



COWES COMMUNITY AND CULTURAL CENTRE – COST BENEFIT ANALYSIS AND ECONOMIC IMPACT ASSESSMENT



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EXECUTIVE SUMMARY

Project brief

SGS Economics and Planning was commissioned by Bass Coast Shire Council in 2019 to prepare a cost benefit analysis and regional economic impact assessment to support a Regional Infrastructure Fund (RIF) application for the Cowes Cultural and Community Centre (CCCC).

The proposed Cowes Community & Cultural Centre (CCCC) will deliver a purpose-built civic space for the local community and visitors. Reflecting Cowes' history and its future, the CCCC will:

- Include a library, theatre, gallery space, café and dedicated space for the historical and genealogy societies, and
- Act as a central anchor point in the revitalisation of Cowes.

This report updates our September 2019 work with updated project capital costs. In performing this update we have also escalated previous 2019 values to 2021 values using the Consumer Price Index, and have assumed that visitation to Phillip Island returns to pre-covid levels by the time the CCCC project opens to the public in 2024.

Cost benefit analysis

Framework

The cost benefit analysis has assessed the merit of investing in the project from a Bass Coast perspective (and a Victorian community perspective). That is, it assesses if the CCCC project is worth doing by contrasting the project's economic, social and environmental benefits with its delivery costs.

Costs items include capital expenditure and ongoing operating expenditure, in addition to community disruption costs and environmental resource depletion costs (not quantified).

The benefits include:

- Tourism yields earned by Bass Coast (and Victorian) producers on tourist expenditures.
- Use benefits enjoyed by local community members that access the site on a free entry basis.
- Non-use benefits enjoyed by local community members who do not use the site but nonetheless value it given its existence and legacy benefits.
- Residual value of assets at the end of the project evaluation period, recognising the long term life of the capital works proposed.
- Business development and confidence improvements (not quantified).
- Enhanced social cohesion and community pride (not quantified).
- Social disadvantage reductions (not quantified).

Results

The CCCC project is expected to generate \$76.4 million in benefits to the Bass Coast community over the life of the project (present value), compared to a present value cost of \$31.2 million. Consequently, the project has a Net Present Value of \$45.2 million and a Benefit Cost Ratio of 2.5.

From a Victorian perspective, only interstate and international tourist expenditures are considered; not intrastate tourists. Nonetheless, even when this perspective is taken, the project generates Net Present Value of \$17.9 million and a Benefit Cost Ratio of 1.6.

TABLE 1. COST BENEFIT ANALYSIS RESULTS (\$M)

	Bass Coast	Victoria
Present Value of Costs	\$31.2	\$31.2
Present Value of Benefits	\$76.4	\$49.1
Net Present Value	\$45.2	\$17.9
Benefit Cost Ratio	2.5	1.6

Note: 4% real discount rate utilised.

Based on these results it can be concluded that the redevelopment of the CCCC will generate a large net gain in community welfare; meaning the project's benefits outweigh its costs considerably.

Economic impact assessment

The economic impact analysis has measured the degree to which the economic stimulus associated with a project accumulates in total economic activity levels (value added, jobs), i.e. after measuring the cumulative impact of all the buyer/ supplier transactions that are triggered in the regional economy region.

The assumptions employed suggest that:

- During construction, which is assumed to be spread across Years 1 and 2, the project is expected to generate up to 99 full time equivalent jobs and \$19.2 million of local economic value added in Bass Coast.
- During operations, i.e. from Year 3 onwards, the project is expected to generate, on an average annual basis, approximately 26 full time equivalent jobs and \$2.8 million of local economic value added in Bass Coast.
- The employment and value added impacts are experienced primarily in the local construction industry (during the construction phase) and in the accommodation and food services industry (during the operation phase).

From a Victorian perspective, intrastate visitor expenditures are excluded from the analysis as they represent transfers of expenditure within the Victorian economy. When this Victorian wide perspective is taken, the project is expected to generate up to 230 additional jobs during the construction phase and 10.3 jobs per annum during operations phase. Moreover, the project is expected to generate \$32.7 million in value added across Victoria during the construction phase, and \$1.2 million per year during operations phase.

TABLE 1 TOTAL ECONOMIC IMPACTS GENERATED BY CCCC PROJECT – BASS COAST AND VICTORIA

	Bass Coast		Victoria	
	Construction Phase Years 1-2	Operations Phase Year 3 onwards	Construction Phase Years 1-2	Operations Phase Year 3 onwards
Jobs	99.0	25.9	230.3	10.3
Value Added	\$19,168,742	\$2,762,670	\$32,742,229	\$1,221,587

Based on these results it can be concluded that the redevelopment of the CCCC will generate a significant amount of full time equivalent jobs and value added in the Bass Coast economy and the Victorian economy more broadly.

1. INTRODUCTION

1.1 Project overview

SGS Economics and Planning (SGS) was commissioned by Bass Coast Shire in 2019 Council to prepare a cost benefit analysis and regional economic impact assessment to support a Regional Infrastructure Fund (RIF) application for the Cowes Cultural and Community Centre (CCCC) project.

These outputs were used to provide evidence for addressing the “Project aims – 20%” selection criterion in the RIF application. That is, the degree to which it can be demonstrated that the project:

- Generates economic benefits (e.g. increased business, employment opportunities and increased skills)
- Acts as a catalyst for regional and community growth
- Generates social and environmental benefits (e.g. social inclusion and improved community connections), and
- Is unique in terms of the place opportunities, challenges or constraints.

This report updates our September 2019 work with updated project capital costs. In performing this update we have also escalated previous 2019 values to 2021 values using the Consumer Price Index, and have assumed that visitation to Phillip Island returns to pre-covid levels by the time the CCCC project opens to the public in 2024.

1.2 Key concepts

Cost benefit analysis

Cost benefit analysis (CBA) assesses the merit of investing in a project from a broader community perspective. That is, CBA contrasts the project’s economic, social and environmental benefits with its costs, to establish if the benefits outweigh the costs.

If this is the case, the project is considered worth doing from an aggregate community welfare (or economic efficiency) perspective; regardless of who pays and who benefits.

A subsequent check on how costs and benefits are distributed amongst different stakeholder groups ensures that social equity outcomes are acceptable, i.e. by ensuring that particular groups are not disproportionately advantaged or disadvantaged.

Economic impact analysis

An economic impact analysis (EIA) measures the degree to which the economic stimulus associated with a project accumulates in total economic activity levels (incomes, jobs), i.e. after measuring the cumulative impact of all the buyer/ supplier transactions that are triggered in the region. That is, it does not assess if a project is worth doing but measures how project implementation lifts overall economic activity levels.

Importantly, the results of the CBA and EIA are not additive. They answer separate questions.

Incremental, present value, lifecycle assessment

As per the conventions of economic appraisal, the CBA have been conducted on an incremental basis. That is, the project outcomes are tested in comparison to the outcomes that would be generated under a business as usual scenario, i.e. without the project.

Moreover, future dollars have been discounted back to present day terms to enable appropriate conclusions to be drawn. The CBA has been prepared in real terms and has been discounted back to current day dollars (where appropriate) using real discount rates.

Finally, the both the CBA and EIA have been conducted over the long term (20 years), aligning with the long term life of the capital works developed by the project.

1.3 Project options

Base case

Under the business as usual (BAU) scenario, it is expected that the project will not progress due to Council's inability to fund the scale of capital works required.

Project scenario

The proposed Cowes Community & Cultural Centre (CCCC) will deliver a purpose-built civic space for the local community and visitors. Reflecting Cowes' history and its future, the CCCC will:

- Include a library, theatre, gallery space, café and dedicated space for the historical and genealogy societies, and
- Act as a central anchor point in the revitalisation of Cowes.

Key features of the proposed CCCC include:

- A library
- Three community rooms
- Meeting rooms
- Historical society
- Genealogy
- Theatre
- Gallery
- Café area
- Projection room
- Office space.

By situating the build on the southern corner of the site, the CCCC will create a large, landscaped open area providing recreation space, market area and an amphitheatre, and create a public connection to the transport hub.

The new build will maximise the site, delivering more internal space in a smaller building footprint. The environmental performance of the redeveloped CCCC building will be vastly improved.

2. COST BENEFIT ANALYSIS

2.1 Framework

The cost benefit analysis answers the following question:

How does the project impact on the welfare of Bass Coast (and Victorian) residents (economic, social and environmental benefits less costs)?

Cost benefit analysis (CBA) assesses the merit of investing in a project, i.e. it assesses if it is worth doing when a broad societal perspective is applied. CBA contrasts the project's economic, social and environmental benefits with its costs, to establish if the benefits outweigh the costs. If this is the case, the project is considered worth doing from a broad community welfare (or economic efficiency) perspective.

The cost benefit analysis has been conducted using discounted cashflow analysis over 20 years, in line with the economic life of the capital works proposed. 2021 real values and discount rates have been used.

The cost benefit analysis has been constructed in an incremental fashion, comparing the costs and benefits generated by the project option with those generated by the base case option.

The table below lists the incremental costs and benefits that have been included in the CBA. These are detailed in the following section.

TABLE 2. COST BENEFIT ANALYSIS FRAMEWORK

COSTS	BENEFITS
Capital costs	Use benefits (free entry local community users)
Recurrent operating costs including ongoing asset maintenance costs	Non-use benefits (local community non-users)
Environmental costs*	Tourism yields
Community disruption costs*	Residual value of assets
	Business development and confidence*
	Enhanced social cohesion and community pride*
	Social disadvantage reductions*

* These costs and benefits have not been quantified in the analysis

2.2 Incremental costs

Capital costs

The costs of constructing the new CCCC. This is estimated to be \$28 million, assumed to be spent in 2022 and 2023 during the construction period. Costs have been assumed to be spent at 30% in 2022 and 70% in 2023.

Recurrent operating costs

The costs of operating the new facility and ongoing asset maintenance costs for the new buildings and facilities. This is estimated to be \$366,000 per year following redevelopment (assumed to be from 2024) and will continue for the life of the project.

Operating costs for the CCCC were \$278,000 in 2018/19, with over 50 per cent of this being spent on employee costs. The redeveloped CCCC is expected to double the costs for utilities, building maintenance and materials and services. It is expected employee costs will triple, as the requirements for staff will be three times greater than they are now. Therefore, the incremental operating costs is estimated to be \$366,000 per year.

Environmental costs

Environmental costs include those costs linked with redeveloping the site that are not captured in the market price of envisaged works (e.g. non-renewable resource depletion costs).

Environmental risk will be managed during the project management process, and largely if not wholly mitigated.

Environmental costs have not been quantified due to their inherent intangibility.

Community disruption costs

A cost to the ongoing users of the site and the surrounding community, albeit only temporary, is the nuisance caused by the construction works. This is the cost associated with noise, dust, traffic delays, etc. generated by the demolition and/ or construction of buildings.

Best practice construction management and processes will minimise this cost. Construction nuisance is not expected to be significant, given the isolation of the facilities relative to residential areas.

SGS has not attempted to quantify this cost given the inherent difficulty in doing so, recognising that it is a short-term cost only.

2.3 Incremental benefits

Tourism yields

This is the profit or 'producer surplus' enjoyed by Bass Coast producers in supplying goods and/ or services to consumers that are attracted to Bass Coast because of the project.

The redevelopment is expected to accommodate a range of regional and larger events that might otherwise not be attracted to Phillip Island. In doing so, the project is expected to attract/ retain a range of visitors in the Bass Coast Shire:

- Capturing their expenditures (i.e. excluding expenditures at the project itself to avoid double counting), and
- Enabling local producers to derive profits and wages from these incremental expenditures.

The Phillip Island San Remo Visitor Economy Strategy (VES) 2035¹ estimates that visitor numbers to Phillip Island and San Remo could reach nearly 3.5 million visitors by 2035. This growth is expected to be driven by international overnight visitors and day trip visitors. SGS has assumed that these results will still be achieved, given that we expect that the tourism market will have recovered to pre-covid levels by the time the CCCC opens to the public.

¹ <https://d2n3eh1td3vwdm.cloudfront.net/general-downloads/Strategies/2016-08-29-FINAL-Phillip-Island-San-Remo-Visitor-Economy-Strategy-2035-Growing-Tourism.PDF>

One of the five key growth markets identified in the VES are event visitors, with an identified product gap of year round events (particularly cultural events). The redeveloped CCCC will meet this gap by providing arts and cultural events and spaces for small scale events.

Assumptions used to estimate tourism yields are summarised in Table 3. These impacts will commence in Year 3 (2024) and will continue for the life of the project (assumed to be 20 years).

The assumptions for each visitor group (i.e. international, interstate, intrastate, holiday home owners and visiting friends and relatives) have been taken from the earlier economic impact analysis for the Cowes Revitalisation Project completed by Cloudstreet Economics (2016).

The 2016 study assessed the impact of three projects that were part of the Cowes Revitalisation Project including the Cowes Jetty Triangle, Transit Centre and the CCCC. The Jetty Triangle and Transit Centre have since been completed. SGS has assumed that 30% of the visitor economy impacts arose from these two completed projects and has adjusted the base case for this analysis to include the realisation of these benefits. Therefore, the visitor economy benefits arising from the CCCC are estimated to be 70% of the benefits identified in the 2016 study.

SGS has also assumed that approximately 20% of this visitor expenditure will be profits to local industries.

SGS has excluded the impact of increasing visitor numbers from the Cloudstreet estimates.

These assumptions are aligned with the VES objectives to increase Phillip Island's:

- Overall average length of stay by 0.5 day, and
- Spend per visitor to above the Regional Victorian average (\$194.26 when indexed to 2021 values).

TABLE 3. EXPECTED IMPACT TO TOURISM VISITOR GROUPS

Visitor Group	Assumed Impact			
	Visitor Numbers	Extending the Stay	Increasing Visitor Spend	Smoothing Seasonality
International Visitors				
▪ Day Trips	Nil	Nil	Increase (5% in Y1, 10% Y2 onwards)	-
▪ Overnight Trips	Nil	Small increase (0.25 days)		-
Interstate Visitors				
▪ Day Trips	Nil	Nil-	Increase (5% in Y1, 10% Y2 onwards)	-
▪ Overnight Trips	Nil	Small increase (0.25 days)		-
Intrastate Visitors				
▪ Day Trips	Ni	Nil-	Increase (5% in Y1, 10% Y2 onwards)	Improve
▪ Overnight Trips	Nil	Small increase (0.25 days)		Improve
Visiting friends and relatives				
	Nil-	Increase (0.25 days)	Increase (5% in Y1, 10% Y2 onwards)	Improve
Holiday Home Owners				
	Nil-	Increase (4 days)	Increase (5% in Y1, 10% Y2 onwards)	Improve

Source: Derived from Economic Impact Analysis for Cowes Revitalisation Project by Cloudstreet Economics in 2016

The visitor economy benefit uses the following data and assumptions:

- Phillip Island attracts over 1.85 million visitors annually (2016 estimate), with 800,000 visitors expected to visit Cowes on their trip.
- Average expenditure per domestic and international day visitors is \$93, per domestic overnight visitor is \$120, per international overnight visitors is \$89. These values are indexed to 2021 dollar terms.
- Average length of stay per domestic overnight visitors is 2.66 days, and per international overnight visitors is 3.63 days.
- There are 6,500 unoccupied private dwellings (ABS Census 2016) on Phillip Island, assumed to be holiday homes for temporary local residents.
- 25% of holiday home owners visit Cowes during their stay, and spend \$61 on average per day.

For further details of the visitor economy assumptions refer to Chapter 3 of the Cloudstreet Economics 2016 report (Appendix 1).

The estimated benefit of tourism yields to the Bass Coast economy is \$2.9 million in Year 3 (2023), increasing to \$4.2 million per year in Year 4 onwards.

To estimate the benefit to the Victorian economy we have excluded the tourism yields generated by intrastate, VFR and holiday home owner visitors, as these would be transfer effects; likely to be spent elsewhere in Victoria if they were not spent in Bass Coast (on Phillip Island). The estimated benefit to the Victorian economy is \$511,420 in Year 3, and \$792,000 per year in Year 4 onwards.

Use value

This is the social value enjoyed by Bass Coast residents when visiting the CCCC. It includes the 'consumer surplus' or 'willingness to pay' of non-paying users given the improved access to cultural and community events enabled by the improved facilities. This WTP does not reflect what they are required to pay, given that most of the activities catered for at the CCCC are often highly subsidised to promote community benefits. Indeed, a full cost recovery pricing model for community facilities may act as a significant barrier to community participation.

SGS has estimated the use value using the travel cost method, which estimates the Willingness to Pay (WTP) of relevant Bass Coast using the out of pocket and time costs for forecast visitor numbers.

Table 4 outlines the assumptions used in calculating use benefits. It has been assumed that visitors to the CCCC will spend 1 hour on site, 20 minutes commuting to the site (including the return trip), and the value of time is \$17.37 per hour as per ATAP guidelines and indexed to 2021 values.

Prior to its demolition around 30,000 people visited the CCCC while the adjacent Phillip Island Library receives 62,000 visitors. It is expected the redeveloped CCCC will attract double the number of visitors, that is, an additional 30,000 visitors per year to the venue. As a benchmark, the recently refurbished Wonthaggi Union Community Arts Centre (WUCAC) received over 27,300 visitors in its first year since redevelopment.

The benefit is therefore estimated as the additional number of visitors multiplied by their willingness to pay as calculated through the travel cost method.

Use value is estimated to be \$725,000 per year, experienced from 2024 onwards.

TABLE 4. USE VALUE ASSUMPTIONS FOR TRAVEL COST METHOD

	Visitors to CCCC
Time spent on site	1 hour
Time spend commuting to site	20 minutes (return)
Amount money spent commuting to site	\$1
Value of time (per hour)	\$17.37 (2021)
Additional visitors to CCCC following redevelopment	30,000 per year

Source: SGS Economics & Planning

Non-use value

Non-use values refers to the social value enjoyed by local residents who do not visit the site but nonetheless enjoy option, existence and legacy benefits. That is, the value they gain in knowing that:

- They can choose to visit the site in future if they wish (option value), and
- Current community members can enjoy the site at their leisure (existence value), as can future generations (legacy value).

Non-use value is often determined through a community survey which explicitly asks the community what they are willing to pay for the proposed benefits. In the absence of a CCCC specific survey, this study draws on a previous survey conducted in 2011 for the State Library of Victoria² on the value non-users place on public libraries. This survey found that the non-user willingness to pay for library services was \$66 per non user in 2011 dollars.

Non-users have been defined as those living on Phillip Island who do not visit the site, including both permanent residents and those with holiday houses (i.e. unoccupied private dwellings). In 2016 there were 4,500 occupied private dwellings and 6,700 unoccupied private dwellings (ABS Census 2016). Applying an average household size of 2.1 provides an estimated 24,000 local residents on Phillip Island. This is forecast to grow by 1% per annum in the future, in line with Regional Victorian population growth. It is assumed that 80% of local residents do not visit the CCCC regularly.

Non-user value is estimated as the non-user willingness to pay multiplied by the estimated number of non-users in the local Phillip Island community. The non-user value is estimated to be \$1.6 million in Year 3, increasing by 1% per year from Year 4 onwards.

Residual value of assets

The value of the building assets at the end of the 20-year evaluation period.

This has been estimated by using the estimated value of new buildings (capital expenditure of \$28m), and applying the straight-line depreciation method, assuming an asset life of 30 years.

While the building will last longer, this 30 year life reflects the duration for which no major refurbishments are required.

The depreciated residual value is estimated to be \$10.3 million at the end of the 20-year evaluation period (2043).

Business development and confidence

The increased tourism spending generated by the redeveloped CCCC will contribute to business development and improved confidence in the region. This will increase the sustainability of local businesses through greater tourism spending and allow a better quality of services to be delivered by local businesses in Cowes.

² [Dollars, Sense & Public Libraries: Landmark study of the socio-economic value of public libraries to Victorians, PLVN \(2011\)](#)

This increased business confidence will ultimately result in an improved service offering and business environment for the community.

The Bass Coast Shire Arts and Culture Strategy identified six goals to achieve its vision for arts and culture in the Shire. The first goal is for a prosperous local economy, in which Council will:

- Support the local economy through arts and culture events, programs and initiatives
- Build professional capacity for local artists and organisations, and enhance artistic and economic potential, and
- Facilitate, promote and encourage cultural tourism.³

This project will contribute to this goal by providing spaces for arts and cultural events, and improving business development in this industry.

The Phillip Island and San Remo Visitor Economy Strategy 2035 establishes guiding principles to set the vision and direction for the region over the next 20 years. These include:

- The Visitor Economy will not only preserve but enhance Phillip Island and San Remo's natural environment through sustainable development and management practices.
- The Visitor Economy will seek to enhance the lifestyle of the local community of Phillip Island and San Remo through creating certainty of employment, supporting community facilities, enhancing conservation, and supporting local events.
- Visitor Economy growth will foster continued job creation and workforce retention through an increased demand for skilled, quality people.
- The Visitor Economy will improve the economic value of the region by focussing investment and marketing activity on extending visitor length of stay – shifting day trips to overnight visits.
- Visitor Economy investment will focus on helping to diversify the region's market mix to promote year-round visitation opportunities, alleviate non-peak visitation troughs and promote dispersal.⁴

The redeveloped CCCC will contribute to the above principles by improving cultural activities for the local community, providing employment opportunities through the increased economic activity, and providing off-peak events for visitors.

This benefit has not been quantified.

Enhanced social cohesion and community pride

Phillip Island has an itinerant community at certain times of year, which peaks during school holidays. Having a large cultural and community centre will help to create a central hub for the permanent community and improve social cohesion. Having a landmark building will also generate a sense of community pride.

The provision of community interaction, creative expression, informal education via the library and cultural immersion will all be offered within the new facility. The CCCC will become a central community meeting place, particularly with enhanced access to the town square, community markets and opportunities for a range of new and exciting events.

The CCCC will also significantly enhance the pride of the community. As highlighted by the community through a range of consultation sessions, the community are not happy with the current state of Cowes' infrastructure and have sought upgrades to public spaces over many years.

³ Bass Coast Shire Council Arts and Culture Strategy 2019-2029 <https://d2n3eh1td3vwdm.cloudfront.net/general-downloads/Recreation-and-Culture/Bass-Coast-Shire-Council-Arts-and-Culture-Strategy-Executive-Summary-Final.pdf>

⁴ <https://d2n3eh1td3vwdm.cloudfront.net/general-downloads/Strategies/2016-08-29-FINAL-Phillip-Island-San-Remo-Visitor-Economy-Strategy-2035-Growing-Tourism.PDF>

The Wonthaggi Union Community Arts Centre (WUCAC) underwent a major refurbishment in 2018, funded through the Bass Coast Shire 2017/18 Renewal Program. This project has improved access to arts and cultural activities in the Wonthaggi community; attracting 13,000 visitors to the cinema and 14,300 visitors to live performances. This case study provides an example of the type of enhanced community pride that would be expected in Cowes with the redevelopment of the CCCC.

This benefit has not been quantified.

Addressing social disadvantage

The CCCC project has significant potential to address a number of areas of disadvantage including:

- Provision of additional employment opportunities
- Provision of enhanced educational and lifelong learning opportunities
- Enhanced disability access
- Improved connection with the community
- Improved provision of community services and activities to the disadvantaged and those with disabilities

Phillip Island has a large number of elderly residents, with limited access to community services. An improved cultural and community centre, particularly an expanded library and services hub, will address the social disadvantage present in the region.

This benefit has not been quantified.

2.4 Project performance

Key performance measures

The incremental costs and benefits linked with the project have been contrasted over a 20 year period and discounted back to present day values using a discount rate of 7% real.

These results are highlighted in the following table, with two performance measures being generated:

- Net Present Value (NPV), and
- Benefit Cost Ratio (BCR).

The CCCC project is expected to generate \$76.4 million in benefits to the Bass Coast community over the life of the project (present value), compared to a present value cost of \$31.2 million. Consequently, the project has a Net Present Value of \$45.2 million and a Benefit Cost Ratio of 2.5.

From a Victorian perspective, only interstate and international tourist expenditures are considered; not intrastate tourists. Nonetheless, even when this perspective is taken, the project generates Net Present Value of \$17.9 million and a Benefit Cost Ratio of 1.6.

TABLE 9. DISCOUNTED CASH FLOW RESULTS (\$M)

	Bass Coast	Victoria
Present Value of Costs	\$31.2	\$31.2
Present Value of Benefits	\$76.4	\$49.1
Net Present Value	\$45.2	\$17.9
Benefit Cost Ratio	2.5	1.6

Note: 4% real discount rate utilised.

Details on how these measures are calculated and how they should be interpreted are summarised in Table 10.

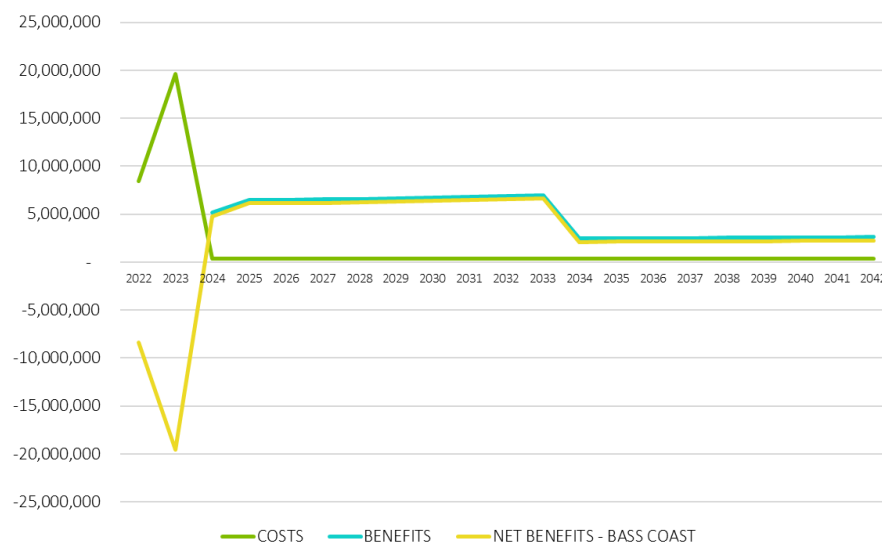
TABLE 10 INTERPRETATION OF PERFORMANCE MEASURES

Performance measure	Estimation method	Decision rule
Net Present Value (NPV)	A number generated by deducting the present value of the stream of costs from the present value of the stream of benefits, (with the present value of costs and benefits determined by using an appropriate discount rate).	<ul style="list-style-type: none"> Accept options with a positive NPV Reject options with a negative NPV The greater the NPV the better.
Benefit Cost Ratio (BCR)	Ratio of discounted present day benefits over discounted present day costs.	<ul style="list-style-type: none"> Accept options with a BCR that exceeds 1 Reject options with a BCR less than 1 The greater the BCR the better.

Net benefit flow

The value of projects costs, benefits and net benefits are illustrated below over the course of the project evaluation period. Under the assumptions invoked, project benefits exceed project costs in present day terms in year 3 of the project.

FIGURE 3. INCREMENTAL NET BENEFIT FLOW FOR BASS COAST



Note: The uplift in 2043 net benefits is driven by the residual value of the assets being realised at the end of the project life.

Sensitivity analysis

A sensitivity analysis has also been performed on the viability of the project, as shown using a range of scenarios below.

TABLE 11 BENEFIT COST RATIO ON VARIATION OF ASSUMPTIONS

Scenario	BCR – Bass Coast	BCR – Victoria
Original assumptions	2.5	1.6
1. Construction costs increase by 50%	1.7	1.1
2. Operating costs increase by 50%	2.3	1.5
3. Tourism yields halve	1.9	1.5
4. Community willingness to pay halves	2.1	1.2
5. Resident visitors to CCCC halve	2.3	1.4
Scenario 1, 2, 3, and 4 collectively	1.0	0.7

The sensitivity analysis suggests that the net benefit of the CCCC redevelopment project is maintained:

- Under all individual scenarios tested, and
- Even if construction costs and operating costs increase by 50% and the two largest benefits halve simultaneously.

Only when all 5 scenarios are tested cumulatively added does the project deliver a net cost to the community at the Victorian level.

2.5 Conclusion

Based on these results, it can be concluded that the redevelopment of the CCCC is likely to provide a net benefit to the Bass Coast, given the local community benefits it is likely to generate through tourism yields and visitors to the CCCC. The project is also expected to generate a net benefit for the Victorian economy more broadly.

3. ECONOMIC IMPACT ASSESSMENT

3.1 Introduction

An Economic Impact Assessment (EIA) measures the degree to which the economic stimulus associated with a project accumulates in total economic activity levels of a defined region, i.e. after measuring the cumulative impact of all the buyer/ supplier transactions that are induced in the region.

The basic steps in undertaking an EIA include:

- Isolating how the project stimulates the regional economy (direct impacts).
- Generating region specific econometric models and subsequently deriving economic multipliers for major regional industry groups.
- Applying these multipliers (by relevant industry group) to the direct impacts to estimate total regional impacts in terms of regional value added and employment.

3.2 Regional definition

For the purpose of this project, the region has been defined as the Bass Coast Shire (with impacts on the Victorian economy also assessed separately).

3.3 Economic stimuli (direct impacts)

The economic stimuli include:

- Capital (construction) costs which will directly impact on the Construction industry
- Recurrent costs expended during the ongoing operation of the project, which will directly impact on the Public Administration and Safety industry, and
- Attracted tourist expenditure, which will directly impact on the Accommodation & Food Services Industry.

SGS has assumed that the construction contract for the project will be awarded to a business originating from the Bass Coast Shire.

3.4 Regional economic multipliers

To calculate the indirect impacts associated with the direct impacts outlined above, SGS has used regional economic multipliers generated by its internal econometric modelling techniques.

In essence, SGS takes the inter-industry relationships (buyer–supplier transaction) that are measured by the Australian Bureau of Statistics in the National Accounts,⁵ and scales these relationships down to a regional level using available datasets and accepted mathematical techniques.

The results of this scaling process are a set of regionally based, industry specific multipliers which estimate how spending in a specific regional industry, via the assessed direct impacts (stimuli), flows through to total regional value added (or contribution to GRP net of taxes), and full time equivalent employment levels.

⁵ Particularly the Australian Input-Output Tables (ABS Cat. No. 5209.0).

3.5 Assessed economic impacts

Bass Coast job creation

TABLE 5 YEARLY EMPLOYMENT (EFT) GENERATED BY PROJECT – BASS COAST

	Year 1	Year 2	Year 3	Year 4	Year 5 onwards p.a.
Direct	13.6	31.7	20.9	29.7	29.7
Indirect	16.1	37.6	5.0	6.9	6.9
Total	29.7	69.3	25.9	36.6	36.6

During construction, which is assumed to be spread across Years 1 and 2, the project is estimated to generate approximately 99 full time equivalent jobs. This reflects direct construction and professional services jobs that are supported during construction works, and indirect jobs that will be generated, for example, by regional manufacturers of construction materials.

Bass Coast value added (contributions to GRP)

Value added includes the sum of wages paid out to employees and Gross Operating Surpluses (profits) derived by firms. In other words, value added measures labour and business surpluses derived by local producers as a result of the project. It does not include taxes paid to government.

TABLE 6 YEARLY VALUE ADDED GENERATED BY PROJECT – BASS COAST

	Years 1	Years 2	Year 3	Year 4	Year 5 onwards p.a.
Direct	\$3,300,565	\$7,701,318	\$2,052,185	\$2,892,029	\$2,871,634
Indirect	\$2,450,058	\$5,716,801	\$710,484	\$989,436	\$989,436
Total	\$5,750,623	\$13,418,119	\$2,762,670	\$3,881,465	\$3,861,070

During construction, which is assumed to be spread across Years 1 and 2 the project is expected to generate \$19.2 million of local economic value added.

During operations, i.e. from Year 3 onwards, the project is expected to generate between \$2.8 and \$3.9 million of local economic value added.

Victorian Economy

From a Victorian perspective, this project is expected to generate 230 additional jobs during the construction phase and between 10 and 14 jobs during operations phase. It is also expected to generate \$32 million in value added across Victoria during the construction phase, and over \$1 million per year during the operations phase.

The impacts to the Victorian economy are different to the impacts to the Bass Coast economy (outlined above), as the attracted intrastate tourism expenditures are considered transfers within the Victorian economy, not additional economic activity.

TABLE 7 TOTAL ECONOMIC IMPACTS GENERATED BY PROJECT – BASS COAST VS VICTORIA

	Bass Coast		Victoria	
	Construction Phase Years 1-2	Operations Phase Year 3 onwards	Construction Phase Years 1-2	Operations Phase Year 3 onwards
Jobs	99.0	25.9	230.3	10.3
Value Added	\$19,168,742	\$2,762,670	\$32,742,229	\$1,221,587

3.6 Conclusion

Based on these results it can be concluded that the redevelopment of the CCCC will generate a significant amount of full time equivalent jobs and value added in the bass coast economy, particularly in construction industry (during the construction phase) and the accommodation and food services industry (in the operation phase).

3.7 Limitations to analysis

Input-output modelling has some limitations, as follows, but is a cost-effective technique, recognising that the only feasible alternative is utilise partial or general equilibrium econometric models. Having said this, general equilibrium models require an annual stimulus of >\$100 million before the impacts start to be measurable across the economy.

- The input output (econometric) model assumes relationships between industries are static over the forecast period. That is, productivity improvements are not factored in and historic relationships are assumed to hold.
- The input output (econometric) model derives relationships between industries using total production estimates. Consequently, the relationships are 'average', whereas the stimulus used as an input is 'marginal'. Such an approach does not account for any 'underutilised capacity' at the industry level or additional economies of scale that might ensue, as production expands from its existing base.
- All of the stimuli (direct impacts) are assumed to be 'new' economic activities for each regional economy. That is, crowding out or industry substitution effects are assumed to be negligible, meaning that key economic inputs such as labour and capital are assumed to be unconstrained, i.e. there is sufficient slack in the economy to service these stimuli without transferring significant resources from other productive uses. It also means that the activities that are promoted by the subject project do not adversely affect operations elsewhere.



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