



Twyford Hall & Theatre Complex Cost-Benefit Analysis

Social and Financial Perspectives

Prepared for Twyford Hall Inc.

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econtext
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Executive Summary

The proposed Twyford Theatre is a modern 200-seat venue capable of hosting high quality theatrical shows and other events, to be co-located with the existing Twyford Hall in Merimbula on the Sapphire Coast.

This cost-benefit analysis (CBA) includes a detailed review of the supply and demand for the live performing arts in the Bega Valley LGA, finding that:

- There is a gap in provision as there is currently no modern theatre with permanent raked seating in the region – the nearest comparison venues are at least three hours' drive away.
- Demographic trends imply strong underlying demand for a local venue – a growing population including many retirees with high levels of education who are 'core' supporters of the live performing arts.
- The theatre would also be uniquely situated to take advantage of the summer influx of tourists, as it is positioned very near the beach in the centre of town.

The cost of constructing the theatre is estimated at \$6.0 million. It is also estimated that nearly half of this construction cost would directly benefit the local economy as resident workers and suppliers from the region would be engaged.

The ongoing costs of operating the theatre will depend on the operational model adopted: a "Hall for Hire" would cost very little to run, but would not return the sought-after benefits to the community.

The overwhelming feedback from theatre managers and arts administrators with experience in this field received during this consultancy was that such a theatre should not become yet another "Hall for Hire".

Instead, to gain full benefits, the new venue should be staffed, and programming and marketing budgets made available to ensure that shows and audiences will come to the theatre. Volunteers will be required to help run the venue.

- Annual operating costs are estimated at \$250,000, with an operating deficit of around \$60,000 fully covered by revenues from the rental of the two shops leased out by Twyford Hall Inc. for this purpose.

Set against these costs are the benefits that a new theatre would generate to patrons, the local community, and businesses in the region.

Many of these benefits cannot be quantified and a significant proportion of benefits would not accrue to the theatre itself but to attendees and local businesses.

The key benefits that *were* quantified for this CBA included:

- The 'value' of performances as indicated by ticket sales
- Induced spending by visitors, cast & crew (meals, accommodation, etc.)
- Reduced need to travel, resulting leisure time gained & accidents avoided
- 'Non-use' value, e.g., the value of having the option to visit the theatre

These are all well accepted benefits that have been used in previous CBAs including for other Australian theatres but also for transport and environmental projects. The methodology applied in this CBA has been stringent and conservative.

Nevertheless, from the first year of operations, these quantified benefits well exceed the costs of operating the theatre.

When all costs and benefits are compared in net present value (NPV) terms, i.e., with future costs and benefits discounted to arrive at a summary estimate of their present value, this CBA finds that **benefits outweigh costs under a range of assumptions.**

As shown in Figure ES1 below, the benefit-to-cost ratio (BCR) rises from 1.1 to nearly 1.7 as assumptions are relaxed.

Under the 'Baseline' scenario, a 30 year project horizon is adopted, utilisation is set at 60%, and future values are discounted at 4% p.a. This yields a BCR of 1.3.

Taking a longer view by extending the project horizon to 50 years, reducing the discount rate, and increasing the utilisation rate all raise the BCR.

Figure ES1: The benefit-to-cost ratio (BCR), key results

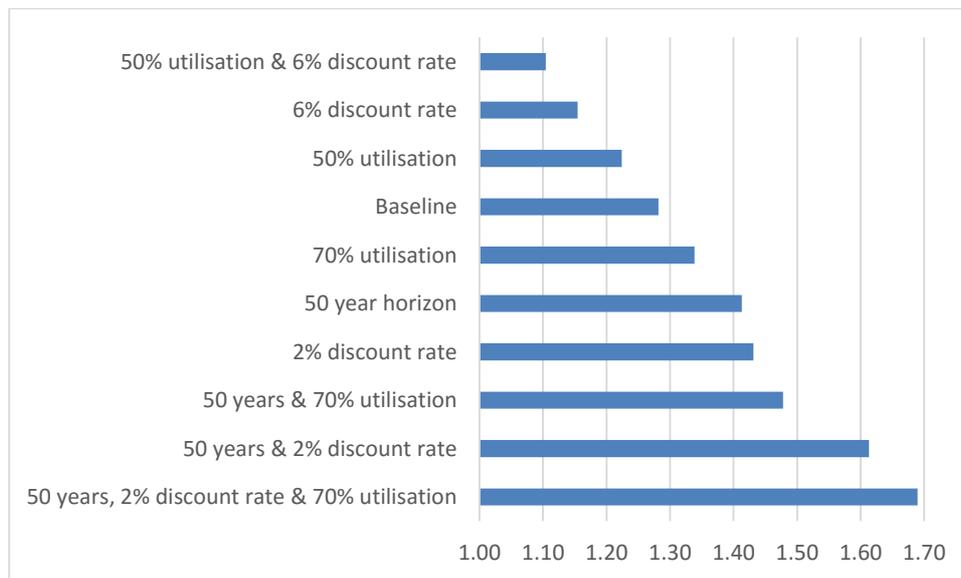


Table 1: List of Abbreviations and Definitions

APACA	Australian Performing Arts Centres Association
CBA	Cost-Benefit Analysis
DALY	Disability-Adjusted Life Year
GRP	Gross Regional Product
FTE	Full Time Equivalent
IVA	Indirect Value Added
LGA	Local Government Area
MOU	Memorandum of Understanding
NSRF	National Stronger Regions Fund
PAC	Performing Arts Centre
SCBA	Social Cost-Benefit Analysis
VAPAC	Victorian Association of Performing Arts Centres
VOSLY	Value of a Statistical Life Year

1 Introduction

This cost-benefit analysis (CBA) was commissioned by Twyford Hall Inc in June 2015 as supporting material for a potential Round 2 application for financial support through the Australian Government's National Stronger Regions Fund. Although this application did not eventuate Twyford Hall Inc decided to complete the CBA for future reference. The CBA meets various relevant Australian and international guidelines for CBA methodology.¹⁻⁵

The proposed Twyford Theatre is a 200-seat facility for use and enjoyment by the local community. It would cost around \$6 million to build with running costs depending on the operational model adopted.

The consultant carried out desktop research and a series of interviews, and drew on prior experience including CBAs completed for the Canberra Theatre Centre, the Shoalhaven Entertainment Centre, the Australian Choreographic Centre, and the Cultural Facilities Corporation in the ACT (project costs ranging from \$5 million to \$100 million). Feedback from the following individuals who were consulted during the preparation of this report is gratefully acknowledged:

- Adam McEvoy, Belconnen Community Services Theatre (ACT)
- Anne Corcoran, fLiNG Physical Theatre (NSW)
- Amy Godfrey, Research Analyst, Tourism Research Australia
- Andrew Gray, South East Arts (NSW)
- Bill Deverill & Bernard Shea, Twyford Hall Inc (NSW)
- Caroline Stacey & Dean Ellis, The Street Theatre (ACT)
- Christine Bramble, ex-Wyong Shire Council Performing Arts Centre (NSW)
- Craig Harrison, Country Arts SA & National Touring Selector
- Darren Bruce, Merimbula News Weekly
- Diana & Alex Nicol, Theatre Onset (NSW)
- Elizabeth Avery Scott & James Scott, Canberra Academy of Dramatic Art
- Gabriela Castillo, Belconnen Community Services Theatre (ACT)
- Gerry Corcoran, Gerry Corcoran Production Lighting Wolumla
- Gillian MacMillan & Michael Marshman, Michael Marshman Architects
- Janice Haynes, Forge Theatre Bairnsdale & VAPAC
- Lis Shelley, Footprint Theatre (NSW)
- Manager, Sapphire Coast Tourism
- Manager, Tura Beach Country Club
- Nanette Anderson & Michael Kavanagh, Sapphire Coast Music Society (NSW)
- Operations Manager, Club Sapphire Merimbula
- Paul Brinkman, Blue Mountains Theatre & Community Hub (NSW)
- Pippa Bailey, Managing and Producing Services (NSW)
- Robert Housley, Don Russell Performing Arts Centre (WA)
- Rob Robson, West Gippsland Arts Centre (VIC)
- Stephen Pike, Queanbeyan Performing Arts Centre (NSW)
- Stephen Crossley, ex-Touring Head Mechanist Bell Shakespeare
- Suellen Maunder, JUTE Theatre Company Cairns (QLD)

The steps required in a full economic evaluation are outlined in the NSW Government Guidelines for Economic Appraisal include the definition of objectives, identification of options, enumeration of costs and benefits as well as qualitative factors, and then assessing net benefits with sensitivity testing around results and ideally also a post implementation review.² These steps are covered in the following sections and chapters, except of course the post implementation review as the theatre has not been built yet.

1.1 Defining the objectives

Twyford Hall Inc, in its first submission to the NSRF stated that:

The objective of the incorporated body is to work together in a spirit of co-operation, openness and integrity to meet the artistic, social and cultural infrastructure needs of the community.⁶

More specifically in relation to the proposed Twyford Theatre, the document states that the vision is:

To provide and maintain a modern state of the art theatre complex as well as maintaining the heritage listed Twyford Hall for the artistic, social and cultural activities of the community on a non-profit basis... at affordable cost.⁶

During the preparation of this report it also became clear that there is an intention of accessing shows from the national touring circuit. What is being proposed is therefore something akin to a performing arts centre and community hub which combines the variety of activities at the existing Hall with a new, modern theatre that will have the capacity to attract and host touring shows which have hitherto not been able to be staged in the region.

By linking into the national touring circuit, the region would become part of the ongoing national 'conversation' in the performing arts, reducing what has been termed regional isolation in the arts.

The combined Hall and Theatre would have broad capacity to raise the level of artistic activity and engagement, as well as raising associated skills. By freeing up some space in the existing Hall, which is heavily booked and currently hosts a number of performing arts events, the theatre would also increase community access to the Hall for a variety of uses.

In combination, the Hall and Theatre complex would have the capacity to make a significant contribution to the township's liveability as well as adding further to its attractiveness as a tourist destination.

1.2 Identifying the options

Feedback from a range of stakeholders and residents interviewed during the preparation of this report indicates that Merimbula is already quite well known in the region for its cultural and community-driven activity at venues such as Twyford Hall and the Sapphire and other Clubs – several interviewees stated that Merimbula

would be the ‘logical’ choice of location for a new theatre in the region.

Options for providing a new theatre space in Merimbula are however limited. In theory, options that could be considered might include:

- building a theatre on a greenfield site in Merimbula
- converting an existing facility with raked seating (such as a cinema)

Neither of these options were deemed feasible.

The literature on performing arts centres reviewed also strongly suggests that co-locating facilities helps create the “buzz” to attract people to a venue, as well as allowing for some cost-sharing. Co-locating the new Twyford Theatre with the existing Hall therefore appears very sensible.

The Twyford Hall’s convenient and sought-after position near the beach in the town centre makes it a location that those visiting Merimbula would naturally gravitate to. Appropriately designed, it will have excellent visibility to attract seasonal tourists into the venue.

1.3 Land value and terminal/residual value

One of the advantages of the option being considered for this CBA is that no land has to be acquired, as the theatre will be built on the parcel of land that was part of the original bequest from the Twyford estate.

While there is no cost to acquire land, the land that is to be used as part of the proposal could be put to alternative use – this means that there is still an implicit ‘cost’ to using the land to build a theatre. It is unlikely that any of the land could be sold; however it is possible that it could be developed in other ways by the community over the years to come.

In a different context, a CBA would therefore include an estimate of the land value as an up-front cost which might or might not be recouped via a ‘terminal’ or ‘residual’ value of the asset at the end of the project period.

This does not appear to be appropriate in the current context as the parcel of land including the Hall is held in trust with no intention of selling parts of it, including the theatre, in future. The residual value would, in fact, be largely the value of land should Twyford Hall ever be sold.

On balance, it therefore appears reasonable to exclude both items – the cost of land and the residual value – from the analysis.

1.4 The counterfactual scenario

The counterfactual scenario refers to the likely situation if the project did not go ahead, i.e., if the theatre was *not* built. It forms an important part of a serious cost-benefit analysis. The counterfactual scenario in this CBA is a situation in which Twyford Hall continues to operate as it currently does, providing an active

community outlet for a variety of activities including some performing arts events.

There is little scope to increase paid attendances for performances at the existing Hall as it is heavily booked for a variety of uses which put competing demands on the hall and its management. The current Hall does not have raked seating.

Local community markets, art classes, roadshows, etc., use the space in tandem with performers. The current set-up is less than ideal for touring shows unless they have a simple set up such as touring bands/singers or stand-up comedians.

It must be noted that there are other venues in the Bega Valley LGA such as the local Sapphire Club (see Section 2.1.2) which are appropriate for visiting bands and stand-up comedians, and which have larger capacity than the proposed Twyford Theatre would have.

Some additional capacity for the supply of performances is set to come on-stream with the new space at the Bega Town Hall which can seat around 500 (see Section 2.1.1). As noted elsewhere in this report, however, none of the alternative spaces are particularly suited for presenting theatre.

At the time of writing, to the best of our knowledge, there are no other plans to build facilities that could provide an outlet for theatrical events accessible to the general public in the Bega Valley LGA. Under the counterfactual scenario, there will therefore not be any modern theatre with permanent raked seating in the Bega Valley LGA.

Table 2: Paid attendances at performances, Counterfactual Scenario

Events	Frequency	Attendances
Spectrum Theatre Group	2 seasons	2,335
Hired performers	4 per year	760
Variety & Charity Concerts & Others	2-3 per year	710
Merimbula Jazz Festival	June long weekend	1,000
Other local amateur / school productions	None	-
Professional theatre companies (hirers)	None	-
Additional touring productions bought in	None	-
Total		4,805

Note: Under the counterfactual scenario, there is no growth in attendances over the project period. Also, as shown in the table, there would be no other additional local amateur productions at the Hall, no professional theatre hirers, and no additional touring productions would be bought in.

Attendances under the counterfactual scenario are not considered benefits. Benefits valued in this report only refer to additional benefits that flow from building the new theatre (i.e., the increase in the level of activity and attendances).

1.5 Methodology

In CBAs of investment projects the project period or project horizon, the discount rate, and the perspective taken can all play a critical role. This is briefly explained here.

1.5.1 Project horizon

A new theatre space would be of use to the community for years to come – but how many years? Certainly, we may note that some Australian theatres that are currently in operation were built over 100 years ago, and many are approaching fifty years of operations. The well-known Benchmarks Report by the Victorian Association for Performing Arts Centres (VAPAC) claims that “it is not unreasonable to consider developing a multi-venue centre over a 50 year period or longer”.⁷

There are precedents in CBAs for other long-term public infrastructure investments such as rail networks or of hydro-electric dams where a project period of 50 years was applied in the past.^{1,5}

Current CBA Guidelines unfortunately prohibit use of a time horizon beyond 30 years. The CBA therefore uses a 30 year project period but results for a 50 year horizon are also presented in Section 6.7 of this report (‘Sensitivity Analysis’).

1.5.2 The discount rate

Benefits flowing in the future are discounted to convert them into ‘present values’ (PVs) using a discount rate. This means that benefits flowing in the future are valued less than benefits flowing now (i.e., sooner is preferred over later).

There is a vast body of literature on private and social discount rates which cannot be summarised here, but it may be noted that if the community values future benefits as much as present day benefits then the discount rate would be zero.

The social discount rate is also referred to as the ‘social rate of time preference’ in the literature. Rates of 2-4% are typical SRTPs. Rates of 5% and above would be seen as more commercial. We may note that with a 30 year project horizon, the following annual benefits would have to be demonstrated to “recoup” an initial (up-front) investment cost of \$6 million:

- a) Benefits worth \$200,000 per year if a zero discount rate is applied
- b) Benefits worth \$350,000 per year if a 4% discount rate is used, and
- c) Benefits worth \$500,000 per year with a discount rate of 7%.

This CBA uses an SRTP of 4%.

1.6 The CBA perspective

The classification of costs and benefits can differ depending on the perspective taken, e.g., social versus private, or national versus regional. This CBA is a social cost-benefit analysis from the region’s perspective (i.e., the Bega Valley LGA).

2 Market analysis

For the purposes of this study, the local catchment area is defined as the Bega Valley Shire Local Government Area (LGA) which extends from Bermagui in the north to the Victorian border in the south. It includes the towns of Bega, Tathra, Merimbula, Tura Beach, Wolumla, Cobargo, Bemboka, Pambula, Pambula Beach, Towamba and the former whaling port of Eden. All of the towns and settlements included in the catchment are within an hour's driving time from Merimbula.

The reason for choosing a catchment area that includes people who may have to travel up to an hour to see a show in Merimbula is that the Twyford Theatre would be able to present shows from the national touring circuit that would previously only have been presented in places much further afield such as Canberra or Nowra, and which people are known to travel to.

People will drive significant distances to see shows they are really interested in (see discussion in Section 2.3.1), and a drive which is less than an hour is a vast improvement on the 6-8 hour journeys people would have to undertake to see those shows elsewhere.

As a result of these distances, currently people from the region will typically have to organise an overnight trip if they want to see a particular show. A section of the populace, including some of those living in retirement villages and others who are unable to travel long distances for a variety of reasons, currently simply miss out.

It therefore seems reasonable to include those living within one hour's drive in the catchment area for this CBA. **It also facilitates a more reliable analysis, as official statistics are available for the LGA but not for its smaller sub-regions.**

2.1 The supply of live performances

In order to gauge whether there is likely to be unmet demand for live theatrical performances in the Bega Valley LGA, it is helpful to examine the nature of the current supply of live performances in the region. This includes performances at clubs, pubs or galleries, festivals, fairs, one-off outdoor events, schools showcases and so on. The specific supply of theatrical events at suitable venues is a subset of this.

The region is well known for hosting a number of festivals, notably with a musical focus. This includes the Jazz Festival in Merimbula itself, the Cobargo Folk Festival, and the biennial Candelo Village Art and Four Winds Festivals. There are also other festivals such as a Food Festival and the Whale Festival at which there would be some outdoor and roving performances.

A new initiative is the Festival of the Face which is being programmed to coincide with the biennial Shirley Hannan National Portrait Award exhibition at the Bega Valley Regional Gallery and which the Council intends to grow in the future as a major, Shire-wide, arts festival.⁸

2.1.1 Town Halls including Twyford Hall

There are around 20 halls for hire in the Bega Valley LGA. These tend to be smaller in size but range in capacity from around 50 to 300 seated. They are generally used for musical nights, meetings, seminars, and wedding celebrations, but in some cases have also been used to present theatrical performances. The exact number of attendances at these halls could not be ascertained for this study but it may be noted that none of these halls offer raked seating, and that the sound and lighting equipment that is typically available is not suitable for top end theatrical productions or major touring productions.

2.1.1.1 Twyford Hall

Twyford Hall is one of the most heavily used of the town halls in the region, and currently hosts Spectrum Theatre Group's local amateur productions, which in a typical year includes two major seasons with some dinner theatre performances.⁹ Spectrum Theatre uses the Hall for 60-70 days per year including rehearsals.

Documents supplied by Twyford Hall Inc to the consultant indicate that the Hall is booked by over 40 groups per year, with regular bookings for the Merimbula Jazz Festival, Bournda Dance, and local arts and crafts and other community interest groups (orchids, coins & collectibles, etc.).⁹

The Merimbula Jazz Festival is a big event in the town's annual calendar. The festival is held on the June long weekend with approximately 150 bands or 700 musicians participating. The festival includes a Street Parade, a Jazz Quest and a Jazz Party. Performances are held at several venues, with Twyford Hall being one of the main venues and HQ for the event organisers. Precise attendance figures for the Festival are not available, but it is estimated that at least 1,000 people pass through Twyford Hall at some stage during the June long weekend to partake in activities or enjoy a performance.

Taking the document covering bookings for the year to January 2014 as a basis, it would appear that the Hall is booked around 10 nights per year for concerts and performances by local and touring professional performers such as Cheryl Porter, the Grigorian Brothers and the Alice Elton Variety Concert. These productions involve relatively easy set-up and removal of equipment when compared to the potential demands of professional touring productions in the theatre.

In total, it is estimated that Twyford Hall currently accounts for up to 5,000 attendances at performances, where this includes Spectrum Theatre's shows (around 2,300 attendances), hired performers, variety and charity concerts (around 1,500), and those attending performances during the Jazz Festival.

2.1.1.2 Bega Civic Centre

The old Bega Town Hall, which was decommissioned in 2008, is in the process of being replaced by a new Civic Centre. Construction commenced in 2013 and the main works are due to be completed this year with an official opening later in 2015.

The new design is meant to provide a multi-function community space for people living in and around Bega, with adaptable meeting and performance spaces, new Council chambers, easy access, and a large function hall with a commercial kitchen.

On inspection of the Plans available on the Bega Valley Shire Council's website, it would appear that part of the Ground Floor is a Civic Hall with a capacity to seat 504; the Plans also show a large Stage area, Stage Corridor and Male and Female Dressing Rooms.

It is not clear, however, that there are any loading docks or access points which would facilitate major touring productions accessing the building; nor do there appear to be adequately oversized doors to facilitate movement of sets, props and scenery within the building. It appears to be a flat floor facility that could perhaps be used for staging choral ensembles and bands, or for launches, dances, national day and citizenship ceremonies, etc.

Comments raised by interviewees were that it does not have a proper lighting box (control booth) and that the Council chambers upstairs look into the space, and would therefore have to be blacked out for any theatrical performance. Even if technically possible, this is a very labour intensive process.

The Stage in the Civic Centre therefore does not, on a first glance, appear to be a space that is geared towards hosting regular touring productions. In the words of another interviewee "it was never meant for theatre performances".

2.1.2 Clubs including the Sapphire Club

Clubs are another source of entertainment for the local populace and include traditional RSL Clubs, Golf Clubs and similar venues. There are a number of retirement villages in the region and residents there are a major group attending some of the more traditional clubs.

- Club Sapphire – up to 5,000 paid attendances per year (including original acts, tributes, kids' shows, and stand-up comedy). Also, free acts include 1 and 2-piece bands who play in the Easy Lounge.
 - Licensed venue; main auditorium holds up to 500 (300 seated)
 - Low ceilings and posts obstructing sightlines mean the space is not suitable for most theatre productions
 - Stand-up comedian in January attracts 350+
 - Original bands 200-300; tributes average 150
 - Wiggles is out of their price range but Dorothy the Dinosaur show toured a couple of years ago
 - The venue's Operations Manager commented on the 'price sensitive' nature of local customers (\$40 considered high price; \$45 would be top. Tribute band only \$25 per ticket)
 - He also commented on the slightly unpredictable nature of demand – January can be flat at times even though there are many visitors around, and then in May the locals come back out to fill the venue

- The Beach Country Club at Tura Beach – dinner shows (live bands) once every couple of months, can pull in 200 seated. Tura Beach Pub has closed and the site is being redeveloped as a library.
- There are several other Clubs of this type in the Shire. Most offer some form of musical entertainment for no charge on a monthly or weekly basis. This is usually not paid for. Total attendances are difficult to ascertain without much more detailed market research, but it is clear that none of these venues would be appropriate for touring theatrical shows.

2.1.3 Schools incl. Thimble Theatre and Eden High

Several schools in the region have facilities to stage theatrical productions. Eden High School's facilities allow it to host the Sapphire Coast Learning Community (SCLC) Performing Arts Festival on a regular basis. The majority of students at Eden High School come from the coastal towns of Merimbula, Pambula and Eden, suggesting that these communities are quite interconnected.

Lumen Christi Catholic College in Pambula has also recently upgraded its performing arts space and has a very active program in the performing arts.

Bega High School is home to the small Thimble Theatre (approx. 50 seats) which is used regularly by Theatre Onset.

2.1.4 Four Winds Festival – Windsong Pavilion

The growth of the Four Winds Festival in the Bermagui area, in particular during the last decade or so, illustrates supply responding to demand – there certainly appears to be an appetite for the types of performances offered.

Community support for the Festival has been strong enough to support the building of the Windsong Pavilion which is the only purpose built, indoor recital hall in southeast NSW. The building seats 160 people and is equipped with state of the art acoustics.

The Pavilion provides a focus for a range of activities including residences, workshops and performances, engaging new audiences in the creation and appreciation of music. It could also be a meeting place for an amateur music group, a local school to use for music making workshops or a place for an invited professional artist to respond to the unique environment of the region.

It must be remembered that Bermagui is about an hour's drive from Merimbula; however the Four Winds Festival and the Pavilion strengthen cultural tourism in the area, and this can only be of benefit to a potential theatre in Merimbula. It is not a direct competitor to the proposed theatre in any sense.

2.1.5 Others

Other places and venues at which performances take place were identified during the desktop research process or mentioned during interviews. Among these was

the Mandeni Park where outdoor performances have been held in the past. In the summer months, an estimated 20-30% of those attending these performances would be tourists.

The Bega Indoor Sports Centre presents shows presented by fLiNG Physical Theatre (7 original performances in 2014) which might be attended by 50-100 people each. The company also performs in other locations on a one-off basis, for example, at galleries and during the Four Winds Festival. Overall, fLiNG Physical Theatre might account for 1,000 attendances across different locations annually.

2.2 Stakeholders

2.2.1 Spectrum Theatre Group

Spectrum Theatre Group is currently a major user of Twyford Hall typically presenting two major seasons with total attendances of between 2,000 and 2,500 per year. Some information on its history drawn from the Group's website gives an impression of the activities undertaken by the group:

Spectrum Theatre Group is a community theatre group located on the Far South Coast. Spectrum began its journey in 1974 with just a few members of the Bega Shire community. It draws its Members and 'Friends' from as far as Mallacoota in Victoria, to Canberra, and Batemans Bay. The group provides a creative outlet for any person interested in theatre, from acting, directing, stage managing, lighting or sound technician, to designing and building props and creating publicity campaigns. Spectrum Theatre Group has been a valuable stepping stone for some young members to a professional career in entertainment and it has proven to be a rewarding social contact for many members of our small community.¹⁰

Bill Deveril of Spectrum Theatre Group provided some detail on how Spectrum operates. The Group occasionally hires professional Directors for shows, but otherwise relies entirely on its membership for actors and set design, etc. The number of people involved in a show can vary from 12 to 40.

Bill mentioned that Spectrum can do 2-3 shows per year and it would be acceptable to assume that it would do 3 shows if the new theatre is built. The company rehearses in the Hall during evenings even when there are Markets on during the daytime (there is no problem in sharing the space).

When the theatre is built Bill expects that some of the company's seasons might be split between the two spaces, enabling dinner theatre type presentation in the Hall as well as performances in the Theatre. Similarly, some of the touring shows would go into the Hall while others would go into the Theatre. Existing equipment owned by the company would continue to be used but shared with other users including hirers.

Bruce Waddell, the Treasurer of the Group, provided information on selected shows and results since 2010; there have been other shows in between but these are examples:

Aug-Sept 2010 – Prix D’Amour – Gross takings \$33,515. Patrons: 1240.
Performances: 10. Had 46 members that year.

June 2013 – Secret Bridesmaids Business – Gross takings \$20,262. Patrons: 838.
Performances: 7.

Dec 2013 – The Sound of Music – Gross takings \$43,778. Patrons: 1494.
Performances: 10. At the end of this we had 56 members.

May 2015 – Cinderella the Pantomime – Gross takings \$18,876. Patrons: 804.
Performances: 8.

Spectrum has also made donations to the Rural Fire Brigade (\$750) and the Wolumla Sports Group (\$350) in the past. Spectrum has made a commitment to contribute up to \$40,000 of its own funds to support any application for funding for a new theatre.⁶

2.2.2 Footprint Theatre Group

Footprint Theatre is a theatre group that was started in 2009 by Lis Shelley who had previously also been a member of Spectrum Theatre Group. Footprint has toured a number of productions in the region as it does not have a permanent home. It has held around 25 workshops since its formation and presented works in lots of little spaces (e.g., shop front theatre), also including the lounge upstairs in the Sapphire Club.

With 2-3 shows per year, the Group might currently account for up to 2,000 attendances annually. In terms of ticket pricing, adult tickets would be around the \$20 mark for most of their shows, maybe \$25 for the longer shows.

The Group aims to raise the profile of professional theatre in the region, and is interested in presenting more modern Australian works and perhaps more unusual or ‘risky’ works.

Lis mentioned that the big missing thing in the region is a raked theatre. She thought that 200 seats is a good size although in terms of how many would typically turn out she thought that 150 could be sufficient. This view was also expressed by Andrew Gray of South East Arts.

Merimbula/Pambula is seen as a growth centre in the region, with lovely views and lots of housing developments on the coast. There are also a number of retirement villages and the Managers of these villages sometimes book buses to take residents to performances – certainly these would be part of the target audience for shows at the new theatre.

Footprint Theatre will not be using the new space at the Bega Civic Centre but would potentially be interested in staging a show at the Twyford Theatre.

2.2.3 Theatre Onset

Theatre Onset has been active in the Bega Valley from some 12 years producing three or four high quality theatrical productions each year; recently it produced innovative shop-front theatre as part of the Festival of the Face. According to its website Onset Theatre has an active cast of about twenty. Diana Nicol who is on Theatre Onset's Committee mentioned that one of the problems is retaining young actors as many leave to big cities to pursue their education.

Working predominantly in Bega's Thimble Theatre space, the company's output has featured premiere productions, quality children's work and a range of critically acclaimed modern plays. Although Theatre Onset hasn't used Twyford Hall it would explore the options to use a new theatre if it is built.

Diana mentioned that Merimbula is the local hub for theatre. Nevertheless, theatre enthusiasts like her and Alex Nicol would typically travel to Canberra three times a year as well as to Wagga (as they used to be based there) and the Melbourne Festival to see shows there. Having a theatre closer by would reduce the need to travel to see some of these shows, if they were to be presented in Merimbula instead.

2.2.4 fLiNG Physical Theatre

fLiNG Physical Theatre's community class portfolio incorporates classes for children 3-5 years, a developed boys only program with a Parkour twist and a flourishing gym program. The majority of its work is performed in the Bega Valley LGA but it has in the past toured work as well, for example it toured one show to Cooma-Monaro recently. In 2014, fLiNG delivered 184 classes, 7 original performances and increased membership from 270 to 359.

The type of work that fLiNG produces requires a large stage area which must be suitable for dance. It is possible that some of its smallest pieces with 2-3 dancers might work in a smaller space with a width of say 12 meters.

One of the problems for the company is that most spaces do not include sufficiently raked seating. In principle, therefore, fLiNG would be interested in using a space such as the proposed new theatre, although it would be likely that it could only showcase some of its smaller works there.

2.2.5 The Sapphire Coast Music Society

The Facebook page of the Sapphire Coast Music Society states that is a community-based organisation whose "singular joy it is to bring beautiful classical concert music to the Sapphire Coast and Bega Valley Region of NSW". Artists are selected by the Society from all over Southeast Australia – including Sydney, Canberra and Melbourne.

Each year the Society builds a concert program based on fine chamber musicians who perform at Wolumla Hall – an acoustically superb music chamber located close to all the major regional centres – Eden, Pambula, Merimbula and Bega. Currently

all of the Society's performances are held at Wolumla Hall and tickets for all concerts except Co-Opera are priced at \$20 for Members, \$28 for Non-Members and \$23 for Pensioners Concession. Children of school age are admitted free if accompanied by an adult. The Subscription price for any four concerts is \$72 for adults (equivalent to \$18 per ticket).

The Society was contacted for its response to the idea of a 200-seat theatre in Merimbula. Michael Kavanagh, the President of the Society, responded with the following comments:

Should a 200 seat theatre be built in Merimbula, we would obviously be interested. It is an ideal size for our concerts and would be central to our largest membership/attendee source. From our perspective, we would like to see the following included:

- Acoustics are obviously of importance
- A green room for performers
- Catering facilities to provide for our after-performance activities
- Either the theatre supply an appropriate piano or there are secure storage facilities for our piano

The benefits to us, on top of ticket sales would probably revolve around having a purpose-built facility for our performances and being able to say we have a 'home' for our organisation – something we cannot say at the moment.

Nanette Anderson from the Society also confirmed this by saying:

The 200-seat sized hall would seem to be the best for our local needs at present.

2.3 The demand for live performing arts

This section discusses the nature of demand in the region, drawing on anecdotal evidence and opinions gathered during interviews as well as official statistics such as those published by the Australian Bureau of Statistics.¹¹⁻¹⁴

2.3.1 Anecdotal evidence

As was revealed in Section 2.2.3 above, local theatre enthusiasts currently travel outside the region to attend a variety of performances as often as five times a year or perhaps even more.

Although this is likely to be a small proportion of the local populace, the view was confirmed in a private discussion with a resident from Pambula who said that she and her family occasionally travel to see shows elsewhere.

This opinion was also expressed by Nanette Anderson of the Sapphire Coast Music Society:

Enough fanfare might entice our local regional dwellers to splurge over a weekend for a special night of entertainment a few nights per year. At other times, medium distances for 'different' stimulating entertainment monthly and

the Twyford style envisaged for frequent and varied performances of all kinds. I believe a dedicated theatre, high quality and well resourced and managed, could 'seed' a new level of expectations and support locally. The local clubs can pull off full-house audiences for a range of performances so I can't see why it would not be possible to get audiences in a smaller venue offering a wide variety of performances.

The following sections explore this possibility by examining official statistics on attendances, population growth and other demographic characteristics.

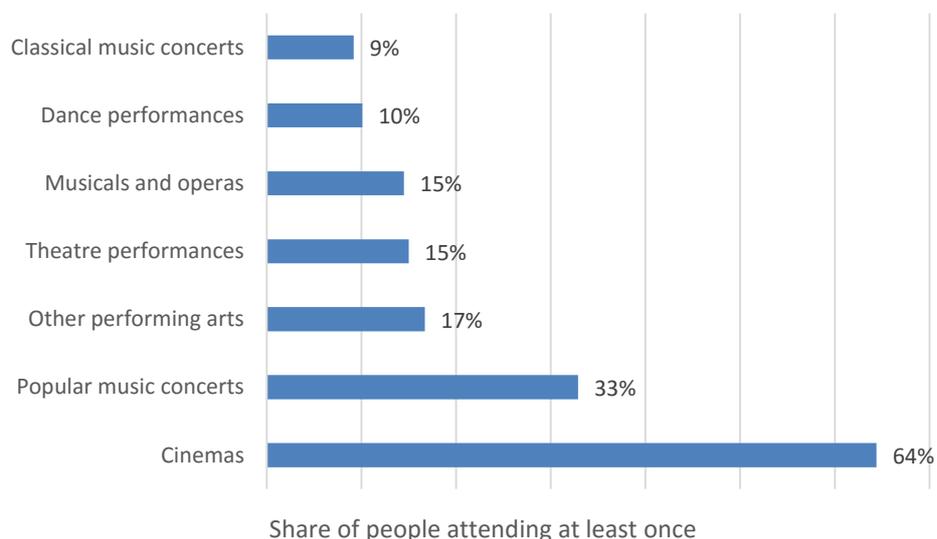
2.3.2 Attendances at cultural events

The latest available ABS data suggest that around 15% of people – about one in six – aged 15 and over in NSW attended the theatre at least once during 2013-14.¹⁴ A much higher proportion of the NSW population attended the cinema (see Figure 1).

Although the share of the population that is attending performing arts events has been in slow and steady decline over the past decade, the total number of attendances is still rising at a rate of around 1.3% p.a. based on ABS statistics.

There also appears to be a strong and possibly growing core of theatre goers. ABS data on the frequency of attendance indicate that in 2001-02 only around 16.1% of theatre goers attended four times or more – by the end of the decade this share had grown to 23.1%.^{11,13}

Figure 1: Attendance at selected cultural events, NSW (2013-14)



Socioeconomic factors

Attendance at performing arts events is strongly correlated with income and educational attainment. In NSW, only around one in ten people from the lowest income quintile reported attending such an event, whilst nearly a quarter of the highest quintile attended.¹³

Historically, below national average disposable incomes and educational attainment levels in the Bega Valley LGA would have exerted downward pressure on attendance rates in the region; however, what is more important for this CBA is anticipated demand growth looking to the future and this is affected by observed *changes* in the demographic, including growth in the population, rising incomes and higher educational attainment.

Demographic changes and demand

Population growth estimates vary from 0.5% to 1.5% p.a. but it is clear that the population is growing and that the age structure is changing.^{15,16} Some coastal regions in Australia, including the Sapphire Coast, have seen at times unanticipated swings in population growth over the past decade, in both directions. Using official NSW Government projections, for this CBA a conservative rate of population growth for the Bega Valley LGA of 0.5% p.a. is used.¹⁷

A comparison of 2006 and 2011 Census data reveals important changes in the level of schooling and qualifications by residents in the Bega Valley LGA:

- Year 12 or equivalent (+1,413 persons)
- Bachelor or Higher degrees (+781 persons)
- Year 8 or below (-352 persons)
- No qualifications (-293 persons)⁵

Considering that the total population of the Bega Valley LGA was below 30,000 during those two Census rounds, these changes are quite significant and show that socioeconomic status is rising. This can be expected to have a positive impact on demand for the live performing arts in the future.

Another important aspect is the changing age structure of the population. As more people retire to the coast, and as people live longer, there will be a higher share of older people who are potentially prime patrons of the performing arts.

ABS Census data show that between 2006 and 2011, there were an extra 644 older workers and pre-retirees (50 to 59), an additional 929 empty nesters and retirees (60 to 69), and a further 514 Seniors (70 to 84).¹⁶

The upshot of these demographic changes is that over the project horizon for this CBA the Bega Valley LGA can expect strong growth in underlying demand for the performing arts.

Reflecting this, the CBA assumes that demand will grow faster than the population at around 2% per year. This is in line with assumptions made in previous CBAs.¹⁸

Expected local attendance numbers

Some indicative calculations have been carried out to estimate what (unrestricted) demand would like, i.e., the number of attendances that could be expected to take place at performing arts events in the Bega Valley LGA.

If we apply the NSW attendance rates presented in Figure 1 as a guide, and assume each person attended only once, this would yield around 33,000 attendances per year, of which about 5,000 would be attendances at theatre performances.

The ABS attendance rate however refers to people who attended *at least* once. Using available data on the frequency of attendance at performing arts events, for theatre goes the average number of visits is closer to 3 times per year.

This means that using ABS data as a reference point, one would expect up to 15,000 attendances by Bega Valley LGA residents at the theatre, and around 100,000 attendances at performing arts events overall.

As Table 6 demonstrates, the best estimate of current attendance at local theatre shows is up to 6,000 per year. Compared with the 15,000 attendances that could reasonably be expected, this leaves a **gap of 8,000 “missing” attendances.**

Table 3: Current theatre attendances in the Bega Valley LGA (est.)

Group	Annual attendances
Spectrum Theatre	Up to 2,500
Footprint Theatre	Up to 2,000
fLiNG Physical Theatre	Up to 1,000
Onset Theatre	Up to 500
Schools performances	Up to 1,000
Total	Up to 7,000

Note: Econtext estimates based on discussions with these theatre groups.

2.3.3 Local residents’ attendances at events outside the region

In the last section, a gap of 8,000 “missing” local attendances was identified. This section discusses how many of those attendances may currently be taking place outside the Bega Valley LGA.

Clearly, not all of the 8,000 locally “missing” attendances are currently taking place elsewhere because it takes much more time (and money) to travel to theatres elsewhere, and some people simply cannot make long distance journeys.

A reasonable approach to estimating how many of the “missing” local attendances by Bega Valley LGA residents currently take place outside the region would make an allowance for this.

In terms of travel time on the road, this would be 2-10 times as long as travelling within the region. A typical drive inside the region might be of a 30 minute duration (say, Bega to Merimbula) and will almost certainly not exceed 1 hour.

Traveling to Batemans Bay is a two hour journey from Merimbula and driving to Canberra, Nowra or Bairnsdale for the nearest major performing arts centres takes at least three hours. Sydney and Melbourne are of course even further afield.

It is extremely unlikely that the longer trips are day trips, as they involve 6-10 hours or more of travel time. Given that most shows are in the evenings it means additional costs are likely incurred for an overnight stay. In this CBA we have adjusted estimates for the possibility that residents may spend the night with friends or family at their destination.

As this discussion indicates, the true 'price' of attending a theatre show outside the region is much higher than the price of entry alone. Taking a representative journey of 200-300km (400-600km return) the average value of the leisure time lost, petrol, accommodation and incidental spending, is estimated at \$400. This is eight times the value of the ticket.

Now, applying the economic concept of the price elasticity of demand (see Box 1), a 100% price increase would lead to a 50% drop in the quantity demanded. Doubling the cost from the initial \$50 to \$100, then to \$200 and then again to \$400, using the price elasticity **we arrive at an estimate of 1,000 attendances by local residents taking place outside the region.**

This is equivalent to around 3.0% of Bega Valley LGA residents travelling outside the region to attend theatre once a year. We believe that this is a reasonable estimate – it is similar, for example, to official statistics from the Bureau of Tourism Research showing that around 3.2% of NSW overnight travelers stated their purpose of travel was to attend “the theatre, a concert or the performing arts”.

Box 1: The price elasticity of demand

Some of the estimates presented in this report depend upon assumptions made about the underlying price elasticity of demand for tickets to performing arts events. The economic literature on this topic reveals a general consensus that demand is inelastic, and a reasonable reference elasticity to be used in the case of the Twyford Theatre would be in the region of -0.5. The most recent survey of the literature by Ulrika Stavlöt would support this assumption:

A number of empirical studies have estimated this variable on various cultural goods and have delivered broadly consistent elasticities. The elasticities of highbrow culture are mainly inelastic and the statistics is set to be approximately -0.5.¹⁹

This estimate also appears to have stood the test of time – a 2004 paper by Gerben Bakker of the London School of Economics found similar values for France (-0.49) and the UK (-0.56) for the historical period of 1900 to 1938.²⁰ For the purpose of the cost-benefit analysis that follows, we therefore adopt a price elasticity of -0.5.

2.3.4 Tourism and cultural events/entertainment

Having established a frame of reference for local demand, it is also important to acknowledge the potential role that tourists can have in driving demand. The main tourist towns such as Bermagui, Eden and Merimbula typically experience a threefold boost in their populations during the peak summer tourist period.²¹

The latest available estimate from Tourism Research Australia (TRA) suggests that 870,000 visitors travel to the Bega Valley LGA annually – of this, some 23,000 are estimated to be international visitors while 456,600 are domestic overnight visitors and 388,500 are domestic day visitors.²² The average length of stay of overnight visitors is 4.5 days, and total expenditure by tourists in the area exceeds \$295 million per year (of which \$250 million is by domestic overnight visitors), or \$340 per person per trip.²²

Data previously obtained from the Bureau of Tourism Research revealed that in 2004, only 1.3% of overnight travelers visiting the NSW South Coast attended “the theatre, a concert or the performing arts”, whereas it was 3.2% for NSW overnight travelers as a whole. This did suggest that there was a gap that was not being tapped and it was one of the justifications for the construction of the Shoalhaven Entertainment Centre on the South Coast. There are some parallels here with the situation in Merimbula.

More recent data were requested from TRA for this consultancy for the Sapphire Coast (Bega Valley LGA) but the sample size was too small for reliable data to be extracted. The TRA was however able to provide the data in Table 4 and Table 5.

Table 4: Overnight trips to attend theatre, concerts or other performing arts, 2014 ('000)

	Home Region			
	Sydney	Other NSW	Total NSW	Total Australia
Destination				
Sydney	np	279	304	634
Other NSW	152	142	294	398
Total NSW	178	420	598	1,031
Total Australia	338	598	936	2,724

Source: *Tourism Research Australia, pers comm*

As a rough indication, applied to the Bega Valley LGA overall tourist expenditure figure of \$295 million for 2013 these statistics would yield a total potential outlay of some \$10-15 million per annum by tourists on these activities.

It is unlikely that travelers to the Sapphire Coast would state attending the theatre as their primary reason for travel, as most would travel to go on holiday and perhaps enjoy the theatre as one of the activities whilst on summer holiday.

Table 5: Daytrips to attend theatre, concerts or other performing arts, 2014 ('000)

	Home Region		
	NSW	Other States	Total
Destination			
Sydney	764	np	783
Other NSW	np	np	np
Total NSW	974	np	1,033
Total Australia	1,009	1,486	2,495

Source: *Tourism Research Australia, pers comm*

2.4 Is there a gap in provision?

The region certainly has venues capable of hosting musical events to a very high standard, consequently there does not on the face of it appear to be a gap in this area of supply.

Importantly, however, we have not been able to identify any modern theatre venue with raked seating that would be accessible to the public in the Bega Valley LGA. Raked seating improves sightlines and helps bring audiences ‘closer’ to the performance. The closest theatre of this kind is two hours’ drive away in Batemans Bay where the Bay Theatre Players run a small performance space with permanent raked seating (under 100 seats).

Furthermore, there appears to be no theatre within three hours’ drive from Merimbula which, in addition to raked seating, is adequately staffed and features proper loading bays for use by major touring companies, as well as backstage facilities and modern light and sound systems such as would typically be used by productions drawn from the national touring circuit.

2.5 The market for business events

The objectives identified in Section 1.1 indicate that the *primary* aim of the project is to meet the “artistic, social and cultural infrastructure needs of the community”. The market for business events was therefore not considered a key driver for the project and has not been analysed in detail for this CBA.

A new theatre with raked seating could however also be utilised for ‘non-arts’ related events such as public lectures, private seminars, product launches (e.g., book launches), and a variety of other business events.

If the Hall and Theatre could be booked *in tandem* for a single, larger event then this may also make it possible to host business events such as conferences or conventions which typically require a range of spaces including breakout rooms.

Business events would yield income from venue hire but could also generate additional costs. Drawing on prior work undertaken by the consultant the following key points may be noted:

- The market for larger business events such as major conferences and conventions is fiercely competitive and out of scope for a facility such as the proposed Hall & Theatre Complex in Merimbula; instead the potential in Merimbula would likely be in hosting relatively small, local events.
 - This would be in keeping with the findings of a recent Ernst & Young report which revealed that most business events are in fact relatively small, and draw primarily upon local delegates.²³
- Around 83% of direct expenditure in this industry is in the 'meetings and conventions' segment, with a further 11% of expenditure in 'exhibitions'. An emerging but minor market segment is incentive travel which accounted for an estimated 6% of direct expenditure on business events in 2015.²³
 - The incentive travel segment is dominated by locations such as Cairns which market themselves as 'dream retreat' locations. In the Bega Valley LGA, facilities such as Robyn's Nest Guest House in Merimbula, Oaklands Event Centre near Pambula or the Homestead at Brogo may already cater to this market segment.
- The vast majority of expenditure at business events comes from the delegates attending the events, not the organisers or exhibitors.
- The majority of events are single or part day events.²³

The Ernst & Young report mentioned above built on a previous Australian study published in 2005 known as the National Business Events Study (NBES).²⁴ The NBES found that the greatest influence for delegates to attend a conference was the business or educational content of the conference program, and the choice of destination was highly influenced by the suitability of a venue. The opportunity to network was also an important motivational factor to attend a conference, and the presence of a strong local host related to the organization within the city or town had a high level of influence on choice of destination. The opportunity to visit a new city/town was a much less influential factor affecting overall delegate motivation.

It can be concluded that:

- The beautiful surrounds and natural features of the Sapphire Coast will not necessarily help to attract business events and inter-state delegates.
- Local businesses can be expected to be the most important drivers behind business events at the Hall & Theatre Complex in Merimbula, and local residents will likely be the main group attending such events.

On the supply side, in addition to retreat style facilities such as Robyn's Nest, The Homestead, and the Oaklands Event Centre which were already referred to, the RSL Club and Club Sapphire in Merimbula, the Bermagui Community Centre Hall and various other clubs in the region such as Bega Country Club cater to the demand for

venues able to host small business events such as meetings and conferences. All of the halls in the region are also, of course, available for hire and can be utilised for a variety of commercial purposes such as seminars and meetings which businesses may wish to organise locally.

The latest Australian Performing Arts Centres Association (APACA) members' survey report on the activity taking place at performing arts centres (PACs) around Australia does suggest that, in some parts of the country, significant non-arts activity takes place at PACs. The reported proportion of non-arts activity ranges from negligible levels at 2% in the ACT to around 20% in New South Wales, Western Australia and Queensland, and to even higher levels of 50% and above in Tasmania, South Australia and Victoria.²⁵

The APACA report does not provide a detailed breakdown of non-arts activity, and it must be remembered that most of the PACs included in the APACA survey are significantly bigger than the facility in Merimbula would be – less than 5% of the APACA centres surveyed had capacities of below 260 seats.

The existing APACA data indicate that 15-20% of PAC income comes from 'venue hire' and 'other earned income'. These two categories of revenue should include most earnings from business events. In the absence of more detailed data, an estimate of the proportion of income derived from business events by Australian PACs can be modelled on the proportion of activity that is 'non-arts' activity. As Merimbula is in NSW, it would appear that 20% is the appropriate reference figure here. This would imply that 3-5% of the Twyford Theatre's operating revenues might reasonably be expected to come from business events.

In this CBA, it has been assumed that the new theatre would be utilised for non-arts related purposes on 10-20 occasions per year (see Table 7), yielding \$6,000 in revenue annually. This is equivalent to 3.1% of operating revenue, which is towards the lower end of the 3-5% range suggested above. We believe that this is a reasonable, conservative estimate for inclusion in this CBA – it provides for some potential 'upside' should there turn out to be strong demand for the theatre space from local organisers of business events.

3 Comparison venues

To better understand the market in which the proposed theatre would operate, and to learn from the operating models of other regional venues (ideally of a similar size), the consultant undertook a desk-top based survey to identify venues and then contacted their managers.

One of the peak bodies relevant to theatre in Australia is the Australian Performing Arts Centres Association (APACA), which represents and supports performing arts centres (PACs). It regularly surveys its membership and its economic reports can be downloaded from the web.²⁵

Recent APACA data indicate that over 95% of its member venues had a seating capacity in excess of 260 seats. Roughly two thirds fall into the range from 260 to 1,100 seats. The majority of PACs are owned and managed by Local Government.

There are a number of Councils across the country which are currently building or considering building venues; it is extremely unlikely that our desktop survey will have unearthed every proposal. An example of work under way is the \$2 million Richmond Village Performing Arts and Technology Precinct, with its EOI approved for full application under the Regional Development Australia Fund Round Four in early 2013, which is due to open later this year. The Blue Mountains Theatre which has just recently opened is discussed in Section 3.1 of this report.

Some venues that were mentioned by interviewees as potentially being of interest but which could not be followed up included the Harbour Theatre (Roo Theatre) in Shellharbour, the Pavilion Kiama, the Milton Theatre Ulladulla, and the Hall & Courthouse at Gunning. Twyford Hall Inc may wish to follow up on these to gather more data if required.

3.1 Blue Mountains Theatre (438 seats)

The Blue Mountains Theatre has opened very recently and Paul Brinkman, the Manager of the theatre was consulted to obtain some insights into the process and lessons learnt there. The Blue Mountains Theatre is a 438-seater built at a cost of \$15.5 million with Blue Mountains rate payers pitching in \$6 million.

This theatre replaced an older community theatre that had been run as a “Hall for Hire”, and had fallen into disrepair pretty quickly as it wasn't being looked after properly. In reference to the possibility of a new theatre in Merimbula, the Manager argued strongly for staffing any new facility that is built as this would help ensure that the new building is looked after properly.

Paul estimated that at a very minimum one would need 2 FTE staff to run a 200 seater if the intention was to pull in higher quality shows and to attract a bigger cross-section of the community to the theatre - the staff is needed to ‘chase’ people (e.g., performers, producers), to manage hires/bookings, and so on. For the 438-seater Paul has 2.5 FTE but is trying to get approval for another 0.5 FTE. He brings in technical people when needed.

Paul also said that despite the fact that they are running the Black Mountains Theatre in an entrepreneurial spirit they will still need \$300,000 to \$400,000 per year from Council to run the place and get the types of quality shows they want.

He made a plea for taking extra time and care to ensure that the stage area and back stage facilities and access and loading bays are planned properly. In his case, he said that if he had been able to do so, he would have asked the architects to reduce the number of seats to free up badly needed stage and back stage areas which have unfortunately been compromised by squeezing in too many seats.

Paul mentioned that it was important to involve theatre people early enough in the process to ensure that the stage area and back stage was done properly – once the bricks are down you are stuck with it. The point is not to compromise the stage area and facilities just to get extra seats.

Another issue that was raised by Paul, as well as several others interviewed during the preparation of this report, was that of managing expectations of the local population. There is a tendency that people expect too much from venues. This will probably have to be dealt with in the Merimbula context as well.

Finally, Paul recommended to go for fixed seating and definitely not consider retractable seating, as it takes up a significant amount of labour time each time the seating is moved around.

3.2 Forge Theatre and Arts Hub, Bairnsdale (364 seats)

The East Gippsland Shire Council subsidises performing arts facilities, including the Forge Theatre and Arts Hub. For 2014-15, expenditure on this budget item is shown as \$700,000, and with revenues in the order of \$247,000 this leaves an operating subsidy of \$453,000 for these facilities.

Janice Hayes, the Manager of this theatre who is also the longest serving Board Member of the Victorian Association of Performing Arts Centres (VAPAC), mentioned that it costs about \$430,000 to operate the theatre, and that it would be impossible to operate the theatre without subsidy.

Janice mentioned that commercial hirers are generally looking for at least 400 seats to make it worth their while. For her community, the 364 seat capacity is adequate but she has previously managed Her Majesty's in Ballarat which has 959 seats.

The Forge theatre regularly hosts visiting professional performers, as well as skilled and enthusiastic local amateurs. Box Office staff suggested that very few, if any, people come from the Bega Valley LGA to attend shows here. The performances scheduled for the second half of 2015 as per the online bookings calendar and documents provided by Janice are as follows:

Table 6: Forge Theatre performances, second half of 2015

Production Name	#	Performers	Type / Genre	Ticket price
Mother 27 Jun 2015	1	Solo	Drama	\$35/\$30
Stripey-adventures of an emu chick! 03 to 04 Jul 2015	3	Ensemble	Children's	\$18
Comedy Festival Roadshow 2015 04 Jul 2015	1	Variety	Comedy	\$35/\$30
Dean Ray Live 11 Jul 2015	1	Solo	Concert	\$38.50
Say it with Music 15 Jul 2015 11:00am	1	Band	Concert	\$22/\$18
Drowning in Veronica Lake 31 Jul 2015	1	Solo	Drama	\$27/\$22
The Lost WW1 Diary 08 Aug 2015	1	Solo	Comedy	\$35/\$30
Hot August Night and me 14 Aug 2015	1	Band	Concert	\$39/\$35
Reserved Seating Only 20 Aug 2015	1	Two-hander	Drama	\$30/\$25
Erth's DINOSAUR Zoo TM 03 Sep 2015	2	Solo	Children's	\$18/\$12
Getaway! 10-13 Sept 2015	5	Ensemble	Musical	\$15
Close to You 17 Sept 2015	1	Ensemble	Concert	\$22/\$18
The Kazoos – What's Up Croc? 22 Sept 2015	1	Two-hander	Children's	\$18
The Sleeping Beauty 28 Sept 2015	1	Two-hander	Children's	\$18
Australia Day 7 Oct 2015	1	Ensemble	Comedy	\$35/\$30
The Belles of Broadway 14 Oct 2015	1	Solo	Concert	\$22/\$18
Grigoryan Brothers – "This Time" 17 Oct 2015	1	Duo	Concert	\$30/\$25
Play On! 22-25 Oct 2015	5	Ensemble	Comedy	\$25/\$20
The Ten Sopranos 30 Oct 2015	1	Ensemble	Music / Song	\$49.50/\$44.50
A Little Night Music 11 Nov 2015	1	Ensemble	Chamber Orchestra	\$36/\$31
FLAK 27 Oct 2015	1	Solo	Drama	\$35/\$30
Donald Cant's World of Christmas 17 Dec 2015	1	Solo	Concert	\$22/\$18

the number of performances.

The performance calendar is included here to illustrate the level of activity that might be expected by the local community, pricing that may have to be applied, and the mix of shows programmed.

It is clear that of the theatrical performances, almost all of the shows which are bought in from the national touring circuit are small cast presentations – mostly solo shows and two-handers. This speaks to the issue of expectations, as local residents may expect that they would be able to see large-cast professional touring shows on a regular basis.

As the performance calendar shows, the Hub is presenting or co-presenting 22 shows with a total of 33 performances during the second half of 2015. This works out at close to 1.5 performances per week, which Janice said is a bit less than she would like. Ideally, she would be aiming for closer to 2 performances per week. This has been taken into account in the preparation of the CBA.

In terms of sourcing shows from the national touring circuit, Janice explained that you need to “jump on” around 18 months prior to the planned performance date, with full negotiations including contracting typically occurring or starting around 12 months out.

In terms of the cost of these shows, most of the time it is less than \$6,000 to buy in a show for one night.

3.3 The ‘Q’, Queanbeyan (346 seats)

The Q was completed in 2008 in the city of Queanbeyan which has a population of around 40,000. It is also less than half an hour’s drive from central Canberra and therefore potentially has a larger catchment than Queanbeyan alone. Demand for a new facility came from various cultural groups as well as the local professional and amateur arts community; lobbying for a cultural centre and theatre started as early as in the mid-1990s.

The Queanbeyan Players made a \$50,000 contribution to the building of the theatre – their role in the project would appear similar to that of Spectrum Theatre in Merimbula.

The number of patrons attending performances was reported as 28,897 in 2013/14, which exceeded the target of 28,000. The revenue from ticket sales fell from \$685,000 in 2013 to \$477,000 in 2014, reflecting the risk inherent in theatre production. Also noteworthy is the value of bar sales at the Q and Conference Centre which came to \$81,000 in 2014. While the number of comps is unknown, the above figures indicate that an average price per paid ticket is probably closer to \$20 than \$30.

A similarity to the situation in Merimbula is that the Q is situated adjacent to an older town hall space (in fact a conference centre built in 1988), but from a design perspective the older building and the theatre appear completely separate. The Manager of the Q was of the opinion that under ‘ideal circumstances’ the two

would have been integrated into one centre, similar to what has been done in Dubbo.

The building of the Q was Council funded and there was apparently an expectation early on that the building would pay for itself through ticket revenues; at the end of the first year of operations the Council considered shutting the venue down due to the cost. Having sought advice from a series of consultants / theatre specialists the Council was however made to understand that this type of venue could not be self-sustaining and the case for a subsidy was accepted.

The Q employs two full time staff members and three part-timers, as well as relying on a roster of over 100 volunteers to help with ushering, etc. The Manager referred to regional venues of this size typically requiring subsidies of up to \$1 million per year.

3.4 Centre of Contemporary Arts, Cairns (241 seats)

The Centre of Contemporary Arts Cairns is a significant piece of Queensland Government regional arts infrastructure consisting of The Theatre, a 241 seat black box theatre, The Space, a large open plan rehearsal and performance venue, two A Class galleries, meeting and workshop facilities , plus a cafe and theatre bar Number 96. The Centre of Contemporary Arts Cairns is also home to resident companies JUTE Theatre Company and KickArts Contemporary Arts.

The subsidy needed to run the Centre, which includes JUTE but also other staff, is in the region of \$500,000 per year. It is instructive to briefly reflect on the history of JUTE and the Centre:

JUTE came into being in 1992 when three passionate theatre makers living in Cairns met and the creative sparks began to fly... work was fiery, raw and unique in the region.....it was an instant success! Since then, the company has dedicated itself to carving out a niche for its work.

JUTE's commitment to this region was confirmed when it lobbied and successfully gained \$2.7m from the State Government (together with KickArts Contemporary Arts) to build their home that has now become the Centre of Contemporary Arts, a major infrastructure in our region, driven by two small arts organisations.²⁶

The history of JUTE shows what can be achieved when passionate, dedicated theatre makers come together and pursue a longer term vision. JUTE is still thriving today with a curated season of 5-6 shows annually.

3.5 Don Russell Performing Arts Centre, Perth (216 seats)

Owned, managed and subsidised by the City of Gosnells LGA in Perth, this purpose-built performing arts facility hosts attracts around 20,000 patrons per year. This includes persons attending a variety of events, use of the dance studio, etc. The theatre relies on a subsidy of around \$600,000 per year.

The main space is a proscenium arch style theatre and stage extensions can be added to make it deeper, giving up to 1/3 more stage floor space – a recent review found that depth of the stage was an ongoing issue and that there was a need to provide room for cross-over at back of stage.²⁷

The Centre also has a fully equipped dance studio which is hired out to private dance teachers. Additional amenities in the facility: bars, dining venues, exhibition space, meeting rooms, and the kitchen are all available for hire. As a result, apart from performances the venue is also used for presentations, conferences, product launches, award nights, school graduations, and seminars.

Theatre productions at the Centre include local performing arts groups, community cultural groups and professional performing arts companies. In terms of touring shows, the Manager of the Centre Robert Housley stated that it hosts around 35 shows per year, which is “high by regional standards”.

In addition, Robert stated that there are around 50 hires between now and the end of the year (i.e., a six month period), indicating there could be up to 100 hires of the different facilities at the venue. He pointed out the need to be creative in finding ways to use a new theatre space such as using it for conferences, meetings, etc. – whatever creates the buzz and ensures the community buys into the venue and sees it as a place where activity is occurring.

The Centre is run by 2 FTE staff, plus a casual tech person who is on a 1 day per week regular contract and a part time person helping with the book keeping. The total FTE staff required to run this space is possibly around 2.5. In general, Robert said the running of a space like this requires a lot of effort and money and that volunteers are very important too.

Around 60% of costs are staff costs. Robert reiterated a point raised by other interviewees, which is that all of the smaller regional theatres are heavily subsidised. He said that part of the plan for the Twyford Theatre would have to be heavy lobbying of the local Shire to make sure it gets some subsidy. In the first instance it would be important to get the venue up and working, making sure all health and safety standards were met, and to make sure management remains open to all kinds of usage options – to make it into a hub for all kinds of activity.

Robert also spent some time explaining the challenges in sourcing suitable shows for the theatre, indicating that there is a myriad of ways in which this can happen. One of these is what was formerly known as the Cyber Paddock (online) and the Long Paddock (face-to-face opportunities to meet) which has since been turned into the National Touring Selector. Robert referred to a buy-in cost of \$10,000 as not being at the top end. He did say few shows would be available for buy-in at less than \$3,000 per night, although very occasionally a show might come in at the \$2,500 mark. As a reference figure he said probably \$5,000 per night is probably achievable.ⁱ

ⁱ Note this CBA has adopted a representative cost of \$4,000.

According to Robert, it helps if the local Manager at Merimbula could assist the touring show with transport costs and ideally have a local accommodation sponsor so that one could offer that to potential touring shows. Sometimes, it helps to attract a show if it can be tied in with a series of Workshops, perhaps run at the local school, which can raise additional revenues for the touring company.

Scouting of suitable productions is another option. Robert said the best option is often to pick up a show when it is doing a run nearby, so that it does not have to be remounted. The remount in general is very expensive and can involve 3-4 weeks of work which involves the entire company, so it is much better to grab a show while it's "hot". Once you get a feel of what the local population likes, you can then begin to look out for suitable material. You might go to a Fringe Festival and approach creatives with a cash offer which you have prepared beforehand; you might find that some of these are willing to bring their show to your space that way. In short, there are many different ways to attract shows but you need to pursue them actively and have the required cash and then the technical staff on site to be able to mount the productions professionally.

3.6 Belconnen Community Theatre (145 seats)

This theatre is located in the Belconnen Community Centre in the ACT and is used by a wide range of community groups, including belly dancing, youth drama groups, special needs groups from schools, etc. It is part of Belconnen Community Services which receives annual grants in the region of \$350,000 (2014) to \$500,000 (2013).

The 145-seater is equipped with a bio-box for full lighting and sound control, and there are both male and female dressing room facilities. Theatre hire is charged at a rate \$200 per day or \$1,200 per week, which is affordable enough to provide wide community access. Typically, a hirer would pay this fee and also agree to a box office split. The theatre is also used as a venue for conferences.

Shows for children

Discussion with the theatre manager revealed that kids' shows are particularly well attended (frequently booked out) and tend to be put on during the school holidays. These shows will often run for three weeks partly because public and private schools run slightly differing terms (and ACT and NSW school holidays are also 'staggered'). This means that in a typical year the space is used for four holiday kids shows, each of which run for three weeks, accounting for 60 days of theatre hire / utilisation and over 5,000 attendances per year.

Tempo Theatre

Currently Tempo Theatre Company, a local community theatre group founded in 1974, uses the Belconnen Community Theatre as its base; in recent years the company has put on 2-3 shows a year at the venue, including English comedies, panto, and suspense drama such as Agatha Christie plays and 'An Inspector Calls'. These shows would typically have two-week seasons thus accounting for 20 to 30 days hire and indicatively around 2,000 attendances per year.

4 The operating model

What would activity at the proposed theatre complex look like? As indicated, the Twyford Theatre would be a 200-seater with the capacity to present high quality touring shows.

Plans sighted for this consultancy indicate that the design incorporates adequate stage and back-of-stage arrangements.

The theatre would double the capacity of the venue as a whole from around 200 at the existing Hall to 400 including the new theatre.

The operating model for this CBA assumes that the venue would be appropriately staffed and that additional product would be bought in. There would also be an increase in local professional and amateur works being presented (see Table 7).

In keeping with Twyford Hall Inc.'s philosophy, the Twyford Theatre along with the Hall would not be run for profit.

4.1 Operating days incl. holiday season

As the Hall and Theatre would be staffed, it is expected to be operating most of the year. This theatre will be uniquely positioned near the beach, giving it high visibility to tourists.

While most other theatres throughout the country shut down over the Christmas holiday period, this would be a key period during which the theatre should position itself to capitalise on the influx of tourists to Merimbula.

The CBA assumes a six week blackout period in line with practice at other theatres nationally; however, as indicated it would be highly recommended to curtail the summer blackout period to perhaps two weeks and find another four week window during the rest of the year when the theatre would shut down.

A shut down period is essential as managing a theatre is an extremely demanding job. If the Theatre Manager does not have an opportunity to re-energize over a blackout period, either the quality of programming and output will suffer, or the Centre will end up with high staff turnover due to 'burnout'.

With a six week blackout period in total, this reduces the theatre's effective availability to 46 weeks per annum, and average usage statistics presented in this report reflect this.

4.2 Supported activity

The key assumptions about usage are presented in Table 7 below. This has been arrived at after carefully considering the potential of the venue including researching operating models around the country and consulting various stakeholders.

The key points are as follows:

- Spectrum Theatre Group will present 3 productions annually under the model applied for the CBA, bringing in an additional 1,168 attendances
- Other existing events at the Hall would be retained
- Jazz Festival visitation at the venue would rise as the new theatre would be used for a series of 40 minute acts over the June long weekend
- At least one new local amateur or school production would be presented, and one theatre season from a professional hirer would also be presented (e.g., Onset Theatre, fLiNG, or Footprint Theatre Group)
 - This could include kids' shows which would be very popular during school holiday season
- Theatre management would program another 12 one-nighters from the national touring circuit, possibly including some artists identified by the Sapphire Coast Music Society (for the venue as a whole, this means around 15 shows drawn from the touring circuit annually)
 - This would put it into 'medium' usage category when compared with, say, the Don Russell PAC which presents 35 shows per year (Section 3.5)
- Finally, the theatre would be booked on another 10-20 occasions for uses such as presentations, book launches, conferences and so on

Table 7: Operating model for Twyford Hall & Theatre (attendances, etc.)

Events	Hall & Theatre		Theatre Only		
	Frequency	Attendances	Addl. attendances	Perfs.	Days used
Spectrum Theatre Group	3 seasons	3,503	1,168	30	60
Hired performers	Retain	760	0	4	4
Variety & Charity Concerts & Others	Retain	710	0	3	3
Merimbula Jazz Festival	Retain	2,000	1,000	10	2
Other local amateur / school productions	1-2 seasons	1,200	1,200	10	20
Professional theatre companies (hirers)	1 season	720	720	6	10
Additional touring productions	"One-nighters"	1,440	1,440	12	12
Other additional events	10-20 Uses	N/A	N/A	-	15
Total		10,333	5,528	75	126
<i>Performances per week</i>				<i>1.63</i>	
<i>Days used per week</i>					<i>2.7</i>

Source: Econtext.

As Table 7 shows, the upshot of this is that there would be around 1.6 performances per week, and the theatre space would be used around 126 days per year. The Theatre would be in use on 2-3 occasions in a typical week.

These figures have been tested and confirmed as being reasonable in discussions with the experts listed in Section 1 of this report.

4.3 Staffing levels

The research and discussions undertaken for this CBA suggest that at a very minimum it would take 2.0 FTE staff to run the Twyford Hall and Theatre Complex; similarly sized Council subsidised venues around the country typically employ 2.5 to 4.0 FTE staff.

For the CBA it is assumed that it will be possible to achieve this using a **mixture of paid staff and volunteers**.

Operating costs presented in the Section of this report work on the assumption of 1.5 FTE paid staff, which consists of one full time Manager plus 0.5 FTE paid casual staff for technical and other support. It has been assumed that volunteers will provide another 0.5 to 1.0 FTE in support of the facility.

4.4 Financial viability

To develop the CBA, a representative model of operating costs and revenues was developed. These financial costs and revenues should however not be mistaken as the economic costs and benefits, which will be discussed in much more detail in Sections 5 and 6 of this report.

Note that the model presented here is for the THEATRE ONLY, not for the venue as a whole. If the rest of the operations break even (i.e., the Hall takes care of itself), then the rental of the two shops will be available to cross-subsidise the theatre.

In addition to the interviews already referred to, a number of previous reports were consulted including those published by APACA.²⁵

The following assumptions were made:

- All of the staff costs were included here because, if the theatre is not built, the staff would not be employed
 - 1.0 FTE Theatre Manager
 - 0.5 FTE Technical Manager
- Twyford Hall Inc. signs MOU with Spectrum Theatre for box office split
- No support from Council for salary cost recoveries
- The venue pays for its own insurances
- Ticketing outsourced at a rate of 15% of ticket price
- Programming and usage as per Table 7 above
- All other assumptions as shown in Table 12 in the Appendix

Table 8 summarises the results of this exercise showing that the venue could expect an operating loss of around \$62,000. To balance the books, Twyford Hall Inc would have to use the rental from the shops to cover this operating loss.

Table 8: Annual operating expenses and revenues, THEATRE ONLY

<i>Operating expenses</i>	\$	Share
Routine repairs and maintenance	\$11,000	4%
Permanent staff - salaries & on-costs	\$72,192	29%
Casual staff - wages & on-costs	\$36,096	14%
Contract performance fees	\$48,000	19%
Production fees & royalties	\$21,308	8%
Advertising & marketing	\$10,000	4%
Administration incl. ticketing	\$25,674	10%
Insurance	\$6,285	2%
Utilities	\$6,300	2%
Cleaning & Caretaking	\$7,500	3%
Bar stocks	\$5,801	2%
Other	\$3,000	1%
Total operating costs	\$253,156	100%
<i>Operating revenues</i>		
Donations & sponsorships	\$1,000	1%
Venue hire	\$29,750	16%
Salary cost recoveries	\$0	0%
Box Office	\$137,825	72%
Bar	\$22,110	12%
Other (merchandise, interest etc)	\$500	0%
Total operating revenues	\$191,185	100%
Operating profit or loss	-\$61,971	

Note: Econtext estimates based on mid-2015 prices, wages, etc.

During the drafting of this report it was queried whether Box Office takings of \$137,825 per year was realistic or perhaps over-optimistic. This amount is roughly equivalent to an average ticket price of \$25 on 5,500 tickets sold.

Another way to consider this is to ask whether it would be possible to fill the theatre on thirty days in any given year (30 x 200 seats = 6,000 tickets). If so, an average ticket price of \$25 would in fact yield \$150,000 in Box Office revenues. On balance, these figures therefore appear non-controversial in the consultant's view.

Variation in ticket prices can be expected (see, for example, Table 6 on p. 24 of this report). For the twelve shows that will be bought in, for example, and with a conservative baseline assumption of 60% of seats sold, an average ticket price of \$35 would yield Box Office takings of around \$50,000.

Box Office from amateur shows will depend on how activity is split between the Hall and the Theatre and on how much of the activity is considered 'additional' activity (see discussion of the counterfactual in Section 1.4). The final operating profit or loss will also depend on the box office split agreed and/or other financial arrangements with the amateur groups performing at the new venue.

4.5 Steps required

The model developed here is clearly a 'step up' in activity, and a clear plan and agreed vision on the multiple efforts to create a vibrant community hub will be needed. Key stakeholders will have to be consulted and involved early in the process.

4.5.1 MOU with Spectrum Theatre Group

Spectrum Theatre Group is a critical part of this model which would see Spectrum Theatre Group given the status of 'Resident Company', with attendant rights and responsibilities.

All of the calculations undertaken for this CBA suggest that it would be critical for the model to succeed that Spectrum Theatre Company returns a share of Box Office to the venue. This is not meant to penalise the company, but would ensure the venue's survival, and therefore its home as resident company.

The two parties could, for example, agree on a 50:50 split for all Box Office revenues (Hall & Theatre). Alternatively, Spectrum may sign a Memorandum of Understanding (MOU) with Twyford Hall Inc specifying an annual contribution. The key point is that a significant contribution from Spectrum Theatre Group will be required to make this model feasible.

If other companies in the region were approached and amenable to similar arrangements that would of course also be possible.

4.5.2 Terms of Reference for staff

Terms of Reference (TOR) will need to be developed for the Theatre Manager, who will be required to have a say in programming and venue hire decisions, for example, by giving her a vote on the planning committee and ensuring her ability to make certain independent artistic and managerial decisions.

In order to attract a good Theatre Manager it will be important to emphasise that she will have a Programming Budget (here set at \$48,000 for the Theatre) and that she will have control of specified aspects of management and artistic direction of the theatre.

A casual pool for payment of casual technical and other staff (when volunteers are not available) will also need to be established with the Theatre Manager assigned responsibility as signatory, etc.

5 Costs

This CBA attempts to be as comprehensive as possible in covering costs as well as benefits. This means that on the cost side, not only financial flows are included but also economic costs such as the deadweight losses associated with raising government funds to pay for the project, and the loss of interest on savings and revenues foregone which Twyford Hall Inc would be able to earn if it did not commit these to the project.

Costs are those attributable to, or caused by, the Theatre only. It may be noted that this includes all of the staff costs because these would not be incurred if the Theatre was not built. There will be benefits to the Hall from this, as the Manager will be employed to run both spaces.

5.1 Construction costs

The estimated cost to build the theatre is just short of \$6.0 million, funding for which is envisaged as a combination of available funds of \$100,000, \$40,000 from Spectrum Theatre Group and community fund raising of \$150,00 and Grants and loan funds of \$5.7 million from government sources at all three levels of Government.⁶

The detailed cost estimates received during the preparation of this report do not put exact timeframes on each stage of construction but the overall timeframe is two years. The CBA has therefore split the construction costs equally across the first two years of the project horizon.

5.2 Operating costs

Operating costs have been discussed in Section 4.4. Based on a staffing level of 1.5 FTE paid staff, a programming budget for the Theatre of \$48,000 (= 12 x \$4,000), and other costs shown in Table 8, **total operating costs in 2015 constant prices are estimated at slightly over \$250,000 per year.** This cost is associated with an additional 5,528 attendances in the first year of operations.

The performing arts suffer from what has been known as the ‘cost-disease’ since William Baumol’s seminal work on the economics of the performing arts in 1966 (which helped earn him a Nobel prize in economics).²⁸

There are different estimates about the degree to which productivity in the sector lags behind the general economy and the extent to which the growth in costs in the arts therefore exceeds cost increases in other sectors.

Generally however it is accepted that costs in the arts continue to grow faster than costs in other sectors, and for this report a cost escalation of 1% p.a. has been assumed – in other words, real (inflation-adjusted) costs will rise by 1% over and above general inflation. Operating costs therefore rise to around \$330,000 in the final year of the 30 year project horizon.

5.3 Interest foregone

A result of using the rental from the shops to cross-subsidise the theatre will be that interest that would have been earned under the counterfactual will not be earned. This therefore becomes a cost under standard CBA methodology. The cost in this CBA is based on a compound rate of interest on savings of 3% reflecting balances currently held in accounts by Twyford Hall Inc.

It could be argued that the lump sum generated over time would not in practice be allowed to accumulate. In the absence of a detailed asset management plan outlining future spending requirements for the Hall, however, this is assumed for completeness.

The amount of interest foregone on this basis rises from around \$2,000 per year in the first year to over \$90,000 per year in the final year of the 30 year project horizon.

5.4 Cost of taxation

Modern CBA methodologies for a project which involves expenditure of government funds require the inclusion on the debit side of an estimate of the so-called “deadweight costs” of taxation. In the words of Professors Diewert and Lawrence, the most cited authors in this area, these costs arise because:

Taxes and government regulations can distort incentives to work, save, and invest, and the pattern of input use and production in the economy.²⁹

Any money that is obtained from government sources to support a capital project can be argued to be associated with these types of costs.

There are a range of estimates about the size of this effect. One survey of the literature found that the average deadweight cost of all forms of taxation in the US ranges from 18 and 24 per cent, whilst in Australia the marginal cost of income taxation has been estimated at 23 per cent.³⁰

An appropriate reference figure which, based on past experience such as the CBA for the Entertainment Centre in Shoalhaven, we believe would be accepted by Treasury officials for use in a CBA such as this in Australia is **20 cents in the dollar**. This has been applied to the proportion of the Twyford Theatre’s costs that is expected to be supported by government grants or loans.

6 Benefits

There are a range of direct and indirect benefits that would stem from the construction and operation of the proposed Twyford Theatre. Co-location of the theatre with the existing Hall also produces some additional benefits for future users of the Hall and the community more widely. Only some of the benefits of the project can be quantified.

This CBA presents estimates for some benefits that have hard to measure but are recognised as important benefits of investments in community infrastructure such as a theatre like this represents.

Where an approach has been developed to put a value on a benefit, the figures are conservative. The methodology used for each of these benefits is discussed in the sections that follow.

6.1 Direct and indirect contribution to GRP

A proportion of expenditures incurred during the construction phase and the operational phase contribute to the regional economy as measured by Gross Regional Product (GRP).ⁱⁱ

To estimate this economic benefit requires an understanding of how much of the expenditures will flow to persons and entities outside the region (so-called 'leakages'),³¹ and also an understanding of whether or not the project itself distorts local labour markets and other markets.

Payments to the producers of touring productions will, for example, typically flow out of the region.

Where expenditures stay within a region, an indirect value added (IVA) contribution can also be estimated using value added multipliers. Multipliers are a common method of estimating the impact of economic activities in regional economies but they need to be used with caution. Multipliers greater than 1 in magnitude are not considered in modern CBAs.

The consultant's experience with economic impact studies in the ACT – which like many other regional economies has a high degree of the so-called 'leakages' – suggests that a value added multiplier of between 0.2 and 0.5 may be appropriate.

In line with the conservative approach taken to valuing benefits, this CBA uses an indirect value added multiplier of 0.25.

ⁱⁱ Gross regional product (GRP) is conceptually equivalent to gross domestic product (GDP); the latter measures newly created value through production by resident production units (or residents in short) in the domestic economy, while for the former measures newly created value through production by regional production units (or regional residents in short) in the regional economy, be it a state, province or a district.

6.1.1 Workforce

Construction period

Based on previous advice received from Quantity Surveyors one can expect that for a region such as Bega Valley LGA around 60% of the project's costs would be associated with materials and plant and fittings, etc., with labour accounting for the remaining 40%.

The extent to which labour will be sourced from within the Bega Valley LGA depends to a large extent on other demands on construction-related labour at the time the centre is constructed. The plan for Twyford Hall is that only local labour will be used; however, based on previous experience with projects in regional areas, it is likely that some labour will have to be sourced from outside the region.

This CBA works on the assumption that 80% of labour will be sourced locally.

The next question is whether the investment project is 'lumpy' enough to cause distortions in the local labour market, i.e., drive up wages or 'crowd out' existing jobs. Profiles reviewed during the preparation of this report indicate that the unemployment rate in the Bega Valley LGA has historically been above the national average, at somewhere between 6-7% compared to 5-6%.^{15,16,21,32} These profiles also indicate that at around 15% of the labour force, the Bega Valley LGA has a significantly higher proportion of labourers in the labour force than the national average (10%).

Combined, these facts means there are good prospects for sourcing local labour and that the project will not 'crowd out' existing jobs or otherwise significantly distort local markets (wages, etc.).

This CBA therefore assumes that 80% of the wages and salaries associated with the construction of the project will be paid to Bega Valley LGA residents and would hence be a benefit to the local community as measured by GRP. **This amounts to a benefit of slightly over \$1.9 million over the two-year construction period.**

Operating period

A direct consequence of building the theatre would be the creation of 1.5 FTE positions as discussed in Section 5.2. Their incomes are a direct benefit to the region, in the sense that these jobs would not exist in the absence of the intervention (project).

In terms of regional income accounting, wages and the operating surplus form part of GRP; in the case of the operating model discussed in Section 5.2, the wage bill comes to around \$108,000 but the operating surplus is in fact a deficit of around \$62,000. **The direct contribution to GRP from operations therefore amounts to approximately \$46,000 per annum** (rising over time in line with the real cost escalation assumed for this CBA).

6.1.2 Non-labour expenditures

Most of the project's non-labour costs during the construction phase are expected to be associated with purchases from suppliers which operate outside of the LGA.

Value added multipliers are one means of identifying the likely benefits which remain in the Bega Valley LGA. As multipliers are not available for the Bega Valley LGA we have elected to use the multiplier of 0.25 mentioned in Section 6.1. During the construction phase, on this basis, an IVA benefit of around \$450,000 for each of the two years is recorded.

During the operating phase, it is assumed that contracted performance fees and payments for insurance and utilities flow to agents and organisations outside the region.

The IVA multiplier is therefore only applied to payments for routine repairs and maintenance, administration, production fees (payments to local theatrical companies), cleaning & caretaking, bar stocks, and the category of 'other' expenses. **The total IVA impact from operations is thus estimated at around \$21,000 per year** (again, growing in line with real cost escalation).

6.2 The 'value' of the performance

The approach taken to measuring this benefit is to include the commercial value of the performance, i.e., Box Office, and add to this what economists call 'consumer surplus', which is the amount that people would have been willing to pay but are not asked to pay for a ticket.

6.2.1 Commercial value as indicated by Box Office

One of the main benefits, if not the main benefit, of building a theatre must be the value of the performance. The market value of a performance is reflected in its ticket price and the number of people attending.

This CBA uses a reference attendance rate of 60% or 120 tickets sold per show in a theatre which can seat 200. In the consultant's experience, this is an accepted reference figure in the industry and is in line with figures published by Australian theatres, APACA, and broad US comparison data.^{25,33,34} The international data also show that smaller and regional theatres tend to report lower utilisation rates than venues in large urban theatre hubs such as the Westminster area in London, where utilisation rates may rise up to 80%.

This benefit grows from \$138,000 in Year 1 to around \$235,000 in Year 30.

6.2.2 Consumer surplus

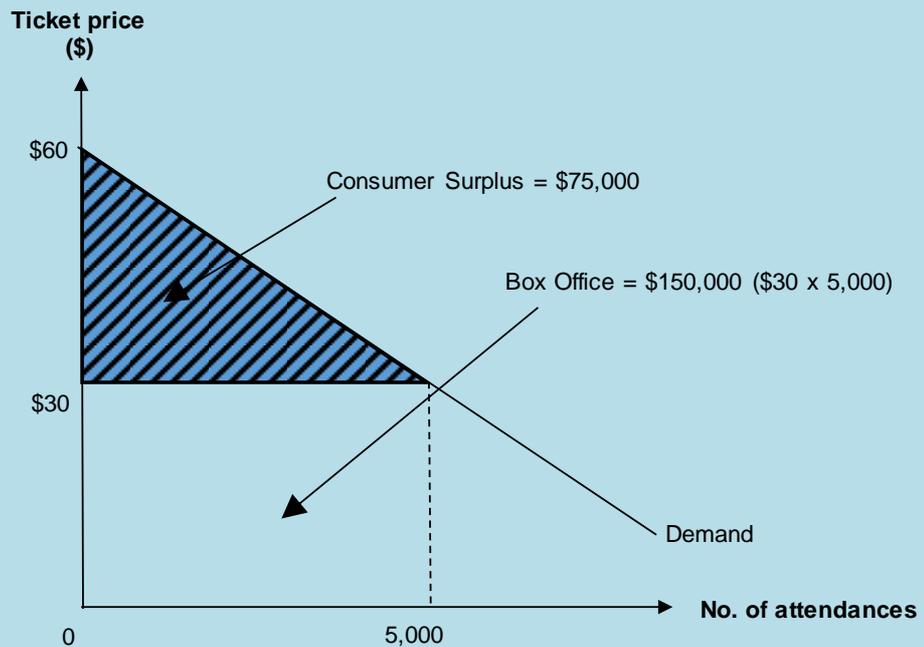
Social cost-benefit analysis incorporates the measurement of benefits that are not recorded in market transactions. Consumer surplus is one such benefit. Consumer surplus is the sum of – the difference between what an individual patron is willing to pay for a ticket and what they actually do pay – for all patrons.

Ticket prices for live theatre or music performances are normally fixed, or vary according to the quality of the seat or with certain concessions for the unemployed or aged. In general, however, ticket prices do not reflect patrons' willingness to pay for a particular event. In this CBA, the assumptions imply a consumer surplus equivalent to half of the value of Box Office. **This amounts to \$69,000 in the first year, rising to \$117,000 in Year 30.**

Box 2: Consumer surplus in the performing arts sector

The 'Law of Demand' states that the quantity demanded of a good rises as its price falls. Applied to the performing arts, this suggests that attendances at live theatre events, for example, would increase if the price of tickets fell.

The diagram below reflects our assumption of a straight line downward sloping demand curve with a highest willingness to pay of twice the ticket price charged. In other words, for our representative ticket price of \$30, one person in the audience would have been willing to pay up to \$60 to attend the performance. Representative values for Box Office and Consumer Surplus are shown.



Source: Econtext.

6.3 Induced spending

Both local residents and tourists attending a show at the theatre may be induced to spend some money at the bar or by combining a trip to the theatre with a meal before the show.

Any induced spending counted in this CBA is non-fixed expenditure and therefore does not crowd out other expenditure.

6.3.1 Bar

The earnings from the bar were included in our estimates of operating revenues. As these reduce the operating deficit, they will already have implicitly been counted as benefits in the calculation of IVA impact discussed in Section 6.1.2.

Takings from the bar will vary depending on the product on offer, pricing decisions, and the opening hours of the bar. **Financial data published by Australian theatres indicate that profits per attendee vary from \$2 to \$6.**

The calculations for this CBA shown in Table 9, which is included here for completeness, yielded a representative profit of \$2.95 per person attending a show.

Table 9: Bar costs and takings per representative evening (120 attendees)

	Cost	Retail	Profit per unit	Items sold / night	Gross takings	Cost	Profit
Wine/Bubbly, glass	\$2.00	\$6.50	\$4.50	30	\$195.00	\$60.00	\$135.00
Beer, bottle	\$1.71	\$6.00	\$4.29	24	\$144.00	\$41.00	\$103.00
Soft Drinks	\$0.57	\$2.50	\$1.93	12	\$30.00	\$6.88	\$23.13
Water 600ml bottle	\$0.29	\$2.00	\$1.71	12	\$24.00	\$3.50	\$20.50
Crisps	\$0.18	\$2.50	\$2.32	18	\$45.00	\$3.32	\$41.68
Ice cream cones	\$0.94	\$3.50	\$2.56	12	\$42.00	\$11.25	\$30.75
Total per evening					\$480.00	\$125.95	\$354.05
Total per patron					\$4.00	\$1.05	\$2.95

6.3.2 Local restaurants

Benefits will also flow to local restaurants with increased patronage, as people may combine a visit to the theatre with a meal beforehand. Without detailed local information indicating the share of people attending a show at the Twyford Hall who might have eaten out before a show, for example, this benefit estimate must be based on comparison data drawn from other sources.

One reference here is an *Americans for the Arts* report published in 2003.³⁵ This report, based on an expenditure survey of some 3,000 arts organisations and 40,000 arts attendees carried out in 2000, found that local attendees spent on average US\$22 over and above the price of the ticket, whilst out-of-towners spent on average US\$38 per person over and above. These averages include expenditures on meals/refreshments, souvenirs, lodging, transportation, and other spending.

Other reference data come from previous confidential work undertaken by the consultant. For one theatre, a 2005 study using voluntary self-administered survey questionnaires which were filled in by 192 patrons found that around 15 per cent had dinner before a show.

In another focus group of patrons 12.5 per cent of the total number taking part had had dinner before a show. The focus group reported average expenditure including tickets of \$80 to \$85 per person on their evening out.

On balance we believe it would be conservative to assume 10% of attendees will have dinner in town before a show, with expenditures of \$25 per head also appearing to be a conservative assumption.

The benefit on this basis is calculated at rising from \$11,319 in the first year of operations to \$19,320 in the last year of the 30 year project horizon.

6.3.3 Visiting cast and crew

The artists and production crews who will visit Merimbula to perform will also need to be fed and housed and possibly entertained too (perhaps even engaging in a spot of fishing). Most touring productions will bring 2-4 performers and production crew into town for an overnight stay. A small proportion of shows with larger casts will bring in more people.

This CBA works on the assumption of 3 people, on average, associated with touring productions who need to be accommodated locally. TRA data suggest that nationally, average expenditure per overnight trip per day is around \$212. Considering the local cost of suitable accommodation, food purchases, and incidental spending for which professional touring companies allocate per diems, this figure appears to be a reasonable reference figure.

The value of induced spending from this source is estimated at \$11,469 in the first year, rising to \$19,577 by the end of the project period.

6.4 Benefits to the existing Hall

As pointed out, the assumption is that the new Theatre would be staffed; staff will operate across both the Hall and the Theatre. There are clear benefits in terms of reducing the amount of volunteer effort required to run the Hall, and there will be efficiencies due to co-location of the two venues. A further example of benefits would include additional space being freed up in the Hall as some events are moved into the Theatre.

The Hall is in almost constant use, with estimates ranging from 281 to 332 days per year of activity occurring at the Hall.⁹ For the bigger events, there will be many “hands on deck” – the total volunteer effort involved has not been quantified to date but, as already pointed out in this report, the Theatre will roughly double capacity at the site. The range of activity taking place at the Hall is actually broader than what will occur at the Theatre, and this means that the new staff members can probably expect to spend at least half of their time supporting activity that is taking place at the Hall. This CBA assumes that this effort replaces volunteer effort.

The value of this benefit is estimated at \$54,000 growing to approx. \$70,000.

6.5 Travel avoided

In Section 2.3.3, it was estimated that currently some 1,000 attendances by Bega Valley LGA residents take place outside the region. This imposes costs in terms of travel time, fuel, possibility of accidents, etc.

The question then arises, how will the establishment of the Twyford Theatre affect this? Will people stop travelling because the same, or similar, shows will be presented at the new theatre in Merimbula? The answer to this will depend at least partly on the type, frequency and quality of shows that the new theatre will put on.

It is likely that journeys to attend theatre outside the region include major productions by the likes of Bell Shakespeare, Sydney Theatre Company, Bangarra Dance Theatre, etc. Clearly, these will not be presented at the Twyford Theatre and one should expect people to continue to travel outside the region to see some of these shows.

At the same time, a proportion of shows that will be presented locally will indeed substitute for shows outside the region. With a higher frequency of shows occurring locally, residents may stop looking as actively for shows elsewhere. Small cast shows drawn from the national touring circuit, a local production of a Shakespeare play, musicals, and all of these combined in sufficient numbers, will cumulatively reduce the need to travel outside the region.

In the absence of better information we have assumed a 50:50 split. This means that around 500 journeys would be avoided, which we believe is once again conservative. One way to look at this is to say that this is equivalent to less than three full houses, so if there are three shows in a year that people would have otherwise gone to see elsewhere, then this amount of travel would be avoided.

6.5.1 Travel costs avoided

TRA data are used to estimate travel costs avoided, which come to around \$212 per day per trip. As explained in the introduction to Section 6.4, an estimate of 500 journeys avoided is adopted here. **The value of this benefit rises from \$106,000 to \$181,000 over the project horizon.** This 'freed up' money can be redirected to further stimulate local economic activity.

6.5.2 Leisure time gained

If people do not have to travel outside the region, they save many hours in traffic. Transport infrastructure CBAs provide the reference point for this benefit. Typically, a key benefit from reducing traffic congestion is less time spent stuck in traffic, and the value of this is calculated based on the value of leisure time. The Office of Best Practice Regulation in Australia recommends a leisure time value of \$27 per hour, which is applied in this CBA. **This is quite a significant benefit at \$81,000 in the first year of operation and rising to around \$138,000 in Year 30.**

6.5.3 Accidents and injuries avoided

Although the number of journeys avoided is relatively small, their distance is considerable – our estimate is that 500 journeys will be avoided, totalling some 300,000km. Insofar as the theatre will take people off the road, it will reduce the chance of accidents and injuries.

Again, CBA methodology allows for measurement of this benefit by using so-called value of a statistical life year (VOSLY) or value of statistical lives (VSL) saved measures. The Australian Office of Best Practice Regulations (OBPR) recently stated that:

Willingness to pay is the appropriate way to estimate the value of reductions in the risk of physical harm – known as the value of statistical life.

Based on international and Australian research a credible estimate of the value of statistical life is \$4.2m and the value of statistical life year is \$182,000 in 2014 dollars.³⁶

Given that the rate of road fatalities in Australia is around 1 in 100 million kilometres travelled, and the reduction in road kilometres travelled caused by the building of the theatre is expected to be about 300,000 kilometres in the first year of operation, building the theatre could be expected to lead to 0.003 fewer fatalities of Bega Valley residents in that year. Using the OBPR's VSL reference figure of \$4.2 million, this would be equivalent to a saving of approximately \$12,600 per year.

There are approximately ten times as many 'serious crashes' than there are 'fatal crashes'. Serious crashes lead to significant on-costs in terms of medical, ambulance, rehabilitation, and long term care costs, as well as impacting quality of life. Estimates from the Bureau of Transport Economics suggest that each serious crash is associated with a cost of over \$500,000 at current prices.

Using the same methodology as for the estimate of fatal crashes, the reduction in travel by local residents associated with the building of the theatre would yield a further annual cost saving to the region of \$15,000 due to serious crashes avoided.

We do not attempt to put a figure on costs avoided for minor crashes and for crashes that involve property damage only, although these account for approximately one third of the total costs of crashes in Australia as estimated by the Bureau of Transport Economics.

Our estimate of costs avoided comes to \$27,600 per annum (fatal crashes plus serious crashes only).

6.6 Non-use value

People like knowing that certain things exist – and are willing to pay for it. Pristine rainforests or clean rivers are examples of things that people like to know exist, even if they are in other parts of the world, and these causes are supported financially by people all over the world.

Similarly, some people value knowing that their local radio station or their local theatre exists. It does not mean that they are ever going to listen to the local radio station, or visit the theatre, but they value their existence nevertheless. This value, known as *existence value*, is one type of value which is increasingly recognised in the economic literature.

Another non-use value is the value people place on having the *option* to use something – and once again, they are often willing to pay for options. In the case of a theatre, it certainly increases the range of entertainment options that people have. Even if they have no intention of visiting the theatre, the literature demonstrates that they certainly place a value on having the option to do so.

There is now a growing body of evidence which suggests that communities are willing to pay to maintain such non-use values.³⁷⁻⁴⁴ Bequest and prestige values are among the other types of values included in this category.

The studies cited above suggest that \$5 to \$10 per household per annum would be a very conservative estimate of the non-use value for a community theatre for the Merimbula community. Distance from the theatre will however likely have some influence on how much of this non-use value can be realized across the Bega Valley LGA more broadly. Active marketing and outreach activities will be essential to securing these non-use values.

This CBA has applied a conservative figure of \$2.50 per resident to capture this set of benefits for the Bega Valley LGA.

6.7 Additional / unquantifiable benefits

Some of the most important benefits that will be produced by the theatre cannot be covered by this CBA. As one of the people interviewed for this CBA put it:

The arts break down social barriers like nothing else can.

It is extremely difficult to put a value on a benefit such as this. Similarly the value of upskilling is hard to estimate – actors, directors, designers, photographers, choreographers, stage managers, those responsible for curating seasons and marketing or publicising shows, and any others involved in the creative process and use and/or maintenance of a performing arts centre would be presented with a unique opportunity to advance their craft and to increase their contact and collaboration with peers in the Bega Valley LGA. Other unquantifiable benefits for the local region and community include:

- Access to the performing arts for residents who would otherwise only rarely or never access the theatre. As an example, some of the residents at the retirement villages in the region may simply not be able to make longer road trips but may be able to make a short trip into town once in a while.
- The opportunity to ‘get involved’ in the performing arts, including youth groups and socio-economically disadvantaged groups. Such participation may in turn result in other ‘difficult-to-measure’ benefits such as improved social

cohesion.

- A theatre may play a small role in attracting new residents to the area and in stopping some younger residents from leaving, as a theatre partly defines the 'liveability' of a place.
- There could be so-called agglomeration benefits through the co-location of the Twyford Theatre with the existing Hall²⁷
- A side-effect (benefit) of this could also be an appreciation in property values in the vicinity of the theatre leading to higher rental income from the retail shops.

The literature on the subject is vast and ever-growing, but a paper from 2002 by Joshua Guetzkow contains a very good table summarizing many of the benefits.⁴⁵ He differentiates between individual and community benefits. Individual benefits include health and interpersonal benefits, while community benefits include cultural and social benefits on top of economic benefits. Just some of the relevant benefits listed in his table include:

- Builds community identity and pride
- Increases attractiveness of area to tourists, businesses, people (especially high-skill workers) and investments
- Promotes volunteering
- Builds social capital by getting people involved, by connecting organizations to each other and by giving participants experience in organizing and working with local government and non-profit organisations
- Relieves stress
- Increases cultural capital
- Leads to positive community norms, such as diversity, tolerance and free expression
- Reduces delinquency in high-risk youth
- People come together who might not otherwise come into contact with each other
- Increases opportunity and propensity to be involved in the arts
- Fosters a "creative milieu" that spurs economic growth in creative industries

Some of these benefits will never be valued in dollar terms; for others, future research may reveal appropriate monetary values that could be placed on such benefits.

7 Conclusions

The research for this CBA established that there is a clear market gap for a modern theatre with permanent raked seating in the Bega Valley LGA (see Section 2). Such a venue would be able to draw small touring shows – typically one or two-handers – from the national touring circuit as discussed in Section 3, supplemented by shows featuring larger casts that the local theatre community would be eager to put on (see, for example, Section 2.2). Demographic changes in the region imply strong underlying demand for a local venue into the future (Section 2.3).

Desktop research and interviews with experts indicated that it would be important to staff the new venue (see Section 3), and adequate programming and marketing budgets are required to realise the full benefits from the proposed theatre. At a minimum, this would require a full time Manager assisted by 0.5 FTE technical staff. The total staffing requirement is expected to be 2-3 FTE; in other words, the model relies on significant volunteer effort and the success of this model will depend on the goodwill and cooperation of a number of local stakeholders.

It is important to remember that this CBA takes an economic perspective which, in general terms, is broader than a financial perspective. As a result, the study values a range of costs and benefits that are not associated with financial flows such as might show up in a profit and loss statement for a theatre. The methods used for valuing various types of costs and benefits have been explained in some detail in the preceding sections of this report.

The next section of the report brings together the findings on all of the costs and benefits that could be quantified.

7.1 Comparing costs with benefits

As Table 10 shows, total quantified benefits are \$14.9 million in net present value (NPV) terms. This is the value that is derived after discounting future benefits by 4% per year over a project horizon of 30 years.

Table 10: Summary of project benefits (\$)

	NPV	Year 1	Year 2	Year 3	Year 30
Direct contribution to GRP	\$2,613,389	\$952,640	\$952,640	\$ 46,317	\$ 60,593
Indirect contribution to GRP	\$1,213,732	\$446,550	\$446,550	\$ 21,071	\$ 27,565
Box office	\$2,743,330	0	0	\$ 137,825	\$235,252
Consumer surplus	\$1,371,665	0	0	\$ 68,913	\$117,626
Travel costs avoided	\$2,113,796	0	0	\$ 106,197	\$181,267
Value of leisure time gained	\$1,612,260	0	0	\$ 81,000	\$138,258
Value of reduction in accidents & injuries	\$433,386	0	0	\$ 27,600	\$ 27,600
Positive spillovers for the existing Hall	\$954,614	0	0	\$ 54,144	\$ 70,832
Induced spending by cast and crew	\$228,290	0	0	\$ 11,469	\$ 19,577
Induced spending by patrons at local restaurants	\$225,293	0	0	\$ 11,319	\$ 19,320
Non-use value	\$1,392,839	0	0	\$ 83,768	\$ 95,843
Total	\$14,902,594				

On the cost side, Table 11 reveals that the NPV of all quantifiable costs is \$11.6 million over the same project period. Of this, \$10.0 million is the NPV of the cost of constructing and operating the theatre.

Table 11: Summary of project costs (\$)

	NPV	Year 1	Year 2	Year 3	Year 30
Construction costs	\$5,614,904	\$ 2,977,000	\$ 2,977,000	\$ -	\$ -
Operating costs	\$4,364,220	\$ -	\$ -	\$ 253,156	\$ 331,181
Deadweight cost of taxation	\$1,068,284	\$ 566,400	\$ 566,400	\$ -	\$ -
Interest foregone	\$580,699	\$ 2,020	\$ 4,100	\$ 6,242	\$ 96,085
Total	\$11,628,107	\$ 3,545,420	\$ 3,547,500	\$ 259,398	\$ 427,266

Despite the stringent CBA methodology, quantified benefits clearly outweigh the quantified costs under the baseline assumptions, and the unquantifiable benefits identified in Section 6.7 of this report represent substantial additional benefits. The project is therefore recommended to proceed.

7.1.1 The benefit-to-cost ratio (BCR)

The BCR is a simple, summary measure of the estimated costs and benefits of an investment project. For a project in which benefits are estimated to be greater than costs the benefit-to-cost ratio will be greater than 1. The BCR for the Twyford Theatre arrived at in this study is 1.28.

This is a key result of the cost-benefit analysis presented in this report. The baseline assumptions which influence the result include a 30 year project horizon and a 4% discount rate. Table 12 outlines all of the assumptions underpinning the result (see Appendix A). The impact of changing key assumptions is tested in the sensitivity analysis below.

7.2 Sensitivity analysis

7.2.1 Changing the time horizon

It is entirely plausible that a new theatre could be in use for 50 years or more, and key reference documents such as the VAPAC Benchmarks Report have previously argued for the use of a 50 year planning horizon for theatres.⁷

Applying a 50 year time horizon in this CBA increases both costs and benefits: the NPV of costs rises by around 18.5% to \$13.8 million, and the NPV of benefits rises by 30.5% to \$19.5 million.

The result is that the BCR rises from just below 1.3 to over 1.4 – taking a longer view therefore makes the investment look better.

7.2.2 Changing the discount rate

The choice of the discount rate is always a matter of some debate in public sector CBAs. The 4% discount rate used in this CBA may appear high to one policy maker and low to another. Consequently, the sensitivity of the outcome of this CBA with

regard to the choice of the discount rate is tested by applying a 2% and 6% discount rate respectively:

- Applying the 6% discount rate lowers the BCR to around 1.2 for both the 30 year and 50 year time horizons
 - Importantly, this is still above 1 and therefore does not overturn the main conclusion of this CBA
- Applying the 2% discount rate raises the BCR to 1.43 for the 30 year horizon and 1.61 with a 50 year project period

7.2.3 Changing the utilisation rate

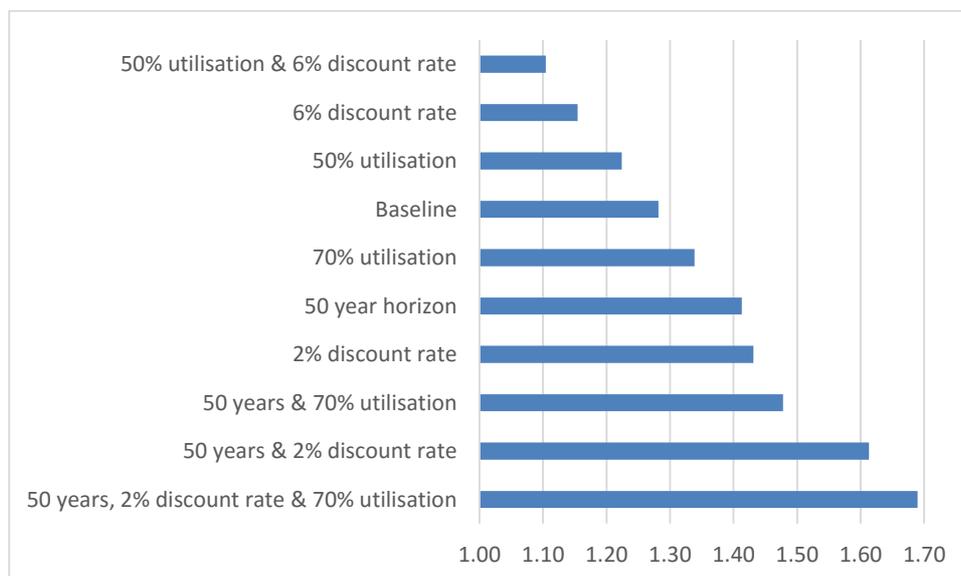
The baseline utilisation rate of 60% is a reference figure used for planning purposes in the theatre industry. The utilisation rate in this report refers specifically to the share of available seats sold for performances at the theatre. With a 200 seat capacity, the utilisation rate of 60% means that, on average, 120 seats would be occupied.

The evidence from Australia and overseas is that there can be variation in attendance rates and it is perfectly possible that, with appropriate programming and marketing in place, a higher utilisation rate could be achieved. Using a 70% utilisation rate raises the BCR to 1.34.

By contrast, a lower utilisation rate of 50% would lower the BCR from the baseline level to 1.22 – still greater than 1. Even if the lower utilisation rate of 50% is combined with the higher discount rate of 6%, the BCR remains positive at 1.1.

Combining the assumption of a higher utilisation rate with a 50 year horizon raises the BCR further to 1.48, and if in addition to this a lower discount rate of 2% is applied, the BCR rises to 1.69.

Figure 2: Results of sensitivity analysis, various scenarios (BCR)



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Appendix A Assumptions

Table 12: List of assumptions applied in the CBA

Bega Valley Shire population, 2015 estimate	33,507	
Forecast population growth	0.50%	conservative
Seats in new Twyford Theatre	200	
Theatre availability excluding blackout periods (weeks/year)	46	
Cost of construction	\$5,954,000	
Government loans or grants, all tiers	\$5,664,000	
Labour costs as proportion of construction costs	40%	
Proportion of labour locally sourced	80%	
Indirect value added multiplier	0.25	
Real cost escalation ("cost disease of the arts")	1.00%	
Average utilisation rate (attendances/ seat capacity)	60%	
Implied average number of patrons per show	120	
Length of amateur season (days or shows)	10	
Length of professional season (days or shows)	6	
Annual demand escalation	2.00%	
Avg ticket price (amateur)	\$30	
Avg ticket price (professional)	\$30	
Price per performance attended at Jazz Festival	\$2	30 gigs over the weekend; weekend ticket is \$80
Price elasticity of demand	-0.5	
Discount rate	4%	
Consumer surplus	50%	Based on max ticket price being twice the average, and straight line demand curve
Hire rate, commercial (\$/day or night)	400	
Hire rate, community (\$/day or night)	250	
Touring shows bought in (number)	12	
Ushers per show (persons)	2	

Ushers shift per show (hours)	2.5	
Value of leisure time, \$ per hour	\$27	\$27 is recommended by Office of Best Practice Regulation
Non-use value measured by WTP, \$ per year	2.50	
Deadweight cost of taxation	20%	
Rental income from shops, per annum	\$67,321	Currently indexed to cover inflation over next five years
Interest rate on savings held by Twyford Inc	3%	
Price of petrol per litre, \$	1.50	
Representative distance to alternative theatre, km	300	
Representative driving time, return (hours)	6	
Fuel use (L / 100km)	10	
Cost of outsourcing bookings (fee charged out of box office)	15%	As per current arrangement
Ushers, shadow price per hour	\$27	Source: Volunteers Australia, 2015
Cleaning, per night, theatre only	\$100	Source: Twyford Hall Inc
Power/Climate Control (Electricity), per night	\$50	Source: Twyford Hall Inc
Buy-In Cost per night	\$4,000	Source: Consultant's estimate based on interviews