



# **Business Case Cost Benefit Analysis:**

## **Town Centre Revitalisation Projects**

### **Port Stephens Council**

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## 1 Executive Summary

Port Stephens Council is facing increased pressure to provide enhanced services and facilities to meet high community standards and expectations. Council is considering an application to the Independent Pricing and Regulatory Tribunal (IPART) for a Special Rate Variation (SRV) in 2019. If successful, this proposed rate increase would provide the additional funds to deliver the major projects requested by the community which Council is unable to fund within its existing revenue.

A number of the proposed projects focus on revitalising the local town centres and neighbourhoods, providing much needed stimulus to the local economy, driving business growth, attracting more visitors, filling empty streets and vacant business and overall enhancing the region for the benefit of all.

The Town Centre revitalisation program includes the following proposed project funding:

- Anna Bay – \$2m
- Fern Bay – \$1m
- Fingal Bay – \$0.5m
- Karuah – \$2m
- Lemon Tree Passage – \$2m
- Medowie – \$5m
- Nelson Bay – \$15m
- Raymond Terrace – \$15m
- Seaham – \$0.5m

Morrison Low was engaged by Port Stephens Council to perform an economic assessment on these projects to see what the community impact would be. The findings overall show that investment into the Town Centre revitalisation program will provide \$109.47million in positive benefits to the Port Stephens LGA. The total impact of these benefits can be seen in the table below.

**Table 1 Summary of Total Direct Impacts from Capital investment into Town Centres during construction only**

Location	Output (\$M)	Employment	Wages and Salaries	Value Added
Anna Bay	4	8	0.8	1.6
Fern Bay	3.7	4	0.76	0.81
Fingal Bay	1	3	0.21	0.4
Karuah	4.1	8	0.8	1.6
Lemon Tree Passage	4.1	8	0.8	1.6
Medowie	10	20	2.1	4
Nelson Bay	33.2	67	5.3	10.52
Raymond Terrace	33.2	67	5.3	10.52
Seaham	1	3	0.21	0.4
<b>Total</b>	<b>94.3</b>	<b>188</b>	<b>16.28</b>	<b>31.45</b>

## 2 Introduction

### 2.1 Background

Port Stephens Council is facing increasing pressure to provide enhanced services and facilities to meet the high standards the community expects.

In recent years Council has implemented a range of productivity savings, reduced costs across operations and been assessed as financially sustainable by the NSW government. However, the community is telling Council they want more investment in their local area.

Council is considering an application for a Special Rate Variation which, if successful, would provide additional funds to deliver major projects requested by the community, which Council is unable to fund within its existing revenue.

The projects will stimulate the local economy, drive business growth, attract visitors, fill empty streets and enhance the region for the benefit of all. This report considers one of the projects within the proposed SRV, the Town Centre and Neighbourhood Revitalisation Programme, which will undertake a range of activities and construction projects to revitalise town centres and neighbourhoods across Port Stephens.

Council commissioned this independent report to understand the long term financial and economic benefits for the community of investing in these town centres.

Cost-benefit analysis (CBA) is an appraisal and evaluation technique that estimates the economic, social and environmental costs and benefits of a project or program in monetary terms. The aim of a CBA is to measure the full impact of any government decision or action on the households and firms in a specified community. The full impact includes any impact on human welfare.

CBA measures the change attributable to a government action, relative to a situation without the proposed action. The impact of a government decision will typically include both costs and benefits to some members of the community.

To compare costs and benefits, CBA uses a monetary (dollar) metric as the most commonly used standard measurement unit. This guide describes how non-market impacts and market impacts can be identified and valued.

An important issue that may emerge is that costs and benefits often occur over time. This raises the issue of how these costs and benefits can be compared. In a CBA, these costs and benefits are generally weighted by use of a discount rate, with more weight accorded to present and near-present impacts.

The Town Centre revitalisation program includes the following projects.

**Anna Bay** – \$2m one off cost to renew and refine the Anna Bay Strategy and Town Plan and implement with construction of:

- footpaths for pedestrian access
- town signage
- formalised parking
- gardens on road blisters and footpaths

**Fern Bay** – \$1m one off cost for pathways for pedestrian access along Nelson Bay Road and the original Fern Bay suburb including construction of bus shelter

**Fingal Bay** – \$0.5m one off cost which will provide main street vista with:

- footpaths for pedestrian access along and to Market Street
- town signage
- formalised parking
- gardens on road blisters and footpaths

**Karuah** – \$2m one off cost aligned with the Karuah Growth Strategy, to widen the Mustons Road culvert to provide a pedestrian walkway and create a main street vista with:

- town signage
- formalised parking
- gardens on road blisters and footpaths

**Lemon Tree Passage** – \$2m one off cost for McCann Park improvements and to provide a sense of arrival from Lemon Tree Passage Road and John Street including:

- footpaths for pedestrian access
- town signage
- gardens on road blisters and footpaths

**Medowie** – \$5m one off cost aligned with the Medowie Planning strategy to provide a sense of place through the main street vista and to fund the purchase of land for centrally located open space and drainage works to reduce flooding, improve planning and release land for development.

**Nelson Bay** – \$15m one off cost to implement Stage One of the Nelson Bay Town Centre and Foreshore Strategy actions, including:

- implement proposed Public Domain Plan
- implement Apex Park Masterplan
- provision of new public car parking facilities

**Raymond Terrace** – \$15m one off cost to implement Stage One of Raymond Terrace and Heatherbrae Strategy by upgrading William Street between Sturgeon and King Street and for the commencement of the King Street revitalisation including:

- construction of footpaths along riverbanks
- reintroduction of Heritage streetscape
- drainage works
- kerb and gutter upgrades
- street tree planting and gardens
- increased pedestrian access for greater accessibility and dining
- Construct footpaths along the riverbank
- Provide access connection from King Street to the levee

- Reintroduce heritage streetscape

**Seaham** – \$0.5m one off cost to provide a sense of place through:

- road pavement delineation
- bus stop interchange
- street tree planting



### 3 Economic Impact Assessment

An economic impact analysis for regional economies enables assessment of how change in employment or output (sales) in one sector of the local economy will impact on all other sectors of the economy by modelling the flow-on effects across different industries. By using each phase of construction work as an input into the economic model, we can see the benefits which arise directly and indirectly from each construction project. It is important to note that for each phase the local output and employment increases will be once-off (temporary), only occurring during the period of works construction.

#### 3.1 Anna Bay Construction Phase

The total capital expenditure for the Anna Bay Project is estimated at \$2 million. This spending will provide a once-off boost to the Port Stephens economy in terms of local output and employment.

An economic impact assessment for \$2 million construction spending in Anna Bay was prepared and is set out below.

**Table 2 Economic analysis for \$2M construction expenditure**

Impact Summary	Direct Effect	Industrial Effect	Consumption Effect	Total Effect
Output (\$M)	2	1.4	0.6	4
Employment (Jobs)	2	4	2	8
Wages and Salaries (\$M)	0.4	0.3	0.1	0.8
Value-added (\$M)	0.8	0.5	0.3	1.6

Source: Remplan, Morrison Low

The economic evaluation result is explained as follows:

- There is an estimated direct increase in output of \$2.0 million, 2 additional jobs, \$0.4 million more in wages and salaries and a boost in value-added of \$0.8 million.
- Total output is expected to rise by \$4.0 million. Corresponding to this are anticipated increases in employment of 8 jobs, \$0.8 million in wages and salaries and \$1.6 million in terms of value-added.
- In summary we can see that a \$2.0 million investment into Anna Bay results in a total benefit of \$6.4 million.

#### 3.2 Fern Bay – Construction Phase

The total capital expenditure for the Fern Bay Project is estimated at \$1 million. This spending will provide a once-off boost to the Port Stephens economy in terms of local output and employment.

An economic impact assessment for \$1 million construction spending in Fern Bay was prepared and is set out below.

**Table 3 Economic analysis for \$1M construction expenditure**

Impact Summary	Direct Effect	Industrial Effect	Consumption Effect	Total Effect
Output (\$M)	1	0.7	2	3.7

<b>Employment (Jobs)</b>	1	2	1	4
<b>Wages and Salaries (\$M)</b>	0.19	0.16	0.41	0.76
<b>Value-added (\$M)</b>	0.38	0.27	0.16	0.81

Source: Remplan, Morrison Low

The economic evaluation result is explained as follows:

- There is an estimated direct increase in output of \$1.0 million, 1 additional job, \$0.19 million more in wages and salaries and a boost in value-added of \$0.38 million.
- Total output is expected to rise by \$3.7 million. Corresponding to this are anticipated increases in employment of 4 jobs, \$0.76 million in wages and salaries and \$0.81 million in terms of value-added.
- In summary we can see that a \$1.0 million investment into Fern Bay results in a total benefit of \$3.75 million.

### 3.3 Fingal Bay – Construction Phase

The total capital expenditure for the Fingal Bay Project is estimated at \$0.5 million. This spending will provide a once-off boost to the Port Stephens economy in terms of local output and employment.

An economic impact assessment for \$0.5 million construction spending in Lemon Tree Passage was prepared and is set out below.

**Table 4 Economic analysis for \$0.5M construction expenditure**

<b>Impact Summary</b>	<b>Direct Effect</b>	<b>Industrial Effect</b>	<b>Consumption Effect</b>	<b>Total Effect</b>
<b>Output (\$M)</b>	0.5	0.4	0.1	1
<b>Employment (Jobs)</b>	1	1	1	3
<b>Wages and Salaries (\$M)</b>	0.097	0.079	0.031	0.207
<b>Value-added (\$M)</b>	0.19	0.13	0.08	0.4

Source: Remplan, Morrison Low

The economic evaluation result is explained as follows:

- There is an estimated direct increase in output of \$0.5 million, 1 additional jobs, and \$0.097 million more in wages and salaries and a boost in value-added of \$0.19 million.
- Total output is expected to rise by \$1 million. Corresponding to this are anticipated increases in employment of 3 jobs, \$0.207 in million wages and salaries and \$0.4 million in terms of value-added.
- In summary we can see that a \$0.5 million investment into Fingal Bay results in a total benefit of \$1.247 million.

### 3.4 Karuah – Construction Phase

The total capital expenditure for the Karuah Project is estimated at \$2 million. This spending will provide a once-off boost to the Port Stephens economy in terms of local output and employment.

An economic impact assessment for \$2 million construction spending in Karuah was prepared and is set out below.

**Table 5 Economic analysis for \$2M construction expenditure**

Impact Summary	Direct Effect	Industrial Effect	Consumption Effect	Total Effect
Output (\$M)	2	1.5	0.6	4.1
Employment (Jobs)	2	4	2	8
Wages and Salaries (\$M)	0.4	0.3	0.1	0.8
Value-added (\$M)	0.8	0.5	0.3	1.6

Source: Remplan, Morrison Low

The economic evaluation result is explained as follows:

- There is an estimated direct increase in output of \$2.0 million, 2 additional jobs, \$0.4 million more in wages and salaries and a boost in value-added of \$0.8 million.
- Total output is expected to rise by \$4.1 million. Corresponding to this are anticipated increases in employment of 8 jobs, \$0.8 million in wages and salaries and \$1.6 million in terms of value-added.
- In summary we can see that a \$2.0 million investment into Karuah results in a total benefit of \$6.5 million.

### 3.5 Lemon Tree Passage – Construction Phase

The total capital expenditure for the Lemon Tree Passage Project is estimated at \$2 million. This spending will provide a once-off boost to the Port Stephens economy in terms of local output and employment.

An economic impact assessment for \$2 million construction spending in Lemon Tree Passage was prepared and is set out below.

**Table 6 Economic analysis for \$2M construction expenditure**

Impact Summary	Direct Effect	Industrial Effect	Consumption Effect	Total Effect
Output (\$M)	2	1.5	0.6	4.1
Employment (Jobs)	2	4	2	8
Wages and Salaries (\$M)	0.4	0.3	0.1	0.8
Value-added (\$M)	0.8	0.5	0.3	1.6

Source: Remplan, Morrison Low

The economic evaluation result is explained as follows:

- There is an estimated direct increase in output of \$2.0 million, 2 additional jobs, \$0.4 million more in wages and salaries and a boost in value-added of \$0.8 million.
- Total output is expected to rise by \$4.1 million. Corresponding to this are anticipated increases in employment of 8 jobs, \$0.8 million in wages and salaries and \$1.6 million in terms of value-added.
- In summary we can see that a \$2.0 million investment into Lemon Tree Passage results in a total benefit of \$6.5 million.

### 3.6 Medowie – Construction Phase

The total capital expenditure for the Medowie Project is estimated at \$5 million. This spending will provide a once-off boost to the Port Stephens economy in terms of local output and employment.

An economic impact assessment for \$5 million construction spending in Medowie was prepared and is set out below.

**Table 7 Economic analysis for \$5M construction expenditure**

Impact Summary	Direct Effect	Industrial Effect	Consumption Effect	Total Effect
Output (\$M)	5	3.6	1.4	10
Employment (Jobs)	5	10	5	20
Wages and Salaries (\$M)	0.97	0.79	0.31	2.1
Value-added (\$M)	1.9	1.3	0.8	4

Source: Remplan, Morrison Low

The economic evaluation result is explained as follows:

- There is an estimated direct increase in output of \$5.0 million, 5 additional jobs, \$0.97 million more in wages and salaries and a boost in value-added of \$1.9 million.
- Total output is expected to rise by \$10 million. Corresponding to this are anticipated increases in employment of 20 jobs, \$2.1 million in wages and salaries and \$4.0 million in terms of value-added.
- In summary we can see that a \$5.0 million investment into Medowie results in a total benefit of \$16.1 million.

### 3.7 Nelson Bay - Construction Phase

The total capital expenditure for the Nelson Bay Project is estimated at \$15 million. This spending will provide a once-off boost to the Port Stephens economy in terms of local output and employment.

An economic impact assessment for \$15 million construction spending in Nelson Bay was prepared and is set out below.

**Table 8 Economic analysis for \$15M construction expenditure**

Impact Summary	Direct Effect	Industrial Effect	Consumption Effect	Total Effect
Output (\$M)	15	14.59	3.64	33.22
Employment (Jobs)	17	37	13	67
Wages and Salaries (\$M)	1.57	2.89	0.8	5.26
Value-added (\$M)	3.36	5.09	2.07	10.52

Source: Remplan, Morrison Low

The economic evaluation result is explained as follows:

- There is an estimated direct increase in output of \$15.0 million, 17 additional jobs, \$1.57 million more in wages and salaries and a boost in value-added of \$3.0 million.
- Total output is expected to rise by \$33.22 million. Corresponding to this are anticipated increases in employment of 67 jobs, \$5.26 million in wages and salaries and \$10.52 million in terms of value-

added.

- In summary we can see that a \$15.0 million investment into Nelson Bay results in a total benefit of \$49 million.

### 3.8 Raymond Terrace - Construction Phase

An economic impact assessment for \$15 million construction spending in Raymond Terrace was prepared and is set out below.

**Table 9 Economic analysis for \$15M construction expenditure**

Impact Summary	Direct Effect	Industrial Effect	Consumption Effect	Total Effect
Output (\$M)	15	14.59	3.64	33.22
Employment (Jobs)	17	37	13	67
Wages and Salaries (\$M)	1.57	2.89	0.8	5.26
Value-added (\$M)	3.36	5.09	2.07	10.52

Source: Remplan, Morrison Low

The economic evaluation result is explained as follows:

- There is an estimated direct increase in output of \$15.0 million, 17 additional jobs, \$1.57 million more in wages and salaries and a boost in value-added of \$3.36 million.
- Total output is expected to rise by \$33.22 million. Corresponding to this are anticipated increases in employment of 67 jobs, \$5.26 million in wages and salaries and \$10.52 million in terms of value-added.
- In summary we can see that a \$15.0 million investment into Raymond Terrace results in a total benefit of \$38.48 million.

### 3.9 Seaham - Construction Phase

An economic impact assessment for \$0.5 million construction spending in Seaham was prepared and is set out below.

**Table 10 Economic analysis for \$0.5M construction expenditure**

Impact Summary	Direct Effect	Industrial Effect	Consumption Effect	Total Effect
Output (\$M)	0.5	0.364	0.143	1.007
Employment (Jobs)	1	1	1	3
Wages and Salaries (\$M)	0.097	0.079	0.031	0.207
Value-added (\$M)	0.188	0.133	0.082	0.403

Source: Remplan, Morrison Low

The economic evaluation result is explained as follows:

- There is an estimated direct increase in output of \$0.5 million, 1 additional jobs, \$0.097million more in wages and salaries and a boost in value-added of \$0.188 million.
- Total output is expected to rise by \$1.007 million. Corresponding to this are anticipated increases in

employment of 3 jobs, \$0.207 million in wages and salaries and \$0.403million in terms of value-added.

- In summary we can see that a \$0.5million investment into Seaham results in a total benefit of \$1.617 million

### **3.10 Nelson Bay - Broader Economic Benefit to the Region**

Improvements to the public domain will facilitate and encourage an expansion of existing businesses and sectors within the Nelson Bay town centre. The broader economic benefit is expected to arise from an additional number of tourists to the region per year. The Hunter is emerging as a very strong and popular short stay destination for the burgeoning Sydney market. Port Stephens currently enjoys 1,437,000 visitors a year, who stay a total of 2.276 million nights and spend \$540 million each year. Visitation increased by almost 20% from 2008 to a peak in December 2012 but has dropped back over the last five years. Council data suggests that with enhanced public facilities and infrastructure, a 2% annual growth could be achieved if the revitalisation works go ahead, resulting in annual benefit of around \$880,000 to the Port Stephens LGA.

It is also important to note that these investments into the public domain align with the state governments PSC and Destination Port Stephens objectives of increasing off-peak tourism spend within the LGA. A focus of Council is to attract more events to the LGA through critical town centre upgrades. REMPLAN analysis shows that this will bring in an additional economic benefit of \$135,000 per event. Council has allocated \$500,000 worth of funding from the SRV to sponsoring and facilitating events within the LGA (\$100,000 dedicated to off peak) and this is anticipated to provide a total benefit of \$2,025,000 per annum.

This is combined with the effect of the proposed new cruise terminal and the range of experiences available in the Hunter area are driving growth in this market. Cruise Hunter modelling suggests that it is possible to increase the number of cruise ships visiting Newcastle by 30% in the next five years and to also grow the level of capture by the region/city of spending by crew and passengers by 30%. This could generate \$3.1 million additional direct spending to businesses and locations in the Hunter. This equates to \$7.6 million total direct spending in the Hunter. The combined direct and flow on effects is up to \$18.4 million.

Currently Port Stephens captures 10% of this market and seeks to grow this share. Nelson Bay should capture a growing share of this market. Discussions with the Port of Newcastle and Cruise Hunter indicate that the project could increase this share to 30%. This would result in an increase in visitor spending in Port Stephens and, if 50% of this increase is spent in Nelson Bay, this would equate to an additional \$1 million in visitor spending in the town centre.

## 4 Overview of Economic Assessment

The economic assessment of the Town Centre Upgrade Projects focuses on a Benefit Cost Analysis of the costs and benefits directly attributable to the project and project components.

The economic evaluation is based on two scenarios: Scenario 1 Base Case – this is the status quo scenario where the Town Centre Upgrade Projects do not proceed and Scenario 2 Project Case – this scenario is the completion of the Town Centre Upgrade Projects.

The economic evaluation focuses on the incremental impact of the project over the status quo. The cash flows for the economic evaluation of each project are contained in Appendix A.

It is important to note that a cost benefit analysis attempts to quantify the changes in social and economic welfare of the community whereas an economic impact assessment analyses changes in economic activity (Section 3.0)

### 4.1 Costs Assessment

#### 4.1.1 Project Case Capital Expenditure

Estimates of capital costs for the Town Centre Upgrade Projects and Project Cash Flow are shown in Table 11

**Table 11 Estimated Capital Costs (\$'000s)**

	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27
CBD Redevelopment - RT & King Street	\$469	\$469	\$3,750	\$3,750	\$1,875	\$2,187	\$1,250	\$1,250
CBD Redevelopment - NB & Car Parking	\$375	\$375	\$2,000	\$2,000	\$2,500	\$2,750	\$2,500	\$2,500
CBD Redevelopment - Med				\$500	\$2,250	\$2,250		
CBD Redevelopment - Karuah	\$500	\$1,500						
CBD Redevelopment - Anna Bay				250	1000	\$750		
CBD Redevelopment - LTP	\$500	\$1,500						
CBD Redevelopment - Fingal			\$500					
Fern Bay pathways			\$1,000					
Seaham projects	\$500							
Annual TOTAL	\$2,344	\$3,844	\$7,250	\$6,500	\$7,625	\$7,937	\$3,750	\$3,750
<b>CUMULATIVE TOTALS BY YEAR</b>	<b>\$2,344</b>	<b>\$6,188</b>	<b>\$13,438</b>	<b>\$19,938</b>	<b>\$27,563</b>	<b>\$35,500</b>	<b>\$39,250</b>	<b>\$43,000</b>

#### 4.1.2 Urban renewal projects case Maintenance costs

The maintenance costs of the base case and Option 1 were estimated by Morrison Low based on aggregated typical actual maintenance costs incurred by NSW group 5 councils for these types of asset ownership. Furthermore it was assumed that maintenance costs would gradually scale with time as the infrastructure ages i.e. no additional annual maintenance costs incurred for 2 years after capital expenditure, 50% of new annual maintenance expenditure for the next 3 years and full annual maintenance costs after 5 years.

**Table 12 Maintenance Costs**

Location	% New assets	% Existing assets	Total Maintenance	Additional Maintenance	Existing Maintenance
Anna Bay	70%	30%	\$81,433	\$57,003	\$24,430
Fern Bay	100%	0%	\$12,074	\$12,074	\$0
Fingal Bay	80%	20%	\$20,358	\$16,287	\$4,071
Karuah	80%	20%	\$81,433	\$65,147	\$16,286
Lemon Tree Passage	70%	30%	\$81,433	\$57,003	\$24,430
Medowie	100%	0%	\$2,561	\$2,561	\$0
Nelson Bay	50%	50%	\$488,600	\$244,300	\$244,300
Raymond Terrace	60%	40%	\$610,750	\$366,450	\$244,300
Seaham	100%	0%	\$4,713	\$4,713	\$0
<b>Total</b>			<b>\$1,406,410</b>	<b>\$848,591</b>	<b>\$557,819</b>

## 4.2 Benefits Assessment

The additional benefits were calculated and included:

- Additional Amenity.
- Additional Tourism expenditure.
- Additional Producer surplus.
- Road safety benefits.
- Property value uplift for Medowie, Nelson Bay, and Raymond Terrace.

Benefits are assumed to accrue from the commencement of the project due to increased community expectations and because Council's project design, planning and management of the Town Centre Revitalisation Projects will focus on delivering the benefits as early as possible i.e. improved amenity and producer surplus through landscaping, footpath replacement and alfresco dining opportunities etc.

The table below summarises these benefits by location of urban renewal project.



**Table 13 Additional benefits from urban renewal projects p.a.**

Location	Amenity	Tourism expenditure	Producer surplus	Road safety	Property Value Uplift
Anna Bay	\$146,013	\$44,000	\$36,944	\$9,611	
Fern Bay	\$104,897	\$22,000	\$4,829	\$2,403	
Fingal Bay	\$57,061	\$22,000	\$4,829	\$1,201	
Karuah	\$50,380	\$22,000	\$4,829	\$3,604	
Lemon Tree Passage	\$98,633	\$22,000	\$4,829	\$1,201	
Medowie	\$335,725	\$22,000	\$115,904	\$13,214	\$174,393
Nelson Bay	\$204,859	\$422,400	\$61,574	\$22,825	\$745,769
Raymond Terrace	\$486,712	\$281,600	\$2,089,609	\$50,455	\$399,202
Seaham	\$38,914	\$22,000	\$112,282	\$6,007	
<b>Total</b>	<b>\$1,523,194</b>	<b>\$880,000</b>	<b>\$2,466,417</b>	<b>\$110,521</b>	<b>\$1,319,364</b>

#### **4.2.1 Amenity**

The increase in amenity for the community was estimated in the following way. The base figure for the calculation was used from a similar urban redevelopment project analysed by Morrison Low. This figure was adjusted to a per capita basis and then applied to the local populations of each location in the Port Stephens Council area where the projects are located.

#### **4.2.2 Tourism Expenditure**

The increase in tourism expenditure was estimated using REMPLAN analysis on tourism expenditure in the Port Stephens Council area. This figure was adjusted with a percentage of visitors, provided by Council, visiting each part of the Council area. Eighty per cent of visitors are estimated to visit Raymond Terrace and Nelson Bay while the remaining twenty per cent of visitors are allocated to the other areas where town centre revitalisation projects are proposed.

#### **4.2.3 Producer Surplus**

The increase in producer surplus was calculated based on the estimated consumption effect by REMPLAN and was adjusted for wages and salaries. This is a conservative estimate of the increase in producer surplus in the absence of the number of business located in the areas of interest for the urban renewal projects.

#### **4.2.4 Road Safety**

The increase in road safety benefits was estimated in the following way. The road safety benefits were estimated on the basis of a 30 per cent reduction in road incidents. This reduction was quantified using a standard Transport for NSW approach to calculate the dollar value of road safety benefits.

**Table 14 Traffic and Safety Cost Benefit Estimate**

Traffic Safety and Pedestrian Benefits	Travel (MVKT)	Crash cost (\$'000s/MVKT)		Reduction
		Local/sub- arterial	Total cost	
Traffic safety	0.5906	\$80.20	\$47	30%

#### 4.2.5 Pedestrian Paths

In addition to safety benefits, the enhanced pedestrian facilities will lead to a reduction in vacancy rates, rising retail rents, appreciation of neighbouring residential and commercial values and increased outside activities with added health benefits that are associated with a more active community. The value of walking was estimated at \$1.68 per kilometre by the Federal Department of Infrastructure and Transport in July 2013<sup>1</sup>. These have not been captured in the model as it is unclear how many people in the community and tourists will increase the amount they walk due to the urban renewal projects.

#### 4.2.6 Property Value Uplift

In addition to the benefits calculated, the urban renewal projects may increase property values in the surrounding areas, particularly within a block of the urban renewal projects at Nelson Bay, Raymond Terrace and Medowie. The land values, obtained from Council, for a block away from urban renewal projects are \$79,840,440 in Raymond Terrace, \$149,153,880 in Nelson Bay and \$34,878,540 in Medowie. Assuming a 10 per cent up lift in prices over the 20 years, this could lead to a substantial benefit.

### 4.3 Cost Benefit Economic Evaluation

The results of the economic evaluation incremental to the base case are shown in Table 15.

**Table 15 Economic evaluation PV Benefits and Costs and NPV**

Location	Benefits	Costs	NPV	BCR
Anna Bay	\$2,681,642	\$1,761,546	\$920,096	1.52
Fern Bay	\$1,520,435	\$945,248	\$575,187	1.61
Fingal Bay	\$964,569	\$533,582	\$430,987	1.81
Karuah	\$916,062	\$2,346,528	-\$1,430,466	0.39
Lemon Tree Passage	\$1,435,809	\$2,290,945	-\$855,136	0.63
Medowie	\$5,518,653	\$3,844,163	\$1,674,490	1.44
Nelson Bay	\$16,869,796	\$12,296,804	\$4,572,991	1.37
Raymond Terrace	\$34,335,107	\$13,676,448	\$20,658,659	2.51
Seaham	\$2,031,366	\$534,787	\$1,496,579	3.80
<b>Total</b>	<b>\$65,924,451</b>	<b>\$38,230,052</b>	<b>\$27,694,399</b>	<b>1.72</b>

*Note: Economic evaluation was prepared for a 20 year period at a discount rate of 7% p.a. real as per NSW Treasury Guidelines. Due to discounting, NPV values, expressed in year 2018, are generally lower than their corresponding cost or benefit estimates shown in cash flows.*

## 4.4 Sensitivity Analysis

Sensitivity analysis was undertaken with no additional maintenance costs. This has a significant impact on the BCR at Nelson Bay and Raymond Terrace and, to a lesser degree, at Medowie.

The rationale for this sensitivity test was provided by Council as with improved design, quality and finish materials associated with these projects. It is expected that there will be no additional maintenance costs and maintenance costs may potentially reduce from the base case.

This represents an upper bound on the BCR and NPV of the projects in these locations. The results of the sensitivity test are presented in the table below.

**Table 16 Sensitivity test – No additional maintenance costs**

Location	Benefits	Costs	NPV	BCR
Medowie	\$5,518,653	\$3,728,882	\$1,789,771	1.48
Nelson Bay	\$16,869,796	\$11,195,620	\$5,674,175	1.51
Raymond Terrace	\$34,335,107	\$11,844,924	\$22,490,183	2.90

## 4.5 Qualitative Social and Economic Benefits

Completion of the projects is a key strategic priority for Council as part of its economic development strategy for increasing the diversity of the economy and providing quality infrastructure to people in the Port Stephens area. This is important in order for the local economy to enrich lives, build safe and better infrastructure and increase tourist visitations. Revitalised town centres with strong retail and commercial activities, upgraded parklands, more visitors and improved amenities will support the development of Port Stephens as a regional hub and strengthen these sectors of the local economy.

## Appendix A Incremental change from the base case – status quo by location

### Anna Bay

	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32	2032-33	2033-34	2034-35	2035-36	2036-37	2037-38	2038-39
<b>Base Case</b>																				
Costs																				
Capital costs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Maintenance Costs	\$24,430	\$24,430	\$24,430	\$24,430	\$24,430	\$24,430	\$24,430	\$24,430	\$24,430	\$24,430	\$24,430	\$24,430	\$24,430	\$24,430	\$24,430	\$24,430	\$24,430	\$24,430	\$24,430	\$24,430
<b>Option 1</b>																				
Costs																				
Capital costs	\$0	\$0	\$0	\$250,000	\$1,000,000	\$750,000	\$0	\$0												
Maintenance Costs	\$24,430	\$24,430	\$24,430	\$24,430	\$24,430	\$24,430	\$27,993	\$42,244	\$52,932	\$56,494	\$70,745	\$81,433	\$81,433	\$81,433	\$81,433	\$81,433	\$81,433	\$81,433	\$81,433	\$81,433
<b>Benefits</b>																				
Additional Amenity	\$146,013	\$146,013	\$146,013	\$146,013	\$146,013	\$146,013	\$146,013	\$146,013	\$146,013	\$146,013	\$146,013	\$146,013	\$146,013	\$146,013	\$146,013	\$146,013	\$146,013	\$146,013	\$146,013	\$146,013
Additional Tourism expenditure	\$44,000	\$44,000	\$44,000	\$44,000	\$44,000	\$44,000	\$44,000	\$44,000	\$44,000	\$44,000	\$44,000	\$44,000	\$44,000	\$44,000	\$44,000	\$44,000	\$44,000	\$44,000	\$44,000	\$44,000
Additional Producer surplus	\$36,944	\$36,944	\$36,944	\$36,944	\$36,944	\$36,944	\$36,944	\$36,944	\$36,944	\$36,944	\$36,944	\$36,944	\$36,944	\$36,944	\$36,944	\$36,944	\$36,944	\$36,944	\$36,944	\$36,944
Additional property uplift																				
Road safety benefits	\$9,611	\$9,611	\$9,611	\$9,611	\$9,611	\$9,611	\$9,611	\$9,611	\$9,611	\$9,611	\$9,611	\$9,611	\$9,611	\$9,611	\$9,611	\$9,611	\$9,611	\$9,611	\$9,611	\$9,611
<b>Incremental change</b>																				
Capital costs	\$0	\$0	\$0	\$250,000	\$1,000,000	\$750,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Maintenance costs	\$0	\$0	\$0	\$0	\$0	\$0	\$3,563	\$17,814	\$28,502	\$32,064	\$46,315	\$57,003	\$57,003	\$57,003	\$57,003	\$57,003	\$57,003	\$57,003	\$57,003	\$57,003
<b>Total Costs</b>	\$0	\$0	\$0	\$250,000	\$1,000,000	\$750,000	\$3,563	\$17,814	\$28,502	\$32,064	\$46,315	\$57,003	\$57,003	\$57,003	\$57,003	\$57,003	\$57,003	\$57,003	\$57,003	\$57,003
Additional Benefits																				
Additional Amenity	\$146,013	\$146,013	\$146,013	\$146,013	\$146,013	\$146,013	\$146,013	\$146,013	\$146,013	\$146,013	\$146,013	\$146,013	\$146,013	\$146,013	\$146,013	\$146,013	\$146,013	\$146,013	\$146,013	\$146,013
Additional Tourism expenditure	\$44,000	\$44,000	\$44,000	\$44,000	\$44,000	\$44,000	\$44,000	\$44,000	\$44,000	\$44,000	\$44,000	\$44,000	\$44,000	\$44,000	\$44,000	\$44,000	\$44,000	\$44,000	\$44,000	\$44,000
Additional Producer surplus	\$36,944	\$36,944	\$36,944	\$36,944	\$36,944	\$36,944	\$36,944	\$36,944	\$36,944	\$36,944	\$36,944	\$36,944	\$36,944	\$36,944	\$36,944	\$36,944	\$36,944	\$36,944	\$36,944	\$36,944
Additional Property uplift	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Road safety benefits	\$9,611	\$9,611	\$9,611	\$9,611	\$9,611	\$9,611	\$9,611	\$9,611	\$9,611	\$9,611	\$9,611	\$9,611	\$9,611	\$9,611	\$9,611	\$9,611	\$9,611	\$9,611	\$9,611	\$9,611
<b>Total Benefits</b>	\$236,568	\$236,568	\$236,568	\$236,568	\$236,568	\$236,568	\$236,568	\$236,568	\$236,568	\$236,568	\$236,568	\$236,568	\$236,568	\$236,568	\$236,568	\$236,568	\$236,568	\$236,568	\$236,568	\$236,568

## Fern Bay

	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32	2032-33	2033-34	2034-35	2035-36	2036-37	2037-38	2038-39
<b>Base Case</b>																				
Costs																				
Capital costs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Maintenance Costs	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Option 1</b>																				
Costs																				
Capital costs	\$0	\$0	\$1,000,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Maintenance Costs	\$0	\$0	\$0	\$0	\$0	\$6,037	\$6,037	\$6,037	\$12,074	\$12,074	\$12,074	\$12,074	\$12,074	\$12,074	\$12,074	\$12,074	\$12,074	\$12,074	\$12,074	\$12,074
<b>Benefits</b>																				
Additional Amenity	\$104,897	\$104,897	\$104,897	\$104,897	\$104,897	\$104,897	\$104,897	\$104,897	\$104,897	\$104,897	\$104,897	\$104,897	\$104,897	\$104,897	\$104,897	\$104,897	\$104,897	\$104,897	\$104,897	\$104,897
Additional Tourism expenditure	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000
Additional Producer surplus	\$4,829	\$4,829	\$4,829	\$4,829	\$4,829	\$4,829	\$4,829	\$4,829	\$4,829	\$4,829	\$4,829	\$4,829	\$4,829	\$4,829	\$4,829	\$4,829	\$4,829	\$4,829	\$4,829	\$4,829
Additional property uplift																				
Road safety benefits	\$2,403	\$2,403	\$2,403	\$2,403	\$2,403	\$2,403	\$2,403	\$2,403	\$2,403	\$2,403	\$2,403	\$2,403	\$2,403	\$2,403	\$2,403	\$2,403	\$2,403	\$2,403	\$2,403	\$2,403
<b>Incremental change</b>																				
Capital costs	\$0	\$0	\$1,000,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Maintenance costs	\$0	\$0	\$0	\$0	\$0	\$6,037	\$6,037	\$6,037	\$12,074	\$12,074	\$12,074	\$12,074	\$12,074	\$12,074	\$12,074	\$12,074	\$12,074	\$12,074	\$12,074	\$12,074
<b>Total Costs</b>	\$0	\$0	\$1,000,000	\$0	\$0	\$6,037	\$6,037	\$6,037	\$12,074	\$12,074	\$12,074	\$12,074	\$12,074	\$12,074	\$12,074	\$12,074	\$12,074	\$12,074	\$12,074	\$12,074
<b>Additional Benefits</b>																				
Additional Amenity	\$104,897	\$104,897	\$104,897	\$104,897	\$104,897	\$104,897	\$104,897	\$104,897	\$104,897	\$104,897	\$104,897	\$104,897	\$104,897	\$104,897	\$104,897	\$104,897	\$104,897	\$104,897	\$104,897	\$104,897
Additional Tourism expenditure	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000
Additional Producer surplus	\$4,829	\$4,829	\$4,829	\$4,829	\$4,829	\$4,829	\$4,829	\$4,829	\$4,829	\$4,829	\$4,829	\$4,829	\$4,829	\$4,829	\$4,829	\$4,829	\$4,829	\$4,829	\$4,829	\$4,829
Additional Property uplift	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Road safety benefits	\$2,403	\$2,403	\$2,403	\$2,403	\$2,403	\$2,403	\$2,403	\$2,403	\$2,403	\$2,403	\$2,403	\$2,403	\$2,403	\$2,403	\$2,403	\$2,403	\$2,403	\$2,403	\$2,403	\$2,403
<b>Total Benefits</b>	\$134,129	\$134,129	\$134,129	\$134,129	\$134,129	\$134,129	\$134,129	\$134,129	\$134,129	\$134,129	\$134,129	\$134,129	\$134,129	\$134,129	\$134,129	\$134,129	\$134,129	\$134,129	\$134,129	\$134,129

## Fingal Bay

	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32	2032-33	2033-34	2034-35	2035-36	2036-37	2037-38	2038-39
<b>Base Case</b>																				
Costs																				
Capital costs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Maintenance Costs	\$4,072	\$4,072	\$4,072	\$4,072	\$4,072	\$4,072	\$4,072	\$4,072	\$4,072	\$4,072	\$4,072	\$4,072	\$4,072	\$4,072	\$4,072	\$4,072	\$4,072	\$4,072	\$4,072	\$4,072
<b>Option 1</b>																				
Costs																				
Capital costs	\$0	\$0	\$500,000	\$0	\$0	\$0	\$0	\$0												
Maintenance Costs	\$4,072	\$4,072	\$4,072	\$4,072	\$4,072	\$12,215	\$12,215	\$12,215	\$20,358	\$20,358	\$20,358	\$20,358	\$20,358	\$20,358	\$20,358	\$20,358	\$20,358	\$20,358	\$20,358	\$20,358
<b>Benefits</b>																				
Additional Amenity	\$57,061	\$57,061	\$57,061	\$57,061	\$57,061	\$57,061	\$57,061	\$57,061	\$57,061	\$57,061	\$57,061	\$57,061	\$57,061	\$57,061	\$57,061	\$57,061	\$57,061	\$57,061	\$57,061	\$57,061
Additional Tourism expenditure	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000
Additional Producer surplus	\$4,829	\$4,829	\$4,829	\$4,829	\$4,829	\$4,829	\$4,829	\$4,829	\$4,829	\$4,829	\$4,829	\$4,829	\$4,829	\$4,829	\$4,829	\$4,829	\$4,829	\$4,829	\$4,829	\$4,829
Additional property uplift																				
Road safety benefits	\$1,201	\$1,201	\$1,201	\$1,201	\$1,201	\$1,201	\$1,201	\$1,201	\$1,201	\$1,201	\$1,201	\$1,201	\$1,201	\$1,201	\$1,201	\$1,201	\$1,201	\$1,201	\$1,201	\$1,201
<b>Incremental change</b>																				
Capital costs	\$0	\$0	\$500,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Maintenance costs	\$0	\$0	\$0	\$0	\$0	\$8,143	\$8,143	\$8,143	\$16,287	\$16,287	\$16,287	\$16,287	\$16,287	\$16,287	\$16,287	\$16,287	\$16,287	\$16,287	\$16,287	\$16,287
<b>Total Costs</b>	\$0	\$0	\$500,000	\$0	\$0	\$8,143	\$8,143	\$8,143	\$16,287	\$16,287	\$16,287	\$16,287	\$16,287	\$16,287	\$16,287	\$16,287	\$16,287	\$16,287	\$16,287	\$16,287
<b>Additional Benefits</b>																				
Additional Amenity	\$57,061	\$57,061	\$57,061	\$57,061	\$57,061	\$57,061	\$57,061	\$57,061	\$57,061	\$57,061	\$57,061	\$57,061	\$57,061	\$57,061	\$57,061	\$57,061	\$57,061	\$57,061	\$57,061	\$57,061
Additional Tourism expenditure	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000
Additional Producer surplus	\$4,829	\$4,829	\$4,829	\$4,829	\$4,829	\$4,829	\$4,829	\$4,829	\$4,829	\$4,829	\$4,829	\$4,829	\$4,829	\$4,829	\$4,829	\$4,829	\$4,829	\$4,829	\$4,829	\$4,829
Additional Property uplift	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Road safety benefits	\$1,201	\$1,201	\$1,201	\$1,201	\$1,201	\$1,201	\$1,201	\$1,201	\$1,201	\$1,201	\$1,201	\$1,201	\$1,201	\$1,201	\$1,201	\$1,201	\$1,201	\$1,201	\$1,201	\$1,201
<b>Total Benefits</b>	\$85,092	\$85,092	\$85,092	\$85,092	\$85,092	\$85,092	\$85,092	\$85,092	\$85,092	\$85,092	\$85,092	\$85,092	\$85,092	\$85,092	\$85,092	\$85,092	\$85,092	\$85,092	\$85,092	\$85,092

## Karuah

	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32	2032-33	2033-34	2034-35	2035-36	2036-37	2037-38	2038-39
<b>Base Case</b>																				
Costs																				
Capital costs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Maintenance Costs	\$16,287	\$16,287	\$16,287	\$16,287	\$16,287	\$16,287	\$16,287	\$16,287	\$16,287	\$16,287	\$16,287	\$16,287	\$16,287	\$16,287	\$16,287	\$16,287	\$16,287	\$16,287	\$16,287	\$16,287
<b>Option 1</b>																				
Costs																				
Capital costs	\$500,000	\$1,500,000	\$0	\$0	\$0	\$0	\$0	\$0												
Maintenance Costs	\$16,287	\$16,287	\$16,287	\$24,430	\$48,860	\$48,860	\$57,003	\$81,433	\$81,433	\$81,433	\$81,433	\$81,433	\$81,433	\$81,433	\$81,433	\$81,433	\$81,433	\$81,433	\$81,433	\$81,433
<b>Benefits</b>																				
Additional Amenity	\$50,380	\$50,380	\$50,380	\$50,380	\$50,380	\$50,380	\$50,380	\$50,380	\$50,380	\$50,380	\$50,380	\$50,380	\$50,380	\$50,380	\$50,380	\$50,380	\$50,380	\$50,380	\$50,380	\$50,380
Additional Tourism expenditure	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000
Additional Producer surplus	\$4,829	\$4,829	\$4,829	\$4,829	\$4,829	\$4,829	\$4,829	\$4,829	\$4,829	\$4,829	\$4,829	\$4,829	\$4,829	\$4,829	\$4,829	\$4,829	\$4,829	\$4,829	\$4,829	\$4,829
Additional property uplift																				
Road safety benefits	\$3,604	\$3,604	\$3,604	\$3,604	\$3,604	\$3,604	\$3,604	\$3,604	\$3,604	\$3,604	\$3,604	\$3,604	\$3,604	\$3,604	\$3,604	\$3,604	\$3,604	\$3,604	\$3,604	\$3,604
<b>Incremental change</b>																				
Capital costs	\$500,000	\$1,500,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Maintenance costs	\$0	\$0	\$0	\$8,143	\$32,573	\$32,573	\$40,717	\$65,147	\$65,147	\$65,147	\$65,147	\$65,147	\$65,147	\$65,147	\$65,147	\$65,147	\$65,147	\$65,147	\$65,147	\$65,147
<b>Total Costs</b>	\$500,000	\$1,500,000	\$0	\$8,143	\$32,573	\$32,573	\$40,717	\$65,147	\$65,147	\$65,147	\$65,147	\$65,147	\$65,147	\$65,147	\$65,147	\$65,147	\$65,147	\$65,147	\$65,147	\$65,147
Additional Benefits																				
Additional Amenity	\$50,380	\$50,380	\$50,380	\$50,380	\$50,380	\$50,380	\$50,380	\$50,380	\$50,380	\$50,380	\$50,380	\$50,380	\$50,380	\$50,380	\$50,380	\$50,380	\$50,380	\$50,380	\$50,380	\$50,380
Additional Tourism expenditure	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000
Additional Producer surplus	\$4,829	\$4,829	\$4,829	\$4,829	\$4,829	\$4,829	\$4,829	\$4,829	\$4,829	\$4,829	\$4,829	\$4,829	\$4,829	\$4,829	\$4,829	\$4,829	\$4,829	\$4,829	\$4,829	\$4,829
Additional Property uplift	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Road safety benefits	\$3,604	\$3,604	\$3,604	\$3,604	\$3,604	\$3,604	\$3,604	\$3,604	\$3,604	\$3,604	\$3,604	\$3,604	\$3,604	\$3,604	\$3,604	\$3,604	\$3,604	\$3,604	\$3,604	\$3,604
<b>Total Benefits</b>	\$80,813	\$80,813	\$80,813	\$80,813	\$80,813	\$80,813	\$80,813	\$80,813	\$80,813	\$80,813	\$80,813	\$80,813	\$80,813	\$80,813	\$80,813	\$80,813	\$80,813	\$80,813	\$80,813	\$80,813

## Lemon Tree Passage

	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32	2032-33	2033-34	2034-35	2035-36	2036-37	2037-38	2038-39
<b>Base Case</b>																				
Costs																				
Capital costs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Maintenance Costs	\$24,430	\$24,430	\$24,430	\$24,430	\$24,430	\$24,430	\$24,430	\$24,430	\$24,430	\$24,430	\$24,430	\$24,430	\$24,430	\$24,430	\$24,430	\$24,430	\$24,430	\$24,430	\$24,430	\$24,430
<b>Option 1</b>																				
Costs																				
Capital costs	\$500,000	\$1,500,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0											
Maintenance Costs	\$24,430	\$24,430	\$24,430	\$31,555	\$52,932	\$52,932	\$60,057	\$81,433	\$81,433	\$81,433	\$81,433	\$81,433	\$81,433	\$81,433	\$81,433	\$81,433	\$81,433	\$81,433	\$81,433	\$81,433
<b>Benefits</b>																				
Additional Amenity	\$98,633	\$98,633	\$98,633	\$98,633	\$98,633	\$98,633	\$98,633	\$98,633	\$98,633	\$98,633	\$98,633	\$98,633	\$98,633	\$98,633	\$98,633	\$98,633	\$98,633	\$98,633	\$98,633	\$98,633
Additional Tourism expenditure	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000
Additional Producer surplus	\$4,829	\$4,829	\$4,829	\$4,829	\$4,829	\$4,829	\$4,829	\$4,829	\$4,829	\$4,829	\$4,829	\$4,829	\$4,829	\$4,829	\$4,829	\$4,829	\$4,829	\$4,829	\$4,829	\$4,829
Additional property uplift																				
Road safety benefits	\$1,201	\$1,201	\$1,201	\$1,201	\$1,201	\$1,201	\$1,201	\$1,201	\$1,201	\$1,201	\$1,201	\$1,201	\$1,201	\$1,201	\$1,201	\$1,201	\$1,201	\$1,201	\$1,201	\$1,201
<b>Incremental change</b>																				
Capital costs	\$500,000	\$1,500,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Maintenance costs	\$0	\$0	\$0	\$7,125	\$28,502	\$28,502	\$35,627	\$57,003	\$57,003	\$57,003	\$57,003	\$57,003	\$57,003	\$57,003	\$57,003	\$57,003	\$57,003	\$57,003	\$57,003	\$57,003
<b>Total Costs</b>	\$500,000	\$1,500,000	\$0	\$7,125	\$28,502	\$28,502	\$35,627	\$57,003	\$57,003	\$57,003	\$57,003	\$57,003	\$57,003	\$57,003	\$57,003	\$57,003	\$57,003	\$57,003	\$57,003	\$57,003
Additional Benefits																				
Additional Amenity	\$98,633	\$98,633	\$98,633	\$98,633	\$98,633	\$98,633	\$98,633	\$98,633	\$98,633	\$98,633	\$98,633	\$98,633	\$98,633	\$98,633	\$98,633	\$98,633	\$98,633	\$98,633	\$98,633	\$98,633
Additional Tourism expenditure	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000
Additional Producer surplus	\$4,829	\$4,829	\$4,829	\$4,829	\$4,829	\$4,829	\$4,829	\$4,829	\$4,829	\$4,829	\$4,829	\$4,829	\$4,829	\$4,829	\$4,829	\$4,829	\$4,829	\$4,829	\$4,829	\$4,829
Additional Property uplift	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Road safety benefits	\$1,201	\$1,201	\$1,201	\$1,201	\$1,201	\$1,201	\$1,201	\$1,201	\$1,201	\$1,201	\$1,201	\$1,201	\$1,201	\$1,201	\$1,201	\$1,201	\$1,201	\$1,201	\$1,201	\$1,201
<b>Total Benefits</b>	\$126,664	\$126,664	\$126,664	\$126,664	\$126,664	\$126,664	\$126,664	\$126,664	\$126,664	\$126,664	\$126,664	\$126,664	\$126,664	\$126,664	\$126,664	\$126,664	\$126,664	\$126,664	\$126,664	\$126,664



## Medowie

	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32	2032-33	2033-34	2034-35	2035-36	2036-37	2037-38	2038-39
<b>Base Case</b>																				
Costs																				
Capital costs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Maintenance Costs	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Option 1</b>																				
Costs																				
Capital costs	\$0	\$0	\$0	\$500,000	\$2,250,000	\$2,250,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Maintenance Costs	\$0	\$0	\$0	\$0	\$0	\$0	\$1,281	\$7,044	\$12,807	\$14,088	\$19,851	\$25,614	\$25,614	\$25,614	\$25,614	\$25,614	\$25,614	\$25,614	\$25,614	\$25,614
<b>Benefits</b>																				
Additional Amenity	\$335,725	\$335,725	\$335,725	\$335,725	\$335,725	\$335,725	\$335,725	\$335,725	\$335,725	\$335,725	\$335,725	\$335,725	\$335,725	\$335,725	\$335,725	\$335,725	\$335,725	\$335,725	\$335,725	\$335,725
Additional Tourism expenditure	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000
Additional Producer surplus	\$115,904	\$115,904	\$115,904	\$115,904	\$115,904	\$115,904	\$115,904	\$115,904	\$115,904	\$115,904	\$115,904	\$115,904	\$115,904	\$115,904	\$115,904	\$115,904	\$115,904	\$115,904	\$115,904	\$115,904
Additional property uplift																				
Road safety benefits	\$13,214	\$13,214	\$13,214	\$13,214	\$13,214	\$13,214	\$13,214	\$13,214	\$13,214	\$13,214	\$13,214	\$13,214	\$13,214	\$13,214	\$13,214	\$13,214	\$13,214	\$13,214	\$13,214	\$13,214
<b>Incremental change</b>																				
Capital costs	\$0	\$0	\$0	\$500,000	\$2,250,000	\$2,250,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Maintenance costs	\$0	\$0	\$0	\$0	\$0	\$0	\$1,281	\$7,044	\$12,807	\$14,088	\$19,851	\$25,614	\$25,614	\$25,614	\$25,614	\$25,614	\$25,614	\$25,614	\$25,614	\$25,614
<b>Total Costs</b>	\$0	\$0	\$0	\$500,000	\$2,250,000	\$2,250,000	\$1,281	\$7,044	\$12,807	\$14,088	\$19,851	\$25,614	\$25,614	\$25,614	\$25,614	\$25,614	\$25,614	\$25,614	\$25,614	\$25,614
Additional Benefits																				
Additional Amenity	\$335,725	\$335,725	\$335,725	\$335,725	\$335,725	\$335,725	\$335,725	\$335,725	\$335,725	\$335,725	\$335,725	\$335,725	\$335,725	\$335,725	\$335,725	\$335,725	\$335,725	\$335,725	\$335,725	\$335,725
Additional Tourism expenditure	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000
Additional Producer surplus	\$115,904	\$115,904	\$115,904	\$115,904	\$115,904	\$115,904	\$115,904	\$115,904	\$115,904	\$115,904	\$115,904	\$115,904	\$115,904	\$115,904	\$115,904	\$115,904	\$115,904	\$115,904	\$115,904	\$115,904
Additional Property uplift	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Road safety benefits	\$13,214	\$13,214	\$13,214	\$13,214	\$13,214	\$13,214	\$13,214	\$13,214	\$13,214	\$13,214	\$13,214	\$13,214	\$13,214	\$13,214	\$13,214	\$13,214	\$13,214	\$13,214	\$13,214	\$13,214
<b>Total Benefits</b>	\$486,843	\$486,843	\$486,843	\$486,843	\$486,843	\$486,843	\$486,843	\$486,843	\$486,843	\$486,843	\$486,843	\$486,843	\$486,843	\$486,843	\$486,843	\$486,843	\$486,843	\$486,843	\$486,843	\$486,843

## Nelson Bay

	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32	2032-33	2033-34	2034-35	2035-36	2036-37	2037-38	2038-39
<b>Base Case</b>																				
Costs																				
Capital costs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Maintenance Costs	\$244,300	\$244,300	\$244,300	\$244,300	\$244,300	\$244,300	\$244,300	\$244,300	\$244,300	\$244,300	\$244,300	\$244,300	\$244,300	\$244,300	\$244,300	\$244,300	\$244,300	\$244,300	\$244,300	\$244,300
<b>Option 1</b>																				
Costs																				
Capital costs	\$375,000	\$375,000	\$2,000,000	\$2,000,000	\$2,500,000	\$2,750,000	\$2,500,000	\$2,500,000	\$0	\$0										
Maintenance Costs	\$244,300	\$244,300	\$244,300	\$247,354	\$250,408	\$266,694	\$286,035	\$309,447	\$348,128	\$384,773	\$425,489	\$447,884	\$468,242	\$488,600	\$488,600	\$488,600	\$488,600	\$488,600	\$488,600	\$488,600
<b>Benefits</b>																				
Additional Amenity	\$204,859	\$204,859	\$204,859	\$204,859	\$204,859	\$204,859	\$204,859	\$204,859	\$204,859	\$204,859	\$204,859	\$204,859	\$204,859	\$204,859	\$204,859	\$204,859	\$204,859	\$204,859	\$204,859	\$204,859
Additional Tourism expenditure	\$422,400	\$422,400	\$422,400	\$422,400	\$422,400	\$422,400	\$422,400	\$422,400	\$422,400	\$422,400	\$422,400	\$422,400	\$422,400	\$422,400	\$422,400	\$422,400	\$422,400	\$422,400	\$422,400	\$422,400
Additional Producer surplus	\$92,361	\$92,361	\$92,361	\$92,361	\$92,361	\$92,361	\$92,361	\$92,361	\$92,361	\$92,361	\$92,361	\$92,361	\$92,361	\$92,361	\$92,361	\$92,361	\$92,361	\$92,361	\$92,361	\$92,361
Additional property uplift	\$745,769	\$745,769	\$745,769	\$745,769	\$745,769	\$745,769	\$745,769	\$745,769	\$745,769	\$745,769	\$745,769	\$745,769	\$745,769	\$745,769	\$745,769	\$745,769	\$745,769	\$745,769	\$745,769	\$745,769
Road safety benefits	\$22,825	\$22,825	\$22,825	\$22,825	\$22,825	\$22,825	\$22,825	\$22,825	\$22,825	\$22,825	\$22,825	\$22,825	\$22,825	\$22,825	\$22,825	\$22,825	\$22,825	\$22,825	\$22,825	\$22,825
<b>Incremental change</b>									15000000											
Capital costs	\$375,000	\$375,000	\$2,000,000	\$2,000,000	\$2,500,000	\$2,750,000	\$2,500,000	\$2,500,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Maintenance costs	\$0	\$0	\$0	\$3,054	\$6,108	\$22,394	\$41,735	\$65,147	\$103,828	\$140,473	\$181,189	\$203,583	\$223,942	\$244,300	\$244,300	\$244,300	\$244,300	\$244,300	\$244,300	\$244,300
<b>Total Costs</b>	\$375,000	\$375,000	\$2,000,000	\$2,003,054	\$2,506,108	\$2,772,394	\$2,541,735	\$2,565,147	\$103,828	\$140,473	\$181,189	\$203,583	\$223,942	\$244,300	\$244,300	\$244,300	\$244,300	\$244,300	\$244,300	\$244,300
<b>Additional Benefits</b>																				
Additional Amenity	\$204,859	\$204,859	\$204,859	\$204,859	\$204,859	\$204,859	\$204,859	\$204,859	\$204,859	\$204,859	\$204,859	\$204,859	\$204,859	\$204,859	\$204,859	\$204,859	\$204,859	\$204,859	\$204,859	\$204,859
Additional Tourism expenditure	\$422,400	\$422,400	\$422,400	\$422,400	\$422,400	\$422,400	\$422,400	\$422,400	\$422,400	\$422,400	\$422,400	\$422,400	\$422,400	\$422,400	\$422,400	\$422,400	\$422,400	\$422,400	\$422,400	\$422,400
Additional Producer surplus	\$92,361	\$92,361	\$92,361	\$92,361	\$92,361	\$92,361	\$92,361	\$92,361	\$92,361	\$92,361	\$92,361	\$92,361	\$92,361	\$92,361	\$92,361	\$92,361	\$92,361	\$92,361	\$92,361	\$92,361
Additional Property uplift	\$745,769	\$745,769	\$745,769	\$745,769	\$745,769	\$745,769	\$745,769	\$745,769	\$745,769	\$745,769	\$745,769	\$745,769	\$745,769	\$745,769	\$745,769	\$745,769	\$745,769	\$745,769	\$745,769	\$745,769
Road safety benefits	\$22,825	\$22,825	\$22,825	\$22,825	\$22,825	\$22,825	\$22,825	\$22,825	\$22,825	\$22,825	\$22,825	\$22,825	\$22,825	\$22,825	\$22,825	\$22,825	\$22,825	\$22,825	\$22,825	\$22,825
<b>Total Benefits</b>	\$1,488,214	\$1,488,214	\$1,488,214	\$1,488,214	\$1,488,214	\$1,488,214	\$1,488,214	\$1,488,214	\$1,488,214	\$1,488,214	\$1,488,214	\$1,488,214	\$1,488,214	\$1,488,214	\$1,488,214	\$1,488,214	\$1,488,214	\$1,488,214	\$1,488,214	\$1,488,214

## Raymond Terrace

	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32	2032-33	2033-34	2034-35	2035-36	2036-37	2037-38	2038-39
<b>Base Case</b>																				
Costs																				
Capital costs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Maintenance Costs	\$244,300	\$244,300	\$244,300	\$244,300	\$244,300	\$244,300	\$244,300	\$244,300	\$244,300	\$244,300	\$244,300	\$244,300	\$244,300	\$244,300	\$244,300	\$244,300	\$244,300	\$244,300	\$244,300	\$244,300
<b>Option 1</b>																				
Costs																				
Capital costs	\$469,000	\$469,000	\$3,750,000	\$3,750,000	\$1,875,000	\$2,187,000	\$1,250,000	\$1,250,000												
Maintenance Costs	\$244,300	\$244,300	\$244,300	\$250,029	\$255,758	\$301,564	\$353,099	\$381,731	\$454,252	\$515,327	\$553,499	\$580,213	\$595,482	\$610,750	\$610,750	\$610,750	\$610,750	\$610,750	\$610,750	\$610,750
<b>Benefits</b>																				
Additional Amenity	\$486,712	\$486,712	\$486,712	\$486,712	\$486,712	\$486,712	\$486,712	\$486,712	\$486,712	\$486,712	\$486,712	\$486,712	\$486,712	\$486,712	\$486,712	\$486,712	\$486,712	\$486,712	\$486,712	\$486,712
Additional Tourism expenditure	\$281,600	\$281,600	\$281,600	\$281,600	\$281,600	\$281,600	\$281,600	\$281,600	\$281,600	\$281,600	\$281,600	\$281,600	\$281,600	\$281,600	\$281,600	\$281,600	\$281,600	\$281,600	\$281,600	\$281,600
Additional Producer surplus	\$1,810,995	\$1,810,995	\$1,810,995	\$1,810,995	\$1,810,995	\$1,810,995	\$1,810,995	\$1,810,995	\$1,810,995	\$1,810,995	\$1,810,995	\$1,810,995	\$1,810,995	\$1,810,995	\$1,810,995	\$1,810,995	\$1,810,995	\$1,810,995	\$1,810,995	\$1,810,995
Additional property uplift	\$399,202	\$399,202	\$399,202	\$399,202	\$399,202	\$399,202	\$399,202	\$399,202	\$399,202	\$399,202	\$399,202	\$399,202	\$399,202	\$399,202	\$399,202	\$399,202	\$399,202	\$399,202	\$399,202	\$399,202
Road safety benefits	\$50,455	\$50,455	\$50,455	\$50,455	\$50,455	\$50,455	\$50,455	\$50,455	\$50,455	\$50,455	\$50,455	\$50,455	\$50,455	\$50,455	\$50,455	\$50,455	\$50,455	\$50,455	\$50,455	\$50,455
<b>Incremental change</b>																				
Capital costs	\$469,000	\$469,000	\$3,750,000	\$3,750,000	\$1,875,000	\$2,187,000	\$1,250,000	\$1,250,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Maintenance costs	\$0	\$0	\$0	\$5,729	\$11,458	\$57,264	\$108,799	\$137,431	\$209,952	\$271,027	\$309,198	\$335,913	\$351,181	\$366,450	\$366,450	\$366,450	\$366,450	\$366,450	\$366,450	\$366,450
<b>Total Costs</b>	\$469,000	\$469,000	\$3,750,000	\$3,755,729	\$1,886,458	\$2,244,264	\$1,358,799	\$1,387,431	\$209,952	\$271,027	\$309,198	\$335,913	\$351,181	\$366,450	\$366,450	\$366,450	\$366,450	\$366,450	\$366,450	\$366,450
<b>Additional Benefits</b>																				
Additional Amenity	\$486,712	\$486,712	\$486,712	\$486,712	\$486,712	\$486,712	\$486,712	\$486,712	\$486,712	\$486,712	\$486,712	\$486,712	\$486,712	\$486,712	\$486,712	\$486,712	\$486,712	\$486,712	\$486,712	\$486,712
Additional Tourism expenditure	\$281,600	\$281,600	\$281,600	\$281,600	\$281,600	\$281,600	\$281,600	\$281,600	\$281,600	\$281,600	\$281,600	\$281,600	\$281,600	\$281,600	\$281,600	\$281,600	\$281,600	\$281,600	\$281,600	\$281,600
Additional Producer surplus	\$1,810,995	\$1,810,995	\$1,810,995	\$1,810,995	\$1,810,995	\$1,810,995	\$1,810,995	\$1,810,995	\$1,810,995	\$1,810,995	\$1,810,995	\$1,810,995	\$1,810,995	\$1,810,995	\$1,810,995	\$1,810,995	\$1,810,995	\$1,810,995	\$1,810,995	\$1,810,995
Additional Property uplift	\$399,202	\$399,202	\$399,202	\$399,202	\$399,202	\$399,202	\$399,202	\$399,202	\$399,202	\$399,202	\$399,202	\$399,202	\$399,202	\$399,202	\$399,202	\$399,202	\$399,202	\$399,202	\$399,202	\$399,202
Road safety benefits	\$50,455	\$50,455	\$50,455	\$50,455	\$50,455	\$50,455	\$50,455	\$50,455	\$50,455	\$50,455	\$50,455	\$50,455	\$50,455	\$50,455	\$50,455	\$50,455	\$50,455	\$50,455	\$50,455	\$50,455
<b>Total Benefits</b>	\$3,028,964	\$3,028,964	\$3,028,964	\$3,028,964	\$3,028,964	\$3,028,964	\$3,028,964	\$3,028,964	\$3,028,964	\$3,028,964	\$3,028,964	\$3,028,964	\$3,028,964	\$3,028,964	\$3,028,964	\$3,028,964	\$3,028,964	\$3,028,964	\$3,028,964	\$3,028,964

## Seaham

	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32	2032-33	2033-34	2034-35	2035-36	2036-37	2037-38	2038-39
<b>Base Case</b>																				
Costs																				
Capital costs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Maintenance Costs	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Option 1</b>																				
Costs																				
Capital costs	\$500,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0											
Maintenance Costs	\$0	\$0	\$0	\$2,356	\$2,356	\$2,356	\$4,713	\$4,713	\$4,713	\$4,713	\$4,713	\$4,713	\$4,713	\$4,713	\$4,713	\$4,713	\$4,713	\$4,713	\$4,713	\$4,713
<b>Benefits</b>																				
Additional Amenity	\$38,914	\$38,914	\$38,914	\$38,914	\$38,914	\$38,914	\$38,914	\$38,914	\$38,914	\$38,914	\$38,914	\$38,914	\$38,914	\$38,914	\$38,914	\$38,914	\$38,914	\$38,914	\$38,914	\$38,914
Additional Tourism expenditure	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000
Additional Producer surplus	\$112,282	\$112,282	\$112,282	\$112,282	\$112,282	\$112,282	\$112,282	\$112,282	\$112,282	\$112,282	\$112,282	\$112,282	\$112,282	\$112,282	\$112,282	\$112,282	\$112,282	\$112,282	\$112,282	\$112,282
Additional property uplift																				
Road safety benefits	\$6,007	\$6,007	\$6,007	\$6,007	\$6,007	\$6,007	\$6,007	\$6,007	\$6,007	\$6,007	\$6,007	\$6,007	\$6,007	\$6,007	\$6,007	\$6,007	\$6,007	\$6,007	\$6,007	\$6,007
<b>Incremental change</b>																				
Capital costs	\$500,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Maintenance costs	\$0	\$0	\$0	\$2,356	\$2,356	\$2,356	\$4,713	\$4,713	\$4,713	\$4,713	\$4,713	\$4,713	\$4,713	\$4,713	\$4,713	\$4,713	\$4,713	\$4,713	\$4,713	\$4,713
<b>Total Costs</b>	<b>\$500,000</b>	<b>\$0</b>	<b>\$0</b>	<b>\$2,356</b>	<b>\$2,356</b>	<b>\$2,356</b>	<b>\$4,713</b>	<b>\$4,713</b>	<b>\$4,713</b>	<b>\$4,713</b>	<b>\$4,713</b>	<b>\$4,713</b>	<b>\$4,713</b>	<b>\$4,713</b>	<b>\$4,713</b>	<b>\$4,713</b>	<b>\$4,713</b>	<b>\$4,713</b>	<b>\$4,713</b>	<b>\$4,713</b>
Additional Benefits																				
Additional Amenity	\$38,914	\$38,914	\$38,914	\$38,914	\$38,914	\$38,914	\$38,914	\$38,914	\$38,914	\$38,914	\$38,914	\$38,914	\$38,914	\$38,914	\$38,914	\$38,914	\$38,914	\$38,914	\$38,914	\$38,914
Additional Tourism expenditure	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000
Additional Producer surplus	\$112,282	\$112,282	\$112,282	\$112,282	\$112,282	\$112,282	\$112,282	\$112,282	\$112,282	\$112,282	\$112,282	\$112,282	\$112,282	\$112,282	\$112,282	\$112,282	\$112,282	\$112,282	\$112,282	\$112,282
Additional Property uplift	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Road safety benefits	\$6,007	\$6,007	\$6,007	\$6,007	\$6,007	\$6,007	\$6,007	\$6,007	\$6,007	\$6,007	\$6,007	\$6,007	\$6,007	\$6,007	\$6,007	\$6,007	\$6,007	\$6,007	\$6,007	\$6,007
<b>Total Benefits</b>	<b>\$179,202</b>	<b>\$179,202</b>	<b>\$179,202</b>	<b>\$179,202</b>	<b>\$179,202</b>	<b>\$179,202</b>	<b>\$179,202</b>	<b>\$179,202</b>	<b>\$179,202</b>	<b>\$179,202</b>	<b>\$179,202</b>	<b>\$179,202</b>	<b>\$179,202</b>	<b>\$179,202</b>	<b>\$179,202</b>	<b>\$179,202</b>	<b>\$179,202</b>	<b>\$179,202</b>	<b>\$179,202</b>	<b>\$179,202</b>

## All Projects

	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32	2032-33	2033-34	2034-35	2035-36	2036-37	2037-38	2038-39
<b>Base Case</b>																				
Costs																				
Capital costs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Maintenance Costs	\$557,819	\$557,819	\$557,819	\$557,819	\$557,819	\$557,819	\$557,819	\$557,819	\$557,819	\$557,819	\$557,819	\$557,819	\$557,819	\$557,819	\$557,819	\$557,819	\$557,819	\$557,819	\$557,819	\$557,819
<b>Option 1</b>																				
Costs																				
Capital costs	\$2,344,000	\$3,844,000	\$7,250,000	\$6,500,000	\$7,625,000	\$7,937,000	\$3,750,000	\$3,750,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Maintenance Costs	\$557,819	\$557,819	\$557,819	\$584,226	\$638,815	\$715,089	\$808,433	\$926,297	\$1,068,130	\$1,170,693	\$1,269,596	\$1,335,156	\$1,370,783	\$1,406,410	\$1,406,410	\$1,406,410	\$1,406,410	\$1,406,410	\$1,406,410	\$1,406,410
<b>Benefits</b>																				
Additional Amenity	\$1,523,195	\$1,523,195	\$1,523,195	\$1,523,195	\$1,523,195	\$1,523,195	\$1,523,195	\$1,523,195	\$1,523,195	\$1,523,195	\$1,523,195	\$1,523,195	\$1,523,195	\$1,523,195	\$1,523,195	\$1,523,195	\$1,523,195	\$1,523,195	\$1,523,195	\$1,523,195
Additional Tourism expenditure	\$880,000	\$880,000	\$880,000	\$880,000	\$880,000	\$880,000	\$880,000	\$880,000	\$880,000	\$880,000	\$880,000	\$880,000	\$880,000	\$880,000	\$880,000	\$880,000	\$880,000	\$880,000	\$880,000	\$880,000
Additional Producer surplus	\$2,157,016	\$2,157,016	\$2,157,016	\$2,157,016	\$2,157,016	\$2,157,016	\$2,157,016	\$2,157,016	\$2,157,016	\$2,157,016	\$2,157,016	\$2,157,016	\$2,157,016	\$2,157,016	\$2,157,016	\$2,157,016	\$2,157,016	\$2,157,016	\$2,157,016	\$2,157,016
Additional property uplift	\$1,144,972	\$1,144,972	\$1,144,972	\$1,144,972	\$1,144,972	\$1,144,972	\$1,144,972	\$1,144,972	\$1,144,972	\$1,144,972	\$1,144,972	\$1,144,972	\$1,144,972	\$1,144,972	\$1,144,972	\$1,144,972	\$1,144,972	\$1,144,972	\$1,144,972	\$1,144,972
Road safety benefits	\$110,521	\$110,521	\$110,521	\$110,521	\$110,521	\$110,521	\$110,521	\$110,521	\$110,521	\$110,521	\$110,521	\$110,521	\$110,521	\$110,521	\$110,521	\$110,521	\$110,521	\$110,521	\$110,521	\$110,521
<b>Incremental change</b>																				
Capital costs	\$2,344,000	\$3,844,000	\$7,250,000	\$6,500,000	\$7,625,000	\$7,937,000	\$3,750,000	\$3,750,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Maintenance costs	\$0	\$0	\$0	\$26,408	\$80,997	\$157,270	\$250,614	\$368,478	\$510,311	\$612,875	\$711,777	\$777,337	\$812,964	\$848,591	\$848,591	\$848,591	\$848,591	\$848,591	\$848,591	\$848,591
<b>Total Costs</b>	\$2,344,000	\$3,844,000	\$7,250,000	\$6,526,408	\$7,705,997	\$8,094,270	\$4,000,614	\$4,118,478	\$510,311	\$612,875	\$711,777	\$777,337	\$812,964	\$848,591	\$848,591	\$848,591	\$848,591	\$848,591	\$848,591	\$848,591
Additional Benefits																				
Additional Amenity	\$1,523,195	\$1,523,195	\$1,523,195	\$1,523,195	\$1,523,195	\$1,523,195	\$1,523,195	\$1,523,195	\$1,523,195	\$1,523,195	\$1,523,195	\$1,523,195	\$1,523,195	\$1,523,195	\$1,523,195	\$1,523,195	\$1,523,195	\$1,523,195	\$1,523,195	\$1,523,195
Additional Tourism expenditure	\$880,000	\$880,000	\$880,000	\$880,000	\$880,000	\$880,000	\$880,000	\$880,000	\$880,000	\$880,000	\$880,000	\$880,000	\$880,000	\$880,000	\$880,000	\$880,000	\$880,000	\$880,000	\$880,000	\$880,000
Additional Producer surplus	\$2,157,016	\$2,157,016	\$2,157,016	\$2,157,016	\$2,157,016	\$2,157,016	\$2,157,016	\$2,157,016	\$2,157,016	\$2,157,016	\$2,157,016	\$2,157,016	\$2,157,016	\$2,157,016	\$2,157,016	\$2,157,016	\$2,157,016	\$2,157,016	\$2,157,016	\$2,157,016
Additional Property uplift	\$1,144,972	\$1,144,972	\$1,144,972	\$1,144,972	\$1,144,972	\$1,144,972	\$1,144,972	\$1,144,972	\$1,144,972	\$1,144,972	\$1,144,972	\$1,144,972	\$1,144,972	\$1,144,972	\$1,144,972	\$1,144,972	\$1,144,972	\$1,144,972	\$1,144,972	\$1,144,972
Road safety benefits	\$110,521	\$110,521	\$110,521	\$110,521	\$110,521	\$110,521	\$110,521	\$110,521	\$110,521	\$110,521	\$110,521	\$110,521	\$110,521	\$110,521	\$110,521	\$110,521	\$110,521	\$110,521	\$110,521	\$110,521
<b>Total Benefits</b>	\$5,815,703	\$5,815,703	\$5,815,703	\$5,815,703	\$5,815,703	\$5,815,703	\$5,815,703	\$5,815,703	\$5,815,703	\$5,815,703	\$5,815,703	\$5,815,703	\$5,815,703	\$5,815,703	\$5,815,703	\$5,815,703	\$5,815,703	\$5,815,703	\$5,815,703	\$5,815,703
<b>Net Present Value of Benefits</b>	\$ 65,924,451																			
<b>Net Present Value of Costs</b>	\$ 38,230,052																			
<b>NPV All Projects</b>	\$ 27,694,399																			
<b>BCR</b>	1.72																			