surplus is estimated to range from \$25,000 in year 7 to \$117,000 by year 10.
- Centre attendances are expected to gradually increase from 290,000 in year one to a high of 320,000 in year ten.

4.8.4.1 PIALC Combined Stages 1 & 2 Business Case Scenarios

The following tables provide a 10-year impact comparison for the following different business scenarios for the combined stages facility.

- Optimistic Case 10% more use than the base case
- Conservative Case 10% less use than the base case

Optimistic Case Scenario

The following table details the 10-year optimistic case scenario.

Table 16: PIALC Combined Stage 1 & 2 Optimistic Case - 10% More Use

	YEARS												
CATEGORY	1 (000)	2 (000)	3 (000)	4 (000)	5 (000)	6 (000)	7 (000)	8 (000)	9 (000)	10 (000)	PER ANNUM		
Revenue	\$3,142	\$3,330	\$3,526	\$3,656	\$3,774	\$3,895	\$4,019	\$4,148	\$4,281	\$4,417	\$3.818M		
Expenditure	\$3,160	\$3,244	\$3,331	\$3,414	\$3,497	\$3,583	\$3,670	\$3,760	\$3,852	\$3,947	\$3.543M		
Operational Profit/Loss	(\$18)	\$86	\$194	\$243	\$276	\$312	\$349	\$388	\$428	\$470	\$272,703		
Visitations	319	329	339	342	344	346	347	349	351	352	341,759		

Note Does not include development costs such as depreciation, capital cost repayments, land tax, Council rates.

The PIALC combined stages 1 & 2 10-year optimistic case business projections indicate:

- Revenue is expected to increase annually ranging from \$3.142M in year 1 to \$4.417M by year 10.
- Expenditure is expected to increase annually ranging from \$3.160M in year 1 to \$3.947M in year 10.
- The Centre is expected to operate at an annual operating deficit of \$18,000 in its first year and then operate in surplus from year 2 (\$86,000) to year 10 (\$470,000). The average operating surplus is estimated to be approximately \$305,000 per annum.
- Centre attendances are expected to gradually increase from 319,000 in year one to a high of 352,000 in year ten.

Conservative Case Option

The following table details the PIALC combined stages 1 & 2 10-year conservative case option.

Table 17: PIALC Combined Stages 1 & 2 Conservative Case – 10% Less Use

CATEGORY	YEARS										
	1	2	3	4	5	6	7	8	9	10	
	(000)	(000)	(000)	(000)	(000)	(000)	(000)	(000)	(000)	(000)	
Revenue	\$2,571	\$2,724	\$2,884	\$2,992	\$3,088	\$3,186	\$3,288	\$3,394	\$3,502	\$3,614	\$3.124M
Expenditure	\$3,088	\$3,169	\$3,252	\$3,332	\$3,413	\$3,496	\$3,582	\$3,669	\$3,759	\$3,851	\$3.461M
Operational Profit/Loss	(\$517)	(\$444)	(\$368)	(\$341)	(\$326)	(\$310)	(\$293)	(\$275)	(\$256)	(\$237)	(\$336,704)
Visitations	261	269	277	280	281	283	284	286	287	289	279,612

The combined stages 10-year conservative case business projections indicate:

- Revenue is expected to increase annually ranging from \$2.571M in year 1 to \$3.614M by year 10.
- Expenditure is expected to increase annually ranging from \$3.088M in year 1 to \$3.851M,000 in year 10.
- The Centre is expected to operate at an annual operating deficit for all years ranging from a high in year 1 of \$517,000 to a low of \$237,000 in year 10. The average operating deficit is estimated to be approximately \$336,704 per annum
- Centre attendances projected to gradually increase from 261,000 in year one to a high of 289,000 in year ten.

4.8.4.2 PIALC Combined Stages 1 & 2 Business Case Scenario Comparisons

The following table provides a comparison of the average operational performance over the 10-year period of each model based on:

- Optimistic Case = 10% more use
- Base Case Average predicted use
- Conservative Case = 10% less use

Table 18: PIALC Combined Stages 1 & 2: Business Scenario Comparisons

	FACILITY BUSINESS SCENARIO								
PIALC Combined Stages 1 & 2	Conservative Case 10% Less Use Average Over 10 years	Base Case (Average Use) Average Over 10 years	Optimistic Case 10% More Use Average Over 10 years						
Revenue	\$3.124M	\$3.471M	\$3.818M						
Expenditure	\$3.461M	\$3.505M	\$3.543M						
Operational Profit/(Loss)	(\$336,704)	(\$32,000)	\$272,703						
Visitations	279,612	310,000	341,759						

The above PIALC combined stage 1 & 2 facilities business scenarios provide Council with a range of annual average projected business performance targets including:

- Revenue is projected to range from \$3.124M to \$3.818M
- Expenditure is projected to range from \$3.461M to \$3.543M
- Operational profit/(loss) is projected to range from a loss of (\$337,000) to a profit of \$273,000.
- Visitations are projected to range from 280,000 visits to 342,000 visits.

4.9 PIALC Facility Option Comparison Review

The following table on the next page provides a review of the two PIALC new facilities stage options comparing a range of key items including:

- Capital cost comparisons
- Operational cost comparisons
- Other Issues to be resolved
- Opportunities and constraints review

Table 19: PIALC New Facilities Staging Comparison Review

PIALC New Facility Option	Indicative Capital Cost	Base Case Annual Average Visits	Base Case Annual Average Revenue	Base Case Annual Average Expenditure	Base Case Annual Average Profit/(Loss)	Other Issues to Be Resolved	Staging Opportunities	Staging Constraints
Stage 1: New Aquatic Leisure Facilities	\$45.7861M	259,000	\$3.208M	\$3.401M	(\$193,000)	Need to investigate site planning to determine location of other facility improvements as well as consider hard stand area for carnival activities. Facility staging plan to be investigated as modelling indicates combined stages provide a sustainable operating centre.	Allows for highest demand aquatic and health and fitness facilities to be built as a first stage.	Development of later stage two will have some impact on stage one users (subject to final design).
Stage 2: New Indoor Sport Facilities	\$7,030M	51,000	\$263,000	\$104,000	\$161,000	If stage two is built at a later stage it will be impacted by approximately 4% annual construction cost escalation. This will see the capital cost estimates needing to be increased dependant on development year.	Allows for future expansion of indoor sport facilities when Phillip Island Leisure Centre is required to close. BCSC can apply for additional funding support for this stage.	Annual cost escalation is currently 4% per year. If stage two was not built until say 5 years this would see the estimated stage 2 capital cost increase by 20% plus
Combined Stages 1 and 2	\$52.817M	310,000	\$3.417M	\$3.505M	(\$32,000)	Need to develop a project funding strategy to assist in determining if the 2 stages can be built as a combined development.	All construction completed at the same time so once centre is opened will not be impacted by future construction or increased stage 2 costs.	Highest capital cost option

4.10 Environmentally Sustainable Aquatic Facility and Plant Design

Council commissioned a sustainability strategy report for both the Phillip Island and Wonthaggi Aquatic facility projects. The report was completed by Integral Group. A detailed report has been produced to guide Council on best practice sustainability initiatives for the aquatic leisure centres

This section provides an overview of the report and highlights current trends and practice in relation to environmentally sustainable design (ESD) considerations for aquatic and leisure facilities.

The report notes that aquatic leisure centres are exceptionally energy, water and emissions intensive. Of all building types typical within Local Government property portfolios, aquatic centres are frequently the most resource intensive due to their high use of energy and water. When considering ESD, facility providers should consider the balance of:

- 1. Capital expenditure to implement and maintain ESD measures
- 1. Operational cost savings
- 2. Commitment to reducing environmental impacts including emissions reduction.

Consideration of ESD solutions and level of intervention should be made in the context of any Council ESD policies or related sustainability strategies.

It is also noted that Phillip Island may have a reasonable capacity to generate geothermal heating and associated energy systems. A geothermal energy feasibility study could be considered to investigate further this ESD initiative and to also highlight the likely capital costs and possible government funding support for this alternative energy solution.

4.10.1 Design and on-site renewables

There are a range of opportunities to reduce the resource consumption and enable high-efficiency systems. The goal is to create a high performance, passive building that makes optimal use of its climate and supports high efficiency building systems. This can be achieved through:

- **Natural ventilation** Effective natural ventilation and making use of prevailing climate and wind patterns should form part of design development. Daytime natural ventilation can reduce HVAC loads and energy costs.
- **Building Fabric** High performance, thermally efficient building fabric is critical to low energy and comfortable buildings. Best practice benchmarks: high insulation ratings, double-glazing or better, low-E glass and thermally broken windows and building fabric.
- **Solar access** Buildings should aim to exceed the minimum solar access requirements for winter-time solar access at mid-day. Building geometry should maximise solar access.
- **Shading** Shading or window screening should be considered an integral part of building design for thermal comfort and cooling load reduction. Horizontal shading to the north and vertical slat shading to the east and west are most effective.
- Solar The installation of solar voltaic panels is a cost-effective way of reducing electricity costs. The proposed
 roof space would allow a sizable system that should have an attractive payback period. Solar thermal systems are
 a less suitable technology for aquatic centres due to their limited efficiency, limited flexibility and relatively low
 return on investment.

4.10.2 Specific ESD Initiatives

A range of specific ESD initiatives now commonly developed at aquatic facilities include:

Mechanical Systems

Optimally controlled mechanical systems within aquatic centres offer a good opportunity for energy savings. The Geothermal Feasibility Study could also inform the specific ESD initiatives.

Mechanical systems will be split between wet areas (i.e. pool zones) and dry areas (amenities / cafes). Options include

• Best in Class Air to Air Heat Recovery for Pool Halls – Humidity within wet zones (pool halls) is managed by outside air, however this contributes to the heating load. By utilising air-to-air heat recovery, a typical pool zone will make significant reductions in its energy use.

- Pool Water Heating Electric heat pumps should be considered for pool water heating. Special CO2 heat pump
 units can generate heated hot water temperatures matching that conventional gas fire boilers, reaching up to
 90°C.
- Advanced Controls An important opportunity is to consider advanced controls to adjust the speed of pool AHU fans based on internal conditions temperature and humidity. Controls can support high efficiency performance and improve the effectiveness of comfort and humidity control within the centre.
- **Specific fan power-** Air handling equipment should be selected in line with specific fan power compliance requirements of the best-practice energy efficiency standards.

Hydraulic Systems

Hydraulic systems are critical to delivering low energy aquatic centres. In order to deliver on this ambition two key goals should be adhered to 1) generating hot water as efficiently as possible; 2) moving water with as little energy as possible. Furthermore, greywater / rainwater opportunities onsite present numerous options for reducing water demand.

- **Domestic Hot Water** Heat pumps can also provide domestic hot water, delivering water at 45°C. If hotter water temperatures are desired a secondary water loop heat pump could be attached to the main pool hall hot water loop taking water temperatures from 45°C to 65°C. Alternatively an electric top up element positioned in the hot water storage tank can also boost hot water generation in times of peak demand.
- **Grey Water System** If modern filtration and treatment systems are employed for filtering backwash water, the quality of the water can be sufficient for use in non-potable uses such as toilet flushing, and potentially irrigation.
- **Rainwater Harvesting** There is significant potential to capture rainwater from the roof area. This can be used for irrigation, toilet flushing and potentially pool make- (subject to quality issues) up to reduce water demand.

Management

As well as market leading building service technologies to optimise performance, several strategies for managing aquatic centres are outlined below.

- **Utility Management System** An automated building utility management system with its reporting features can assist the building operator to identify equipment faults or operational issues that result in excess use of energy and water. Using this data appropriately can save up to 10-30% in energy consumption annually.
- Independent Commissioning Agent As aquatic centres are large energy consumers. An independent commissioning agent could provide an opportunity for significant energy savings. An independent commissioning agent ensures that building systems are correctly commissioning and independently verified as performing as designed.
- Air Tightness Testing Adopting an air tightness target allows for close control of indoor environments which are therefore insulated from incoming infiltration. Any adopted target should be verified by testing, particularly within the pool hall.

Conclusions

The development of 2 future aquatic leisure facilities for Bass Coast Shire Council presents many opportunities to advance sustainability in a manner that:

- Improves the whole of life cost performance
- Reduces resource consumption and environmental impacts
- Supports the health and wellbeing of facility users
- Delivers public benefit beyond the provision of social infrastructure of the aquatic facilities.
- Showcases a commitment to residents and centre visitors through effective third party benchmarking and certification.

As Council progresses each facility to detailed design it is recommended that Council appoint an experienced ESD advisor to the design team to ensure contemporary design and engineering opportunities to advance Council's environmental sustainability ambitions are well informed and adequately designed and costed.

4.10.3 Council Climate Change Action Draft Plan 2020 to 2030

In September 2019, Bass Coast Shire Councillors joined a growing movement of councils leading the nation in declaring a climate emergency, recognising the serious risk that climate change poses to safety of the entire Bass

Coast community, that immediate and urgent action is required to reduce our emissions, build community resilience against the local impacts of climate change and ultimately reverse global warming.

Bass Coast Shire is committed to doing everything it can to solve the challenge of climate change. It is critical that rapid action is taken to protect our natural assets, to maintain Bass Coast's unique environment and secure a liveable and healthy future for our community.

A key action of the plan is for Council in 2021 to update its existing ESD policy for Council buildings which would include:

- Design standards for new builds and major refits which target zero carbon construction and operation (including transition to all electric) and respond to expected climate impacts at end of asset life.
- Procurement guidelines to ensure reduced caron and climate resilient materials.
- Procedures for briefing consultants, architects and contractors to ensure climate risk mitigation is a central design intent and outcome.

These key outcomes will guide future ESD initiatives for the aquatic centres design and development.

4.10.4 Geothermal Energy Review

Council commissioned Rockwater – Hydrogeological & Environmental Consultants to complete a high level geothermal site pre-feasibility study for both of the proposed aquatic leisure centres. The study was completed to:

- Help inform and advise if both sites are conducive to the development of geothermal energy systems.
- Help inform the likely capital and operational cost impacts of such heating systems.

This report should be reviewed to identify specific study findings. As a summary OPG notes the report highlights that pool water and air heating will represent the bulk of energy consumption in the two aquatic centres and where possible geothermal system installation can substantially reduce the cost of this energy whilst also returning significant environmental and emission benefits and savings.

The prefeasibility study found in relation to the Phillip Island project:

- The future PIALC site is underlain by about 70m of lower tertiary rocks of the Mornington Volcanic Group (older Volcanics) with the depth to water likely to be 10m to 20m below ground level.
- Underlain to these older Volcanics are pre-tertiary cemented volcaniclastic sediments of the Strzelecki Group of Cretaceous age.
- These are thought to be then underlain by the igneous basement rocks of the Woolamai granite.
- The Woolamai granite has been able to produce water at about 40C with the geothermal gradient regarded as high at 30C to 40C/km.

The report estimates that the proposed aquatic and indoor sport facilities proposed at Phillip Island will likely require a total heating load of 1,950 to 2,000KW. The study identifies 4 types of geothermal systems (concepts) that could be considered for the Phillip Island facilities being:

- Concept 1: "Conventional" open loop sedimentary aquifer geothermal system (geothermal doublet).
- Concept 2: "Coaxial" deep borehole heat exchanger (DBHE).
- Concept 3: Open loop ground source heat pump (GSHP) borefield
- Concept 4: A closed loop ground source heat pump (GSHP) borefield

All of these concepts have advantages and disadvantages and were rated having compatible geology with high potential to be developed at Phillip Island. It was recommended that a detailed feasibility study be completed to derisk the options and help determine the best value for money and return on investment concept.

For example if Council installed a conventional gas fired boiler at around \$500,000 capital cost it was likely to record annual energy costs in year one of up to \$470,000.

The concept 3 geothermal option was identified as the lowest capital cost option at \$1.4M but annual operating costs would be around \$250,000 (saving \$220,000 annually in energy costs) whilst concept 1 at an estimated cost of \$3M would see operating costs drop to \$110,000 (\$360,000 annual energy saving).

The pre-feasibility conclusions for the PIALC development noted:

"At the PIALC development site, a deep open-loop geothermal project (Concept 1) appears to offer the best LCOH over a 30-year life-cycle given its higher COP and ability cover both peak and baseload. The calculated LCOH is \$9/GJ which is considerably lower than that for a gas-boiler which makes the project very attractive and would provide some buffer should the actual flow and/or temperature be lower than estimated in this study.

It also achieves a significant carbon dioxide gas offset when compared to a conventional gas-fired boiler solution (up to 47 kt).

This is the recommended geothermal solution for this development. However, the Concept is only viable if the Woolamai granite is found to occur at the site and is sufficiently fractured. Thus, it is recommended that the following points be reviewed and de-risked in a more detailed study:

- A hydrostratigraphic test hole be drilled to confirm the geology of the site. Drilling costs may be in the order
 of \$250,000 (ball-park budget cost from Borewell) but could be as low as \$100,000 for a simple diamond
 drilled exploration hole without hydraulic testing.
- A scoping study should be prepared to confirm costs and progress the project.

4.11 Where to From Here

This final draft feasibility report documents key user catchment & user market analysis that have guided the recommended facility option component brief. The report also presents from these findings:

- An integrated range of future PIALC staged development layout plans
- Indicative capital costs for each stage.
- Projected 10 year operating visitations and financial performance projections for the proposed facilities.

As part of the PIALC Redevelopment Feasibility Study Project review process OPG have issued the final draft report for Councillor and officer review

Following this Council Officers in association with OPG would develop and implement a community engagement strategy and seek community feedback on the final draft report.

Following close off of community feedback OPG will summarise and review these findings and following Council review include any Council approved changes in the final feasibility study report.

5. Warranties and Disclaimers

The information contained in this report is provided in good faith. While Otium Planning Group has applied their own experience to the task, they have relied upon information supplied to them by other persons and organisations.

We have not conducted an audit of the information provided by others but have accepted it in good faith. Some of the information may have been provided 'commercial in confidence' and as such these venues or sources of information are not specifically identified. Readers should be aware that the preparation of this report may have necessitated projections of the future that are inherently uncertain and that our opinion is based on the underlying representations, assumptions and projections detailed in this report.

There will be differences between projected and actual results, because events and circumstances frequently do not occur as expected and those differences may be material. We do not express an opinion as to whether actual results will approximate projected results, nor can we confirm, underwrite or guarantee the achievability of the projections as it is not possible to substantiate assumptions which are based on future events.

Accordingly, neither Otium Planning Group, nor any member or employee of Otium Planning Group, undertakes responsibility arising in any way whatsoever to any persons other than client in respect of this report, for any errors or omissions herein, arising through negligence or otherwise however caused.

Appendix 1: PIALC Option 1 & 2 Indicative Capital Cost Plan

Base Coast Council Phillip Island Aquatic Leisure Centre

Turner & Townsend

Basis: F005 drawing from Peddle Thorp dated 16/04/2021

Indicative Cost Plan

QS REF: me29713 Date: 20/04/2021

						Stage 1 - Aquatic			
Function	Area m2		Rate \$/m2		Overall \$	l	Centre \$	Sta	ge 2 - Indoor Sports \$
			4.11.2		•	T	· ·		•
Building Works Airlock	20	S	4,000	s	80,000	s	80,000		
Foyer / retail	210	S	2,200	\$	462,000	\$	462,000		
Reception	30	\$	3,000	\$	90,000	\$	90,000		
- Extra for reception joinery	Allow			\$	30,000	\$	30,000		
- Extra for turnstiles	Allow		2 200	\$	150,000	\$	150,000		
Dry Lounge	110 20	S	2,200 2,000	\$	242,000 40,000	\$	242,000 40,000		
Café / Merch Store Café Servery / Queuing / Kitchen	110	S	3,000	\$	330,000	\$	330,000		
Kitchen stores	16	S	2,500	\$	40,000	\$	40,000		
- Extra for cafe equipment	Allow		_,	\$	160,000	\$	160,000		
Administration	200	\$	2,500	\$	500,000	\$	500,000		
Meeting area	80	\$	2,700	\$	216,000	\$	216,000		
Party Room	40	\$	2,500	\$	100,000	\$	100,000		
Store / Pool Store Wet Change	80 190	S	2,500 3,000	\$	200,000 570,000	\$	200,000 570,000		
Change Village	30	S	2,800	\$	84,000	\$	84,000		
- EO for lockers	Allow	•	2,000	\$	100,000	\$	100,000		
Pool Office	25	S	2,500	\$	62,500	\$	62,500		
Cleaner	6	S	3,000	\$	18,000	\$	18,000		
Pool Plant	170	\$	2,000	\$	340,000	\$	340,000		
- EO for basement pool plant	Allow			\$	340,000	\$	340,000		
Accessible Change	18	S	3,300	\$	59,400	\$	59,400		
Changing Places	28	\$	3,600	\$	100,800	\$	100,800		
- Extra for hoist and adult change table	Allow	c	2.700	5	40,000	\$	40,000		
First Aid room Steam / Sauna [shell]	15 40	S	2,700 2,000	\$	40,500 80,000	\$	40,500 80,000		
Pool Hall	3044	S	2,700	\$	8,218,800	\$	8,218,800		
- Allow bench seating to pool hall	Allow		-,	\$	50,000	\$	50,000		
Gymnasium	600	S	2,400	\$	1,440,000	\$	1,440,000		
Gym Store & Group Fitness Store	66	\$	2,000	\$	132,000	\$	132,000		
Fitness Test / Gym Office	60	\$	2,500	\$	150,000	\$	150,000		
Group Fitness 1-2	400	S	2,500	\$	1,000,000	\$	1,000,000		
Dry Change	110	\$	3,000	\$	330,000 100,000	\$	330,000 100,000		
- EO for lockers Indoor Sports Courts	Allow 1710	S	1,800		3,078,000	3	100,000	\$	3,078,000
- Extra for show court	Allow	•	1,000	_	EXCLUDED	ı		Ψ.	EXCLUDED
- Fixed spectator seating	Allow			\$	120,000	ı		\$	120,000
- No Allowance for retractable seating	Allow				EXCLUDED	ı			EXCLUDED
Baseketall, Netball Special services and equipment	Allow			\$	200,000	ı		\$	200,000
Courts Store	100	\$	1,800	\$	180,000	ı		\$	180,000
Squash Courts	A11			_	EXCLUDED		000,000		EXCLUDED
Mechanical Plant Circulation	Allow 475	S	2,200	\$	600,000 1,045,000	\$	600,000 1,045,000		
Circulation	4/5	٩	2,200	٥	1,040,000	۳	1,040,000		
Allowance for piled foundations	Allow			s	1,344,504	\$	1,020,264	s	324,240
Allowance for fire sprinklers [excludes pool halls]	Allow	\$	362,000		362,000	\$	221,000	\$	141,000
Allow for AV infrastructure	Allow	\$	314,000	\$	314,000	\$	238,000		76,000
Allow for new building signage	Allow	\$	100,000	\$	130,000	\$	100,000	\$	30,000
Allwance for entrance Canopy	Allow			\$	250,000	\$	200,000	\$	50,000
ESD Initiatives	6.0%			\$	1,406,595	\$	1,154,641	\$	251,954
Total Building Works	8,003	\$	3,115	\$	24,926,099	\$	20,474,905	\$	4,451,194
Aquatic Works - Internal			2			١.			
25m x 8 lane pool incl ramp access	Allow			\$	2,000,000	\$	2,000,000		
Splashpad / Waterplay	Allow			\$	630,000	\$	630,000		
- Allow for water features / equipment	Allow			\$	550,000	\$	550,000 1,800,000		
Warm water pool / LTS pool with spa	Allow				1,800,000				
- extra for moveable floor to WWP	Allow		2 No	\$	810,000	\$	810,000		
Water Slides	Allow		2110	\$	1,000,000 400,000	\$	1,000,000 400,000		
- extra for water slide tower				\$	180,000	\$	180,000		
Toddler pool	Allow								
Sauna / Steam room fitout Pool equipment	Allow			\$	100,000 240,000	\$	100,000 240,000		
Builders works [excavation, etc]	Allow			\$	200,000	\$	200,000		
Allowance for piled foundations	Allow			\$	600,000	\$	600,000		
Preliminaries on aquatic works	Allow			\$	850,800	\$	850,800		
Total Aquatic Works				\$	9,360,800	\$	9,360,800	_	
External Works & Services				ľ	3,000,000	ľ	9,000,000		
Site Preparation incl misc. demolition	Allow			s	200,075	\$	151,825	\$	48,250
- Earthworks	Allow			\$	280,685	\$	213,135	\$	67,550
Waste yard	Allow			\$	90,000	\$	90,000		,
Pool plant access / bund	Allow			\$	30,000	\$	30,000		
New carpark	186 No			\$	937,440	\$	937,440		
Crossovers (3 nos)	Allow			\$	30,000	\$	30,000		
Allow for building forecourt	2719 1080			\$	815,700	\$	652,560	\$	163,140
Allow for internal asphalt road Secure outdoor space	1080 1395			\$	216,000 418,500	\$	216,000 418,500		
Outdoor space Outdoor seating	Allow			\$	50,000		50,000		
Soft landscaping	Allow			\$	300,000		200,000	\$	100,000
Allowance for fencing	Allow			\$	150,000		100,000		50,000
Allowance for External Services incl Stormwater	Allow			\$	1,201,000		911,000		290,000
Total External Works & Services	8,003	•	590	\$	4,719,400	\$	4,000,460	\$	718,940
Total External Works & Services					4,715,400	ľ			713,540
Sub Tota	8,003	\$	4,874	\$	39,006,299	\$	33,836,165	\$	5,170,134
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Base Coast Council Phillip Island Aquatic Leisure Centre

Indicative Cost Plan

Basis: F005 drawing from Peddle Thorp dated 16/04/2021

QS REF: me29713 Date: 20/04/2021

Function	Area m2	Rate \$/m2		Overall \$		Stage 1 - Aquatic Centre \$		ge 2 - Indoor Sports \$
Design Contingency Cost Escalation to tender		10%	\$	3,901,000 EXCLUDED	\$	3,383,000 EXCLUDED	\$	518,000 EXCLUDED
Construction Cost	8,003	\$ 5,361	\$	42,907,299	\$	37,219,165	\$	5,688,134
Construction Contingency Professional Fee Allowance [Incl PM] Authority Fees & Charges - Substation contribution Fixtures, Fittings and Equipment Audio Visuall / Active IT Equipment Allowance/ Members systems - Gym equipment [assumed leased] Council internal costs Legal, permits, marketing, other professional Fees	Allow Allow Allow Note Allow Allow	10% 9%	55555	4,291,000 4,248,000 391,000 150,000 430,000 400,000 EXCLUDED EXCLUDED EXCLUDED	555	3,721,000 3,684,000 339,000 150,000 373,000 300,000 EXCLUDED EXCLUDED EXCLUDED	\$ \$	569,000 564,000 52,000 57,000 100,000 EXCLUDED EXCLUDED EXCLUDED
Sub Total			\$	9,910,000	\$	8,567,000	\$	1,342,000
Project Total in Today's Prices (excluding GST)			\$	52,817,299	\$	45,786,165	\$	7,030,134

Exclusions:

We have expressly not taken into account the impact of the Covid 19 pandemic (or any other matter coming to our attention after the date of this report) and accordingly have excluded from this report any implications in relation to programme, costs, supply shortages, performance of parties due to shortages of labour and the inability to travel due to global and national travel restrictions, etc. Turner's Aromsend accepts no liability for any loss or darmage which arises as a result of such matters or any reliance on this report which assumes such matters have been taken into account.

GST Cost Escalation beyond December 2022 Upgrade or provision of authority services infrastructure external to the site Works to adjoining streets

Land and finance costs

Public Art

Adverse soil conditions incl. excavation in rock, contaminated soil, soft spot

Asbestos & other hazardous materials removal Stormwater on site retention / detention system

Diversion / relocation of existing inground services Relocation / Decanting / Temporary Accom

Squash Courts