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## Economic Impact Assessment

### Bass Coast Aquatic Leisure Centre



**MCa** <Michael Connell & Assocs.>

November 2021

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## Executive Summary

The analysis covers the construction phase and a 10-year period of operations.

This report is an economic impact assessment of the development of the Bass Coast Aquatic Leisure Centre. The economic impact analysis was conducted on two phases of the project: the construction phase covering 2022 and the operations phase from year 1 (2023) onwards. The operations analysis covers modelling the new centre and the measurement of benefits (economic) associated with activities and programs over a 10 year period.

### Construction Phase – Economic Impacts

Construction activity was modelled, and estimates developed for: onsite construction jobs in the region; professional jobs; and the jobs generated in the supply of materials and equipment to the project. The number of indirect jobs generated through the spending of construction, professional and material supply employees was also estimated.

- A total of 100.2 direct jobs (FTE) would be generated during the construction period.
- This comprises 77.1 onsite construction jobs; 7.9 professional jobs and 15.1 jobs in the materials and equipment supply sectors. Construction and professional jobs are likely to be held by residents of Bass Coast and the broader region and materials/equipment supply jobs would be spread across Victoria and interstate.
- When the multiplier effects of spending are taken into account, total jobs (direct and indirect) associated with the project in the construction phase is 124.4 FTE jobs.
- The increase in regional income generated by the project was estimated to be \$24.849 million (\$19.880 million direct and \$4.970 million indirect/induced).<sup>1</sup>

### Operations Phase - Economic Impacts

Detailed modelling was undertaken of the operations the new facilities for a 10-year period from 2023 to 2032.

The jobs generated by activity at Bass Coast Aquatic Leisure Centre is a combination of direct jobs in the centre and those generated in the region (Wonthaggi) by users and other visitors' spending in the town centre.

- The operations of the centre will account for an average of 31.1 FTE jobs per year (25.7 direct employees on site and 5.3 indirect/induced jobs in the region).
- Spending in Wonthaggi by regular centre users and visitors generates an average of 8.0 FTE jobs (6.9 direct jobs, with a further 1.1 indirect/induced jobs in the region).
- Carnivals and events would generate an average of 7.7 FTE jobs (6.8 direct jobs, with a further 0.9 indirect/induced jobs in the region).
- In total, the centre employees and the spending by users/visitors would generate an average of 46.8 jobs (39.4 direct and 7.3 indirect/induced jobs).

***The development of BCALC will have a significant impact on employment with additional jobs concentrated in the centre and in Wonthaggi.***

The increase in activity and employment provides a boost to regional income.

- Annual regional income arising from the new centre would be an average of \$3.702 million per year higher when all direct and indirect effects are taken into account.
- Over a 10-year period of operations of the new facilities, regional income would be \$37.018 million higher than otherwise (in constant 2021 prices).

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<sup>1</sup> Regional income is the total net income generated from the activity and covers wages and salaries of employees and profits of businesses within the region. It includes income generated directly within the business and indirect income, which is generated in other regional businesses (wages and profits) from the multiplier impacts of employee spending on the region. In the modelling of income generated income tax and GST on spending, are both treated as leakages from the region.

## Benefits & Costs

The benefits and costs of the new facilities are analysed for a 10-year period of operations.

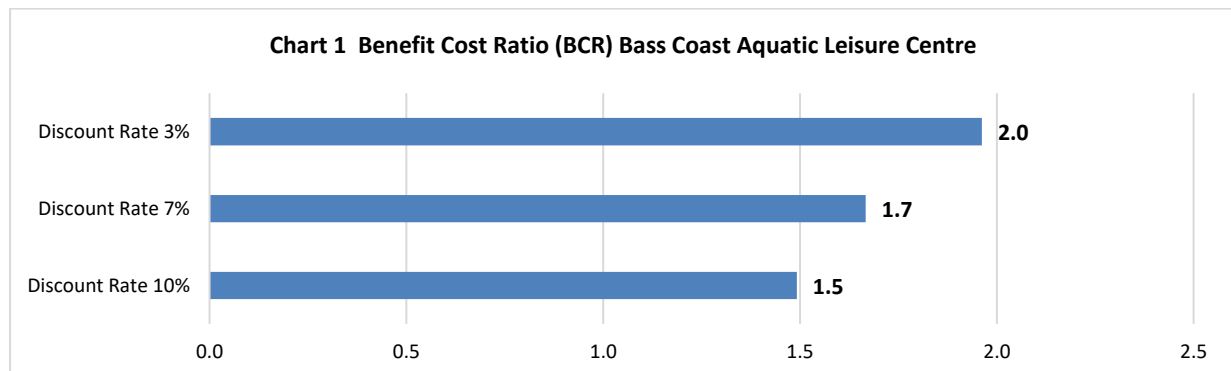
- **Costs:** The estimated cost of the project is \$41.842 million, and the 10-year maintenance costs are million \$1.550 million for a total 10-year project cost of \$43.392 million.
- The **measured benefits** comprise: the value of benefits to individuals from the new facilities (these are valued at market value, and this is measured by the revenue associated with each of the new facilities); the increase in regional income generated by the operations of the new facilities (by BCALC employees and spending by facilities users/visitors in the area; health benefits associated with exercise; and workforce productivity benefits).
- There are a number of additional benefits that are difficult to quantify and are not included in this assessment: creation of career and training opportunities in the region for youth in the sports and recreational services sector; and volunteering benefits (personal satisfaction benefits to volunteers and the benefits to program participants from additional training and supervision).

**Table 1. Benefit /Cost Analysis of BCALC Operations**

Total Project: BCALC	Discount Rate	Discount Rate	Discount Rate
Regional Cost Benefit (\$2021 prices)	3%	7%	10%
Period : 10Years			
Project Costs			
Capital Costs 2020(\$)	\$41,841,949	\$41,841,949	\$41,841,949
Costs - Maintenance (10 years) 2.5%	\$1,550,484	\$1,550,484	\$1,550,484
<b>Total Costs</b>	<b>\$43,392,433</b>	<b>\$43,392,433</b>	<b>\$43,392,433</b>
Project Benefits			
Direct Benefits (users) (10 years)			
Consumer Value	\$ 33,051,291	\$ 33,051,291	\$ 33,051,291
Regional Income Increase	\$37,017,695	\$37,017,695	\$37,017,695
Indirect Benefits			
Health Benefits	\$9,126,000	\$9,126,000	\$9,126,000
Workforce Productivity Benefits	\$18,252,000	\$18,252,000	\$18,252,000
<b>Total Benefits (\$2021 prices)</b>	<b>\$97,446,986</b>	<b>\$97,446,986</b>	<b>\$97,446,986</b>
<b>Total Benefits (\$) Present Value</b>	<b>\$85,138,370</b>	<b>\$72,337,778</b>	<b>\$64,737,746</b>
Benefits & Costs			
Net Present Value (\$) Total Benefits	\$41,745,937	\$28,945,345	\$21,345,313
NPV/Cost	1.0	0.7	0.5
<b>Benefit Cost Ratio (BCR)</b>	<b>2.0</b>	<b>1.7</b>	<b>1.5</b>

Source: MCA modelling & analysis November 2021.

The project delivers positive Benefit Cost Ratios (BCR) using appropriate discount rates for a sports and recreation project. The Bass Coast Aquatic Leisure Centre Project has a Benefit Cost Ratio (BCR) of 2.0 for a 3% discount rate and for the suggested discount rate for a large project ( 7%) yields a BCR of 1.7 for the facility.



Source: MCA modelling & analysis October 2021.

## 1. Introduction

This report is an economic impact assessment of the development of the Bass Coast Aquatic Leisure Centre. The analysis covers the construction phase and a 10-year period of operations.

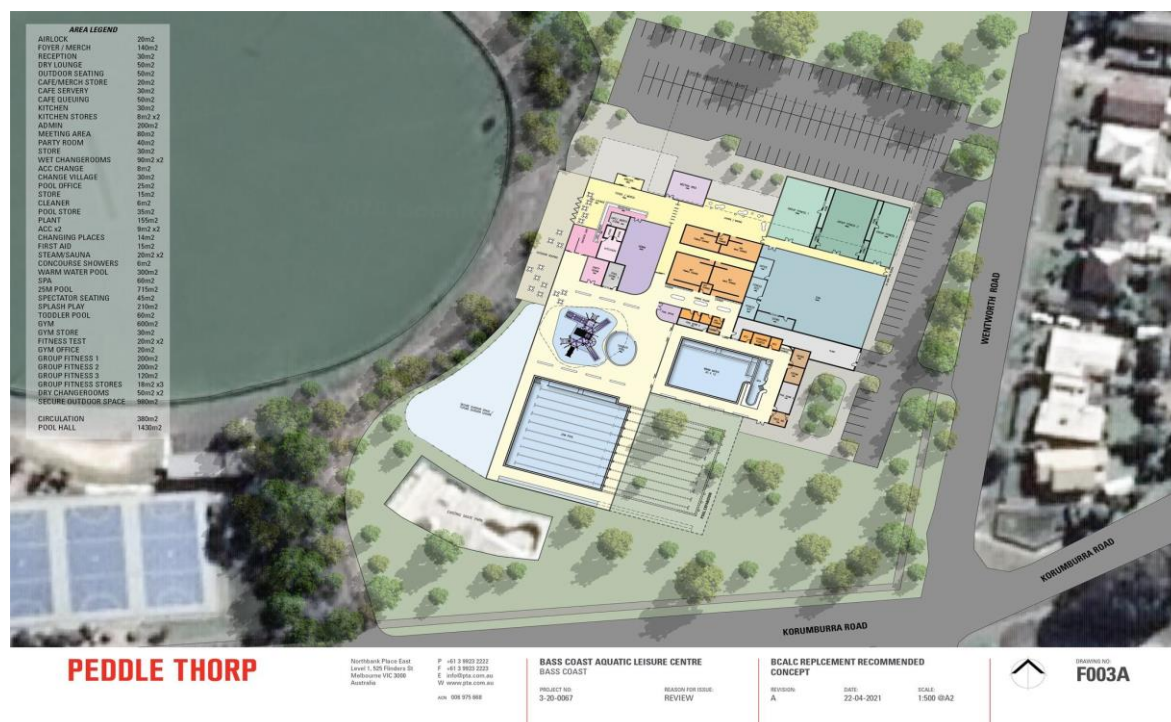
The assessment was undertaken by MCa <Michael Connell & Assocs.> - economic consultants, utilising information from the other project consultants as major inputs.<sup>2</sup>

### Bass Coast Aquatic Leisure Centre

This report covers the economic impacts of replacement of the current 40-year-old centre with a new centre.

- 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 (e.g. 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; meeting rooms/spaces; creche; food and beverage services ; and merchandising.

This combination addresses the changing demographics of the area, and the increasing focus by the community on health and wellness.



Source: Bass Coast Aquatic Leisure Centre Feasibility Study Final Report, August 2021, Otium Group P31

<sup>2</sup> Bass Coast Aquatic Leisure Centre Feasibility Study Final Report, August 2021, Otium Group; Bass Coast Aquatic Leisure Centre - 10 Year Base Case Financial Model, Otium Planning Group, October 2021; Bass Coast Aquatic Leisure Centre, Indicative Capital Costs, Turner & Townsend, April 13, 2021.

## 2. Economic Impact Analysis – Bass Coast Aquatic Leisure Centre

The economic impact analysis was conducted on two phases of the project: the construction phase covering 2022 and the operations phase from year 1 ( 2023) onwards. The operations analysis covered modelling the new centre and the measurement of benefits (economic) associated with activities and programs over a 10 year period.

### 2.1 Economic Impacts – Construction Phase

The construction phase was modelled using the cost figures for the new facilities.

**Table 2. Bass Coast Aquatic Leisure Centre - Construction Cost Estimate 2021**

BCALC Indicative Capital Costs	Costs \$
<b>Building Works</b>	
Building Works	\$19,411,749
Aquatic works 25 m pool	\$7,963,200
External Works & Services	\$3,470,000
<b>Total Construction</b>	<b>\$30,844,949</b>
Design Contingency	\$3,085,000
<b>Total with Design Contingency</b>	<b>\$33,929,949</b>
<b>Other Costs</b>	
Construction contingency	\$3,393,000
Professional fees	\$3,360,000
Authority Fees & Charges	\$309,000
Substation contribution	\$150,000
Fixtures , fittings , equipment,	\$340,000
Audio/IT etc.	\$360,000
<b>Total</b>	<b>\$7,912,000</b>
<b>Project Total</b>	<b>\$41,841,949</b>

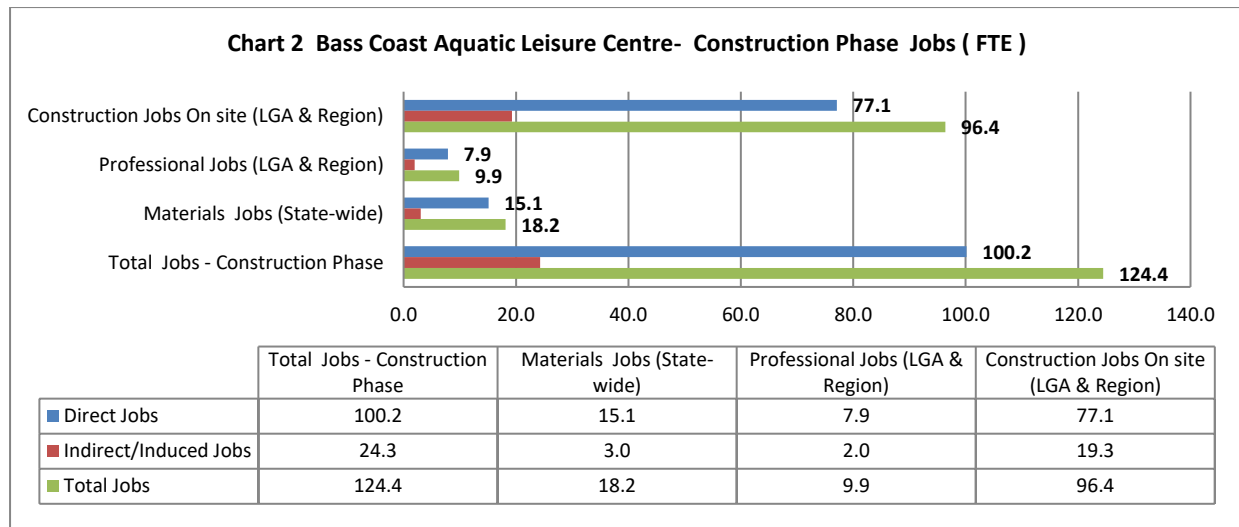
Source: Turner & Townsend Costings, April 13 2021<sup>3</sup>

Construction activity was modelled, and estimates were developed for: onsite construction jobs in the region; professional jobs; and the jobs generated in the supply of materials and equipment to the project. The number of indirect jobs generated through the spending of construction, professional and material supply employees was also estimated.

- A total of 100.2 direct jobs (FTE) would be generated during the construction period.
- This comprises 77.1 onsite construction jobs; 7.9 professional jobs and 15.1 jobs in the materials and equipment supply sectors. Construction and professional jobs are likely to be held by residents of Bass Coast LGA and the broader region and materials/equipment supply jobs would be spread across Victoria and interstate.
- When the multiplier effects of spending are taken into account, total jobs (direct and indirect) associated with the project in the construction phase is 124.4 FTE jobs.
- The increase in regional income generated by the project was estimated to be \$24.849 million (\$19.880 million direct and \$4.970 million indirect/induced).<sup>4</sup>

<sup>3</sup> BCALC Feasibility Study Final Report, August 2021, Otium Planning Group P58-59

<sup>4</sup> Regional income is the total net income generated from the activity and covers wages and salaries of employees and profits of businesses within the region. It includes income generated directly within the business and indirect income, which is generated in other regional businesses (wages and profits) from the multiplier impacts of employee spending on the region. In the modelling of income generated income tax and GST on spending, are both treated as leakages from the region



Source: MCA Modelling and Analysis, October 2021

**Table 3. Bass Coast Aquatic Leisure Centre: Employment Impacts (FTE no.)**

Bass Coast Aquatic Leisure Centre: Construction Phase Jobs	Direct Jobs FTE	Indirect Jobs FTE	Total Jobs FTE
Construction Jobs (Region)	77.1	19.3	96.4
Professional Jobs (State-wide)	7.9	2.0	9.9
Materials Jobs (State-wide)	15.1	3.0	18.2
<b>Total Jobs - Construction Phase</b>	<b>100.2</b>	<b>24.3</b>	<b>124.4</b>

Source: MCA Modelling and Analysis, October 2021. Note may be some differences due to rounding.

**Table 4. Bass Coast Aquatic Leisure Centre Construction Phase: Regional Income Impacts**

Bass Coast Aquatic Leisure Centre Construction Phase - Regional Income	\$ million <2021 prices>
Regional Income ( Direct)	\$19.880
Total Indirect /Induced(Expenditure Impacts)	\$4.970
<b>Total Regional Income</b>	<b>\$24.849</b>

Source: MCA Modelling and Analysis, October 2021. Note may be some differences due to rounding.



## 2.2 Economic Impacts – Operations Phase

### 2.2.1 Economic Impact Modelling

Detailed modelling was undertaken of the operations the new facilities for a 10-year period from 2023 (year 1) to 2032 (year 10). The operational modelling (including user estimates and financial projections prepared by Otium Planning Group) was the foundation for the economic impact modelling. This economic impact modelling covered:

- Employment in the Bass Coast Aquatic Leisure Centre. This involved the Otium estimates of the full time equivalent jobs. Estimates were also made of the indirect/induced jobs generated in the region by the spending of these employees.
- Jobs generated in the broader precinct by spending by BCALC users and visitors. Spending was modelled based on conservative assumptions in relation to the percentage of BCALC visitors who spend in Wonthaggi during their visit.

### Employment in the Centre

The new centre will have a total of 25.6 full time equivalent employees in Year 1 increasing to 25.8 in Year 10.

**Table 5. Estimated Jobs in Bass Coast Aquatic Leisure Centre (FTE no.)**

BCALC Staffing	Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	Y9	Y10
(FTE Jobs)	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Aquatic area	14.0	14.0	14.0	14.1	14.1	14.2	14.2	14.2	14.2	14.2
Gym	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9
Health & Fitness Programs	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
General Memberships	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
Café and Merchandising	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Centre Management	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6
<b>Total</b>	<b>25.6</b>	<b>25.6</b>	<b>25.6</b>	<b>25.7</b>	<b>25.7</b>	<b>25.8</b>	<b>25.8</b>	<b>25.8</b>	<b>25.8</b>	<b>25.8</b>

Source: Otium Planning Group estimates , September 2021

### 2.2.2 The Centre Location

The Bass Coast Aquatic Leisure Centre is located in Wonthaggi.

With the proximity of the town centre to BCALC, there will be considerable spill over of spending by users and visitors. In this modelling of expenditure conservative assumptions have been used and spending is restricted only to purchases of food and beverages and some other miscellaneous spending (mainly at cafes and food outlets). This is additional spending that is linked to a visit to the BCALC. Any other spending by centre users at the shopping centre during a visit (e.g. at a supermarket or other store) is treated as normal spending and not included in this impact assessment.

**Table 6. Visitors to Centre (estimate)**

BCALC	Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	Y9	Y10
Centre Visitors										
Users/Visitors (All)	291,000	297,000	300,000	303,000	305,000	306,000	308,000	309,000	311,000	312,000
Pool Events & Carnivals										
Competitors & spectators	30,001	30,619	30,929	31,328	31,392	31,547	31,702	31,856	32,001	31,166

Source: Bass Coast Aquatic Leisure Centre - 10 Year Base Case Financial Model , Otium Planning Group , October 2021 & MCa estimates

### Spending by Users & Visitors

The following are estimates of spending in the Wonthaggi by visitors to the centre. The assumptions used in modelling spending are in Appendix A.

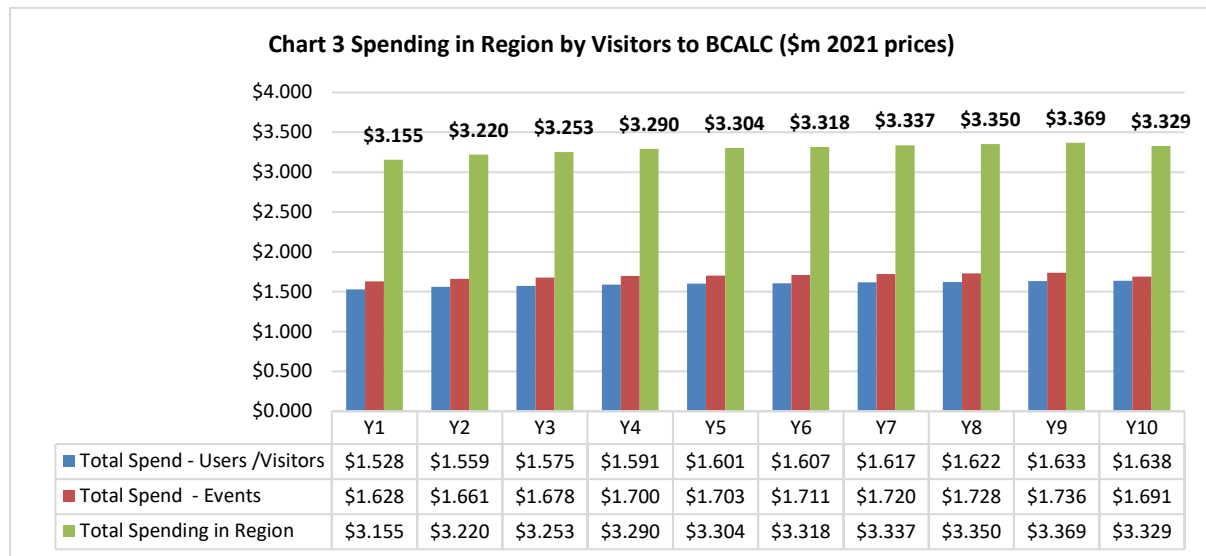
Total spending (outside the centre) is estimated at \$3.308 million in year 1 increasing to \$3.493 in year 10. This expenditure in the town centre supports a number of jobs in food service and these are estimated in the next section.



**Table 7. Estimated Expenditure by Users/Visitors to BCALC (\$ million 2021 prices)**

BCALC	Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	Y9	Y10
Centre User Spending	\$1.528	\$1.559	\$1.575	\$1.591	\$1.601	\$1.607	\$1.617	\$1.622	\$1.633	\$1.638
<b>Events</b>										
Locals Events - Day Visits	\$1.020	\$1.041	\$1.052	\$1.065	\$1.067	\$1.073	\$1.078	\$1.083	\$1.088	\$1.060
Overnight stays (1 night)	\$0.608	\$0.620	\$0.626	\$0.634	\$0.636	\$0.639	\$0.642	\$0.645	\$0.648	\$0.631
<b>Total - Events</b>	<b>\$1.628</b>	<b>\$1.661</b>	<b>\$1.678</b>	<b>\$1.700</b>	<b>\$1.703</b>	<b>\$1.711</b>	<b>\$1.720</b>	<b>\$1.728</b>	<b>\$1.736</b>	<b>\$1.691</b>
<b>Total Spending in Region</b>	<b>\$3.155</b>	<b>\$3.220</b>	<b>\$3.253</b>	<b>\$3.290</b>	<b>\$3.304</b>	<b>\$3.318</b>	<b>\$3.337</b>	<b>\$3.350</b>	<b>\$3.369</b>	<b>\$3.329</b>

Source: MCA modelling & analysis November 2021 Note may be some differences due to rounding.



Source: MCA modelling & analysis November 2021 Note may be some differences due to rounding.

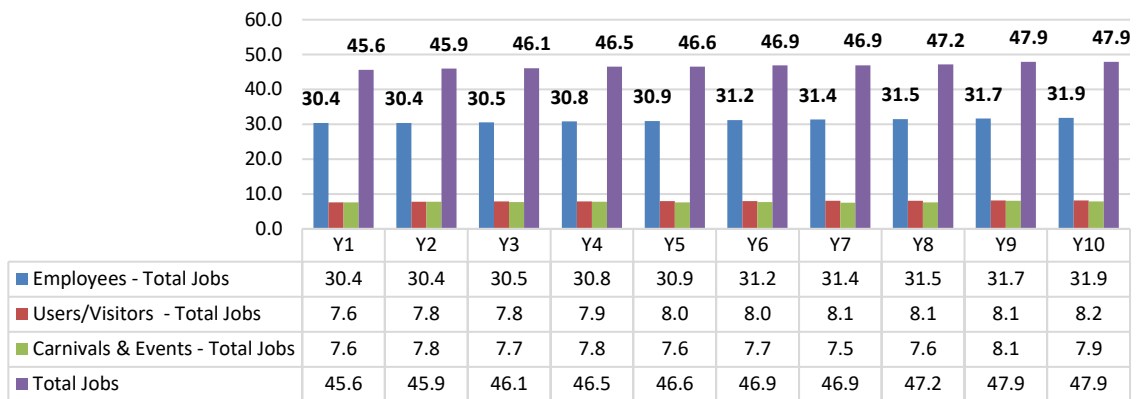
### 2.2.3 Employment Impacts

The table and charts show the estimated FTE jobs generated by activity at Bass Coast Aquatic Leisure Centre over a 10 year period. This is a combination of direct jobs in the centre and the jobs generated in the region (Wonthaggi) by visitors' (users and other visitors) spending in the town centre.

- The operations of the centre will account for an average of 31.1 FTE jobs per year (25.7 direct employees on site and 5.3 indirect/induced jobs in the region).
- Spending in Wonthaggi by regular centre users and visitors generates an average of 8.0 FTE jobs (6.9 direct jobs, with a further 1.1 indirect/induce jobs in the region).
- Carnivals and events would generate an average of 7.7 FTE jobs (6.8 direct jobs, with a further 0.9 indirect/induce jobs in the region).
- In total, the centre employees and the spending by users/visitors would generate an average of 46.8 jobs (39.4 direct and 7.3 indirect/induced jobs).

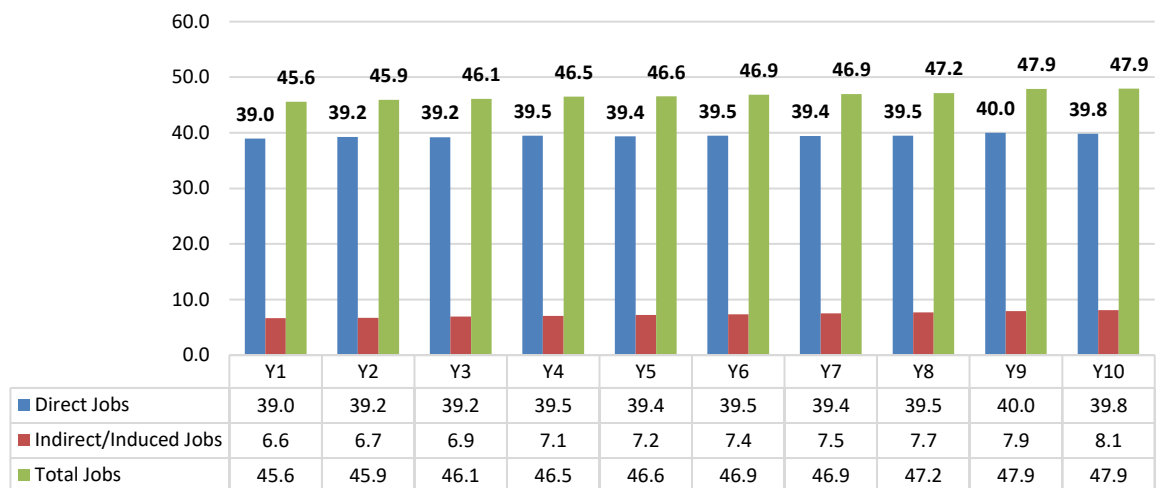
***The development of BCALC will have a significant impact on employment, with additional jobs concentrated in the centre and in Wonthaggi.***

**Chart 4 Total Jobs Generated in Region (FTE no.)**



Source: MCA modelling & analysis November 2021. Note may be some differences due to rounding

**Chart 5 Jobs Generated by BCALC (FTE no.)**



Source: MCA modelling & analysis November 2021. Note may be some differences due to rounding

**Table 8. Economic Impacts of BCALC Operations: FTE Jobs (no.)**

Employment Impacts New Facilities	Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	Y9	Y10	Average 10 Years
Operations Phase : Jobs FTE	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	
<b>BCALC Facilities Employees</b>											
Direct – Onsite Jobs	25.6	25.6	25.6	25.7	25.7	25.8	25.8	25.8	25.8	25.8	25.7
Indirect /Induced Jobs	4.8	4.8	4.9	5.1	5.2	5.4	5.6	5.7	5.9	6.1	5.3
<b>Total Jobs</b>	<b>30.4</b>	<b>30.4</b>	<b>30.5</b>	<b>30.8</b>	<b>30.9</b>	<b>31.2</b>	<b>31.4</b>	<b>31.5</b>	<b>31.7</b>	<b>31.9</b>	<b>31.1</b>
<b>Precinct Jobs (User Spend – Wonthaggi)</b>											
Direct – Precinct	6.6	6.7	6.8	6.9	6.9	6.9	7.0	7.0	7.0	7.1	6.9
Indirect /Induced Jobs	1.0	1.0	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
<b>Total Jobs</b>	<b>7.6</b>	<b>7.8</b>	<b>7.8</b>	<b>7.9</b>	<b>8.0</b>	<b>8.0</b>	<b>8.1</b>	<b>8.1</b>	<b>8.1</b>	<b>8.2</b>	<b>8.0</b>
<b>Precinct Jobs (Carnivals &amp; Events spend)</b>											
Direct Jobs - Carnivals & Events	6.8	6.9	6.8	6.9	6.7	6.8	6.7	6.7	7.1	7.0	6.8
Indirect /Induced Jobs	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	1.0	1.0	0.9
<b>Total Jobs - Carnivals &amp; Events</b>	<b>7.6</b>	<b>7.8</b>	<b>7.7</b>	<b>7.8</b>	<b>7.6</b>	<b>7.7</b>	<b>7.5</b>	<b>7.6</b>	<b>8.1</b>	<b>7.9</b>	<b>7.7</b>
<b>Total All Jobs</b>											
Direct - Onsite	39.0	39.2	39.2	39.5	39.4	39.5	39.4	39.5	40.0	39.8	39.4
Indirect /Induced Jobs	6.6	6.7	6.9	7.1	7.2	7.4	7.5	7.7	7.9	8.1	7.3
<b>Total Jobs</b>	<b>45.6</b>	<b>45.9</b>	<b>46.1</b>	<b>46.5</b>	<b>46.6</b>	<b>46.9</b>	<b>46.9</b>	<b>47.2</b>	<b>47.9</b>	<b>47.9</b>	<b>46.8</b>

Source: MCA modelling &amp; analysis November 2021. Note may be some differences due to rounding

**Table 9. Economic Impacts of BCALC Operations: All Jobs by Industry (FTE no.)**

BCALC Operations Industry	Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	Y9	Y10	Ave 10 Years
BCALC Employees	25.6	25.6	25.6	25.7	25.7	25.8	25.8	25.8	25.8	25.8	25.7
Accommodation	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Food & Beverage	8.5	8.6	8.7	8.8	8.8	8.8	8.9	8.9	9.2	9.2	8.8
Retail	1.5	1.5	1.6	1.6	1.6	1.7	1.7	1.7	1.8	1.8	1.6
Health	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.8	0.7
Transportation	1.2	1.2	1.2	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
Communication	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Recreation	2.4	2.5	2.5	2.6	2.6	2.6	2.6	2.7	2.8	2.8	2.6
Education	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
Miscellaneous	4.7	4.8	4.8	4.9	4.9	4.9	4.9	4.9	5.1	5.1	4.9
<b>Total</b>	<b>45.6</b>	<b>45.9</b>	<b>46.1</b>	<b>46.5</b>	<b>46.6</b>	<b>46.9</b>	<b>46.9</b>	<b>47.2</b>	<b>47.9</b>	<b>47.9</b>	<b>46.8</b>

Source: MCA modelling &amp; analysis November 2021. Note may be some differences due to rounding

## 2.2.4 Regional Income Impacts

The increase in activity and employment provides a boost to regional income and this is summarised in the following table, which covers the new centre.

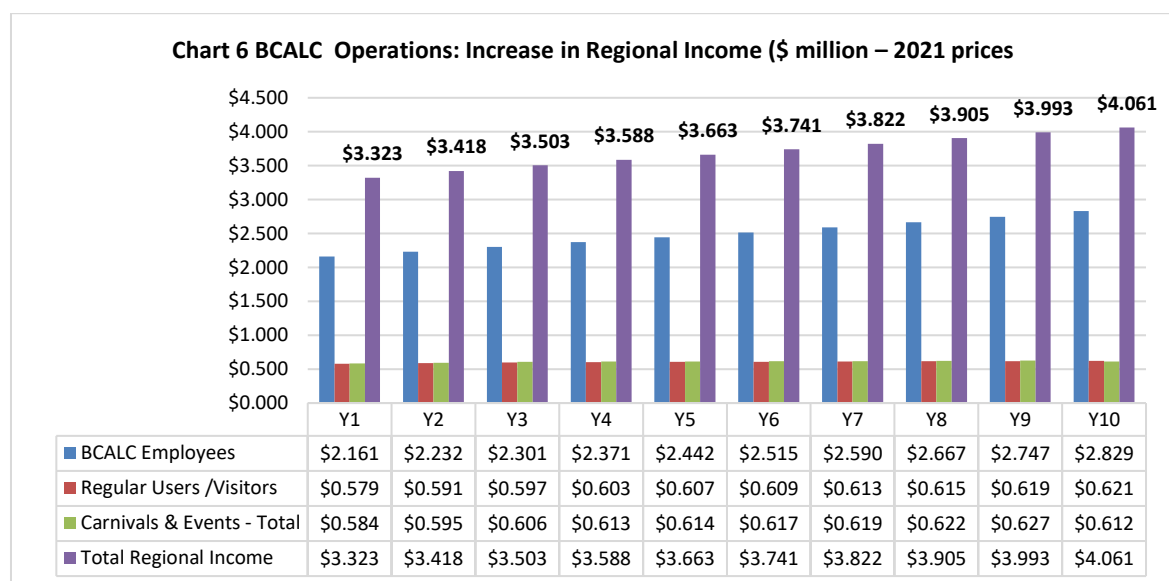
- Annual regional income arising from the new centre would be an average of \$3.702 million per year higher when all direct and indirect effects are taken into account.
- Over a 10-year period of operations of the new facilities, regional income would be \$37.018 million higher than otherwise (in constant 2021 prices).

**The development of the new facilities will have a significant impact on regional income.**

**Table 10. Economic Impacts of BCALC Operations: Increase in Regional Income (\$ million – 2021 prices)**

Regional Income	Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	Y9	Y10	Total 10 Years
<b>Operations Phase : (\$m 2021 prices)</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>	<b>2026</b>	<b>2027</b>	<b>2028</b>	<b>2029</b>	<b>2030</b>	<b>2031</b>	<b>2032</b>	
<b>BCALC Facilities Employees</b>											
Direct – Income	\$1.784	\$1.843	\$1.900	\$1.959	\$2.017	\$2.078	\$2.140	\$2.204	\$2.270	\$2.338	\$20.532
Indirect /Induced Income	\$0.377	\$0.389	\$0.401	\$0.413	\$0.425	\$0.437	\$0.450	\$0.463	\$0.477	\$0.491	\$4.323
<b>Total Regional Income</b>	<b>\$2.161</b>	<b>\$2.232</b>	<b>\$2.301</b>	<b>\$2.371</b>	<b>\$2.442</b>	<b>\$2.515</b>	<b>\$2.590</b>	<b>\$2.667</b>	<b>\$2.747</b>	<b>\$2.829</b>	<b>\$24.855</b>
<b>Precinct (User Spend)</b>											
Direct – Income	\$0.499	\$0.509	\$0.515	\$0.520	\$0.523	\$0.525	\$0.528	\$0.530	\$0.533	\$0.535	\$5.218
Indirect /Induced Income	\$0.080	\$0.081	\$0.082	\$0.083	\$0.084	\$0.084	\$0.085	\$0.085	\$0.085	\$0.086	\$0.836
<b>Total Regional Income</b>	<b>\$0.579</b>	<b>\$0.591</b>	<b>\$0.597</b>	<b>\$0.603</b>	<b>\$0.607</b>	<b>\$0.609</b>	<b>\$0.613</b>	<b>\$0.615</b>	<b>\$0.619</b>	<b>\$0.621</b>	<b>\$6.054</b>
<b>Precinct (Carnivals &amp; Events spend)</b>											
Direct – Income	\$0.516	\$0.527	\$0.532	\$0.539	\$0.540	\$0.543	\$0.545	\$0.548	\$0.551	\$0.536	\$5.378
Indirect /Induced Income	\$0.067	\$0.069	\$0.074	\$0.074	\$0.074	\$0.074	\$0.074	\$0.074	\$0.077	\$0.075	\$0.732
<b>Total Regional Income</b>	<b>\$0.584</b>	<b>\$0.595</b>	<b>\$0.606</b>	<b>\$0.613</b>	<b>\$0.614</b>	<b>\$0.617</b>	<b>\$0.619</b>	<b>\$0.622</b>	<b>\$0.627</b>	<b>\$0.612</b>	<b>\$6.109</b>
<b>Total All Income</b>											
Direct – Income	\$2.799	\$2.879	\$2.947	\$3.017	\$3.080	\$3.145	\$3.214	\$3.282	\$3.354	\$3.409	\$31.127
Indirect /Induced Income	\$0.524	\$0.539	\$0.557	\$0.570	\$0.583	\$0.596	\$0.609	\$0.623	\$0.639	\$0.652	\$5.891
<b>Total Regional Income</b>	<b>\$3.323</b>	<b>\$3.418</b>	<b>\$3.503</b>	<b>\$3.588</b>	<b>\$3.663</b>	<b>\$3.741</b>	<b>\$3.822</b>	<b>\$3.905</b>	<b>\$3.993</b>	<b>\$4.061</b>	<b>\$37.018</b>

Source: MCa modelling & analysis October 2021. Note may be some differences due to rounding



Source: MCa modelling & analysis October 2021. Note may be some differences due to rounding.

### 3. Project Benefit & Cost Analysis

The benefits and costs of the new facilities are analysed for the 10-year period of operations.

#### 3.1 Project Costs - 10 Years

The estimated cost of the project is \$41.842 million, and the 10-year maintenance costs are million \$1.550 million for a total 10-year project cost of \$43.392 million.

**Table 11. Total Costs of BCALC Project - 10 Years (\$2021 prices)**

Summary	HSE Expansion <\$ 2021 Prices>
<b>Development Cost</b>	
BCLAC Project Cost (including contingencies)	\$41,841,949
<b>Maintenance Costs</b>	
Total Maintenance (10 Years) <sup>5</sup>	\$1,550,484
<b>Total Costs 10 Years</b>	
<b>Total Construction / Maintenance Cost</b>	<b>\$43,392,433</b>

Source: Project BCALC Indicative Capital Costs, Turner & Townsend April 13, 2021

#### 3.2 Measuring Benefits – 10 Years

The following table shows estimate benefits of the new facilities to be developed at the Bass Coast Aquatic Leisure Centre.

The measured benefits comprise: the value of benefits to individuals from the new facilities (these are valued at market value, and this is measured by the revenue associated with each of the new facilities); the increase in regional income generated by the operations of the new facilities (by BCALC employees and spending by facilities users/visitors in the area); health benefits associated with exercise; and workforce productivity benefits. These combined benefits total \$97.447 million over 10 years.

**Table 12. Total Estimated Benefits of BCALC**

Total Benefits - 10 Years Operations	Total 10 Years (\$ 2021 Prices)
<b>Direct Benefits</b>	
Consumer Value (Centre Revenue)	\$ 33,051,291
Increase in Regional Income	\$37,017,695
<b>Indirect Benefits</b>	
Health Benefits	\$9,126,000
Workforce Productivity Benefits	\$18,252,000
<b>Total Benefits</b>	<b>\$97,446,986</b>

Source: MCA modelling & analysis November 2021.

<sup>5</sup> Bass Coast Aquatic Leisure Centre - 10 Year Base Case Financial Model, Otium Planning Group, October 2021

### 3.3 Direct Benefits

#### Consumer Value

A benefit of a service is the value that a user places on it and is prepared to pay for it. As a measure of this we have used total revenue generated. The total for consumer value averages \$3.305 million per year over the 10-year period, for a total benefit of \$33.051 million (in constant \$2021 prices).

**Table 13. BCALC Facilities – Estimated Consumer Value (\$ million 2021 prices)**

Consumer Value - Centre Revenue	Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	Y9	Y10	Total 10 Years	Average per year
(\$ million 2021 prices)												
Centre Revenue	\$2.778	\$2.915	\$3.028	\$3.144	\$3.249	\$3.357	\$3.469	\$3.584	\$3.702	\$3.825	\$33.051	\$3.305

Source: BCALC 10 Year Base Case Financial Model, Otium Planning Group, September 2021 Note may be some differences due to rounding.

#### Increase in Regional Income

The new facilities provide a boost to regional income through the new employees at BCALC and the spending in Wonthaggi by centre users. The total boost to regional income averages \$3.702 million per year over the 10-year period, for a total benefit of \$37.018 million (\$2021 prices).

**Table 14. BCALC Operations– Increase in Regional Income (\$ million 2021 prices)**

Increase in Regional Income	Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	Y9	Y10	Total 10 Years
(\$ million 2021 prices)											
Direct Regional Income	\$2.799	\$2.879	\$2.947	\$3.017	\$3.080	\$3.145	\$3.214	\$3.282	\$3.354	\$3.409	\$31.127
Indirect /Induced Income	\$0.524	\$0.539	\$0.557	\$0.570	\$0.583	\$0.596	\$0.609	\$0.623	\$0.639	\$0.652	\$5.891
<b>Total Regional Income</b>	<b>\$3.323</b>	<b>\$3.418</b>	<b>\$3.503</b>	<b>\$3.588</b>	<b>\$3.663</b>	<b>\$3.741</b>	<b>\$3.822</b>	<b>\$3.905</b>	<b>\$3.993</b>	<b>\$4.061</b>	<b>\$37.018</b>

Source: MCA modelling & analysis November 2021. Note may be some differences due to rounding.

### 3.4 Indirect Benefits

#### Health Benefits

A report for Sport and Recreation Victoria prepared by Marsden Jacob estimated the health benefits from indoor exercise.<sup>6</sup> The benefit is measured as the net (adjusted for injury) avoided costs to the national healthcare system (private costs and government costs) attributable to exercise activities. For the BCALC this was estimated at \$3 per user (\$1 per hour of exercise by an average of 3 hours per exercise session). The total for all users averages \$0.913 million per year over the 10-year period, for a total benefit of \$9.126 million (constant \$2021 prices).

**Table 15. BCALC Operations Health Benefits (\$ million 2021 prices)**

Health Benefits ' (\$ million 2021 prices)	Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	Y9	Y10	Total 10 Years
Total All Users	\$0.873	\$0.891	\$0.900	\$0.909	\$0.915	\$0.918	\$0.924	\$0.927	\$0.933	\$0.936	\$9.126

Source: MCA modelling & analysis November 2021. Note may be some differences due to rounding

#### Workforce Productivity Benefits

The Marsden Jacob report also provided a methodology for estimating workforce productivity benefits. Persons who exercise are fit and have lower levels of absence from work. In the study this benefit was estimated at \$5.00 per hour of exercise and for the BCALC facilities we have assumed an average exercise period of 3 hours (for a benefit of \$15 per user). The total for all users in employment averages \$1.825 million per year over the 10-year period, for a total benefit of \$18.252 million (in constant \$2021 prices). For the analysis it has been assumed that 40% of centre users are in employment.

6 Active impacts - The economic impacts of active recreation in Victoria, Prepared for Sport and Recreation Victoria, Marsden Jacob March 2018

**Table 16. BCALC Operations– Workforce Productivity Benefits (\$ million 2021 prices)**

Workforce Productivity Benefits												
(\$ million 2021 prices)	Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	Y9	Y10	Total 10 Years	Ave. per year
Workforce Productivity Employed Users Only	\$1.746	\$1.782	\$1.800	\$1.818	\$1.830	\$1.836	\$1.848	\$1.854	\$1.866	\$1.872	\$18.252	\$1.825

Source: MCA modelling & analysis November 2021. Note may be some differences due to rounding

### 3.5 Benefits and Costs

The following table show the benefits and costs associated with the new Bass Coast Aquatic Leisure Centre.

- The measured benefits comprise: the value of benefits to individuals from the new facilities (these are valued at market value, and this is measured by the revenue associated with each of the new facilities); the increase in regional income generated by the operations of the new facilities (by BCALC employees ; spending by facilities users in the precinct; health benefits associated with exercise; and work productivity benefits (fitter persons mean less absenteeism). These total \$97.447 million (in \$2021 prices).
- The estimated total cost of the project is \$41.842 million (including contingencies), and the 10-year maintenance costs are \$1.550 million a total 10-year project cost of \$43.392 million.
- In line with the guidelines for the Building Better Regions Fund (BBRF) and other funding programs, three discount rates were applied to the annual benefits (discount rates of 3%, 7% and 10%).

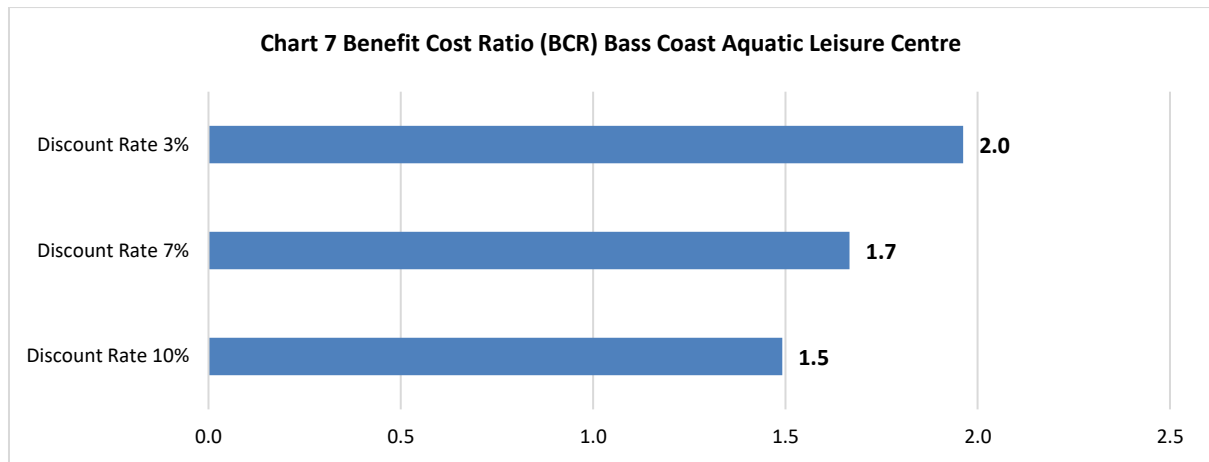
The project delivers positive Benefit Cost Ratios (BCR) using appropriate discount rates for a sports and recreation project. The Bass Coast Aquatic Leisure Centre Project has a Benefit Cost Ratio (BCR) of 2.0 for a 3% discount rate and for the suggested discount rate for a large project – a 7% discount rate yields a BCR of 1.7 for the facility.

**Table 17. Benefit /Cost Analysis of BCALC Operations**

Total Project: BCALC	Discount Rate	Discount Rate	Discount Rate
Regional Cost Benefit (\$2021 prices)	3%	7%	10%
Period : 10Years			
Project Costs			
Capital Costs 2020(\$)	\$41,841,949	\$41,841,949	\$41,841,949
Costs - Maintenance (10 years) 2.5%	\$1,550,484	\$1,550,484	\$1,550,484
<b>Total Costs</b>	<b>\$43,392,433</b>	<b>\$43,392,433</b>	<b>\$43,392,433</b>
Project Benefits			
Direct Benefits (users) (10 years)			
Consumer Value	\$ 33,051,291	\$ 33,051,291	\$ 33,051,291
Regional Income Increase	\$37,017,695	\$37,017,695	\$37,017,695
Indirect Benefits			
Health Benefits	\$9,126,000	\$9,126,000	\$9,126,000
Workforce Productivity Benefits	\$18,252,000	\$18,252,000	\$18,252,000
<b>Total Benefits (\$2021 prices)</b>	<b>\$97,446,986</b>	<b>\$97,446,986</b>	<b>\$97,446,986</b>
Total Benefits (\$) Present Value	\$85,138,370	\$72,337,778	\$64,737,746
Benefits & Costs			
Net Present Value (\$) Total Benefits	\$41,745,937	\$28,945,345	\$21,345,313
NPV/Cost	1.0	0.7	0.5
<b>Benefit Cost Ratio (BCR)</b>	<b>2.0</b>	<b>1.7</b>	<b>1.5</b>

Source: MCA modelling & analysis November 2021.





Source: MCA modelling & analysis November 2021.

## References

*Active impacts - The economic impacts of active recreation in Victoria*, Prepared for Sport and Recreation Victoria, March 2018, Marsden Jacob

*Bass Coast Aquatic Leisure Centre Feasibility Study Final Report*, August 2021, Otium Group

*Bass Coast Aquatic Leisure Centre - 10 Year Base Case Financial Model*, October 2021, Otium Planning Group,

*Bass Coast Aquatic Leisure Centre, Indicative Capital Costs*, April 13, 2021 Turner & Townsend,

*Local Government Area Profiles 2019*, Bass Coast Shire, Tourism Research Australia.

## Appendix A : Modelling Assumptions

The following are the assumptions used in modelling users , spending and benefits.

### Assumptions Used in Modelling

Assumptions- Spending Users & Visitors		
<b>Users &amp; Visitors</b>		
Share of users/visitors that spend in region	35%	MCa assumption
Average Spending per person	\$15	MCa assumption
<b>Pool Events &amp; Carnivals</b>		
Locals - Day Visits	85%	MCa assumption
Overnight stays	15%	MCa assumption
<b>Average Spending (per person)</b>		
Locals - Day Visits	\$40	MCa assumption
Overnight stays	\$135 (1 night stay)	TRA Local Government Profile 2019 Bass Coast Shire
<b>Employees - Centre</b>		
PIALC Centre Employees	Employees by occupation & wage rates	Otium Planning Group Feasibility Study
<b>Other Benefits</b>		
<b>Consumer Value</b>	Measured by PIALC total revenue – minus revenue from café & merchandise sales	Otium Planning Group - Base Case Financial projections, October 2021
<b>Health Benefits</b> (Value of health cost savings for persons who exercise)	Based on benefit of \$1 per hour for all centre <u>users</u> & average exercise period of 3 hours	Marsden Jacob Report , March 2018
<b>Productivity Benefit</b> (Value of productivity benefits for persons who exercise – more productive & less absences from work)	Assumed 40% of PIALC users are in employment. Based on benefit of \$5 per hour for all centre <u>users</u> and average exercise period of 3 hours	MCa assumption  Marsden Jacob Report , March 2018
<b>Costs</b>		
<b>BCALC Project Capital Cost</b>	Development, construction , fit out & contingencies	BCALC Indicative Capital Costs, Turner & Townsend April 13, 2021
<b>Asset Maintenance Costs</b>	Maintenance costs associated with all facilities. Annual costs aggregated for 10 years	Otium Planning Group – Base Case Financial projections, October 2021

Source: MCa modelling assumptions

## Disclaimer

### Disclaimer

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The report has been prepared on the basis of information available at the time of writing. While all possible care has been taken by the authors in preparing the report, no responsibility can be undertaken for errors or inaccuracies that may be in the data used.

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