8.4 LIVEABILITY AND NATURAL ASSETS

8.4.1 NAMBOUR HERITAGE TRAMWAY PROJECT UPDATE

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PURPOSE

This report provides a progress update on the Nambour Heritage Tramway project in accordance with Council Resolution OM17/95, specifically for a report to be referred back to Council in the event of a budget shortfall for Council's capital budget deliberations.

EXECUTIVE SUMMARY

The Nambour Heritage Tramway project has been before Council on several occasions in the past, most recently in June 2017 when Council resolved to advance the project with a series of specific resolution actions. All elements of the most recent Council resolution have been progressing over the last 18 months, with this report arising from latest project cost estimate exceeding allocated funding and a requirement to report back to Council should this eventuate.

The project is identified within Council's Nambour Activation Plan and is a collaborative effort of Council and community group, The Nambour Tramway Company Ltd (TNTCo). Several key packages of work make up the overall project:

a) approvals/Legal: All necessary leases and funding agreements have been executed. An interface agreement between TNTCo and Department of Transport and Main Roads (DTMR) has been agreed in principle (subject to final signaling design). TNTCo has obtained accreditation from the Office of the National Rail Safety Regulator (ONRSR) that permits terminus construction and static commissioning of tram rolling stock but currently excludes construction and operation of tram rolling stock.

b) terminus building: design completed and works ready to commence.

c) tram rolling stock: open market tender advertised and closed 18 December 2018 (in probity / assessment phase).

d) tramway (i.e. track, platforms, roadway modifications): concept design completed with next task scheduled detail design.

Some packages of work are approaching 'shovel ready', however the current funding summary shown in Table 1 below, indicates an estimated budget shortfall of $2.97 million.

Table 1: Finance summary

Item	Value
Expenditure (to date)	$0.42 million
Updated estimate to complete (including contingencies)	$4.65 million
Sub-total	*$5.07 million*
Approved funding (to date)	$2.1 million
Surplus / (deficit)	**($2.97 million)**

Progression of the individual work packages has been placed on hold awaiting budget shortfall clarification. Various options and budgeting solutions have been considered to address the funding shortfall. In the absence of additional funding the full project intent cannot be delivered.

OFFICER RECOMMENDATION

That Council:

(a) receive and note the report titled "Nambour Heritage Tramway Project Update"

(b) recognise the updated estimates for entire project indicate a $2.97 million capital budget deficit which cannot be accommodated within the existing Council 10-year Capital Works Program without significant changes in established regional priorities or increases in program totals and

(c) acknowledge that the current estimated budget shortfall prevents the Nambour Heritage Tramway full scope from being delivered and the project is unable to proceed.

FINANCE AND RESOURCING

Total funding currently budgeted towards the project is $2.1 million from multiple sources across previous, current and future financial years:

1. Council $1.5 million
2. TNTCo $0.1 million
3. Australian Government $0.5 million

Costs to date incurred on the project development are approximately $0.42 million leaving approximately $1.68 million from current budget allocations to complete the project. The updated estimates to complete all the project work packages is $4.65 million leaving a shortfall of approximately $2.97 million. This shortfall is expected to exist within the 2019/20 financial year. If all funds are required to be sourced from Council it will effectively triple Council's commitment to date, which may have altered earlier examinations of feasibility and justifiable benefits.

Council's budget allocation for this project in the 10 year Capital Works Program was adopted within the Transportation Streetscape Major Centres program, however original budgeting was linked to the Transportation Public Transport Infrastructure program. The Streetscapes Major Centre program has an approximate total value of $3.3 million annually. The Public Transport Infrastructure program has an approximate total value of $0.56 million annually.

The current adopted 10 year Capital Works Program has nominated funding within the Streetscapes Major Centre program for Nambour CBD Activation Plan. Funding is scheduled as $0.3 million in 2020/21, $0.95 million in 2021/22 and $1.74 million in 2022/23 for a total of $2.99 million over three financial years. The intent of these funds was to implement aspects of the Nambour Activation Plan other than the tramway.

Council budgeting options examined to address the shortfall for 2019/20:

a) reprioritise Streetscape projects within current program total (i.e. transfer funding from other streetscape projects to Nambour Heritage Tramway)

b) increase the Streetscape program total with bring forward of all future financial years for Nambour CBD Activation Plan

c) allocate new additional funding to the program and project.

Implementing any of these options would be at the expense of other projects, programs or would exceed the funding parameters set down for 2019/20 development of Council's 10 year Capital Works Program.

Further options considered to address the latest cost estimates are outlined in the Proposal section of this report.

CORPORATE PLAN

Corporate Plan Goal: ***A strong community***
Outcome: 2.4 - People and places are connected
Operational Activity: 2.4.5 - Progress the Nambour Activation Plan 2015.

CONSULTATION

Councillor Consultation

Divisional Councillor G Rogerson

Internal Consultation

- Transport Infrastructure Policy
- Transport and Infrastructure Management
- Project Delivery
- Design and Placemaking Services
- Contract and Supply Services
- Legal Services
- Communication
- Property Management
- Finance

External Consultation

- Nambour Tramway Company Ltd
- Nambour Alliance
- Queensland Department of Transport and Main Roads
- Australian Government Department of Infrastructure and Regional Development

Community Engagement

Extensive community engagement was undertaken during the development of the feasibility study which was presented to Council on 23 April 2015, and also as part of the development of the Nambour Activation Plan, which was adopted by Council on 15 October 2015.

The Tramfest events remain a highly effective and successful community engagement tool, as is The Friends of the Tram group who maintain a Facebook presence and issue monthly newsletters.

A draft community communication plan for project construction has been developed however its implementation has been on hold pending construction timeframes which is linked to addressing budget deficit. Like other Council streetscapes a process of communication with the community will need to occur in advance of the tramway works.

PROPOSAL

The Nambour Heritage Tramway project is designed to re-activate the heritage listed tram line that was initially established to transport sugar cane through the centre of Nambour.

The project is a component of the Nambour Activation Plan 2015 which is a joint initiative between the Sunshine Coast Council and the Nambour Alliance Inc., the town's peak business and community representative body. This Plan, adopted by Council in October

2015 for implementation, aims to provide a framework to activate Nambour to enable local businesses and communities to energise their township and celebrate their place.

The TNTCo tram operating model, as currently proposed, is a single tram running from 28 Mill Street, along Howard Street with additional passenger egress/access at tram stops outside of 80-82 and 127 Howard Street. TNTCo propose a tram service running half hourly, at least six days a week, with up to 28 passengers for gold coin donations. The business model relies primarily on volunteer workforce for maintenance of the rolling stock and operation of the tramway scheme.

At the Ordinary Meeting of Council on 27 February 2014, Council passed a resolution to provide in-principle support to establish the Nambour Heritage Tramway, pending further advice regarding the financial and legacy implications of the operations. To address Council resolution OM14/18(d) a feasibility analysis was undertaken and reported to Council at the 23 April 2015 Ordinary Meeting. Within the analysis none of the scenarios tested returned a financially feasible result, and indicated investment required from Council to make the operation feasible would be considerable ($97,000 to $494,000 per annum). The analysis did indicate a positive Benefit Cost Ratio was likely (sensitive to assumptions) along with various intangible social benefits. This feasibility analysis is included as Attachment 4 of this report.

Outcomes at the 23 April 2015 Ordinary Meeting included seeking external funding support, clarifying responsibilities of both Council and TNTCo, proposing Council funds in future capital budgets deliberations and advance planning investigations for further reporting to Council. OM16/33 further nominated an updated business case to be submitted to Council, which was prepared by TNTCo and included in reporting to Council at the 15th June 2017 Ordinary Meeting. The TNTCo business case highlighted their forecast positive operational cashflow, including sink fund and future fund, however it did not include a specific cost benefit analysis. Also included was a capital cost estimate of $2.1million that was offset with equivalent identified revenue. This business case is included as Attachment 5 of this report.

Outcomes from the 15th June 2017 Ordinary Meeting included advancing the project with multiple project tasks, which have been actioned accordingly, however in the event of a budget shortfall a further report to Council was required. Introducing additional capital expenditure without corresponding revenue sources has significant consequences to the TNTCo sinking fund within their business case but no impact on their other operational cashflows. If project scope and legacy operations remain unchanged there are no foreseeable adjustments to previously reported outcomes and benefits.

Project Tasks

Several key packages of works make up the overall project to create the necessary infrastructure for the Nambour Heritage Tramway to function:

Approvals/Legals

Multiple documents have been negotiated and executed to advance the project in accordance with previous Council resolutions. This includes:

a) Heads of Agreement between Council and TNTCo

b) Funding Agreement between Council and Australian Government

c) Funding Agreement between Council and TNTCo

d) Lease of portion 28 Mill Street by TNTCo from Council.

A necessary interface agreement between TNTCo and the Department of Transport and Main Roads (DTMR) has been agreed in principle (subject to final signaling design). This is a requirement of DTMR for TNTCo to operate the tram in the State road corridor (Currie Street). There is potential for Council to develop a similar but more condensed agreement with TNTCo for them to operate the tram in the local road corridor.

TNTCo has obtained accreditation from the Office of the National Rail Safety Regulator (ONRSR) that permits terminus construction and static commissioning of tram rolling stock within 28 Mill Street. Their accreditation currently excludes construction (tram or track) as well as the operation of tram rolling stock. A variation to their accreditation to operate the rolling stock will be required once the tram has been manufactured and is insurable.

A variation to their accreditation to allow construction of tracks will need to occur prior to track works into the terminus building. Should the tram be constructed overseas, as advised by ONRSR, no further construction accreditation is required by TNTCo. However, if the tram is constructed in Australia then TNTCo will have to vary their existing accreditation further to include tram construction. While TNTCo have obtained accreditation for some of the required tasks, it remains a risk to the project that the accreditation variation applications to enable other functions are not supported by the regulator.

Terminus building

The project includes a terminus building to occupy the TNTCo leased portion of 28 Mill Street. The design has been completed and necessary building / plumbing applications submitted. Council has previously resolved for TNTCo to be a specialised supplier to construct the building. The terminus functionality includes:

a) Tramway centre

b) Visitor information centre

c) Station platform (disabled compliant passenger access / egress)

d) Workshop (tram maintenance)

e) Tram storage

f) Tracks

g) Amenities

The Nambour Alliance successfully obtained $0.5 million from the Australian Government's National Stronger Regions Fund towards construction of the terminus building and associated tracks. In accordance with previous Council resolutions this funding has been transferred from the Nambour Alliance to Council with a $1 million 50/50 funding agreement executed by Council and the Australian Government. The funding agreement requires works to be 30% complete on the terminus building by 29 March 2019 and fully complete/operating by 31 October 2019 with grant completion reporting and acquittal by 31 January 2020.

Tram rolling stock

TNTCo engaged a suitably qualified and experienced consultant to develop functional specifications for the tram rolling stock. The tram functionality includes being battery powered and compatible with the existing heritage listed tracks. Key safety aspects relating to operating on an active public road with vehicle and pedestrian traffic has been included. In accordance with previous resolutions, Council is undertaking the tram procurement but will transfer ownership, maintenance and operational responsibility to TNTCo. An open market tender using the TNTCo developed tram specification closed 18 December 2018 and at the time this report was drafted the tender was in the probity/assessment phase.

Tramway

Tramway aspects in the road corridor need to be constructed for the rolling stock to operate and the tram to function. This includes additional track into 28 Mill Street, stations/platforms at two locations, footpath modifications, traffic signal changes and roadway alterations including lighting and extensive line marking. The works are similar to tasks associated with a streetscape, being a mixture of civil and landscape outcomes. A concept design has been completed by suitably qualified external design consultancy with input from both Council and TNTCo. Further procurement is required to enable the detail design task to be completed in

the first quarter of 2019. The estimated cost of the detail design is included within the overall estimate.

Funding Deficit

To address the current overall budget deficit several options have been explored:

Additional Revenue Sources:

a) State and Federal Government grants: within the timeframes of expected project delivery in 2019 there have not been any identified appropriate grant programs. Success of applications is also considered unlikely given the project has already attracted Australian Government funding which has not yet been acquitted.

b) TNTCo: as a not for profit community group TNTCo have undertaken significant community fund raising to contribute towards the project. They remain committed to continuing these efforts however at the time of report writing additional funds had not been secured.

c) other 3rd Parties: none identified.

d) Council: other Streetscape projects would have to be reprioritised or all future year funding for the Nambour CBD Activation would need to be brought forward increasing both the streetscape program and overall total Capital Works Program, at a time when strict limits are required and being applied.

The Streetscape program owner is Design and Place Making Services Branch. Regional streetscaping priorities are determined through a needs-based assessment using objective criteria including:

- Existing asset condition
- Amenity / aesthetics
- Safety
- Legibility
- Equity and opportunities
- Economic sustainability
- Social cohesion and well-being
- Value for money
- Community capacity building and collaboration opportunities
- Environmental sustainability
- Achieving Council vision, strategy and policy outcomes

The Nambour Activation Plan highlights the following as improvements to be undertaken, albeit with only some being costed and partially budgeted:

- Strategic Projects:
  - Nambour splash water park (budgeted)
  - Connecting town centre to Nambour Showgrounds
  - Petrie Creek pedestrian and green spine
  - Nambour Heritage Tramway (partially budgeted)
- Placemaking Locations
  - Howard Street – The Tracks
  - Town Square and High Streets
  - Forecourt/Currie St – the little Brunswick St (partially budgeted)
  - C-Square – arts and entertainment mecca
  - Petrie Creek Parklands – town touching nature

Addressing the tram budget deficit with Nambour CBD Activation Plan allocated funds in Council's adopted 10 year Capital Works Program would consume all available budget over multiple financial years. This would leave no funds to further advance Placemaking locations as identified in the Nambour Activation Plan.

Reduce scope:

a) Terminus building size reduced: not supported by TNTCo due to functionality requirements

b) Landscaping treatments in tramway removed: not supportive of Placemaking / Streetscaping outcomes for the Nambour CBD

c) Remove one or both tramway stations: not supported by TNTCo due to business model usage generation.

While aspects of the project could be undertaken in a staged manner to mitigate the financial impact each financial year, the overall cost to deliver would still require additional budget to achieve all the desired outcomes and project functionality. Furthermore, staging would likely increase the total costing due to multiple mobilisation and rework of staging connections, albeit over multiple financial years rather than just within 2019/20, and is therefore not recommended.

Value engineering:

a) Terminus: building has already adopted low cost material choices

b) Tram rolling stock: neither Council nor TNTCo are technical experts of tram manufacturing and accordingly have relied on commissioned external advice from industry expert in developing the functional specification. There may be some aspects of the tram that could be altered to reduce costs, but these would need to be considered and advised by technical expert(s) and potentially ONRSR and DTMR.

If reductions in costs or increased budget sources or a combination of both cannot be achieved, then the project is unable to proceed.

Legal

Multiple documents have been executed to date relevant to the Nambour Heritage Tramway project, including:

- heads of agreement, lease and funding agreement between Council and TNTCo
- funding agreement between Council and Australian Government

If additional funding is not secured and the project does not proceed the termination clauses/processes within each relevant document will be implemented.

Policy

The Nambour Heritage Tramway project is an outcome of the Nambour Activation Plan.

In early 2018 the Nambour Master Plan was prepared by Strategic Planning Branch. Subordinate to this document, the Nambour Activation Plan remains live and provides the framework to activate the streets and places of Nambour and enable local businesses and community to continue to energise their township, celebrate their place and promote the town as a thriving and extraordinary place to live, work and play. The Nambour Heritage Tramway is a nominated strategic project within the Nambour Activation Plan. Council's Corporate Plan includes an operational activity to progress the Nambour Activation Plan 2015.

Additional work is being done on the 'Reimagine Nambour' project which is intended to bring together government, community and business leaders to deliver a strategy that unites the town and its leaders around an action plan. Funding for the action plan has been provided through the Federal Government's Building Better Regions Fund and Sunshine Coast Council. The project action plan is currently under development and is expected in early 2019.

Risk

- Updated estimates indicate that to complete the overall project Council's contribution may be triple current budget
- Actual costs incurred greater than updated estimate. Detail design of the tramway not yet completed. The updated estimate in this report include contingency factors and allowances
- Loss of investment to date if project does not proceed
- Loss of Federal Government grant funding should terminus not be constructed. Loss of revenue, loss of infrastructure investment into Nambour and Sunshine Coast region, loss of reputation with Australian Government through not delivering in accordance with funding agreement
- Key task within the Nambour Activation Plan not being implemented. Outcomes intended of the Nambour Activation Plan not achieved
- Tramway / streetscape construction consultation with businesses / community has not yet occurred
- ONRSR accreditation variations for TNTCo to allow construction and operational tasks not yet obtained.

Previous Council Resolution

Ordinary Meeting 15 June 2017 (OM17/95)

That Council:

(a) receive and note the report titled "Nambour Heritage Tramway Project Update"

(b) request the Chief Executive Officer to finalise the Heads of Agreement document in accordance with the position outlined in this report

(c) receive and note The Nambour Tramway Company Ltd.'s Business Case

(d) resolve pursuant to section 236(2) of the Local Government Regulation 2012 that an exception to dispose of an interest in land (agreement) in the property identified in Appendix A – Site plan part thereof Lot 2 RP224422, other than by tender or auction be applied, as the disposal is to community organisations as per section 236(1)(b)(ii) and resolve to enter into an appropriate Community agreement with The Nambour Tramway Company Ltd

(e) adopt The Nambour Tramway Company Ltd as a specialised supplier pursuant to section s.235(b) of the Local Government Regulation 2012 as the development manager for the construction of the Western terminus as detailed in the Greenway Architect plans M13.003 (WD.01-WD.11), track and signal infrastructure within and leading up to the 28 Mill Street Nambour site, and request the Chief Executive Officer prepare an appropriate funding agreement to encompass the administration, supervision and acquittal of Council's, Nambour Alliance and the Federal Department of Infrastructure and Regional Development funding for the proposed capital works

(f) note that The Nambour Tramway Company has raised in excess of $650,000 funding towards the project via 'Tramfest' events, donations Department of Infrastructure and Regional Development, National Stronger Regions Fund grant of $500,000

(g) in recognition of the efforts stated in recommendation (f):

(i) commit to allocate a further $500,000 towards the project in the 2017/18 financial year in accordance with Council resolution (OM15/52[f]) and to complete Council's original commitment to the project totalling $1.5 million

(ii) commit to progress the procurement of the tram from project funds, to provide ownership and the full maintenance and operational costs and responsibilities to The Nambour Tramway Company Ltd by utilizing section 236(1)(b)(ii) of the Local Government Regulation 2012. Council will develop detailed specification and tender documentation in consultation with The Nambour Tramway Company

(iii) request the Chief Executive Officer to proceed with the preparation of the detailed designs and refined cost estimates for the project, prior to the commencement of the construction works

(iv) delegate authority to the Chief Executive Officer to authorise any applications to be submitted for any approvals required to enable the tram, ancillary buildings and operations to be considered by the relevant authorities and

(h) in the event of a budget shortfall, a report will be prepared by Council updating the current financial position of the project and seeking Council's future commitment within the 2018/19 financial year Capital Budget deliberations and

(i) subject to agreement of the funding agent, grants from The National Stronger Regions Fund and Queensland Tourism Demand Driver Infrastructure Grant Fund, that have been provided to any parties or grants under consideration, if successful, be transferred to Sunshine Coast Council.

Ordinary Meeting 25 February 2016 (OM16/33)

That Council:

(a) receive and note the report titled "Nambour Heritage Tramway Project Update"

(b) request the Chief Executive Officer to provide a project update to Council on the execution of the heads of agreement, project costing, business case, fund raising and grant funding status and

(c) note the works will continue to progress on the design development and associated approvals.

Ordinary Meeting 15 October 2015 (OM15/174)

That Council:

(a) receive and note the report titled "Nambour Activation Plan"

(b) adopt the Nambour Activation Plan (Appendix A) and

(c) refer a funding request to undertake a feasibility study for the establishment of a water splash park in association with the Nambour Aquatic Centre to the 2016/17 budget considerations.

Ordinary Meeting 23 April 2015 (OM15/52)

That Council:

(a) receive and note the report titled "Nambour Heritage Tramway Feasibility Assessment Report"

(b) note the Feasibility Analysis of the Nambour Heritage Tramway report

(c) note that an amount of at least $2.1 million in funding may be needed to deliver the project

(d) support the Nambour Heritage Tramway project via joint funding and partnership arrangement with the Nambour Heritage Tramway Group (the Group), whereby the Group is responsible for the purchase of the tram, is the act as the Infrastructure Manager and Rail Transport Operator of the Tramway; with the Council responsible for land acquisition, buildings, tram tracks and signalling upgrading

(e) note that considerable work has been completed and that additional work is required between Council and the Group to complete overall project governance and funding, key project hold points for future decision by Council and joint partnership arrangements, before a final project funding arrangement, project start date, can be confirmed by Council

(f) request the Chief Executive Officer to include an allocation of $500,000 in the 2015/16 draft Budget for future consideration by Council and further, that an additional amount of $500,000 be included in each for the 2016/17 and 2017/18 draft Budgets for consideration by Council at the time. Further that these funds represent the maximum funding allocation by Council for this project and further that such funding is to be available for land acquisition, building and other associated capital works approved from time to time by the Chief Executive Officer

(g) pending funding as per (f) above, being included in the 2015/16 budget request the Chief Executive Officer to draft a Heads of Agreement document in consultation with the Group, to formally recognise the parties' roles and responsibilities including the governance, funding and key project hold points described above; confirmation of the $600,000 project funds to come from the Group via a combination of fund raising and grants from other governments fully realisable by 30 June 2017 or such other earlier date; agreed assets and operations insurance coverage; recognition that Council supports the Group in any application for funding to other governments, provides support to the Group to obtain necessary accreditation and an Infrastructure Manager and Rail Transport Operator and continues to provide support and advice and

(h) pending funding as per (f) above, being included in the 2015/16 budget request the Chief Executive Officer to provide a project report to Council by 31 December 2015 on the status of key project hold points, project milestones, potential funding arrangements and the status of the Heads of Agreement document with the Group.

Ordinary Meeting 27 February 2014 (OM14/18)

That Council:

(a) receive and note the report titled "Nambour Heritage Tramway Issues Paper Report"

(b) receive the Nambour Heritage Tramway Issues Paper (Appendix A)

(c) give in principle support for the re-activation of the existing heritage listed tramway line, located in Howard, Currie and Mill Streets Nambour, to accommodate the future running of an electric tram and all associated historic rail vehicles

(d) request the Chief Executive Officer to have further due diligence assessment carried out considering:

(i) detailed costings, including asset condition reports of existing infrastructure and rolling stock

(ii) funding sources

(iii) cost-benefit / financial viability analysis

(iv) Council's legal and financial liability

(v) extent of community capacity and capability to support the project in terms of volunteers, sponsorship and funding from all sources and potential legacy implications for Council

(e) reallocate up to $50,000 from the 2013/2014 Division 10 Councillor Emergent Capital Works and Minor Operational Works Policy funding allocations for the due diligence assessment of the project and

(f) allocate further funds from the Division 10 Councillor funds in the 2014/2015 financial year should they be required to complete the due diligence assessment.

Ordinary Meeting 13 December 2012 (OM12/197)

Notice of Motion – Nambour Tramway Development

That Council request the Chief Executive Officer, in consultation with the Divisional Councillor, to bring to Council a report including an issues paper for the development of the Nambour Tramway utilising the existing heritage listed sugar cane locomotive line with such reports to cover the following:

- *outline of the proposal*
- *proposed ownership and operations of rolling stock*
- *route alignment*
- *property tenure issues*
- *essential infrastructure required*
- *planning and approval issues*
- *key stakeholders and any agreements required*
- *community aspirations and limitations*
- *cost estimates for:*
  - *construction (Capital Costs)*
  - *operating costs*
  - *revenue potential and*
- *other items as relevant.*

Related Documentation

Attachment 1: General Arrangement Tramway

Attachment 2: Terminus Building Drawings

Confidential Attachment 3: Cost estimate by work packages [confidential as includes information currently within tender probity].

Critical Dates

The executed funding agreement between Council and the Australian Government for the terminus building includes a schedule for works to be 30% complete by 29 March 2019 and fully acquitted (i.e. constructed and operating) by 31 January 2020. For these requirements to be met construction of the terminus building needs to commence immediately following Council budgetary decision.

Other critical dates relate to Council funding and budget development / budget revisions within allocated financial years (2018/19 and 2019/20).

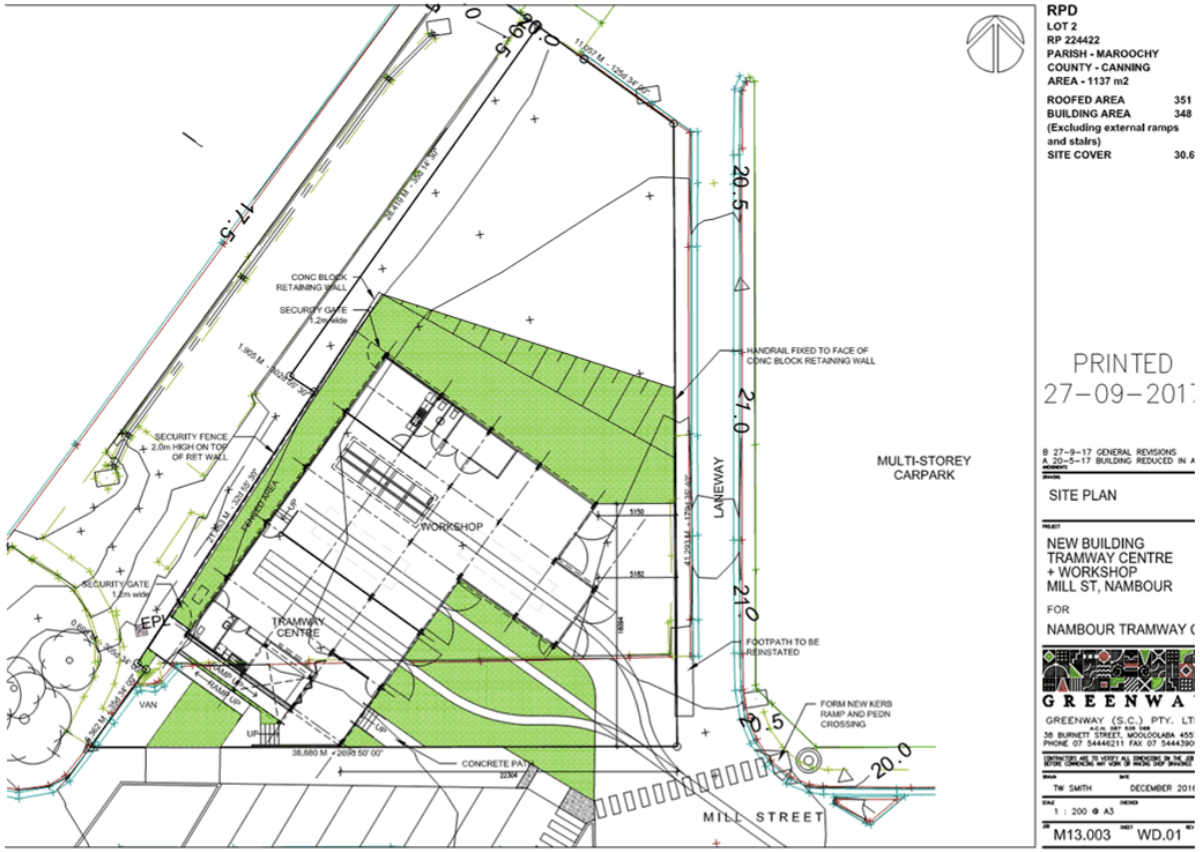
Implementation

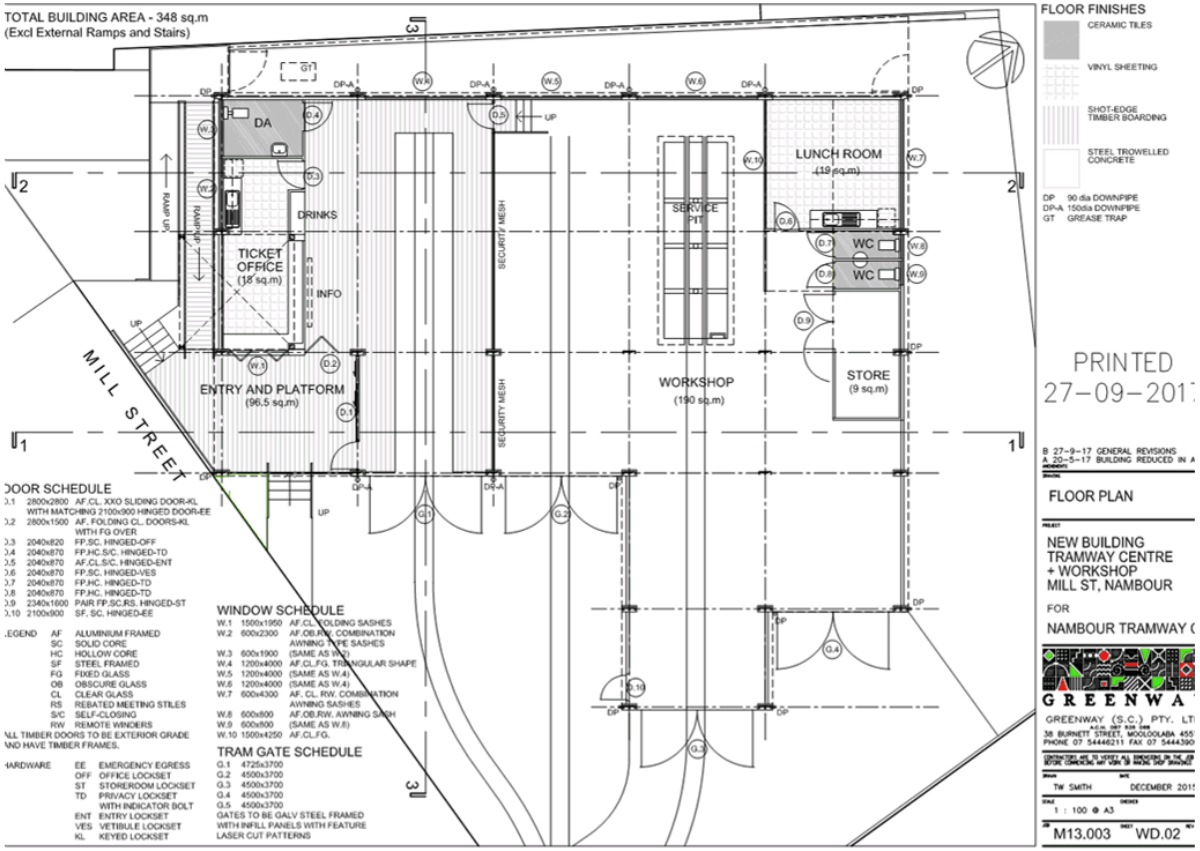
Should the recommendation be accepted by Council, it is noted that the Chief Executive Officer will:

(a) utilise the termination clauses and processes within the executed documents and

(b) create a restricted fund for the unspent Nambour Heritage Tramway Council allocated budget to be used for reprioritised Nambour Activation Plan tasks.


28 Mill Street
Terminus Building
Platform 1
Platform 2


RPD
LOT 2
RP 224422
PARISH - MAROOCHY
COUNTY - CANNING
AREA - 1137 m2
ROOFED AREA 351
BUILDING AREA 348
(Excluding external ramps and stairs)
SITE COVER 30.6
PRINTED 27-09-201
B 27-9-17 GENERAL REVISIONS
A 20-5-17 BUILDING REDUCED IN
SITE PLAN
NEW BUILDING
TRAMWAY CENTRE
+ WORKSHOP
MILL ST, NAMBOUR
FOR
NAMBOUR TRAMWAY
GREENWA
GREENWAY (S.C.) PTY. LT
TW SMITH
DECEMBER 201
1 : 200 @ A3
M13.003
WD.01
MULTI-STOREY CARPARK
LANEWAY
WORKSHOP
TRAMWAY CENTRE
CONC BLOCK RETAINING WALL
SECURITY GATE 1.2m wide
HANDRAIL FIXED TO FACE OF CONC BLOCK RETAINING WALL
SECURITY FENCE 2.0m HIGH ON TOP OF RET WALL
SECURITY GATE 1.2m wide
FOOTPATH TO BE REINSTATED
FORM NEW KERB RAMP AND PEDN CROSSING
CONCRETE PAV
MILL STREET
VAN
17.5
20.5
21.0
21.0
20.5
20.0


TOTAL BUILDING AREA - 348 sq.m
(Excl External Ramps and Stairs)
DA
DRINKS
TICKET OFFICE
(18 sq.m)
INFO
ENTRY AND PLATFORM
(96.5 sq.m)
MILL STREET
SECURITY MESH
SERVICE PIT
LUNCH ROOM
(19 sq.m)
WC
WC
WORKSHOP
(190 sq.m)
STORE
(9 sq.m)
RAMP UP
RAMP UP
UP
GT
DP
DP-A
FLOOR FINISHES
CERAMIC TILES
VINYL SHEETING
SHOT-EDGE TIMBER BOARDING
STEEL TROWELLED CONCRETE
DP 90 dia DOWNPIPE
DP-A 150dia DOWNPIPE
GT GREASE TRAP
PRINTED
27–09–201
B 27–9–17 GENERAL REVISIONS
A 20–5–17 BUILDING REDUCED IN
FLOOR PLAN
NEW BUILDING
TRAMWAY CENTRE
+ WORKSHOP
MILL ST, NAMBOUR
FOR
NAMBOUR TRAMWAY
GREENWA
GREENWAY (S.C.) PTY. LT
36 BURNETT STREET, MOOLOOLABA 455
PHONE 07 54446211 FAX 07 5444390
TW SMITH
DECEMBER 201
1 : 100 @ A3
M13.003
WD.02
DOOR SCHEDULE
2800x2800 AF.CL. XXO SLIDING DOOR-KL
WITH MATCHING 2100x900 HINGED DOOR-EE
2800x1500 AF. FOLDING CL. DOORS-KL
WITH FG OVER
2040x820 FP.SC. HINGED-OFF
2040x870 FP.HC.S/C. HINGED-TD
2040x870 AF.CL.S/C. HINGED-ENT
2040x870 FP.SC. HINGED-VES
2040x870 FP.HC. HINGED-TD
2040x870 FP.HC. HINGED-TD
2340x1600 PAIR FP.SC.RS. HINGED-ST
2100x900 SF. SC. HINGED-EE
LEGEND
AF ALUMINIUM FRAMED
SC SOLID CORE
HC HOLLOW CORE
SF STEEL FRAMED
FG FIXED GLASS
OB OBSCURE GLASS
CL CLEAR GLASS
RS REBATED MEETING STILES
S/C SELF-CLOSING
RW REMOTE WINDERS
ALL TIMBER DOORS TO BE EXTERIOR GRADE
AND HAVE TIMBER FRAMES.
HARDWARE
EE EMERGENCY EGRESS
OFF OFFICE LOCKSET
ST STOREROOM LOCKSET
TD PRIVACY LOCKSET
WITH INDICATOR BOLT
ENT ENTRY LOCKSET
VES VETIBULE LOCKSET
KL KEYED LOCKSET
WINDOW SCHEDULE
W.1 1500x1950 AF.CL.W. FOLDING SASHES
W.2 600x2300 AF.OB.RW. COMBINATION
AWNING TYPE SASHES
W.3 600x1900 (SAME AS W.2)
W.4 1200x4000 AF.CL.FG. TRIANGULAR SHAPE
W.5 1200x4000 (SAME AS W.4)
W.6 1200x4000 (SAME AS W.4)
W.7 600x4300 AF. CL. RW. COMBINATION
AWNING SASHES
W.8 600x800 AF.OB.RW. AWNING SASH
W.9 600x800 (SAME AS W.8)
W.10 1500x4250 AF.CL.FG.
TRAM GATE SCHEDULE
G.1 4725x3700
G.2 4500x3700
G.3 4500x3700
G.4 4500x3700
G.5 4500x3700
GATES TO BE GALV STEEL FRAMED
WITH INFILL PANELS WITH FEATURE
LASER CUT PATTERNS

Sunshine Coast COUNCIL

Attachment Folder

Item 8.4.1

Ordinary Meeting

Thursday, 31 January 2019

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ranbury
THE TURNING POINT

Feasibility Analysis of the Nambour Heritage Tramway (R0300001)

Sunshine Coast Regional Council

October 2014

This Report has been prepared for:

Sunshine Coast Regional Council
October 2014

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Executive Summary

In February 2014, Council passed a resolution to provide in-principle support to establish the Nambour Heritage Tramway, pending further advice regarding the financial and legacy implications of the operations. Following from this action, the Sunshine Coast Regional Council appointed C Change Sustainable Solutions Pty Ltd, together with Ranbury Pty Ltd, to further investigate the likely costs, revenues, benefits and risks associated with the establishment of the Tramway. The study was completed over a 6-week period and:

- Determined the financial feasibility associated with the introduction of the Tramway;
- Completed a cost benefit analysis of the operation;
- Analysed the economic and social impacts associated with the Tramway operation; and,
- Completed a risk assessment associated with the advancement of the concept, including any legacy implications for Council.

The Nambour Heritage Tramway

The concept assessed assumed the following:

- The Nambour Heritage Tramway would generally utilise the existing heritage listed sugar cane line along Howard Street and Mill Street.
- The Tramway would carry passengers between two points, with one intermediate stop. One destination would be adjacent to Coles Supermarket on the corner of 9 Mill Street (western end of the line). The other destination would be the old Moreton Mill marshalling yard, adjacent to the Aldi Supermarket (eastern end of the line). The intermediate stop would be at a safe distance from the Howard Street / Sydney Street intersection.
- The extent of the line is approximately 900 metres.
- To ensure safe and effective functioning, the following works would be required:
  - Extension of the existing track to access the new depot site in the old marshalling yards site and the proposed western terminus adjacent to the Coles shopping centre.
  - New terminus stations at each end, including short low level platforms and weather awnings, and an information kiosk at the western terminus.
  - A new storage and maintenance depot located in the old marshalling yards site.
  - Property acquisition would be required at both ends of the track for the terminus stations and the depot.
  - The base concept provides for minimal trackwork for a single tram operation only. A further option includes additional trackwork (run-around sidings) at each end to permit a locomotive hauled train to also

operate. This included the provision of additional storage tracks within the secure depot area and larger depot building to cater for extra locomotives and carriages. The potential extension works have been costed but have not been modelled in the financial feasibility assessments or the cost benefit analyses.

- The depot would provide amenities for employees / volunteers and would be able to accommodate the tram and up to two additional locomotives.

- A ticket office/tourist information kiosk is proposed at the western terminus. Tickets would also be able to be purchased on board from the driver.
- The Tram would be electric powered, with battery recharging from a solar power system located in the depot.
- The theme would be 'historic' and ensure that practicality, safety and access requirements were strictly adhered to.
- Operations of the Tramway would be based on a half hourly round trip. It is assumed that the Tramway would operate at least 5 days a week on weekdays, with the option to operate on a Saturday morning too.

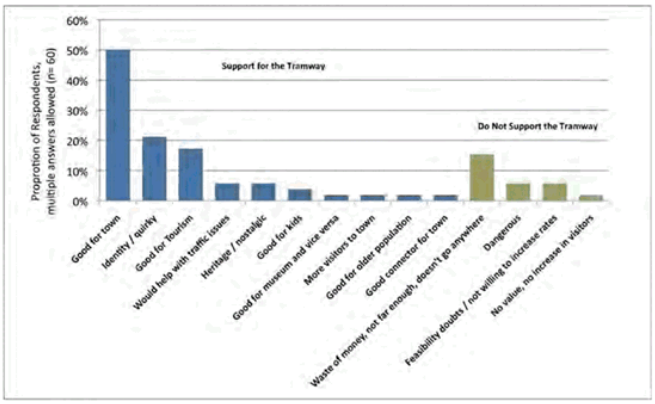
Policy Environment and Community Support

The study completed a review of the policy environment as it relates to Nambour and assessed the likely level of community support for the Tramway.

Nambour currently enjoys the role of a Major Activity Centre that services the Sunshine Coast Regional Council's hinterland areas. Although the dominance of the centre has declined somewhat since early 2000, the Planning Scheme and SEQ Regional Plan note that growth is expected in the area over time. While there is no explicit support within the policy environment for the establishment of the Tramway, the role of the Centre does not preclude such a venture from progressing.

The study also assessed the community's views on the future of Nambour and the venture. There was a high level of enthusiasm from a large proportion of the Nambour Community regarding the establishment of the Tramway. From the community survey that was conducted 77 per cent of respondents indicated that they felt the establishment of the Tramway would be beneficial for Nambour as it would reinforce a unique identity for Nambour and attract additional visitation and expenditure (refer Figure 1). Approximately 30 per cent of respondents indicated they would provide some level of volunteer support (for those who indicated they would volunteer, the average amount of time was 13 hours per month).

Figure 1: Nambour Community's Response to the Tramway Proposal
Source: C Change Sustainable Solutions Pty Ltd, Community Survey, September 2014



Those that did not support the establishment of the Tramway (12 per cent) indicated that the route 'didn't go anywhere' or that the route 'didn't go far enough'. These people felt that the money associated with establishing the concept could be better spent elsewhere, and another did not want to have to pay for the venture through increased rates. Other respondents also reflected on the old cane train and thought that the Tram would be dangerous.

Nambour Alliance, which includes representatives from Nambour's businesses and community, indicated that the establishment of the Tramway was an essential element for their 'vision' for Nambour, and they indicated that the current route was the first stage in what could be a longer and more destination defined route.

Scenarios Tested

The Nambour Heritage Tramway Group indicated that they expected the establishment of the Tramway to include considerable inkind support from a range of people. In addition to the service being run primarily by volunteer staff, community members with skills in (but not limited to) building, maintenance, promotion were also likely to provide inkind support to the venture. To ensure that Council has a complete picture of the overall costs associated with such a venture, as well as taking into account the potential for volunteer and inkind support, the financial feasibility and the cost benefit analysis tested a number of scenarios. These included:

- ***Scenario 1:*** Base Case Scenario, which included a 5 day service and commercial costs;
- ***Scenario 2:*** Extended Operation Scenario, which included a 6 day service with commercial costs.
- ***Scenario 3:*** Base Case Scenario as per Scenario 1, with allowance for inkind works and volunteer time;
- ***Scenario 4:*** Extended Scenario as per Scenario 2, with allowance for inkind works and volunteer time.

Financial Feasibility Outcomes & the Potential Investment Required from Council

Financial feasibility assessments were completed utilising discounted cash flow techniques that modelled costs and revenues over a 30 year period. Capital and operating costs assumed in the assessments are contained in Appendix 5. Expected revenues for the operation were determined through the application of assumptions derived through the analysis of the community survey. Revenue streams expected included ticketing from the Tram ($2 for full fare, $1 for concession, children under 5 free), plus revenue from merchandising and school excursions.

As can be seen in the figure below (refer Figure 2) none of the scenarios tested returned a financially feasible result, and the investment required from Council to make the operation feasible would be considerable:

- If full cost recovery was assumed, then Council would be required to input between $4.2 million (where substantial inkind services were provided) to $9.6 million (where no inkind services provided) over the 30 year period.
- If capital costs were assumed to be sunk, the annual subsidy that would be required by Council would be between $97,000 (where substantial inkind services were provided) to $494,000 per annual (where no inkind services were assumed).

Based on the financial feasibility assessments, even where volunteer services were allowed for, should full cost recovery be achieved, revenue would need to increase by 260 to 270 per cent in order for the operation to break even.

Sensitivity testing was performed using discount rates of 10 per cent and 12 per cent, plus scenarios where revenues were increased by 10 per cent. Given the magnitude of the costs versus revenues, the overall outcome of the assessment remained financially unfeasible. Full details of the financial feasibility assessments can be found in Section 5, and Appendix 6.

Figure 2: Expected Costs, Revenues and Net Present Value for the Tramway
Source: C Change Sustainable Solutions with costings from Ranbury, September 2014

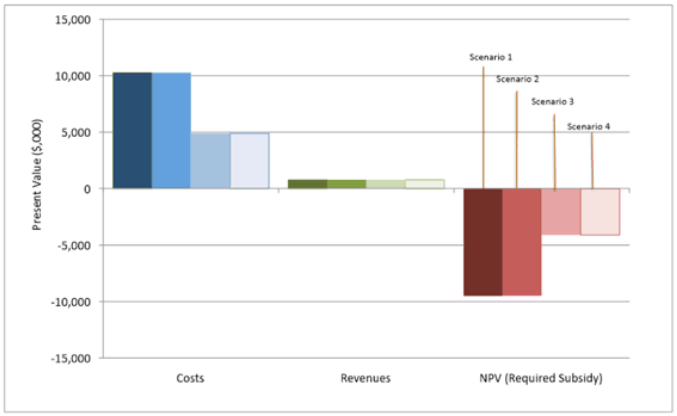
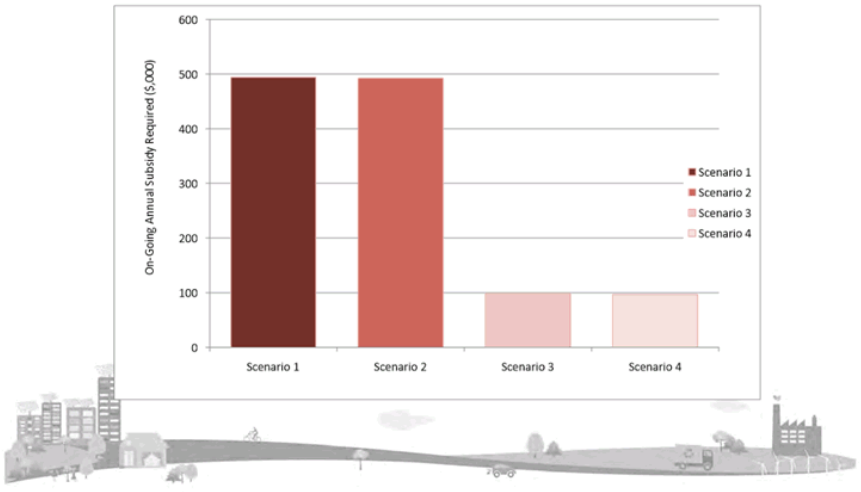


Figure 3: Operational Ongoing Subsidy Required for the Nambour Heritage Tramway
Source: C Change Sustainable Solutions with costings from Ranbury, September 2014



Cost Benefit Analysis

In addition to the financial feasibility assessments, a cost benefit analysis (CBA) was conducted to test the overall community 'value' proposition of the venture. The same scenarios as those used for the financial feasibility were assessed.

A CBA compares the outcomes of implementing a project (in this case the Nambour Heritage Tramway) with the outcomes that are likely to occur should the project not go ahead (termed a 'do minimal' or 'do nothing' option). By comparing the 'do nothing' with the 'project' option, marginal (or additional) costs and benefits result and the overall outcome (if a positive result occurs) shows 'how much' society is likely to benefit from the implementation of a program.

The technique quantifies as many costs and benefits as possible in each of the options in monetary terms. By doing so, the 'value for money' can be clearly shown. It is important to note that costs and benefits are valued in terms of the impacts they make to the community at large, rather than the costs or benefits to any particular entity, and costs or benefits that are simply transferred from one part of society to another are not included (these are termed 'transfer' costs/benefits).

The costs used in the CBA were the same as those for used in the financial feasibility assessment. Benefits noted in the CBA included the 3 revenue streams expected to be directly related to the Tramway service (as used in the financial feasibility assessments - ticketing, merchandising and school excursions), ***plus*** a number of other broader benefits that are likely to accrue to the wider Nambour community. These included:

- Induced spending in Nambour from visitors and workers;
- Increased tourism & visitor expenditure in Nambour;
- Benefits from additional tourism to Sunshine Coast; and
- Expenditure from new events.

Assumptions used to determine the overall benefits are discussed in Section 7.

Analysing the costs and expected benefits over a 30 year period, it was found that a Benefit Cost Ratio above 1 is likely to be achieved if the volunteer and inkind services were provided as assumed, and if tram patronage and visitor assumptions held true (BCR = 1.3).

However, even under volunteer and inkind scenarios, the BCR is quite sensitive to cost increases and benefit decreases. Where costs are increased by 10 per cent and benefits decreased by 25 per cent, a BCR of 0.9 is returned (which indicates that the costs are marginally exceeding the benefits).

The graphs overleaf shows the expected costs, benefits and net present values (Figure 4) and the highest and lowest BCRs (Figure 5) for each of the scenarios assessed.

Figure 4: Expected Costs, Overall Nambour Community Benefits and Net Present Values (Cost Benefit Analyses) associated with the Nambour Heritage Tramway
Source: C Change Sustainable Solutions with costings from Ranbury, September 2014

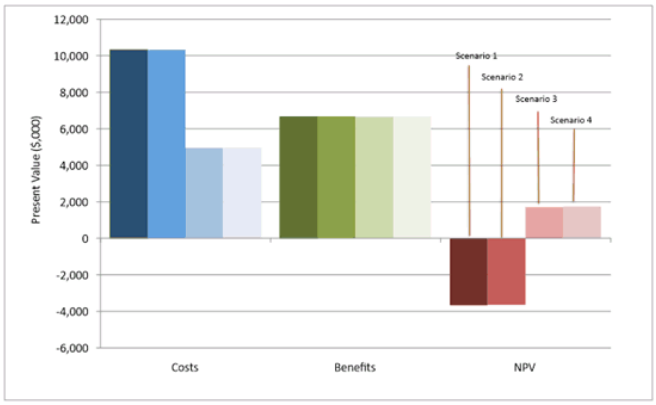
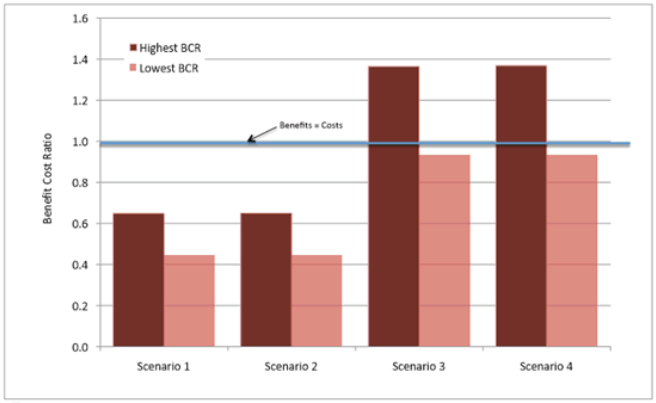


Figure 5: Benefit Cost Ratios associated with the Nambour Heritage Tramway (for Base Scenarios and Sensitivity Testing)
Source: C Change Sustainable Solutions with costings from Ranbury, September 2014



Social and Economic Benefits Summarised

A social and economic impact assessment was also conducted for the study. A list of potential benefits from the venture include:

- The potential to assist in strengthening the identity and uniqueness of Nambour. This could lead to improved community pride, visitation and expenditure in Nambour.
- The potential to create a point of difference for functions and events in Nambour, which is in line with the Nambour Alliance vision. This would assist in providing activities / events for children, young adults, aging people and the general public. Opportunities could include having bands play on the tram at the terminus of a Saturday night; having dinners along the track or at the stations; having a coffee tram; having artists on board or at the stations.
- Better access to goods and services, particularly for older people, which is a large component of the Nambour demographic.
- Increased expenditure in the Nambour centre and the broader Sunshine Coast Region as shown in the CBA.
- Opportunities for workers and visitors to park in the Coles and Aldi car parks and use the tram to access other parts of Nambour (assuming Coles and Aldi are willing to share parking). Thus making parking in Nambour more convenient.
- Many people surveyed believed that the Tramway would be a catalyst for further redevelopment opportunities & other activities and businesses. Beautification works and a stronger economic foundation for Nambour based on increased visitors and expenditure would also lead to increased employment opportunities and the potential to develop other businesses.
- More recreational opportunities and activities can lead to better health outcomes and the opportunity for the rail/tram enthusiasts to share their knowledge and skills.
- There is the potential for jobs in other areas if activity and expenditure in Nambour increases (retail, services etc) and potential for further increases if all staff positions were paid. The economic impact assessment suggests that the construction phase alone is likely to generate jobs for around 27 people on the Sunshine Coast and an additional 8 people outside the Coast. Operation of the service is likely to create an additional 7 jobs on the Sunshine Coast and an additional 5 jobs external to the Coast.
- More tourists to Nambour and Sunshine Coast generally. More visitors, increased expenditure - on Tramway and related products as well as other shops.

Potential Negative Impacts and Risks

There are also potential risks and negative impacts associated with the operation if it was to proceed. These include:

- People thinking that the Tram's route is too short or not interesting enough to use, and therefore the assumed patronage and visitation to the centre used in these assessments may not be experienced. Based on case studies reviewed as part of the study (refer Section 3), a key success criteria was to

have interesting destinations and intermediate stops. The opportunity exists to redevelop the destinations in the future, but this has not been included in the assessments here.

- There is no firm commitment from Coles or Aldi on whether they would permit shared access to their carparks for Tram patrons. Discussions with Coles and Aldi would be required to ensure that this could be facilitated. Should Coles and Aldi not allow the car parks to be used, potential ridership of the Tramway is likely to decrease.
- There is a need to ensure that the image the Tramway provides for Nambour is one that is conducive to the ongoing development of Nambour. Some stakeholders noted that the 'tram that goes nowhere' is not something they want Nambour to be known for.
- If the Tramway is not sufficient to attract and sustain more visitors as assumed in the assessments here, then expenditure is unlikely to increase and the Tram is unlikely to be a catalyst for redevelopment or increased expenditure in the Centre.
- There is the potential for safety related tram incidents arising from its on-road operation. The Rail Infrastructure Manager and the Rolling Stock Manager will need to ensure that all staff members are adequately trained, and that there is community education associated with the Tram. This may be problematic with a small workforce and/or longer term reliance on volunteer support.
- The Depot and information centre would need to be adequately secure to ensure they don't attract graffiti or unwanted behaviour. Costs associated with security have been included in the assessments.
- Depending on the popularity of the tramway, and the available time of people, volunteering required to operate the tramway system may not be present over the longer term. If that is the case, longevity of the operation is questionable.
- Increased revenue and the benefits expected from the economic impact assessment may not result if visitation does not increase, or people do not use the tram as expected
- Indirect operational impacts are likely to be minimal if direct operational positions are voluntary as there are minimal wages or salaries associated with the Tramway.

Conclusions and Potential Legacy Implications for Council

A wide range of assessments were performed to assist in determining the overall costs and benefits associated with the establishment of the Tramway.

The assessments here have shown that there is a wide level of support from the Nambour Community and that early indications are that people would use the 900 metre Tram route being suggested.

The financial feasibility assessments conducted have shown that from a variety of viewpoints, including those allowing for substantial volunteering and inkind services, Council is likely to need to provide at least an ongoing subsidy of around $97,000 per annum. This assumes all capital costs have been covered and that substantial inkind

services are provided. Should the level of assumed patronage and revenues from merchandising and school excursions be less than what has been assumed in the analysis, should capital costs not be able to be covered by grants or other means, or should the inkind services not result, Council's required investment could be substantially more – assessed as up to $9.4 million over a 30 year period in this analysis (under a full cost recovery scenario).

Under the assumptions of volunteer and inkind services, a Benefit Cost Ratio of 1.3 is likely, indicating that there are more broad society benefits than costs with the venture. However, achieving this outcome depends on the operation reaching the patronage and level of visitation assumed in the assessments. Should costs increase by 10 per cent and benefits fall by 25 per cent, the BCR would be 0.9 (indicating that the costs would marginally outweigh the broader community benefits likely to accrue to Nambour).

A number of intangible social benefits are likely to result with the venture, including improved community pride, strengthened identity and the potential to be the impetus for further redevelopment within Nambour. The Tramway is seen as important part of reinforcing Nambour's unique identity.

There are a number of risks for Council associated with the operation, including the risk of tram incidents if safety procedures are not followed, and the risk that volunteer and inkind services may decline over time if the venture is not as popular as first expected.

The Nambour Heritage Tramway – Issues Paper developed by Council (refer Appendix 1) provided an operational risk assessment. This indicated that accreditation of the Rail Infrastructure Manager and the Rolling Stock Operator is essential, but that even when accreditation has occurred, the potential risks involved in the operation are not completely eliminated. The Issues Paper states that *'at all times, the responsibility for ensuring the safety of the railway operations remains with the Railway Organisation'* (in this case Council). Should a tram incident occur, it is likely that there will be ramifications for both Council as the Rail Infrastructure Manager and the community operators as Rolling Stock Operators. As Rail Infrastructure Manager, Council will need to be satisfied that appropriate measures are in place such that:

- Track and infrastructure are safe and fit for purpose, and are appropriately maintained;
- Rolling stock is safe and is appropriately maintained;
- All operational risks are identified and appropriately managed / mitigated
- There is a risk register in place and this is utilised appropriately; and,
- Management, training and staff policies and procedures are appropriate. This will be particularly important if a large volunteer base is utilised.

Another legacy implication to Council is associated with the risk of the volunteer base declining and the Rolling Stock Operator not being able to keep operations running. In this situation there is the potential that Council will have to 'take over' operations. If this was the case there may be an expectation in the community for Council to continue the operation of at least the Information Centre, if not the Tramway itself. To determine whether it was strategically beneficial for Council to continue the operations, the overall ongoing subsidy required to operate the Tram

and/or the regional benefits of the Tram would need to be weighed against the opportunity cost of Council spending the required subsidy elsewhere in the Region.

The alternative would be for Council to cease the Tramway operations altogether. If that was the case and there were outstanding debts Council would most likely become responsible for these. If, on the other hand, the community group operating the Tramway were provided the opportunity to do so on the basis that they were able to meet all establishment costs upfront (perhaps by securing grants or donations), Council could cease the services and have minimal ongoing costs. In the case where all establishment costs were paid for and the Council ceased operations, Council's ongoing costs would be limited to housing the tram and ensuring that the information centre, depot / maintenance shed does not become a target for graffiti and/or other unwanted behaviour. This outcome is not likely to be an expensive proposition, but will require management of community expectations.

1 Introduction

In February 2014, Council developed an Issues Paper associated with key components of the establishment of the Nambour Heritage Tramway, as well as two discussion papers. These are attached at Appendix 1 and should be read in conjunction with this report.

In considering these reports, the Sunshine Coast Regional Council passed a resolution to provide in-principle support to the establishment of Nambour Heritage Tramway, pending further advice regarding the financial and legacy implications of the operations. Specifically, the resolution stated (OM14/1):

"That Council:
(a) receive and note the report titled "Nambour Heritage Tramway Issues Paper Report"
(b) receive the Nambour Heritage Tramway Issues Paper
(c) give in-principle support for the re-activation of the existing heritage listed tramway line, located in Howard, Currie and Mill Streets Nambour, to accommodate the future running of an electic tram and all associated historic rail vehicles;
(d) request the Chief Executive Officer to have further due diligence assessment carried out considering:
a. detailed costings, including asset condition reports of existing infrastructure and rolling stock;
b. funding sources;
c. cost-benefit / financial viability analysis;
d. Council's legal and financial liability;
e. Extent of community capacity and capability to support the project in terms of volunteers, sponsorship and funding from all sources and potential legacy implications for Council"

In August 2014, C Change Sustainable Solutions Pty Ltd (C Change) was commissioned by the Sunshine Coast Regional Council to complete the *Feasibility Assessment of the Nambour Heritage Tramway* in August 2014. C Change sub-contracted Ranbury Pty Ltd to provide the costs estimates for the study.

The study was completed over a 6-week period and the study:
- Determined the financial feasibility associated with the introduction of the Tramway;
- Completed a cost benefit analysis of the operation;

- Analysed the economic and social impacts associated with the Tramway operation; and,
- Completed a risk assessment associated with the advancement of the concept, including any legacy implications for Council.

This report outlines the findings associated with the Study.

1.1 The Nambour Heritage Tramway

As noted in the consultant brief issued for the study and through further discussions with Sunshine Coast Regional Council officers, the financial and legacy elements of the potential establishment of the Nambour Heritage Tramway would be assessed assuming that the Nambour Heritage Tramway would be established utilising the existing heritage listed sugar cane tramline and extending infrastructure to ensure that safe destinations could be developed at the end of the line.

In line with the Transport (Rail Safety) Act 2010, the analysis notes that a Rail Infrastructure Manager and Rolling Stock Operator needs to be assigned to the Tramway. Based on discussions with Council, it has been assumed that Council would retain the role of Rail Infrastructure Manager, and another operator (e.g. the Nambour Tramways Group) would be the Rolling Stock Operator. Accreditation of both these elements is required by the Act, and monetary allowances for this have been included in the analysis. As per advice from Council, the assessments assumed that both the Rail Manager and Rolling Stock Operator would be covered by the Council's public liability insurance (refer Appendix 2 for Council advice on Insurances).

Further assumptions associated with the Tramway are provided in Section 4.

1.2 Method

The method utilised for the study produced a robust analysis to assist Council in determining the merits or otherwise of progressing further with the concept. The C Change team completed the study in 8 stages as shown below. In summary, this included:

- Stage 1: Project set up;
- Stage 2: Background analyses, including a review of the local context and development of case study examples of other heritage trams and trains;
- Stage 3: Stakeholder consultation with key players, including key Council officers, Divisional Councillor, the Nambour Tramway Group, Nambour Alliance, Coles and Aldi supermarkets. A community survey

was also completed and this included workers in Nambour as well as visitors to the Centre;

- Stage 4: Analysis of potential market demand based on information collated in the background analyses and the consultation phase;
- Stage 5: Assessment of works required and costs to establish and maintain the operation of the Tramway;
- Stage 6: Financial feasibility assessment;
- Stage 7: Cost benefit analysis and economic and social impact assessment
- Stage 8: Reporting

Figure 6: Method for the Assessing the Nambour Heritage Tramway
Source: C Change Sustainable Solutions Pty Ltd, Ranbury Pty Ltd, August 2014

1.3 Structure of the Report

The remainder of this report includes the following sections:

- Section 2 provides contextual information and outlines the policy context in which the Nambour Tramway would be placed as well as the demographic characteristics associated with the catchment of Nambour. Community attitudes towards the establishment of the Tramway are also discussed;
- Section 3 outlines case studies of other heritage tram and train projects and summarises key success criteria;

- Section 4: includes details associated with the Nambour Heritage Tramway, including required works to ensure the safe and effective operation of the service;
- Section 5 includes the financial feasibility of the establishment of the Tramway. This section discusses the demand likely to be associated with the tramway and the component costs. A discounted cash flow (DCF) model developed to assess the financial feasibility of the project is discussed with regard to a number of scenarios, and various sensitively testing;
- Section 6 discusses the economic and social assessments of the potential Tramway. Specifically, a cost benefit analysis (CBA) with sensitivity testing is discussed as well as likely economic and social impacts of the venture on the community of Nambour. Both the CBA and the economic and social impact draw on information from the stakeholder consultation conducted and the community survey results;
- Section 7 includes a risk assessment associated with moving forward; and,
- Section 8 concludes the report.

Appendices included are as follows:

- Appendix 1: Nambour Heritage Tramway Issues Paper and Background Papers developed by Sunshine Coast Regional Council
- Appendix 2: Advice on Insurances provided by Sunshine Coast Regional Council
- Appendix 3: Community Survey utilised in the study
- Appendix 4: Potential Tram Suppliers
- Appendix 5: Capital and Ongoing Costs
- Appendix 6: Output associated with Financial Feasibility Assessments
- Appendix 7: Output associated with Cost Benefit Analyses
- Appendix 8: Risk Assessment
- Appendix 9: Funding Options

2 Nambour in Context

The Sunshine Coast is arguably one of Australia's most liveable regions – it has amazing natural attributes, growing sectors across many industry areas and it offers a lifestyle that is the envy of many.

The coastal areas, which are synonymous with the Sunshine Coast, are complemented by the inland Rail Towns. Nambour, the Sunshine Coast's major inland Rail Town, was established as the administrative centre of the Sunshine Coast in 1890 and still hosts one of the main Local Government Office locations in the region. Many State and Australian Government services operate in Nambour, as well as anchor stores - such as Coles, Woolworths and Aldi - plus a number of diverse retail outlets, including the Coast's only vinyl record shops (Backbeat and The Time Machine).

Settled in the late 1800s, Nambour was originally named Petrie Creek. The name Nambour, or possibly Nambah was "*the name of a farm taken up by William Samwell in the early 1870s, and it is thought that the name was derived from an Aboriginal word describing tea-tree bark*"[1].

After settlement, the economy of Nambour was broad and the region grew bananas, corn, fruit, timber for harvesting, and, of course sugar. In 1897 the main sugar mill in the region was established in Nambour. Four years later cane tramways were built and in 1907 locomotives were installed to transport cane to the mill[2]. The railway through Nambour was opened in 1891.

By the 1920s Nambour had a chamber of commerce established, a pineapple cannery, an electricity reticulation scheme and several new sawmills. According to the history chronicles[3], the 1920s ended with the opening of the district hospital, which is still a considerable employment and health services hub on the Coast today.

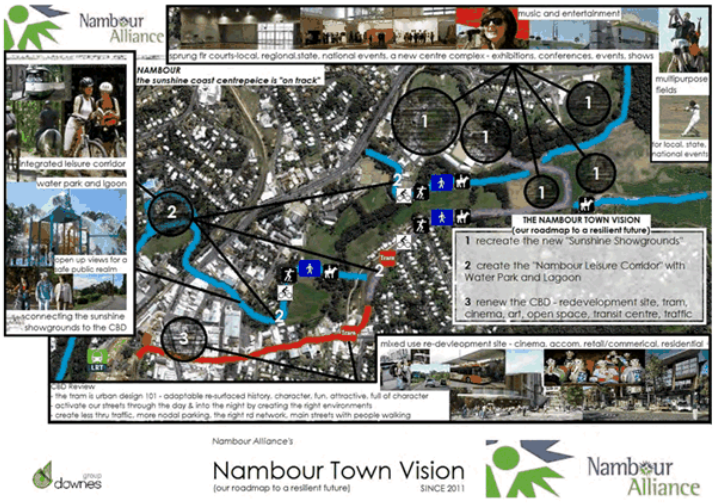
Nambour was one of the more prominent areas on the Sunshine Coast until the 1950s. In the 1950s economic activity in the Maroochy district began to move to beach towns but the economy of Nambour was still solid. By the late 1990s and early 2000s, however, much of the activity on the Sunshine Coast was firmly focused on the coastal areas and the prominence of

[1] http://www.queenslandplaces.com.au/nambour
[2] ibid
[3] ibid

Nambour declined. In 2003 the sugar mill closed, and along with it, the cane trains ceased operations.

Still an area that is considered fondly by many, particularly the town's residents, discussions with Nambour Alliance, which includes representatives from Nambour's businesses and community, indicate that the community would like to establish Nambour as the thriving 'centre-piece' of the Sunshine Coast. Although not adopted Council policy, Nambour Alliance has developed a vision for Nambour which would see the area: a) host significant regional local and national events; b) provide significant leisure opportunities, particularly for youth; and, c) have an active and diverse CBD that reflects the town's history and character as well capitalising on the embryonic and 'quirky' arts and cultural scene. This vision for Nambour is shown in Figure 7. The establishment of the Tramway is a key feature of the Plan. Based on the survey conducted by the Consultant team for this project, the Tramway is supported by a large proportion of the general community (refer Section 2.3).

Figure 7: Nambour Alliance's Vision for Nambour
Source: Nambour Alliance, provided to Consultants in September 2014



2.1 Policy Environment

The policy environment for Nambour is established by the South East Queensland Regional Plan, the Sunshine Coast Regional Planning Scheme and Sunshine Coast Regional Council adopted policies. These documents allocate roles and expectations for the various areas across the Sunshine Coast. The Strategic Intent for the Sunshine Coast, and the key centres within the Sunshine Coast as determined by the Planning Scheme, SEQ Regional Plan, and the Sunshine Coast's Social Infrastructure Plan are discussed below. It is noted that the Sunshine Coast Sustainable Transport Strategy is silent on the establishment of the Nambour Heritage Tramway.

Strategic Intent

As noted in the Sunshine Coast Regional Planning Scheme, the overall vision for the Coast by 2031 is that it is renowned for its *"vibrant economy, ecological values, unique character and strong sense of community. It is Australia's most sustainable community - vibrant, green and diverse."* Also important to the vision is a more compact and efficient form of development. It is noted that the majority of new growth is directed towards the established coastal areas of Maroochydore, Caloundra, Kawana and Sippy Downs as well as the emerging communities of Palmview, Kawana Waters and Caloundra South. New growth is also expected in Nambour as the dominant major regional activity centre serving the hinterland areas.

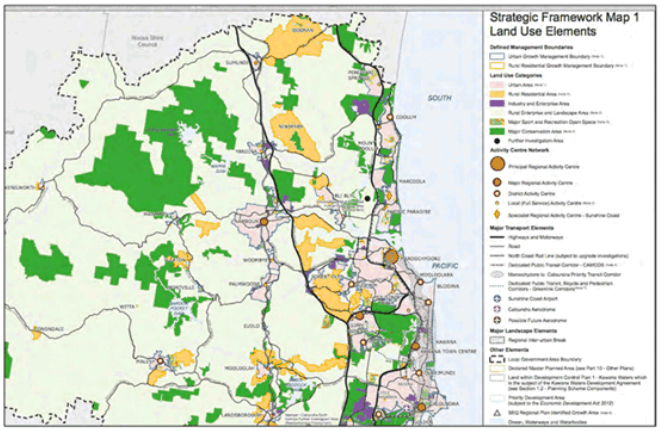
Key Centres and Settlement Patterns

A range of urban centres support the Sunshine Coast residents, visitors and workers (refer Figure 8 overleaf). At the highest level in the centres' hierarchy is the Regional hub of Maroochydore. Demarcated as a Principal Activity Centre in the SEQ Regional Plan and Principal Regional Activity Centre in the Sunshine Coast Planning Scheme, Maroochydore is expected to provide a wide range of functions, including higher order retail, commercial, employment, health, administrative, cultural, recreational and entertainment uses. The vision for the future of Maroochydore is a centre that hosts innovative, knowledge based businesses as well as education and health industries. A focus on a lifestyle region with a large emphasis on place making and urban amenities is expected for the structure planning area. Significant tracts of land have been dedicated to commercial and retail functions to support the vision.

Maroochydore is supported by other major regional activity centres at Caloundra, Kawana and Sippy Downs. Major Regional Activity Areas are also located throughout the Region, including in Nambour. Other major regional areas are located at Kawana, Caloundra, Noosa, Beerwah and Sippy Downs. Caloundra South is proposed to be a Major Regional Activity Centre into the future. These centres have various roles, including being major destinations for retail, commercial and in many cases tourism and business incubation. In the cases of Kawana and Sippy Downs, education and training are also key industry sectors given the Regional Hospital at Kawana and the Sunshine Coast University at Sippy Downs.

Figure 8: Strategic Framework and Land Use Elements (Nambour as a Major Regional Activity Centre

Source: Sunshine Coast Planning Scheme, 2014



The town centre of Nambour is expected to support higher-level retail, employment and service needs of Nambour and surrounding hinterland areas. As noted previously, both the Planning Scheme and the SEQ Regional Plan expect that Nambour will accommodate further housing development over time.

The Sunshine Coast Social Infrastructure Plan also supports the concept of developing and strengthening Nambour as a community hub servicing the hinterland community. It was recommended in that Plan that a precinct plan be prepared such that the community/cultural identify and function of

the area be strengthened. Recommendations in the Social Infrastructure Plan include many of Nambour Alliance's vision elements, including the upgrading of the aquatic facility, further planning for rehearsal/arts/culture/meeting space/s, and planning for local library facilities. The community identity, character and social inclusion elements in the Planning Scheme provide overall support to creating activity centres on the Sunshine Coast that create a unique identity.

2.2 Demographic profile

For the purposes of the Study, the 'catchment' of Nambour was defined in line with the Social Infrastructure Plan – Nambour – Burnside and District, although it is noted that Nambour services the broader hinterland area for higher order services. Using Council's ID profiling tool for 2011 and 2006, defining characteristics of the Nambour population included the following:

- In 2011, Nambour's catchment was home to approximately 16,300 people. This was an increase of approximately 1460 people from 2006.
- Nambour had approximately the same proportion of families with children under the age of 18 when compared to Greater Brisbane, but lower proportions of people aged 18 to 49, and considerably more people aged 60+ (refer Figure 9 overleaf). The age distribution of Nambour was reflected in the area's median age – 41 years old compared to 35 for Greater Brisbane.
- Predominantly from an Anglo-Saxon background (82 per cent for Nambour District versus 71 per cent for Greater Brisbane), Nambour had a lower proportion of people working fulltime and a higher proportion of unemployed people when compared to Greater Brisbane.
- The most dominant employment industry in the Nambour District was health care and social assistance (21 per cent). This is not surprising given the Hospital and related health care services in Nambour. Other dominant industries included retail (11 per cent) construction (10 per cent), and accommodation / food services (7 per cent).
- Nambour had a marginally higher proportion of people nominating themselves as volunteer workers when compared with Greater Brisbane (approximately 21 per cent versus 19 per cent for Greater Brisbane).

Figure 9: Age Structure, Nambour-Burnside District and Greater Brisbane (2011)

Source: Sunshine Coast Regional Council, ID Consulting, Based on Census 2011 Information

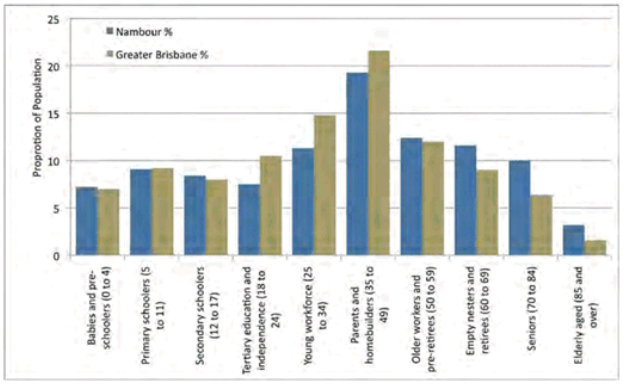
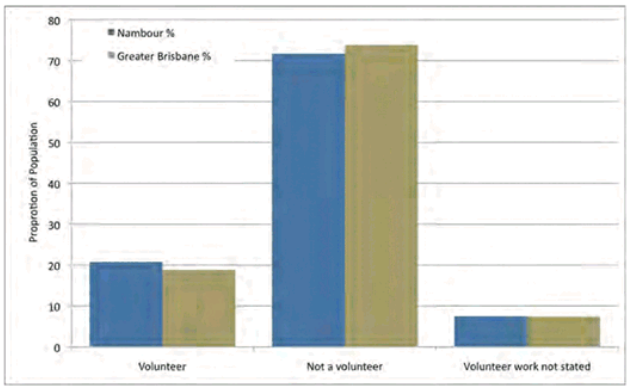


Figure 10: Proportion of Volunteer Workers, Nambour-Burnside District and Greater Brisbane (2011)

Source: Sunshine Coast Regional Council, ID Consulting, Based on Census 2011 Information



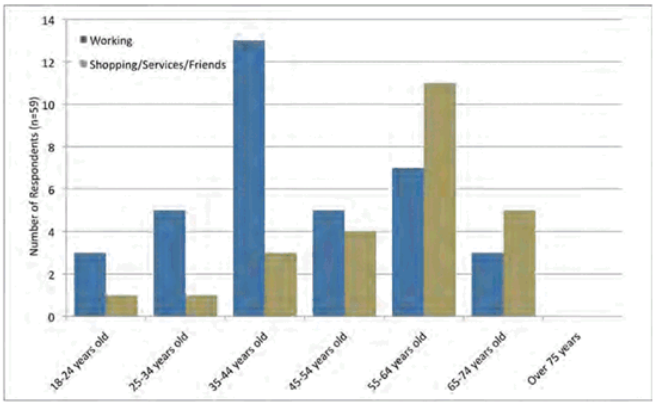
2.3 Community Attitudes

As part of the assessment of the Feasibility Nambour Heritage Tramway a community survey was conducted. Consultants conducted the survey over a 3-day period September 2014 in the Nambour activity centre and a total 60 responses were obtained. Of the 60 respondents, 62 per cent were in Nambour to work, and the remainder to either shop, use services and/or meet friends.

The age spread of respondents is shown below. Although both workers and visitors spanned the age groups, the median age for workers was 44 years old while it was 55 years old for visitors. As noted above, the median age for the Nambour District was 41 in 2011 (3 years ago). Approximately 15 per cent of respondents were retired.

Figure 11: Age Structure of Workers and Visitors to Nambour (2014)

Source: C Change Sustainable Solutions Pty Ltd, Community Survey, September 2014



The catchment of visitors to Nambour was generally the postcode 4560 (74 per cent of all respondents). The 4560 postcode is a wide area as shown below. Other areas that people came from to shop and generally browse in Nambour included Eudlo, Yandina and Gympie. One person resided in the ACT and was in Nambour to visit friends/relatives. Workers came from

further afield (with 68 per cent from postcode 4560), with other workers from neighbouring postcodes as well as Redcliffe.

Figure 12: Nambour Postcode 4560

Source: Australia Post information

Several questions were asked in the survey including those inquiring about:

- Support for the concept of reintroducing the Nambour Heritage Tramway;
- The extent to which people were willing to pay to use the tram and likely frequency of use;
- For what purpose would people use the tram;
- Likely usage of ancillary services associated with the tram;
- Likelihood of increased expenditure in the Nambour centre; and,
- Willingness to volunteer services to assist the continuous operation of the Tram.

The questionnaire used is provided in Appendix 3 and a summary of results discussed below.

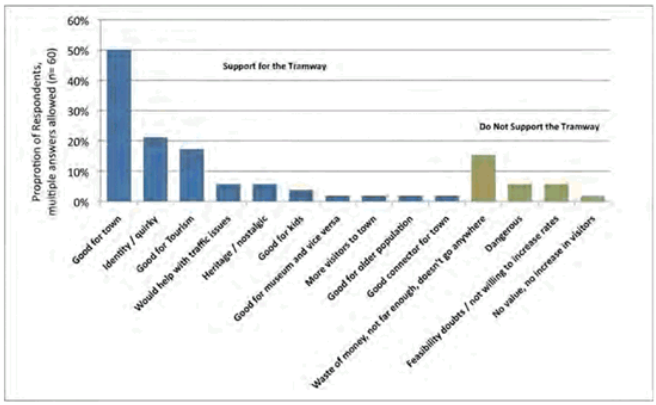
Survey Outcomes

The large majority of the respondents surveyed (77 per cent) indicated a high level of enthusiasm for the introduction of the Nambour Heritage Tramway. These people felt that the Tramway would be good for the town, particularly in terms of creating a unique identity for Nambour and encouraging more visitors to the centre (refer Figure 13). Twelve per cent of respondents did not support the idea, predominantly because they felt the money required to establish and operate the Tramway could be better used elsewhere. Many of those who did not support the concept indicated that the Tramway route as proposed was too short, and that the current destinations were not of sufficient interest to generate usage. A few

respondents reflected on the old cane rail and indicated that it would be dangerous, and a few respondents said they would not be willing to see rates go up to fund such a venture. Ten per cent of those surveyed did not have an opinion regarding the project.

Figure 13: Community Attitudes to the Establishment of the Nambour Tramway

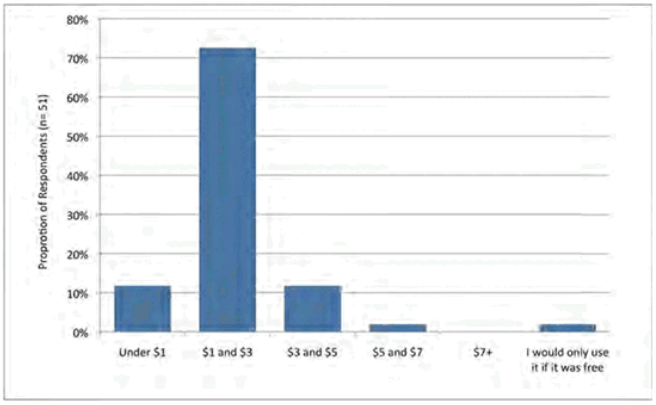
Source: C Change Sustainable Solutions Pty Ltd, Community Survey, September 2014



The majority of those in favour of the introduction of the Tramway indicated that they would pay between $1 and $2 to use the tram (73 per cent of respondents) (refer Figure 14). Discussions with the Nambour Tramway Group supported this proposition, indicating that they felt a 'gold coin' donation was an appropriate fare for Tram usage.

Figure 14: Attitudes towards Fares for the Nambour Tramway

Source: C Change Sustainable Solutions Pty Ltd, Community Survey, September 2014



In total, 85 per cent of respondents indicated that they would use the tram, with 27 per cent indicating they would use the tram a few times a week, and 33 per cent indicating that they would use it either once a week or once a month (refer Figure 15). Fifteen per cent indicated that they would use it less frequently. Converting this to an average usage, the outcomes of the survey suggested that people visiting and working in Nambour would use the tram approximately 8 times a month (or twice a week). The most popular reason to use the tram was for shopping purposes (69 per cent), followed by recreation (41 per cent) and accessing work (29 per cent). Browsing and accessing other services were also mentioned by a number of respondents. None of the respondents indicated that they would use the service to assist in getting their children to school, but it is noted that the survey did not prompt respondents about this type of usage.

Figure 15: Nominated Frequency of Use of the Nambour Tramway

Source: C Change Sustainable Solutions Pty Ltd, Community Survey, September 2014

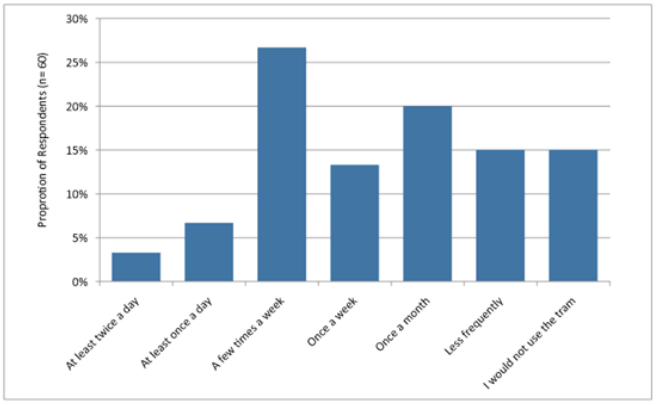
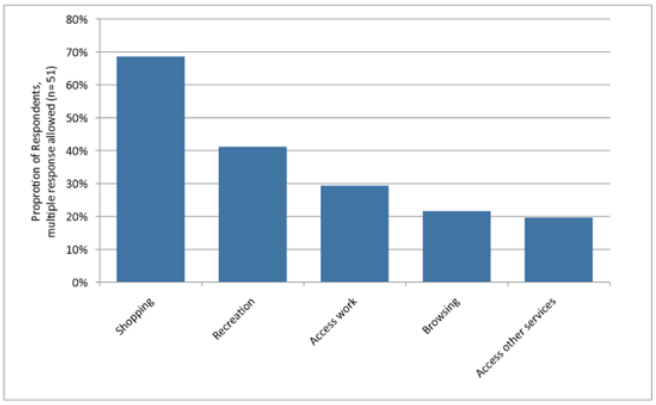


Figure 16: Reasons why the Nambour Tramway would be Used

Source: C Change Sustainable Solutions Pty Ltd, Community Survey, September 2014



Respondents were asked if there was anything that could be added to the tram to encourage more frequent use, and most indicated that the trip was too short to have a substantial experience. A couple of people indicated that free internet, having merchandise to purchase, linking the tramway to the sugar industry or having a special and/or open carriage would be good ideas.

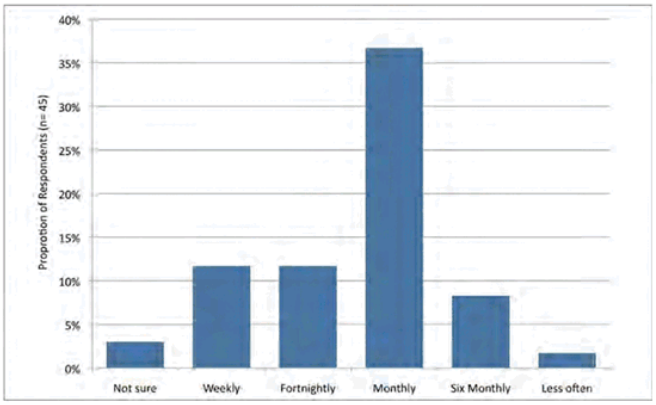
Approximately 33 per cent indicated that they would spend more in Nambour if the Tramway was operating. Those who indicated they would spend more in the Centre, indicated that their expenditure would increase by approximately $23 per week extra. If all respondents who indicated that they would use the tram were included in the assessments, then on average visitors and workers in Nambour using the Tram would spend approximately $18 more in Nambour per week.

Respondents were also asked if they would use the Tram if it also operated as a restaurant with good value and good quality food in the evenings or at some time during the day, and 75 per cent indicated they would. Many noted that the restaurant would work best if it was stationary as the route itself was quite short. A few respondents also indicated that a coffee tram was an alternative to a restaurant. Given Nambour Alliance's vision of Nambour embracing the arts and culture scene, there is also the opportunity to have mini-concerts with bands playing, local theatre and the like around the stationery tram after operating hours.

Of those who expressed interest in a restaurant, 37 per cent indicated they would visit it once a month if the food was good and the price reasonable, and 12 per cent indicated fortnightly and weekly each. Sixty two per cent of respondents indicated that they would consider between $10 and $20 reasonable for a meal, 10 per cent indicated below $10 and 10 per cent indicated between $20 and $30.

Figure 17: Likely Frequency of use for Ancillary Tram Services / Activities (eg. Restaurant)

Source: C Change Sustainable Solutions Pty Ltd, Community Survey, September 2014



Respondents indicated a range of other opportunities are likely to arise with the development of the Tramway and 75 per cent indicated that they felt the Tramway would be a catalyst for further development of Nambour (refer Figure 18). Seventy nine per cent of respondents felt that the Tram would bring more tourists/visitors to the Centre.

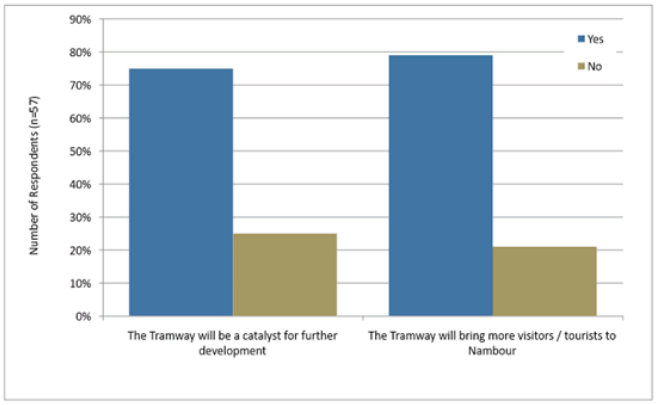
Other opportunities thought to be encouraged by the Tramway included:

- Howard Street amenity improvements;
- Having further heritage information, opportunities and historical attractions;
- Encouraging other tours / tourism in and around Nambour;
- Encouraging the development of spaces for children;
- Encouraging street art and more stylish shops;
- Having further opportunities for the Tramway in the future. In particular, having the Tram loop around town, extend to the Showgrounds, Bli Bli and Coolum;
- Having an information centre in Town;
- Allowing businesses to promote themselves through specials events and through special options (e.g. on the back of tickets);
- Having an opportunity for unique parties for kids on the Tram / fun days for kids and the general public with the Tram;

- Assisting parking issues;
- Providing a link between the civic centre and museum;
- Having markets (day or night) and also music concerts / safe youth hang outs at night (particularly Saturday nights);
- Merchandising; and
- School excursions.

Figure 18: Opinions regarding the Tramway's impact on tourists and other developments in Nambour

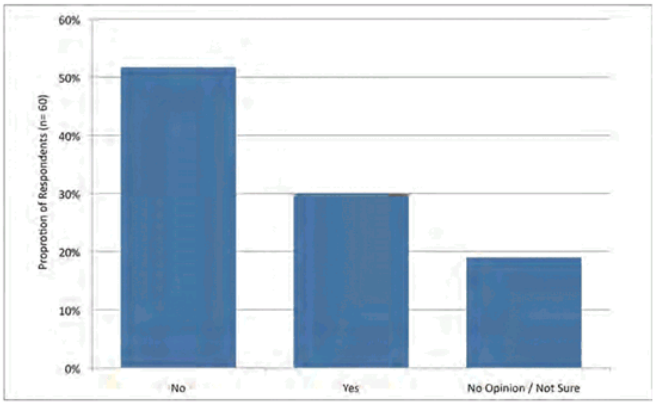
Source: C Change Sustainable Solutions Pty Ltd, Community Survey, September 2014



Respondents were asked whether they would be willing to provide volunteer time / services to assist with the operation of the Tram. Of the 60 surveyed, 30 per cent indicated they would, 52 per cent said they would not be willing to volunteer, and the remaining 18 per cent were not sure. Of those willing to offer their time through volunteering, the average time being offered was about 13 hours per month.

Figure 19: Willingness to offer Volunteer Support for Nambour Tramway

Source: C Change Sustainable Solutions Pty Ltd, Community Survey, September 2014



3 Heritage tram and train case study projects

To gain an understanding of the characteristics and challenges associated with other heritage tram and trains, five heritage attractions were studied. These included:

- The Mary River Heritage Railway – The Red Rattler, Queensland;
- The Bendigo Tramway, Victoria;
- The Bellarine Heritage Train, Victoria;
- The Pichi Richi Heritage Train in South Australia; and,
- The Perth and Fremantle 'Tram'.

The findings of the case studies are noted below. For each railway/tramway and outline of the service is provided, along with information associated with visitation, staffing, revenue streams, and the operators' perspectives on the critical factors of success.

It is noted that the attractions studied are quite different in many respects to the Nambour operation. All have substantial routes (at least 10km long but some much longer), and 3 out of 5 of the case studies are railways as opposed to tramways (and therefore have quite different establishment and maintenance requirements). The Perth and Fremantle 'Tram' is actually a bus with a tram aesthetic. Nonetheless, the exercise of determining key success criteria for the operations can add value to the successful operation of the Nambour Heritage Tramway.

3.1 Mary River Heritage Railway – The Red Rattler

Outline

The Mary Valley Heritage Railway (MVHR) had its genesis in 1984 when the Apex Club of Gympie and the Gympie and District Historical Society proposed that steam locomotive No 45 be preserved from ruin. In 1993 the Apex Club proposed that a tourist train be based in Gympie and run along the Mary Valley branch line as this was scheduled to be closed by Queensland Railways in 1995. After lengthy negotiations with Queensland Transport, Queensland Railways and the Gympie and District Historical Society, operations of the MVHR commenced on the 23rd May 1998. After beginning with a single steam locomotive (No. 45) the MVHR rolling stock grew to around 60 locomotives and carriages.

The MVHR operated continuously until The Red Rattler's licence was revoked in 2012 due to degradation of the track and a lack of funds to repair it. Discussions with the MVHR Board have highlighted that they expect that the Red Rattler will be up and running again in the near future.

Visitation

At its peak, the MVHR had an annual visitation of around 35,000. Generally, patrons were from the Sunshine Coast, South East Queensland and Wide Bay regions and consisted primarily of school groups, retirees, train enthusiasts and general tourists from the region.

Staffing

Prior to the cessation of operations in 2012, the MVHR operated with around 11 Full-time equivalent staff and about 60 volunteers. Under the new proposed structure, the MVHR expects to employ 3-4 full-time equivalent staff and rely heavily on an expanded volunteer base of around 250 individuals.

Volunteers are generally mature aged individuals (between 50 and 75 years old) that are predominantly male. Some volunteers are from the local area, but many of the specialist roles (such as train drivers and guards) come from further afield.

Revenue

Revenue streams for the MVHR include ticketing for train rides of varying lengths, themed days and merchandising of MVHR items. The MVHR also used to conduct a twilight market once a month. In order to diversify the product, MVHR are also investigating the possibility of introducing shorter two hour trips when they are again operating.

Critical Success Criteria

When asked about success criteria for a heritage railway/tramway, MVHR listed the following:

- Ensure the operation has access to substantial funds to maintain rolling stock and tracks;
- The rolling stock needs to look authentic while maintaining practicality;
- The staff and volunteer base need to be passionate about the operation;
- Employ a clever marketing strategy, one that links in with other destinations in the Region; and
- Ensure the route has interesting destinations along the way, and at the start and finish point.

3.2 Bendigo Tramway

Outline

The Bendigo Tramways has been in operation since June 1890. From that time, the citizens of Bendigo have experienced battery, steam and electric traction as the principal modes of propulsion for their trams. On 11th September 1972, the State Government of Victoria granted The Bendigo Trust permission to operate a Vintage 'Talking' Tram tourist service between the Central Deborah Gold Mine in Violet Street, through Bendigo and on to the Bendigo Joss House Temple at North Bendigo. The line is approximately 4.4km long with stops and a round journey takes approximately 1 hour. The Trust has now maintained and operated the tramway for over 42 years.

Visitation

The Bendigo Tramway has an annual visitation of around 40,000 people. These patrons consist mostly of tourists to the area. Approximately 80% are from the greater Victorian area, 15% are from interstate and around 5% are international tourists.

Staffing

In the past, Bendigo Tramways was heavily reliant on volunteers to ensure the successful operation of the line. In recent times, however, they have made a conscious move to include more paid positions in order to guarantee the operation of the service. Currently, Bendigo Tramways employs five full time staff, five part time staff and has around 34 volunteers on roster. Volunteers are generally quite local, but drivers can be from

further afield, with some coming from Sydney to drive the tram. These people generally come for a week or more at a time.

Bendigo Tramways also restore heritage trams around Australia and staff are shared between this role and that of servicing the tour component of there operation.

Revenue

Bendigo Tramways has a diversified revenue stream that includes ticketing, merchandising, depot tours, collection and restoration of trams and rent for charters.

All general tickets are two day valid for two days and cost $17.50 for a single adult and $51 for family of four. Children under 5 travel for free. Charter costs can vary depending on the event and the tram requested.

Critical Success Criteria

When asked about success criteria for a heritage railway/tramway, Bendigo Tramways listed the following:

- The route should have interesting destinations at either end to draw people into the service;
- Information about the Heritage and interesting aspects of the town should be included in the experience;
- Food and drink are important parts of the experience, and therefore destinations and/or intermediate stops should be able to cater for this as well; and,
- The operation should link with destination marketing of the area to assist in attracting people to the operation.

3.3 Bellarine Heritage Railway

Outline

The Bellarine Railway, formerly known as the Bellarine Peninsula Railway, is a volunteer-operated steam-driven tourist railway located in Victoria. It operates on a 16 km section of a formerly disused branch line on the Bellarine Peninsula between the coastal town of Queenscliff and Drysdale, near Geelong.

During 1976 and 1977, the Geelong Steam Preservation Society engaged in fundraising efforts and began regauging a short section of track around Queenscliff station, in order to enable their rolling stock to operate on the line. With the help of some government funding, they succeeded in operating their first services - from Queenscliff to Lakers Siding, in May 1979, and to Drysdale not long after.

The railway currently operates a 'Heritage Train Service' between Queenscliff and Drysdale, along the southern shoreline of Swan Bay and through grazing land, with an intermediate stop at Lakers Siding. Several themed days also operate.

Visitation

Current annual visitation to the Bellarine Railway is around 250,000. These patrons come from the local Bellarine area however are predominantly

tourists from Geelong, Melbourne, country Victoria and interstate. The operation is marketed as part of the overall Bellarine experience.

Staffing

The Bellarine Railway has three paid full time staff and around 200 volunteers on its books. A core of 50 volunteers conduct the majority of tasks for the safe operation of the railway. The volunteer pool comes from the local area, as well as Warrnambool, Melbourne, Bendigo and as far as New South Wales.

Revenue

The Bellarine Railway receives revenue from ticketing and merchandising. It has diversified its railway experiences, specials and events offered to include the following:

- School holiday programs;
- Locomotive Cab rides available on days the Heritage Service is running;
- Steam and Diesel Train Driver Experiences;
- Day out with 'Thomas' weekends;
- Special occasion and wedding charters;
- Mid-week tailored group and school tours; and
- The Blues Train, which features live music on most Saturday evenings from August to May.

Critical Success Criteria

When asked about success criteria for a heritage railway/tramway, Bellarine Heritage Railway listed the following:

- The operation needs to be an experience, not just a ride in which one gets on and off;
- The operation needs to be integrated with the broader Tourism authorities and operations in the Region;
- It would be beneficial to be actively marketing the service on social media; and
- It is necessary for operation to seek accreditation for its service and use this accreditation in its marketing strategy.

3.4 Pichi Richi

Outline

The Pichi Richi Railway Preservation Society (PRRPS) is a non-profit railway preservation society and operating museum formed in 1973. The society, managed and staffed by volunteer members, operates heritage steam and diesel trains on the restored 39 kilometre section of track between Quorn and Port Augusta in South Australia.

Built in the 1870s, this unique railway is the last remaining operating portion of the "Old Ghan" narrow-gauge line. The Railway was revived in 1974 by the volunteers of the Pichi Richi Railway Preservation Society. The Pichi Richi Railway has two main routes, The Afghan Express and the Pichi Richi Explorer. The Afghan Express is a return trip to Quorn from Port Augusta (78 kilometres return). This train usually consists of Ghan carriages from the 1920s and is often hauled, wherever possible, by an original Ghan steam locomotive, NM25, thus recreating the type of travel experienced on the Ghan in the 1930s and 1940s. A shorter journey, the Pichi Richi Explorer, is a return service to Woolshed Flat departing from Quorn (32 kilometres return).

Visitation

Annual visitation to the Pichi Richi Railway is around 10,000. Indications from the Pichi Richi Railway Preservation Society suggest that annual visitation needs to be around 16,000 in order for them to operate free from

donations and other funding sources. It was noted that the continued operation of Pichi Richi is a struggle, particularly given its remoteness to any major town. Representatives from the board of Pichi Richi noted that if the train did not hold the historic value it had and was being established today it is unlikely to receive the funding support needed to maintain the operation.

Patrons of the Pichi Richi Railway dome from all over Australia and Internationally. The greatest percentage of patrons come from Adelaide and are predominantly 'grey nomads', grandparents with kids and families.

Staffing

Currently, the Pichi Richi Railway has no paid positions and is completely managed by around 20 volunteers. Due to the remoteness of the operation, most volunteers and qualified crews live between 300-1000km away.

Revenue

Most revenue for the Pichi Richi Railway comes directly from ticketing (pricing varies from $44 - $78 depending on length of journey). Some revenue comes from merchandising sold through the local council information centre.

The Pichi Richi Railway has continually expanded the type and number of services it offers as more rollingstock and track is restored and rehabilitated. Other special services include occasional "double header" steam trains, and dinner trains originating in Port Augusta and stopping at the track-side Willows Brewery Restaurant en route to Quorn. A new service introduced in 2010 saw guests dining on the train in a first class dining carriage, with a 3-course meal prepared in the carriage's kitchen by a local hotel's chef. Trains and carriages are also available for private hire, suiting a range of different occasions from weddings to tour groups.

Critical Success Criteria

When asked about success criteria for a heritage railway/tramway, Pichi Richi Railway again stressed the difficulty of these types of operations being self sustaining. They indicated that for most success:

- The operation needs to be professional in its management from the outset;
- The operation needs sufficient money to ensure maintenance is guaranteed;

- It would be beneficial to develop a long term vision and plan for the operation; and
- The operation needs a core of passionate people who are young and active, as well as having key retired enthusiasts.

3.5 The Perth and Fremantle 'Trams'

Outline

Perth and Fremantle in Western Australia offer a unique 'tram' experience offering either guided sightseeing tours (Fremantle Trams) and/or charter options for corporate affairs, weddings and school outings/balls (both Fremantle and Perth Trams). The 'trams' are tram carriages on top of bus chasses and therefore provide significant flexibility with regard to routes on offer. All trams are replicas of the first trams operating in the Perth and Fremantle regions in 1899.

The Fremantle Tram has been in operation since 1985 and the Perth operation for over 20 years. It is noted that the current operators of the Perth Tram have operated the business for the last 3 years, and that this business is run in line with their 'double decker bus' hop on and off tours.

Both Tram operations work in conjunction with other tour operators, which, according to the Perth Tram operator indicated that this was essential for success.

To cater for a more diverse target group, Perth Trams have a variety of trams in different sizes. This includes a 21 seater single trams to double carriages that seat 48 people comfortably.

Visitation

Annual visitation to the Perth and Fremantle Trams is around 25,000 per year. The catchment of visitors to both operations is largely interstate and international markets, with the United Kingdom accounting for the largest proportion of patrons.

Staffing

Both Tram operations are run by private companies and as such all positions are paid. The representative of the Perth Tram indicated that while it would be possible to run the Perth Tram operation as a stand alone business, the viability of the Tram is very much assisted by being a part of the larger 'double decker bus' tour operations.

Revenue

While the proportion of revenue could not be ascertained by activity type, it is noted that ticketing pricing varied from around $24 for a hop on hop off service, up to $85 for a service that included some type of cruise and dinner element. Some revenue is also derived from merchandising.

Critical Success Criteria

When asked about success criteria for a heritage railway/tramway, the Perth Tram operator indicated that running such a venture is a difficult task. However, for most success:

- Broad destination marketing and linking with other successful tour operators is essential.
- Understanding the market and being realistic about patronage allows for a realistic expectations of how successful the business is likely to be.
- Understanding that maintaining an operation such as this is both costly and time consuming – people need to be dedicated and passionate to have most success.

3.6 Summary of Key Success Criteria for Nambour Tramway

Noting the above information, operators of other Heritage Tram/Train operations indicated that there were six criteria critical for successful and self-sustaining operations of heritage tramways/trains. These were that:

- The operational funds, particularly those required for maintenance, need to be understood and catered for from the outset and throughout the operation;
- The rolling stock should have a point of difference and look authentic while still maintaining practicality;
- The staff and volunteer base are most reliable when they are passionate about the operation;
- Volunteer assistance should span a range of age groups, and not solely rely on retired people;
- Marketing strategies for the operation work best when they tie in closely with destination marketing for a 'package' of attractions; and,
- The route should have interesting destinations along the way, particularly at the starting and finishing point.

How the Nambour Heritage Tramway rates on the above criteria is discussed in the Risk Assessment in Section 7.

4 The Nambour Heritage Tramway

4.1 Proposed Operation

The proposed operation as described in the Project Brief and the assumptions utilised for these assessments for the purpose of scoping and budget estimates are summarised as follows:

- The project will provide a tramway service generally along the existing tramway in Mill and Howard Streets between the Coles supermarket site and Aldi supermarket site.
- A depot to house the tram and up to 2 other locomotives will be located at the eastern end, assumed located within the old Mill Street marshalling yards site.
- A western terminus will be located adjacent to the Coles supermarket, which will also include a tourist information / memorabilia kiosk. This would be staffed, with staff amenities.
- An eastern terminus would be located off Howard Street and adjacent to the tramway depot. Both terminus stations will provide for awnings for weather protection for waiting patrons.
- The terminus stations are proposed to have a low level platform on one side to facilitate access. The intermediate stop within Howard Street is proposed as being appropriately signed only, with access off the road pavement due to the space constraints within Howard St and expected level of usage. Disability access would be though driver assistance if required.
- The intermediate stop would be located to best suit likely usage and attractions along the route.
- A single tram unit, with driving stations each end, to provide point –to-point services without the need to turn the tram. The tram will be electric battery powered.
- Whilst the depot could house up to 2 additional locomotives, the base case assumes that a locomotive hauled train (with carriages) does not operate on the line. The additional trackwork (run-around siding) at each terminus to permit re-positioning the locomotive to be the lead vehicle for each trip was costed separately to the base or minimum case, but has not included in the financial or economic assessments.
- Whilst operation is noted as being primarily in daylight hours, appropriate lighting of the terminus stations and intermediate stops would be provided.

4.2 Proposed Scope

Tram Unit

A number of options exist from reputable suppliers for supplying a suitable tram unit. The 610 mm (2 foot) track gauge is not common for tramways or for battery operated trams, and a bespoke tram unit is required. Two suppliers of suitable units responded to preliminary enquiries as indicated in Appendix 4. Both Alan Keef Ltd and Severn Lamb are United Kingdom based. There was another potential supplier identified in the prefeasibility report (the Iowa - USA based company (Gomaco Trolley Company)), but it is noted that this company supplies only standard gauge (1435 mm track gauge) vehicles, and even for those vehicles its budget price was considerably higher than those from the UK companies.

For the purposes of the investigations conducted here, the estimate the Severn Lamb unit and budget price was included in the evaluation. This was a budget quote of UK pound 298,000 excluding works and transportation.

The technology is not complex, and the availability of a local supplier to design and build a suitable tram for a competitive price should be pursued in the event the project proceeds. It is noted that two companies with the appropriate rail vehicle design and manufacturing skills include Gemco Rail (based in Perth) and the local Maryborough based Wm. Olds & Sons Pty Ltd. If an alternative 'tram' was to be considered (such as the Perth bus 'Tram'), the Perth operators have indicated that they would consider selling a vehicle.

The battery life between recharging of the Severn Lamb vehicle was indicated as being up to 9 hours, but dependent on intensity of use.

Track

An initial visual inspection of the existing track in Howard and Mill Streets indicates that the rail is in good condition, with some minor work needed to clean the rail surface where impacted by more recent road re-surfacing works. The duty cycle and axle loading of the tram operation would not be expected to involve much wear & tear on the rail and supporting structure, compared to the previous cane tramway operation.

Track extensions would be required at each end to service the proposed terminus locations and the depot. Concept track layouts are shown in Figure 20, which show the track layout required to operate short locomotive hauled trains.

The extensions at either end require demolition of the current ends to provide the appropriate track alignment, and an extension of the embedded track within the roadway areas, and assumed within the terminus platform areas. Track in the depot building would similarly be embedded. Options elsewhere include ballasted track or non-encased track on concrete slab. The turnouts are proposed as being ballasted track for initial cost and ease of maintenance.

Figure 20: Nambour Heritage Tramway Alignment

Source: Ranbury Pty Ltd, September 2014

Typical photos of the route are included in Figure 21.

Figure 21: Along the Route of the proposed Nambour Tramway

Source: Ranbury Pty Ltd, September 2014

The run-around sidings are assumed as providing the length to run around a short 30 metre long train (eg up to 3 x 10 metre long carriages). This length can be extended if required, with the more obvious length constraints at the western terminus. The run-around siding at the eastern end is assumed as being within the depot compound, with the depot located close to the terminus station. This track would also serve the dual function of secure storage of the units when not in use. If the depot is located more remotely from the terminus station (for other reasons such as other redevelopment options for the balance of the marshalling yard site), then the run around siding would likely be required at the station, with extra track also required in the depot.

Track within the terminus areas and the depot should be level.

Terminus Stations

The terminus stations are proposed to be located as indicated in Figure 22 and Figure 23. Features include a defined low level platform on one side only for ease of access, an awning for weather protection, and seating. Public amenities have not been included, nor the provision of paved car parking at either end.

The western terminus is assumed to also include a staffed kiosk (one staff member), providing tourist information and sale of memorabilia. Basic staff amenities are included.

Figure 22: Western Terminus of the Proposed Nambour Tramway

Source: Ranbury via Sunshine Coast Regional Council information, September 2014

Figure 23: Eastern Terminus of the Proposed Nambour Tramway

Source: Ranbury via Sunshine Coast Regional Council information, September 2014

Intermediate Stops

Howard Street is width constrained in its current configuration to permit a permanent raised platform area and shelter for intermediate stops within the road pavement. A basic road pavement level stop with appropriate signage only is proposed, with basic bus-stop style footpath shelter where required. The typical street-scape in Howard Street is as shown in Figure 24.

Figure 24: Typical Route down Howard Street

Source: Ranbury Pty Ltd, September 2014

Depot

The proposed depot layout is as indicated in Figure 23 above. This provides a secure compound with external track for storage of visiting vehicles (locomotives and carriages) and a secure workshop building to undertake maintenance and store the tram. The building includes a single track through the building (roller shutter doors), basic work-bench area, staff amenities and an office. The secure compound also provides for staff parking. The length of the building would depend on what requirement is to be provided for other than the tram.

The depot would be equipped with a solar power unit, for either direct daylight recharging of batteries, requiring daily change-outs of batteries, or for feeding generated power into the grid and utilisation of overnight mains power for direct re-charging of the on-board battery. Power consumption is relatively low, with both suppliers indicating that a single daily re-charge should be achieved.

Day-day maintenance of the battery powered tram is relatively minor.

Route Construction Works

Key features associated with the route include:

- **Western end access at Mill St/Mill Lane**: The alignment required to locate the tramway clear of Mill Lane roadway is as indicated in Figure 22. This involves tightening of the previous track alignment on the corner, with excavation of the current stone pitched batter and its re-instatement, or construction of a retaining wall to preserve the corner to the heritage cottage. The track would terminate on the heritage cottage site and some works would be required to ensure the safe functioning and operation of the Tram. A decorative stone faced rock retaining wall has been assumed for this corner. The new alignment obviates the need to relocate the current light pole at the end of the current track.

- **Signalised intersection of Currie Street**: The original cane train operation included a track activation signalling system from an approaching cane train to ensure the safe passing of the train. Advice from DTMR has indicated that this system was owned, built and operated by Nambour Sugar Mill and it is likely that the system was decommissioned when the mill closed. DTMR has indicated that they would need to undertake further investigations to confirm, but that it is

likely that this system could not be reactivated due to the likelihood of current standards for control systems not being met. If the Tramway was to be activated, DTMR has indicated that the intersection would need to be re-designed and upgraded to current standards to include new lanterns and phases for displaying tram signals for both the approaching tram/driver/operation and the motor vehicle traffic. A proposed activation system (driver activated from the tram) is the default assumption, and an allowance of around $80,000 has been assumed in the feasibility as per advice from DTMR. It is important to note that due to the age of the existing electrical circuits and other components at this intersection, DTMR will be rehabilitating the existing intersection in the 2014/15 financial year. The planned works have not included additional systems for the Tram, but are respectful of the heritage listed tram tracks and will not negatively impact on them. All works to be completed by DTMR will not prevent the introduction of the Tram if the decision to go ahead with the project is made.

- **Operations of the Tramway** would be nominally based on a half hourly round trip, with a maximum speed of 10 – 15 kph. It is assumed that the Tramway would operate at least weekdays (5 days a week), with the option to operate on a Saturday morning too. Weekdays it is assumed that the service would operate from 8 am to 5 pm and if operating on weekends, the service is expected to run on a Saturday from 9 am to midday. Special charters for school excursions and special events could also occur either during the week and/or on a week night or weekend. Due to the assumed flexibility in staffing, operation costs associated with the Tramway are expected to be the same regardless of whether a 5 day a week or 6 day a week service is operating.

5 Financial feasibility

A core component of the study was to assess the likely financial feasibility associated with the operation of the Nambour Heritage Tramway.

The feasibility assessment included cost factors associated with the establishment / capital costs as well as the ongoing operation the track.

Broad construction costs associated with the following elements were determined by Ranbury:

- Electric trams with solar capabilities;
- Solar equipment at the depot;
- Track reconstruction if required;
- Construction of depot;
- Construction of additional track where necessary;
- Construction of 2 or 3 stations and stops;
- Signals;
- Acquisition of land where necessary;
- Construction of the retaining wall required;
- Construction of a ticket office and information centre at the western end; and,
- Provision of maintenance and operating manuals for the tram, track, signals and other infrastructure.

Ranbury also provided estimates of ongoing costs such as maintenance/ repairs, licensing, traffic management, cleaning, power sources, insurance, staffing and depreciation. Detailed costs are provided in Appendix 5.

Revenue estimates were determined by C Change and are discussed further in Section 5.2.

Based on the cost and expected revenue information a discounted cash flow (DCF) feasibility assessment[4] over a 30 year period was completed. The analysis also assessed the residual value of the assets after the 30 year period. However, given that most elements had an economic life of 30

[4] A DCF method assesses costs and revenues at the time they are expected to occur, that is, the DCF analyses the stream of costs or revenues. A 'discount rate' is then used to return the stream of costs or revenues to a single value (termed the 'present value'). A discount rate can be the government bond rate (which would be the opportunity cost of government investing its money 'in the bank' rather than expend it on the Tramway). The theoretical justification for using discounted cash flow techniques is that individuals are generally reluctant to forego present consumption in favour of future gains. Therefore, costs or benefits earlier in a period / timeframe are considered to be 'more valuable' than those later in a period. This is known as the 'time value of money'.

years or less, this cost was negligible. The analysis assessed the net present value (NPV) and the internal rate of return (IRR) of the project.

Scenarios Tested

To inform Council of all possible costs associated with the operation of the Tramway, a number of scenarios were assessed. The first two scenarios assessed all operations from a stand alone commercial viewpoint. This assumed that all goods and services were purchased. It is noted, however, that Nambour Tramways Group has indicated that they have in-principle support for volunteering and inkind support from people with a range of skills. To ensure that all elements of the potential operation were assessed a further two scenarios were developed and assessed the financial feasibility assuming such volunteer and inkind services were forthcoming over an ongoing basis. The risks associated with relying on these outcomes are discussed in Section 7.

In total, four scenarios were assessed. Scenarios 1 assessed at all costs and likely revenues based on a 5 day operational period (weekdays), and Scenario 2 on a 6 day operational period. As these scenarios did not produce a financially feasible result, information associated with the level of revenue required to achieve cost recovery (either fully or on an ongoing operational level) was also produced. The multiples in revenue required to achieve operational cost recovery assumes that the capital cost element is treated as 'sunk' and not required to be recovered. This could only occur if ample funds for the capital component were forthcoming – either from the operating party, a third party or through grants.

As many of the Heritage style types of operations across Australia are based on volunteer and inkind services, an additional 2 scenarios were developed. Scenarios 3 and Scenario 4 replicated the first two scenarios but included assumptions associated with inkind works and volunteer staff as understood through discussions with the Nambour Tramways Group. As these scenarios did not reach a financially feasible result either, the multiples of revenue required to break even was also determined. As for Scenario's 1 and 2, these assessments solved for complete cost recovery as well as operational cost recovery (assuming the capital costs were 'sunk').

In summary, the scenarios included:

- Scenario 1: Base Case Scenario, which included a 5 day service with all elements indicated in Section 1.1;
- Scenario 2: Extended Operation Scenario, which included a 6 day service with all elements indicated in Section 1.1, plus allowance for special events and school tours.

- Determination of Revenue Multiple Required for Scenario 1 & 2: Full Cost Recovery;
- Determination of Revenue Multiple Required for Scenario 1 & 2: Operational Cost Recovery (Assume Capital Costs sunk);

- Scenario 3: Base Case Scenario as per Scenario 1, with inkind works and volunteer time;
- Scenario 4: Extended Scenario as per Scenario 2, with inkind works and volunteer time;
  - Determination of Revenue Multiple Required for Scenario 3 & 4: Full Cost Recovery;
  - Determination of Revenue Multiple Required for Scenario 3 & 4: Operational Cost Recovery (Assume Capital Costs sunk).

Sensitivity testing was also performed on each of these Scenarios using 3 discount rates (7 per cent 10 per cent and 12 per cent), as well as creating scenarios that increased costs and decreased revenues.

In total 24 assessments on the Nambour Tramway were completed. The results of these Scenarios are discussed in Section 5.3.

5.1 Expected Costs

Capital Costs

Capital cost estimates were produced by Ranbury and based on a number of assumptions as shown below:

Route length	• 900 metres
Terminus stations	• Single side platform (15 metres long), awning weather cover, lighting, signage • Mill Lane terminus include staffed ticket office/ memorabilia shop, with staff amenities
Intermediate stops	• Assume off road pavement only. Need signage and pavement markings only
Depot	• Includes workshop, office, crew amenities
Track standard	• Use part worn (2nd hand) rail and turnouts (31kg/m rail on new concrete ties)
Run-around loops	• At each end - Allow 30 metre length for 2 or 3 carriages only with 15 m dead end and buffer for loco release

Turnouts	• Assume 31 kg/m rail (1 in 6) > Estimate includes allowance for new 2nd hand units preferred if available > Manual operated points are assumed
Vehicle	• Single vehicle (610 mm gauge). Double ended driving stations, battery powered • The vehicle required an overhaul every 10 years
Max speed	• 20 kph

The overall capital cost associated with the establishment of the Nambour Heritage Tramway was a present value of between $3.0 million and $3.1 million. Cost estimates were also provided for additional track turnaround capability and additional area to accommodate additional locomotives but discussions with the Nambour Tramways Group indicated that these additional elements would not be required. As such, the potential additional elements have not been included in the assessments. Scenarios 3 and 4 assume that the labour component of the construction of buildings is provided inkind, and that 25 per cent of the maintenance costs have been provided inkind. Justifications for these assumptions are discussed later in this section.

A break down of the individual components contributing to this cost is shown in Appendix 5.

Operational Costs

Operational costs were provided to the Consultant Team by Ranbury. These were based on the following assumptions:

Operation	• The Tram was operated by a single operator and therefore all costs were included
Staff and Operating hours	• Operating hours factored around a workforce of 4 full time equivalent workers, which included the assumption that the Information Centre / Kiosk at Western Terminus was staffed • Staff required included one manager and 3 other staff members • Staff members were multi-skilling and they were open to flexible work hours • Training costs were not required
Tram operator	• The tram was a single-person operating vehicle
Maintenance requirements	• The vehicle utilised had low maintenance requirements as did the infrastructure (track, buildings, depots)

Insurances	• Insurances were absorbed within SCRC insurances.

Based on these assumptions, the annual operating costs associated with the Nambour Heritage Tramway are between $147,000 per annum (if volunteering staff are considered – Scenario 3 and 4) and $543,000 per annum where all staff members are required to be paid (Scenario 1 and 2) (refer Appendix 6). All staff costs include salary and on-costs. It is noted that Scenario 3 and 4 assume that the position of manager is full time, but at half pay, and that all other staff are voluntary. Scenarios 3 and 4 also assume half the budget for promotions is provided inkind. Justification for these assumptions is discussed in the next sub-section. Training costs have been included in accreditation costs.

A break down of the ongoing costs is shown in Appendix 5.

Potential for Volunteer and Inkind Works

The Nambour Tramways Group indicated to the Consultant team that through their investigations into establishment of the Tramway, that many people had registered interested in becoming involved. Of the interest registered, between 40 and 50 community members had offered to volunteer their time and skills to ensure the operation could commence. Skills of people nominating an interest was vast and included (but not limited to) expertise in safety, general light rail operations, information and marketing services, engineering, public relations, building and construction, heritage areas, graphic design and landscape architecture.

The potential for volunteer workers was also tested by the community survey completed for this report. As noted earlier, outcomes of the survey indicated that 30 per cent of respondents would be happy to volunteer their time on an average of 13 hours per month. Information from the case studies completed has shown how vital volunteering is to operations such as this, and while some positions (such as tram drivers) may come from far and wide, often the volunteer base for other positions is quite local. The case studies also noted that at least one position should be paid for to ensure continuity of knowledge and operation practices. As noted in the Risk Assessment (refer Section 7), the reliance on volunteer workers to run the operation is a significant risk.

Taking into account the potential for volunteering, Scenarios 3 and 4 have assumed that the Manager's position would be a full time position but that it would be half paid / half volunteered. All other staff positions are assumed to be voluntary in Scenarios 3 and 4.

Discussions with members from the Nambour Tramways Group also confirmed that labour costs associated with the construction of the Information Centre / Kiosk and the Depot would be provided in kind. As such, material costs only have been allocated for these elements.

Finally, a component of the civil works are assumed to be provided by inkind labour also. As such, Scenarios 3 and 4 allocate only 80 per cent of the capital civil works required.

Based on these assumptions, capital and operating costs in Scenarios 3 and 4 have been reduced by $125,000 (total) and $396,000 (per annum) respectively.

5.2 Likely Demand and Revenues

Revenue for the Tram has been assumed to include three elements:

- Ticketing associated with general usage;
- Merchandise sales at the Information Kiosk / Centre; and,
- School trips.

The ticketing associated with general usage is discussed below and is expected to generate around $27,000 to $29,000 in the first year. The assumptions associated with demand for tram trips are discussed in the next sub-section.

In addition to ticketing revenue, it has been assumed that the Rolling Stock Operator would also operate the Information Kiosk and sell merchandise. Information provided by the Nambour Museum indicate that around 260 people visit the museum and in lieu of any other official estimates, this is the base level of visitation assumed for Nambour currently. If it was assumed that the level of visitation to Nambour increased by 50 per cent due to the operation of the tram, then visitors to Nambour would total around 390 people. Assuming that 10 per cent of these spent around $20 on merchandising, plus adding in a component of residents' spending on merchandising, an additional $12,000 per annum is expected to be generated.

Finally, it is noted that there are some 200 schools in the Region that could also utilise the Tram as a school excursion. If it is assumed that each school has 4 classes that would be interested in using the Tram as an excursion, and 50 per cent of the schools participated in an excursion then around 400 trips on the Tram per year could be dedicated to schools. If it is assumed

that the profit of the trip was $3 per student (i.e. the excursion might be $5 and the operators might include refreshments at the end) and there were 15 students in each group, then revenue from this source could total around $18,000 per annum.

The overall revenue associated with the operation of the Tramway would be in the order of $57,000 to $58,000 per annum. All revenues are assumed to increase by 0.5 per cent per annum after the first year.

Demand – Tram Trips

The Consultants were provided with patronage estimates that had been prepared by the Tramways group. The Tramways group assumed that 54 full fare and 60 concession fares would be purchased per week day over a 8am to 5pm operational period. An additional 50 children were expected to patronise the tram as well but would ride for free. In total, therefore, the Tramways group expect that around 164 trips per day would be made.

Outcomes of the community survey conducted for this study indicated that around 27 per cent of people in Nambour would use the tram approximately 8 times a month (or twice a week). If it was assumed that the number of workers in Nambour totalled some 2000 people, and the number of visitors was the average of those currently visiting the Nambour Museum, plus an additional 50 per cent to account for increased visitation (see the Cost Benefit Analysis section for further discussion), then the total demand in a year would total approximately 240 trips per week day.

The likely demand for the Tram for the financial feasibility analysis has therefore averaged these two outcomes and arrived at a patronage of 200 trips per day. The Tramway Group's expected breakdown of full fare, concession and child were utilised to determine the expected revenue. For the scenarios that included a 6 day a week operational period, patronage on the Saturday was assumed to be 60 trips.

It is noted that the case study outcomes indicated that patronage on their systems were very much determined by the quality of the experience on the trams/trains, plus the destinations and interim stops. As the route for the Nambour Heritage Tramway is limited to 1 kilometre and the destinations are supermarkets, attracting the patronage as determined here may be questionable. This is discussed in Section 7 Risk Assessment.

5.3 Financial feasibility outcomes

Utilising all the preceding information a 30 year discounted cash flow analysis was conducted on the various scenarios. A summary of the results are shown below and discussed overleaf.

Table 1: Summary of the Financial Feasibility Assessments

Source: C Change Sustainable Solutions with costings from Ranbury, September 2014

Financial Feasibility	Present Value ($,000), Discount Rate			Sensitivity Testing, Discount Rate 7%		
	7%	10%	12%	Increase Costs 10%, Decreased Revenue 10%	0 increase in costs, Decreased Revenue 10%	0 increase in costs, Revenue Increase 10%
Scenario 1: 5 Day a Week Service						
Costs	$10,330	$8,720	$7,980	$11,360	$10,330	$10,330
Revenues	$760	$590	$510	$690	$690	$830
Net Present Value (Subsidy Required)	($9,570)	($8,130)	($7,460)	($10,670)	($9,640)	($9,500)
Ongoing Annual Subsidy (Capital Sunk)	($494)	($494)	($494)	($554)	($499)	($488)
Multiple required in Revenue to Break Even (overall costs)	13.6	14.8	15.5	16.5	15.0	12.4
Multiple required in Revenue to Break Even (operational costs only)	9.6			11.4	10.6	8.8
Scenario 2: 6 Day a Week Service						
Costs	$10,330	$8,720	$7,980	$11,360	$10,330	$10,330
Revenues	$780	$610	$530	$710	$710	$860
Net Present Value (Subsidy Required)	($9,550)	($8,120)	($7,450)	($10,660)	($9,620)	($9,470)
Ongoing Annual Subsidy (Capital Sunk)	($493)	($493)	($493)	($553)	($498)	($487)
Multiple required in Revenue to Break Even (overall costs)	13.3	14.4	15.1	16.0	14.5	12.0
Multiple required in Revenue to Break Even (operational costs only)	9.4			11.4	10.3	8.5
Scenario 3: 5 Day a Week Service, Volunteer Staff and In-Kind builders						
Costs	$4,950	$4,490	$4,280	$5,450	$4,950	$4,950
Revenues	$760	$590	$510	$690	$690	$830
Net Present Value (Subsidy Required)	($4,190)	($3,900)	($3,770)	($4,760)	($4,260)	($4,120)
Ongoing Annual Subsidy (Capital Sunk)	($98)	($98)	($98)	($119)	($103)	($92)
Multiple required in Revenue to Break Even (overall costs)	6.5	7.6	8.3	7.9	7.2	6.0
Multiple required in Revenue to Break Even (operational costs only)	2.7			3.2	3.0	2.5
Scenario 4: 6 Day a Week Service, Volunteer Staff and In-Kind builders						
Costs	$4,950	$4,490	$4,280	$5,450	$4,950	$4,950
Revenues	$780	$610	$530	$710	$710	$860
Net Present Value (Subsidy Required)	($4,170)	($3,890)	($3,760)	($4,740)	($4,240)	($4,090)
Ongoing Annual Subsidy (Capital Sunk)	($97)	($97)	($97)	($117)	($102)	($91)
Multiple required in Revenue to Break Even (overall costs)	6.4	7.4	8.1	7.7	7.0	5.8
Multiple required in Revenue to Break Even (operational costs only)	2.6			3.2	2.9	2.4

As can be seen in the above table none of the Scenarios assessed return a positive Net Present Value (NPV), and therefore Internal Rate of Return cannot be calculated. Based on the Scenarios where all costs are paid for (i.e. no inkind or volunteer services - Scenarios 1 and 2), the NPV at a 7 per cent discount rate is a deficit of around $9.6 million dollars over 30 years (refer Table 1). This would be the required subsidy from Council to commercially operate the project and cover all costs.

The majority of the costs associated with this large deficit are in the operating costs, which are a present value of around $7.2 million dollars over the 30 year assessment period under a 7 per cent discount rate (refer Appendix 6). Expected revenue for the operation in all scenarios is a present value of around $760,000 to $780,000 (at 7 per cent discount rate) over the 30 year period (refer Table 1). If the project was to move forward with no volunteer or inkind services then at least 13 times the revenue would be required to be achieved for the Tramway to break even (refer Table 1).

If capital costs were treated as sunk, the annual operating cost under Scenario 1 and 2 would be in the order of $543,000 each year (refer Appendix 6). Netting out the expected revenues indicates that an ongoing subsidy of around $493,000 - $494,000 would be required (refer Table 1). Thus, under Scenarios 1 and 2, even if capital costs could be covered through grants or donations, revenue would need to increase nearly tenfold for the operation to be able to cover all costs (refer Table 1).

As noted earlier, the Nambour Tramways Group expects that much of the effort associated with establishment and ongoing operation of the Tramway would be provided inkind or through volunteer time. Analysis of the community survey verified that there is a level of interest in volunteering and as such Scenarios 3 and 4 take into account this potential. However, even under these scenarios significant subsidies would be required to establish and operate the service on an ongoing basis. As can be seen in the above table, although the overall costs associated with the Tramway in Scenarios 3 and 4 are less than half of those indicated in Scenarios 1 and 2, there are still substantial subsidies required to operate the Tramway. The NPVs for Scenarios 3 and 4 indicate a deficit of around $4.2 million (present value 7 per cent). If capital costs could be covered by grants or donations, there would still be an annual subsidy required in the order of about $97,000 to $98,000 per year. Revenue would need to increase by 2.6 times in order for no subsidy to be required (refer Table 1).

To determine the robustness of the outcomes, sensitivity testing was completed on the 4 scenarios as follows:

- Sensitivity 1: 10 per cent increase in costs, 10 per cent increase in revenues
- Sensitivity 2: no increase in costs, 10 per cent increase in revenues
- Sensitivity 3: no increase in costs, 10 per cent reduction in revenues.

As can be seen in Table 1, even in situations where revenue is assumed to increased by 10 per cent substantial subsidies would be required (of the order of $4.1 million to 9.5 million under a full cost recovery basis, or if capital costs were treated as sunk, operational subsidies would be required from Council in the order of between $91,000 and $488,000 per annum).

Sensitivity analyses were completed through the application of a 10 per cent and 12 per cent discount rate. The results of these assessments are also shown in Table 1 and as can be seen, although subsidies required decrease marginally on a full cost recovery basis, the need for 'top up' funds are still substantial.

The output associated with all the scenarios tested are provided in full in Appendix 6.

6 Economic and Social Impact Assessments

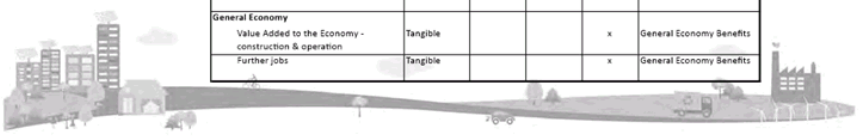
As well as a financial feasibility assessment, a Rapid Cost Benefit Analysis (CBA), a broad economic impact assessment (EIA) and a broad social impact assessment (SIA) were completed. The addition of these elements were considered important to consider the overall benefit of the establishment of the Nambour Heritage Tramway.

To determine the overall costs and benefits an evaluation framework was prepared. The evaluation framework outlines all expected impacts by recipient type, and notes whether the impact is tangible or intangible. Whether the impact can be considered under a CBA, EIA or SIA is also noted. To omit repetition, where intangible elements could be considered under the CBA and an SIA, these are reported in the SIA only.

Table 2: Evaluation Framework for the Economic and Social Assessments

Source: C Change Sustainable Solutions, September 2014

Recipient Type	Tangible/ Intangible	CBA	Social	Economic Impact	Area of Impact
Community					
Defining the identity of Nambour	Intangible	x	x		Community Identity & Cohesion, Existence Value
Better access to goods and services	Intangible	x	x		Access and Mobility
More recreational opportunities / activities	Intangible	x	x		Community Participation
Opportunities for youth activities	Intangible	x	x		Community Participation
Opportunities for rail/tram enthusiasts and others	Intangible	x	x		Community Participation
Potential for jobs due to increased activities	Intangible		x	x	Education / Training & Jobs
Skills increases	Intangible	x	x		Education / Training & Jobs
Parking impacts	Intangible	x	x		Access and Mobility
Safety in mode of transport / Potential accidents	Intangible	x	x		Crime and Public Safety
Retailers/Shopkeepers					
More tourists to Nambour and Sunshine Coast generally	Tangible	x	x		Tourism Benefits
Increased expenditure from workers and visitors	Tangible	x	x		General Economy Benefits
Catalyst for further redevelopment opportunities & other activities and businesses	Intangible	x	x		Community Identity & Cohesion, Better Services & Infrastructure
Council and Emergency Services					
Enhanced level of pride in the centre, less crime/graffiti	Tangible	x	x		Crime and Public Safety
Potential to have to 'take over' operations if community cannot successfully operate	Intangible		x		Legacy implications
Environment					
Reduced car emissions	Negligle	x	x		Environmental Benefits
Solar power operations	Negligle	x	x		Environmental Benefits
General Economy					
Value Added to the Economy - construction & operation	Tangible			x	General Economy Benefits
Further jobs	Tangible			x	General Economy Benefits



6.1 Cost Benefit Analysis

As noted above, a broad Rapid Cost Benefit Analysis (CBA) was completed to assess the overall 'value for money' or otherwise of the establishment of the Nambour Heritage Tramway.

CBA is a tool used by decision makers to assist in determining how benefits to a community can be maximised given scarce resources. It can be one of the clearest ways to demonstrate the overall 'benefit' (or otherwise) of implementing a program.

CBA compares the outcomes of implementing a project (in this case the Nambour Heritage Tramway) with the outcomes that are likely to occur should the project not go ahead (termed a 'do minimal' or 'do nothing' option). By comparing the 'do nothing' with the 'policy' option, *marginal* (or additional) costs and benefits result and the overall outcome (if a positive result occurs) shows 'how much' society is likely to benefit from the implementation of a program.

The technique quantifies as many costs and benefits as possible in each of the options in monetary terms. By doing so, the 'value for money' can be clearly shown. It is important to note that costs and benefits are valued in terms of the impacts they make to the community at large, rather than the costs or benefits to any particular entity, and costs or benefits that are simply transferred from one part of society to another are not included (these are termed 'transfer' costs/benefits).

Given the difficulty of monetising some elements of tourism/heritage projects, CBA uses a variety of concepts to assist with ensuring that the marginal benefits and costs can be determined. These are important to understand and include the following:

- **Opportunity Cost –** Costs and benefits are priced at their value in their best alternative use, which may be above or below the actual cost of the item;
- **Willingness to Pay –** If opportunity costs cannot be determined, costs and benefits are valued at what the last consumer in a competitive market is willing to pay for them;
- **Assessing costs and benefits over a reasonable timeframe –** To ensure all costs and benefits are adequately accounted for, a time period needs

to be considered in a CBA. For the Nambour Heritage Tram a time period of 30 years has been adopted;

- **Discounted cash flow techniques –** Like the financial feasibility assessment, the CBA utilised discounted cash flow techniques.

- **Economic impacts**, such as jobs, are not included in the CBA, but these are considered separately in Section 5.2.

To determine the robustness of the Nambour Heritage Tramway, two key performance indicators were determined. These were:

- **The Benefit Cost Ratio (BCR)**, which is the 'present value' of the benefits divided by the 'present value' of the costs. When the BCR is over 1 the project is worthwhile as this indicates that more benefits accrue to the community than costs when implementing the option. A BCR of 2 or more is considered highly desirable, as this is indicating that the option is likely to return twice (or more than twice) the benefits when compared to the costs involved. A BCR under 1 indicates that the costs outweigh the expected monetary benefits.

- **Net Present Value (NPV)**, which is the net present value of the 'benefits' minus (or 'net' of) the 'present value' of costs. The result shows the community's 'net' gain (a positive value) or 'net' loss (a negative value) expected with implementation of the project.

As with many projects that include heritage and tourism elements, some benefits cannot be quantified. In a CBA these are termed 'intangibles' and are not included in the quantification component of the assessment. However, they are still important and are therefore discussed separately. The final conclusion of the overall 'net benefit' or 'net cost' to society from implementing an option therefore considers not only the quantifiable costs and benefits but also the intangible components. To ensure that the benefits and impacts are not repeated, the intangible elements are discussed in the Social Impact Assessment section.

Below, the assumptions and sources of information utilised to assess the CBA for the Nambour Heritage Tramway are discussed as are the outcomes of the CBA. Intangible elements (generally social impacts) are discussed in the Social Impact Assessment in Section 5.2.

Quantifying Benefits and Costs

The potential costs and benefits of establishing the Nambour Tramway are discussed below:

Costs

- ***The establishment / capital cost of the operation***: The establishment / capital costs of the operation noted in Section 4.1 in the financial feasibility was utilised for the CBA.
- ***The ongoing costs:*** Section 4.1 also noted the ongoing costs associated with the operation. These were utilised in the CBA.
- ***Total costs:*** Adding the capital costs and ongoing costs together over the 30 year period at a discount rate of 7 per cent, the present value of costs would total either $10.3 million (if all costs were paid for), and around $4.9 million if inkind works were provided.

Benefits

- ***Revenue from the tram:*** As the tramway is likely to induce travel, rather than produce a mode-shift away from car based travel, the revenue associated with operation of the tram has been included as a marginal benefit for the Nambour community. Expected revenues from the scenarios developed for the financial feasibility have been utilised (refer Section 4.2).
- ***Increased expenditure from merchandising:*** As noted previously, it is expected that the Information Centre will have a range of merchandise for sale. The CBA has assumed that 10 per cent of visitors to the information centre and 10 per cent of resident travellers using the Tramway would spend around $20 on merchandising.
- ***Expenditure from school trips:*** Again, as noted previously, it is expected that benefits would be accumulated from school trips using the Tramway. It is not clear whether these school trips would be additional trips (and therefore constitute a marginal benefit) or whether schools would simply forego an alterative excursion in order to use the Tramway. If the latter occurred, the revenue generated would not be considered 'marginal' and therefore would not be included in the analysis. The analysis has assumed that the school trips would be constitute a marginal benefit and therefore have been included in the CBA.

In addition to the revenue expected from the tramway (as utilised in the financial feasibility assessments), other broader benefits are expected from the operation of the Tramway. These include:

- ***Induced spending from existing visitors***: Based on the community survey outcomes, it was assumed that workers and visitors who regularly visited Nambour and used the Tram would on average spend an additional $18 per week in the centre. This figure was applied to the expected number of users of the Tram and annualised;

- ***Increased tourism / visitor expenditure:*** As noted previously, the museum in Nambour indicated that on average 260 people per month visit the facility[5]. Outcomes of the community survey completed by the Consultants indicate that these visitors generally come from the 4560 postcode. As the level of increased tourism / visitors due to the presence of the operating Tram is unknown, it was optimistically assumed that visitation to Nambour would increase by 50 per cent with the introduction of the tramway. The additional expenditure in Nambour was calculated on these *additional* visits, and was assumed to be $30 per person.

- ***Increased tourism around the Sunshine Coast by Nambour visitors:*** Given the recommendations emanating from the case studies, it is expected that the Information Centre / Kiosk built in line with the operation of the Tram would also promote other tourist attractions across the Sunshine Coast. A component of these trips have assumed to be 'new' trips, and not just trips that would have occurred without the information presented at the Kiosk in Nambour. As many of the tourist attractions in the vicinity of Nambour have no entry fee, a travel cost method has been used to determine the marginal benefit associated with this element. This is a method whereby the value of the attraction to the person attending is assumed to be at least as valuable as the travel time cost (and out of pocket expenses) of getting there. If this was not the case, the trip would not rationally occur. To determine the benefit to assign the following was assumed:
  - Of those people visiting the Information Centre (assumed to be current and likely increase in visitors), 20 per cent are also likely to attend *additional* attractions across the Sunshine Coast.
  - Visitors to Nambour are likely to be mainly local, with a small proportion from SEQ or further afield.
  - The average two way distance from Nambour to other attractions would be about 60km.

[5] It is noted that visitor numbers from official tourism data for the Sunshine Coast does not focus on small areas such as Nambour.

- 1.25 people were estimated to be in each car, based on information available from the Australian Transport Council (2006) guidelines.
- The cost of leisure travel time for each visitor was assumed at $12 per hour based on the Australian Transport Council (2006) guidelines, with values indexed to reflect present day values.
- The vehicle operating cost per km travelled was estimated at $0.25 based on the Australian Transport Council (2006) guidelines, with values indexed to reflect present day values.

- ***Increased expenditure from events:*** The operation of the Tramway also provides the potential for other events/activities. The community survey tested the popularity of the concept of a restaurant tramway and over 75 per cent of people indicated that if the restaurant was good quality and good value for money they would use it. For the analysis, it has been assumed that 75 per cent of people from the Nambour – Burnside district would therefore visit at least one 'event' per year. In line with the outcomes of the survey it was assumed that the expenditure associated with the 'event' would be in the vicinity of $20 per event.

- ***Existence Value of the Tramway:*** Often people ascribe a value to an attraction even if they are not likely to use it. This can be described as an attraction having an existence value. The outcomes of the community survey indicated that all but one person of those in support of the Tramway would use the Tram. Therefore the existence value has not been included, as people who support the Tram are paying for its usage and existence already.

Outcomes of Cost Benefit Analysis

The outcomes of the Cost Benefit Analysis is shown below in Table 3.

Scenarios 1 and 2 (i.e. those scenarios where full costs are paid and there are no inkind or volunteer services) do not return a positive Net Present Value (NPV) or a Benefit Cost Ratio (BCR) over 1. The BCRs for these scenarios are 0.6 at all discount rates of 7 per cent, 10 per cent and 12 per cent, and NPVs are between a negative $3.4 million and $3.7 million. Thus under a commercially run operation, the costs associated with the project would exceed the broader benefits likely to be achieved.

However, Scenarios 3 and 4 (which includes inkind and volunteer services) do return positive NPVs and BCRs at all discount rates tested, albeit marginally for a 12 per cent discount rate. The NPV ranges from $240,000 (12 per cent discount rate) over the 30 years to $1.7 million (7 per cent

discount rate). BCRs for these assessments are between 1.1 and 1.3, indicating that there are between 10 per cent and 30 per cent more benefits accruing to the Nambour community than costs for the operation.

Table 3: Summary of Cost Benefit Analyses

Source: C Change Sustainable Solutions with Costings from Ranbury, September 2014

Cost Benefit Assessment	Present Value ($,000), Discount Rate			Sensitivity Testing, Discount Rate 7%			
	7%	10%	12%	Increase in costs 10%, Decreased Benefits 25%	Increase Costs 10%, Decreased Benefits 10%	0 increase in costs, Decreased Benefits 10%	0 increase in costs, Benefit Increase 10%
Scenario 1: 5 Day a Week Service							
Costs	$10,330	$8,720	$7,980	$11,360	$11,360	$10,330	$10,330
Benefits	$6,660	$5,200	$4,520	$4,995	$6,060	$6,060	$7,330
Net Present Value	($3,670)	($3,520)	($3,460)	($6,365)	($5,300)	($4,270)	($3,000)
Benefit Cost Ratio	***0.6***	***0.6***	***0.6***	***0.4***	***0.5***	***0.6***	***0.7***
Scenario 2: 6 Day a Week Service							
Costs	$10,330	$8,720	$7,980	$11,360	$11,360	$10,330	$10,330
Benefits	$6,680	$5,220	$4,540	$5,010	$6,080	$6,080	$7,350
Net Present Value	($3,650)	($3,500)	($3,440)	($6,350)	($5,280)	($4,250)	($2,980)
Benefit Cost Ratio	***0.6***	***0.6***	***0.6***	***0.4***	***0.5***	***0.6***	***0.7***
Scenario 3: 5 Day a Week Service, Volunteer Staff and In-Kind builders							
Costs	$4,950	$4,490	$4,280	$5,450	$5,450	$4,950	$4,950
Benefits	$6,660	$5,200	$4,520	$4,995	$6,060	$6,060	$7,330
Net Present Value	$1,710	$710	$240	($455)	$610	$1,110	$2,380
Benefit Cost Ratio	***1.3***	***1.2***	***1.1***	***0.9***	***1.1***	***1.2***	***1.5***
Scenario 4: 6 Day a Week Service, Volunteer Staff and In-Kind builders							
Costs	$4,950	$4,490	$4,280	$5,450	$5,450	$4,950	$4,950
Benefits	$6,680	$5,220	$4,540	$5,010	$6,080	$6,080	$7,350
Net Present Value	$1,730	$730	$260	($440)	$630	$1,130	$2,400
Benefit Cost Ratio	***1.3***	***1.2***	***1.1***	***0.9***	***1.1***	***1.2***	***1.5***

Costs associated with all scenarios have been assumed to be the same as those assessed for the Financial Feasibility. For Scenario 3 and 4, these total some $5.0 million (present value) at a discount rate of 7 per cent over the 30 year period. Benefits expected in Scenarios 3 and 4 are around $6.7 million (present value) at a 7 per cent discount rate, but could decrease to around $4.5 million if discount rates were to increase to 12 per cent.

Recall that the benefits included in the analysis covered:

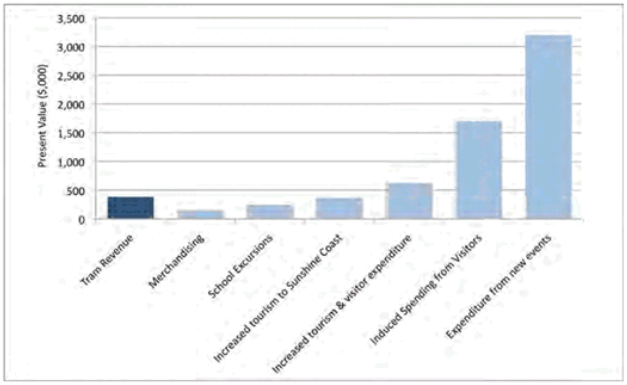
- Revenue from tram ticketing;

- Merchandising;
- School excursions;
- Induced spending in Nambour from visitors and workers;
- Increased tourism & visitor expenditure
- Increased tourism to Sunshine Coast; and
- Expenditure from new events.

As shown in Figure 25 below, the majority of the benefits are expected to come from induced spending from Visitors and Workers in the Nambour centre (26 per cent of all benefits); and expenditure from new events (48 per cent of all benefits). Therefore, if the assumptions associated with these elements do not hold true, the BCR would struggle to stay above 1.

Sensitivity testing was conducted on the CBA analyses in line with those tests completed for the Financial Feasibility. Given the reliance on benefits in the CBA, another scenario where costs were increased by 10 per cent and benefits decreased by 25 per cent was tested. In this scenario the BCR would be 0.9, which indicates that the costs of the operation are marginally higher than the broader benefits likely to be achieved.

Figure 25: Summary of Benefits associated with the CBA
Source: C Change Sustainable Solutions Pty Ltd with costings from Ranbury Pty Ltd, August 2014



6.2 Economic Impact Assessment

The likely economic impacts associated with the construction and operation of the Nambour Heritage Tramway was completed by the Economic Development Section in Council using their in-house economic impact model. The model used the assumptions associated with the costs generated by the Consultant team (rounded to the nearest million) and assumed that the direct jobs for the Tramway operation were classified in the rail transport sector. Economic Development has noted that noting the impacts using the rail transport sector may overstate the impacts to a degree.

A summary of impacts associated with Value Added to the economy and employment outcomes is shown below, and the following text discusses this as well as impact on Output and Wages and Salaries. The text was provided directly from the Economic Development Section of the Sunshine Coast Regional Council. It is noted that should volunteer and inkind services be provided, the overall impacts (particularly the direct impacts and impacts on wages and salaries) will be minimal.

Table 4: Economic Impact Assessment Summary – Value Added to GRP and Employment Outcomes

Source: Sunshine Coast Regional Council, September 2014

Economic Impacts	Value Added ($,000)	Employment Outcomes
Construction Phase	**Impacts associated with $3m construction**	
Local Impact on Sunshine Coast	$2.75	27
Impact outside Sunshine Coast	$1.00	8
Australian Impacts	***$3.75***	***35***
Operation Phase	**Impacts associated with 4 FTE jobs in the Rail Transport Sector**	
Local Impact on Sunshine Coast	$1.44	11
Impact outside Sunshine Coast	$0.52	5
Australian Impacts	***$1.96***	***16***

Construction Phase

Impact on Output

The direct addition of $3 million annual output in the Construction sector of Sunshine Coast economy would lead to an increase in indirect demand for intermediate goods and services across related industry sectors. These indirect industrial impacts (Type 1) are estimated to be an additional $3.60m in Output, representing a Type 1 Output multiplier of 2.20.

There would be an additional contribution to Sunshine Coast economy through consumption effects as correspondingly more wages and salaries are spent in the local economy. It is estimated that this would result in a further increase in Output of $0.96 million.

The combination of all direct, industrial and consumption effects would result in total estimated rise in Output of $7.56m in Sunshine Coast economy, representing a Type 2 Output multiplier of 2.52.

These impacts would not be limited to the local economy. Industrial and consumption effects would flow outside the region to the wider Australian economy to the tune of $2.06 million in Output.

The combined effect of economic multipliers in Sunshine Coast and the wider Australian economy is estimated to be $9.62 million added to Australia's Output.

Impact on Local Employment (jobs)

The direct addition of $3 million annual output in the Construction sector of the Sunshine Coast economy is estimated to lead to a corresponding direct addition of 8 jobs in the local Construction sector. From this direct expansion in the economy it is anticipated that there would be flow on effects into other related intermediate industries, creating an additional 14 jobs. This represents a Type 1 Employment multiplier of 2.68.

This addition of jobs in the local economy would lead to a corresponding increase in wages and salaries, a proportion of which would be spent on local goods and services, creating a further 5 jobs through consumption impacts.

The combination of all direct, industrial and consumption effects would result in a total estimated increase of 27 jobs located in Sunshine Coast. This represents a Type 2 Employment multiplier of 3.33.

Employment impacts would not be limited to the local economy. Industrial and consumption effects would flow outside the region to the wider Australian economy creating a further 8 jobs.

The combined effect of economic multipliers in Sunshine Coast and the wider Australian economy is estimated to be an addition of 35 jobs.

Impact on Wages and Salaries Income

The direct addition of $3 million annual output in the Construction sector of Sunshine Coast economy is estimated to lead to a corresponding direct increase in income from Wages and Salaries of $0.56 million within the local Construction sector. A further $0.91 million in Wages and Salaries would be generated from the employment created in related intermediate industries. This represents a Type 1 Income multiplier of 2.63.

As these Wages and Salaries flow through the economy, it will increase local consumption, creating more jobs and adding an estimated $0.27 million in Wages and Salaries in consumption industries such as the retail sector.

The combination of all direct, industrial and consumption effects would result in a total estimated increase in income through Wages and Salaries of $1.73 million in Sunshine Coast. This represents a Type 2 Income multiplier of 3.12.

These income impacts would not be limited to the local economy. Industrial and consumption effects would flow outside the region to the wider Australian economy creating a further $0.50 million in Wages and Salaries.

The combined effect of economic multipliers in Sunshine Coast and the wider Australian economy is estimated to be an addition of $2.23 million in Wages and Salaries.

Impact on Value-added

The direct addition of $3 million annual output in the Construction sector of Sunshine Coast economy would lead to a corresponding direct increase in Value-added of $0.85 million. A further $1.42 million in Value-added would be generated from related intermediate industries. These indirect industrial impacts represent a Type 1 Value-added multiplier of 2.67.

There would be an additional contribution to Sunshine Coast economy through consumption effects as correspondingly more wages and salaries are spent in the local economy. It is estimated that this would result in a further increase in Value-added of $0.48 million.

The combination of all direct, industrial and consumption effects would result in an estimated addition in Value-added of $2.75 million in Sunshine Coast economy, representing a Type 2 Value-added multiplier of 3.23.

These impacts would not be limited to the local economy. Industrial and consumption effects would flow outside the region to the wider Australian economy to the tune of $1.00 million in Value-added.

The combined effect of economic multipliers in Sunshine Coast and the wider Australian economy is estimated to be $3.75 million added to Australia's Value-added.

Impact on GRP

Value-added by industry represents the industry component of Gross Regional Product (GRP). The impact on Sunshine Coast's GRP as a result of this change to the economy is directly equivalent to the change in Value-added outlined in the section above.

In summary, GRP in Sunshine Coast is estimated to increase by $2.75 million.

The effect on the Australian economy (including Sunshine Coast) is estimated to be a growth in Gross Domestic Product (GDP) of $3.75 million.

Operational Phase

Impact on Output

The direct addition of 4 jobs in the Rail Transport sector of Sunshine Coast economy is estimated to lead to a corresponding direct addition of $1.41 million in Output from the local Rail Transport sector. From this direct expansion in the economy it is anticipated that there would be a flow on effects into other related intermediate industries, creating a further increase of $1.15 million in Output. This represents a Type 1 employment multiplier of 1.82.

There would be an additional contribution to Sunshine Coast economy through consumption effects as correspondingly more wages and salaries

are spent in the local economy. It is estimated that this would result in a further increase in Output of $0.47 million.

The combination of all direct, industrial and consumption effects would result in total estimated rise in Output of $3.04 million in Sunshine Coast economy, representing a Type 2 Output multiplier of 2.15.

These impacts would not be limited to the local economy. Industrial and consumption effects would flow outside the region to the wider Australian economy to the tune of $1.18 million in Output.

The combined effect of economic multipliers in Sunshine Coast and the wider Australian economy is estimated to be $4.22 million added to Australia's Output.

Impact on Local Employment (jobs)

The direct addition of 4 jobs in the Rail Transport sector of the Sunshine Coast economy would lead to a further increase in indirect demand for intermediate good and services across related industry sectors. These indirect industrial impacts (Type 1) are estimated to result in an additional 5 jobs, representing Type 1 Employment multiplier of 2.14.

This addition of jobs in the local economy would lead to a corresponding increase in wages and salaries, a proportion of which would be spent on local goods and services, creating a further 3 jobs through consumption impacts.

The combination of all direct, industrial and consumption effects would result in a total estimated increase of 11 jobs located in Sunshine Coast. This represents a Type 2 Employment multiplier of 2.80.

Employment impacts would not be limited to the local economy. Industrial and consumption effects would flow outside the region to the wider Australian economy creating a further 4 jobs.

The combined effect of economic multipliers in Sunshine Coast and the wider Australian economy is estimated to be an addition of 16 jobs.

Impact on Wages and Salaries Income

The direct addition of 4 jobs in the Rail Transport sector of Sunshine Coast economy is estimated to lead to a corresponding direct increase in income from Wages and Salaries of $0.42 million within the local Rail Transport sector. A further $0.30 million in Wages and Salaries would be generated

from the employment created in related intermediate industries. This represents a Type 1 Income multiplier of 1.72.

As these Wages and Salaries flow through the economy, it will increase local consumption, creating more jobs and adding an estimated $0.13 million in Wages and Salaries in consumption industries such as the retail sector.

The combination of all direct, industrial and consumption effects would result in a total estimated increase in income through Wages and Salaries of $0.85 million in Sunshine Coast. This represents a Type 2 Income multiplier of 2.03.

These income impacts would not be limited to the local economy. Industrial and consumption effects would flow outside the region to the wider Australian economy creating a further $0.26 million in Wages and Salaries.

The combined effect of economic multipliers in Sunshine Coast and the wider Australian economy is estimated to be an addition of $1.11 million in Wages and Salaries.

Impact on Value-added

The direct addition of 4 jobs in the Rail Transport sector of Sunshine Coast economy would lead to a corresponding direct increase in Value-added of $0.75 million. A further $0.46 million in Value-added would be generated from related intermediate industries. These indirect industrial impacts represent a Type 1 Value-added multiplier of 1.61.

There would be an additional contribution to Sunshine Coast economy through consumption effects as correspondingly more wages and salaries are spent in the local economy. It is estimated that this would result in a further increase in Value-added of $0.24 million.

The combination of all direct, industrial and consumption effects would result in an estimated addition in Value-added of $1.44 million in Sunshine Coast economy, representing a Type 2 Value-added multiplier of 1.92.

These impacts would not be limited to the local economy. Industrial and consumption effects would flow outside the region to the wider Australian economy to the tune of $0.52 million in Value-added.

The combined effect of economic multipliers in Sunshine Coast and the wider Australian economy is estimated to be $1.97 million added to Australia's Value-added.

Impact on GRP

Value-added by industry represents the industry component of Gross Regional Product (GRP). The impact on Sunshine Coast's GRP as a result of this change to the economy is directly equivalent to the change in Value-added outlined in the section above.

In summary, GRP in Sunshine Coast is estimated to increase by $1.44 million.

The effect on the Australian economy (including Sunshine Coast) is estimated to be a growth in Gross Domestic Product (GDP) of $1.97 million.

6.3 Social Impact Assessment

The social impacts likely to be generated by the construction and operation of the Nambour Heritage Tramway are considered below. Potential positive and negative impacts are noted, as are potential opportunities associated with the establishment of the Tramway.

Impacts are discussed with reference to:

- Access and Mobility, including parking;
- Community Identity & Cohesion, Better Services & Infrastructure;
- Community Participation;
- Crime and Public Safety;
- Education / Training & Jobs;
- Environmental Benefits;
- General Economy Benefits;
- Tourism Benefits; and,
- Legacy implications.

A summary of the social impacts is presented below, and a full description associated with this is discussed thereafter.

Table 5: Summary of Social Impact Assessments

Source: C Change Sustainable Solutions, September 2014

Area of Impact	Potential Positive Impact	Potential Negative Impact	Opportunities
Access and Mobility, Services and Infrastructure	✓✓	x	✓✓✓
Parking Impacts	✓	x	
Community Identity & Cohesion	✓✓	x	✓✓✓
Community Participation	✓✓	x	✓✓✓
Crime and Public Safety	✓✓	x	
Education / Training & Jobs	✓✓		
Environmental Benefits	✓	x	
General Economy Benefits	✓	x	
Tourism Benefits	✓✓	x	✓✓✓
Legacy implications	✓	x	

Access and Mobility, Services and Infrastructure

Potential Positive Impact	Potential Negative Impact	Opportunities
• The distance between Coles and Aldi is around 1km and consultation with the stakeholders indicated that the walk can be quite hot, particularly in summer. The operation of the Nambour Heritage Tramway would provide better access to goods and services, particularly to older people who are less resilient to the heat. Results from the community survey support the establishment of the tram, with 85 per cent of people surveyed indicating that they would use the tram (refer Figure 15). • The existence of the Tramway could alleviate perceived parking issues in Nambour as people could park at Coles or Aldi and access other parts of the centre using the Tram. However, discussions with Coles and Aldi would need to be held to ensure that shared parking arrangements were acceptable. • The development of the Tramway could become a catalyst for further development. This may bring more services to the Nambour Centre.	• The route is very short and unlike the 'critical success factors' noted throughout the case studies, the destination and intermediate stops are not areas of 'special / historical' significance. Some stakeholders and community members noted that the 'tram doesn't go anywhere interesting' or 'it is not long' and therefore they noted they would not use it. • Coles and Aldi may not be satisfied with tram patrons using their carparks. Coles was unable to provide an indication of whether they would be happy to have shared parking. Further discussions would be required.	• There are opportunities in the future to redevelop the Tramway destinations. Some suggestions that have been made are to master plan the 'heritage' precinct at the Coles end of the route, as well as having more opportunities at the Aldi area. • Nambour Alliance ultimately envisions a Tramway that links at least with the Showgrounds and could also reinstate the original route. The capital and operating costs, as well as potential patronage associated with these extensions would need to be investigated. • If flexibility is required for the route of the tram, the Perth and Fremantle Tram 'bus' options could be investigated. Taking this approach, the route could still be along the heritage tramway, but could also visit other destinations (including the Showgrounds when necessary, the old sugar route, and coincide with the walking track). The costs and revenues associated with this option would need investigation, and early indications from the Perth and Fremantle operations suggest that appropriate levels of patronage are essential for the ventures to be viable.

Community Identity & Cohesion

Potential Positive Impact	Potential Negative Impact	Opportunities
• Many people consulted for the project emphasised the need to have further defining elements associated with Nambour's identity. People were proud of the evolving 'quirky' nature and arts and cultural elements in Nambour, and felt that the addition of the tram would be a large positive for Nambour. • Assisting with community identity was expected to improve community pride and therefore translate to more people using and visiting Nambour. • Over 75 per cent of people surveyed indicated that the addition of the Tram was considered to be a likely catalyst for further redevelopment opportunities & other activities and businesses (refer Figure 18). This is likely to bring about economic benefits as discussed in General Economy Impacts	• Some stakeholders in the community were concerned about the message that the Tram (as currently routed) sent to the broader Sunshine Coast areas and indeed the whole of South East Queensland. Some community members noted that the tram route was too short and did not have a point of interest. These people suggested that Nambour did not want to be known for being the area with the 'tram that goes nowhere'. • The expectation of patronage as utilised in this assessment relies on the outcomes of the community survey and expectations associated with additional visitors. However, should the Tramway attract less tourists and visitors than expected, all additional benefits noted may be limited.	• The Tramway presents many opportunities to strengthen community identity and cohesion. Taking into account Nambour Alliance's vision, opportunities that build on the arts and culture scene (such as having bands play at the tram stations after tram operation hours, having dinners on the tracks, having a coffee cart, having special promotional events, having family fun days with the tram, artists on board) could be instigated.

Community Participation

Potential Positive Impact	Potential Negative Impact	Opportunities
• As noted above in the opportunities for community identity, the existence of the Tram may bring about more recreational opportunities / activities for a range of people - children, youth, young adults, tram enthusiasts, families as a whole, retired people. • The opportunities for volunteering also provide more avenues for community participation. If these opportunities were taken up by people who might not otherwise be active in the community, it could also lead to better health and well being outcomes. • With the volunteering / staff requirements there are also opportunities to increase participation for people in training in diverse areas, such as rail operations, promotion, safety/security.		• As noted above, there are many opportunities to increase community participation with the introduction of the Tram. For example, there could be the opportunity to have bands play on the tram at the terminus of a Saturday night; could have dinners along the track or at the stations; could have a coffee tram; could have artists on board, and many other events/ activities.

Crime and Public Safety

Potential Positive Impact	Potential Negative Impact	Opportunities
• The Tram is expected to be travelling at a relatively low speed to ensure the safety of travellers, pedestrians and drivers. Nonetheless, safety training will need to be strictly adhered to. It is noted that the tram route has not been identified as an area that requires attention with regard to safety. • The enhanced level of pride in the centre could also lead to improved sense of 'ownership' of the Centre by the community and therefore less crime graffiti. It is noted, however, that crime was raised as an issue by only one stakeholder in the community.	• As with any mode of transport, the introduction of the Tram does provide for the potential for tram incidents. Safety training and community education is essential if the Tramway is to move to implementation. • In addition, the Depot and information centre would need to be adequately patrolled / secure to ensure they don't attract graffiti or unwanted behaviour. Costs for security patrols have been incorporated into the cost assessments for the study.	• As noted, it is essential that all staff members are adequately trained in safety and efficient operations. In addition, community education associated with the Tram would be beneficial. One suggestion for community education included having 'walking' trams for a while prior to introducing the Tram - people walk the track as though they are in a Tram so the community understands that there will be changes.

Education / Training & Jobs

Potential Positive Impact	Potential Negative Impact	Opportunities
• The introduction of the Tram in Nambour will require construction and operation, and therefore attract jobs to the area. As shown in the economic impact assessment, this is likely to have indirect benefits also. • The types of positions required for the operation of the Tramway include tram drivers, information kiosk operators as well as maintenance crews. Training for staff members will be required. • If the Tramway did become a catalyst for further development, there is the potential for more jobs in the area, plus the potential introduction of new skills in the area.	• Depending on the popularity of the tramway, volunteering required to operate the tramway system may not be present over the longer term. If that is the case, longevity of the operation and the jobs associated with it is questionable. • With voluntary staff covering the majority of the ongoing employment, the level of flow on impacts on jobs in other industries and areas is likely to be diminished.	• Depending on the success of the Tramway, there is the opportunity to develop training 'days' or courses associated with maintenance of the Tramway. • 'Education' days and 'heritage events' could also be run in line with the Tramway operation.

Environmental Impacts

Environmental benefits are negligible to negative given that most people using the Tramway will have driven to the centre to do so. If visitation and patronage occurred as expected, it is likely that the operation of the Tramway would increase emissions rather than decrease them.

General Economy Benefits, Including Tourism Benefits

Potential Positive Impact	Potential Negative Impact	Opportunities
• Approximately 75 per cent of the people surveyed indicated that they felt the addition of the Tram would be a catalyst for more development in Nambour (refer Figure 18). More visitors to the centre were expected to prompt beautification works and the introduction of other goods and services. This in turn was expected to generate to more visitors and further expenditure. • The outcomes of the community survey also noted that of those who indicated they would use the tram would also spend more money in the centre. The CBA has shown that this is an important component of the benefits, and should people spend more, the benefits of the operation could exceed the establishment and ongoing costs. • Construction and operation will have a direct and indirect impact on the economy. This has been quantified in the economic impact section and has shown that up to $3.75 million worth of benefits could be expected in the construction period, and the generation of up to 16 jobs Australia-wide. • Tourism / visitation to Nambour is expected to increase with the introduction of the Tram. In addition, the presence of the information centre is also expected to marginally increase tourism to other attractions on the Sunshine Coast generally. This is expected to bring substantial benefits to Nambour and the Sunshine Coast generally.	• As noted previously, if the patronage and visitation increases to Nambour do not result then the likely benefits associated with the operation and the expected additional tourism across the Sunshine Coast will be minimal. • Once the Tram is operational, the expected increase in expenditure may not either result, or continue over the longer term. If this occurs, the costs of the operation are likely to be in excess of the community benefits. • Indirect operational impacts are likely to be minimal if direct operational positions are voluntary.	

Potential Legacy implications for Council

There are a number of issues for Council to consider regarding the operation of the Nambour Heritage Tramway.

The first relates to the risk associated with Tram incidents. The Nambour Heritage Tramway – Issues Paper developed by Council (refer Appendix 1) provided an operational risk assessment. This indicated that accreditation of the Rail Infrastructure Manager and the Rolling Stock Operator is essential, but that even when accreditation has occurred, the potential risks involved in the operation are not completely eliminated. The Issues Paper states that 'at all times, the responsibility for ensuring the safety of the railway operations remains with the Railway Organisation' (in this case Council). Should a tram incident occur, it is likely that there will be ramifications for both Council as the Rail Infrastructure Manager and the community operators as Rolling Stock Operators. As Rail Infrastructure Manager, Council will need to be satisfied that appropriate measures are in place such that:

- Track and infrastructure is fit for purpose, safe and is appropriately maintained;
- Rolling stock is safe and is appropriately maintained;
- All operational risks are identified and appropriately managed / mitigated;
- There is a risk register in place and this is utilised appropriately; and,
- Management, training and staff policies and procedures are appropriate. This will be particularly important if a large volunteer base is utilised.

The second issue that needs to be considered by Council is the scenario of what would happen should the volunteer base decline and the Rolling Stock Operator not be able to keep operations running. If this was to occur, Council has a number of options, including:

- ***The potential that Council will 'take over' the operations***. If the Rolling Stock Operator was no longer able to viably run the Tramway, there may be an expectation in the community for Council to continue the operation. To do so would incur costs to Council (as outlined in Section 5). To determine whether it was strategically beneficial for Council to continue the operations, the overall ongoing subsidy required to operate the Tram would need to be weighed up against the opportunity cost and benefits of Council spending the required subsidy elsewhere in the Region.

- ***The potential that Council will cease operations of the Tram but keep operating the Information Centre***. Under this scenario there will also

be costs associated with staffing and maintaining the Information Centre / Kiosk. Again, the benefits of doing so will need to be weighed up against the overall costs.

- ***The potential for Council to cease all operations***. Under a situation whereby Council was required to resume responsibility of Rolling Stock Operator, an alternative would be for Council to cease the Tramway and the Information Centre / Kiosk operations altogether. If that was the case and there were outstanding debts Council would most likely become responsible for these. If, on the other hand, the community group operating the Tramway was only allowed to take the operation of the Tramway forward on the basis that they were able to meet all establishment costs upfront[6] (perhaps by securing grants or donations), Council could cease the services and have minimal ongoing costs. In the case where all establishment costs were paid for and the Council ceased operations, Council's ongoing costs would be limited to housing the tram and ensuring that the information centre, depot / maintenance shed does not become a target for graffiti and/or other crime. This is not likely to be an expensive proposition, but will require management of community expectations.

[6] A review of potential funding mechanisms is provided in Appendix 9 and notes that considering that the Nambour Tramway will bring most benefits for the community of Nambour, the most appropriate funding avenues for the operation would be through pay as you go ticketing, grants and/or through private contributions / donations. Rates could also potentially be used if Councillors felt there were significant external benefits to residents throughout the Sunshine Coast.

7 Risk Assessment

Taking into account all preceding information and analyses, a risk assessment was conducted on the construction and operation of the Nambour Heritage Tramway. The details associated with the Risk Assessment can be found in Appendix 8 and a summary of risks is provided below. It is noted that most risks are considered low to medium, but the risks associated with the actual level of patronage and visitation not reaching the expected levels, sustaining the level of volunteering for the ongoing operation of the service and the potential for the required operational subsidy required to continue the operation not being available over the longer term are considered high.

Planning

With regard to planning, the risks identified included project scope adequacy, forecast patronage, adequacy of capital and operating cost estimates, understanding planning and land impacts, and the proposed design of terminus station and depot not being acceptable to local businesses and residents. Should these risks come to fruition, impacts on project viability and public acceptability might occur. Mitigation actions such as comprehensive feasibility assessments with sensitivity testing, conservative planning assumptions and effective stakeholder engagement would be required to mitigate many of the potential negative impacts. The feasibility assessments conducted as part of this project have been very comprehensive and a number of scenarios have been tested. Patronage estimates have been established based on community feedback and visitation estimates have been conservative. Nonetheless, the risk still remains that the patronage and induced visitation expected as in line with the operation of the Tramway may not be reached. In addition, stakeholder consultation has been conducted on many elements of the study, but not on the broad design elements of the Terminus, Depot or the Tram rolling stock. Should the project move to implementation, further consultation and detailed design of these elements would be beneficial.

Procurement

Procurement risks associated with the Nambour Heritage Tramway operation include purchasing the bespoke heritage tram at a competitive price and transporting it without incident / damage, having a procurement process that is less than efficient or not of sufficient detail such that sub-

standard acquisitions result, and the ability to purchase / acquire the properties needed for the depot and terminus. Ways to mitigate some of these potential risks include holding early discussions with the likely suppliers of the Tram prior to project approval, establishing a competent resourced team that is experienced in procurement, and ensuring that the ability to purchase / acquire the land required for the safe and efficient functioning of the tram is present.

Through the development of this report confirmation current established suppliers of similar type equipment in the UK and USA being able to supply a tram was confirmed. However, the price and specifications were less than desirable, and the rail experts had low confidence in the indicative price and ability to meet specifications. The technology is not comples, and the difficulties of the tram specifications arise more from remoteness and size of order (i.e. one tram only). A local Australian manufacturer would obviate some of these risks, albeit there is none that has substantial experience in designing a bespoke tram for this application, nor obtaining safety accreditation for such a vehicle. An imported vehicle introduces additional risks when being transported to its destination. In addition, the ability to access acceptable warranty and after sales service is made more difficult with an overseas supplier.

Despite further investigation through this study, medium risks associated with acquisition costs of the required properties are still likely to be present, as is the ability to be confident in the procurement practices of the organisation responsible for the ongoing operation of the Tramway. However, it would be expected that a more detailed assessment of available product and suppliers, coupled with a more specific specification, could elicit a likely supply cost and contingency cost below the Severn Lamb price used in this assessment.

Construction

Should the Nambour Heritage Tramway project move forward to implementation, construction risks will be present. These would include being able to guarantee the performance of civil works and building contractors, being able to build and construct elements in a timely fashion and without, and being able to ensure that key staff and contractors are maintained throughout the construction process. The impacts associated with these risks can result in increased cost and resources and/or delays in the delivery of the required outcomes. To reduce the risks associated with these elements, mitigation measures would include rigorous selection of construction teams, ensuring that the design / construction solutions are fit for purpose and have effective management of impacts (such as traffic,

property), ensuring that contingency costs take into account potential delays. In the financial feasibility assessment contingency fees have been included (30 per cent of costs) to cover minor scope variation, cost rises and some level of potential delay. The other areas of risk would need to be mitigated during construction. The residual risk after mitigation for most of these elements would still be medium.

Operation Safety

Ensuring that operational safety of the Tram service is maximised is essential. Risks associated with operation once the Tram is operational include collision with road vehicles, injuries to passengers and/or staff, and injuries to pedestrians. The impact of these risks could be minimal to highly significant, and depending on the incident, there is the risk of considerable personal injuries or death. Should incidents occur (even ones with low impacts) impacts would include impacts on services, poor publicity, potential impacts on future patronage, increases in insurance costs and also potential loss of accreditation. As noted previously, Council as Rail Infrastructure Manager is likely to share the responsibility of any incident that occurs. As such, it is essential that Council and the Rolling Stock Operator is confident that the design and signage associated with the Tramway is adequate, maintenance is appropriate, there is comprehensive and ongoing staff and driver training and that public awareness campaigns are implemented. After implementing these elements the residual risk of tram incidents has been assessed as medium.

Service reliability

Service reliability will depend on ensuring operational and maintenance procedures are adequate, staff and volunteer training is appropriate and ongoing, the presence of volunteers is sustainable over the longer term and the potential for vandalism addressed. The impacts of not ensuring these elements are in place include impacts on service, poor publicity, impacts on safety and impacts on future patronage. To reduce these risks, a thorough and ongoing assessment of operational needs should be present, effective training and management practices for paid and volunteer staff will be required, an adequate number of volunteers needs to be available, appropriate vendor selection needs to occur, and quality control and testing need to be in place. Ensuring that there are appropriate operational procedure manuals in place will be essential.

Commercial

The commerciality of the operation has been assessed throughout this report and even with considerable assumptions associated with volunteer staff and inkind services a subsidy will still be required. The extent of this subsidy has been estimated as between around $97,000 and $500,000 per annum. These estimates are based on assumptions of patronage developed through application of community perceptions noted through the community survey. There is a risk that once the operation commences patronage does not reach the level expected, or over time decreases. Should this occur, the subsidy requirements could increase from those estimated here. In addition, the induced visitation to Nambour has been conservatively assessed but again if the expectations associated with the assessments made here are not reached, the broader level of benefits associated with the cost benefit analysis may not result. All care has been taken to ensure estimates are conservative and sensitivity has been undertaken, but no guarantee can be made regarding people's actual and long term behaviour. As such, the residual risks associated with patronage not being achieved as described herewith has been assessed as high, and therefore, so too the ability to obtain an ongoing subsidy.

8 Conclusions

This study has investigated the establishment of the Nambour Heritage Tramway and provided information associated with:

- The financial feasibility of the Nambour Heritage Tramway, including the costs required to establish, maintain and operate the venture;
- The overall likely costs and benefits associated with the operation of the Tramway;
- The economic and social impacts associated with the Tramway operation; and,
- A risk assessment associated with the advancement of the concept, including any legacy implications for Council.

A wide range of tasks were performed to assist in determining the overall costs and benefits associated with the establishment of the Tramway. This included considerable stakeholder consultation, a community survey, the development of four possible scenarios for testing the financial feasibility and cost benefit analyses, six different sensitivity tests for each of the scenarios, and social and economic impact assessments.

The assessments completed showed that there is a wide level of support from the Nambour Community for the operation of the Tramway, and the early indications were that people would not only use the 900 metre Tram route being suggested, but also spend more in the centre if the Tramway was in operation. Seventy seven per cent of people surveyed about the Tramway thought that the establishment of the operation was good for the community and Nambour Alliance indicated that the Tramway was one of the key components of the community's vision for Nambour.

Financial feasibility assessments conducted showed that from a variety of viewpoints, including those allowing for substantial volunteering and inkind services, ongoing subsidies would be required to run the operation. Under the most optimistic assumptions whereby capital and establishment costs could be funded through grants or donations, Council would need to provide an operational subsidy of around $97,000 - $98,000 on a yearly basis. This ongoing subsidy could be even higher if the assumed level of revenue (from patronage, merchandising and school excursions) did not eventuate. Where no inkind services were provided, the operating subsidy that would be required from Council would be around $494,000 per year. Under a full cost recovery scenario, Council would need to invest between $4.2 million (where inkind services were provided) and $9.6 million (where no inkind

services were forthcoming) over the 30 year period for the Net Present Value to be neutral.

Under the assumptions of volunteer and inkind services, there is likely to be a broad range of benefits for the community of Nambour. With volunteer and inkind services, Benefit Cost Ratios (BCRs) of around 1.3 are likely, indicating that there are more broad society benefits than costs with the venture. Again, however, these outcomes depend on the operation reaching the patronage and level of visitation assumed in the assessments. Sensitivity testing using a 10 per cent rise in costs and a 25 per cent lowering of benefits indicated a BCR of 0.9, indicating that the costs would marginally outweigh the overall community benefits. Where no inkind or volunteer services are provided BCRs of between around 0.6 are expected.

There are multiple intangible social benefits likely to result with the introduction of the Tramway. This includes: improved community pride; strengthened identity; and, the potential to be the impetus for further redevelopment within Nambour.

However, there are also a number of risks associated with the operation, including: the risk of tram incidents if safety procedures are not followed; the risk that volunteer and inkind services may decline over time if the venture is not as popular as first expected; and, the risks associated with reduced patronage and visitation. The risk of Nambour being known as the area with the 'Tram that goes nowhere' was also indicated by some respondents and stakeholders consulted as part of the study.

With regard to risks / legacy implications for Council, there are a number of elements Council should consider.

The first is associated with the potential of Tram incidents. The Nambour Heritage Tramway – Issues Paper developed by Council (refer Appendix 1) provided an operational risk assessment. This indicated that accreditation of the Rail Infrastructure Manager and the Rolling Stock Operator is essential, but that even when accreditation has occurred, the potential risks involved in the operation are not completely eliminated. The Issues Paper states that 'at all times, the responsibility for ensuring the safety of the railway operations remains with the Railway Organisation' (in this case Council). Should a tram incident occur, it is likely that there will be ramifications for both Council as the Rail Infrastructure Manager and the community operators as Rolling Stock Operators. As Rail Infrastructure Manager, Council will need to be satisfied that appropriate measures are in place such that:

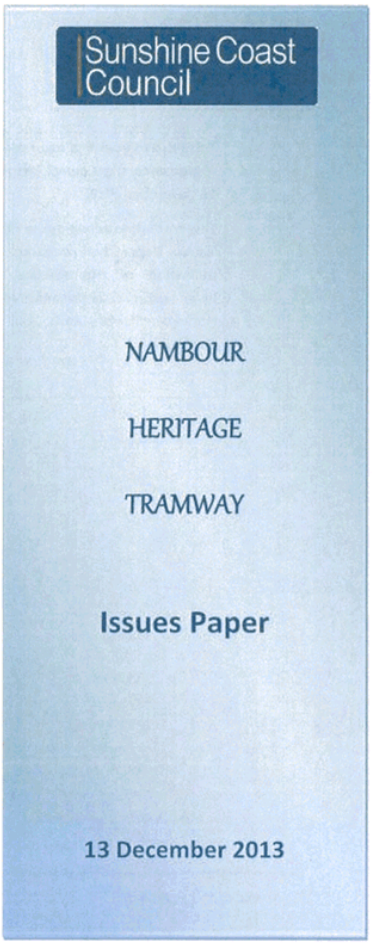
- Track and infrastructure are fit for purpose, safe and are appropriately maintained;
- Rolling stock is safe and is appropriately maintained;
- All operational risks are identified and appropriately managed / mitigated;
- There is a risk register in place and this is utilised appropriately; and,
- Management, training and staff policies and procedures are appropriate. This will be particularly important if a large volunteer base is utilised.

The next legacy implication is associated with if the volunteer base declines and the Rolling Stock Operator is not able to keep operations running. Where this occurs, there is the potential that Council will have to 'take over' operations. If this was the case there may be an expectation in the community for Council to continue the operation of at least the Information Centre, if not the Tramway itself. To determine whether it was strategically beneficial for Council to continue the operations, the overall ongoing subsidy required to operate the Tram and/or Information Kiosk would need to be weighed up against the opportunity cost and benefits of Council spending the required subsidy elsewhere in the Region.

Under a situation whereby Council was required to resume responsibility of Rolling Stock Operator, an alternative would be for Council to cease the Tramway operations altogether. If that was the case and there were outstanding debts, Council would most likely become responsible for these. If, on the other hand, the community group operating the Tramway were only allowed to take the operation of the Tramway forward on the basis that they were able to meet all establishment costs upfront (perhaps by securing grants or donations), Council could cease the services and have minimal ongoing costs. In the case where all establishment costs were paid for and the Council ceased operations, Council's ongoing costs would be limited to housing the tram and ensuring that the information centre, depot / maintenance shed does not become a target for graffiti and/or other crime. This is not likely to be an expensive proposition, but will require management of community expectations.

As noted throughout, the idea of introducing the Nambour Tramway is a very popular one by many in the Nambour community. However, there is a cost associated with the operation, and Council will need to determine the overall strategic benefit to the Sunshine Coast of moving forward to implementation.

Appendix 1: Nambour Heritage Tramway Issues Paper and Discussion Papers (SCRC)


Sunshine Coast Council
NAMBOUR
HERITAGE
TRAMWAY
Issues Paper
13 December 2013

This Issues Paper has been prepared in response to the Council Resolution of 13 December 2012.

This resolution requested a report and Issues Paper be prepared on the utilisation of the existing heritage listed sugar cane locomotive line in Howard Street and Mill Street, Nambour.

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NAMBOUR HERITAGE TRAMWAY – ISSUES PAPER

Introduction

At the Ordinary Meeting of Council on 13 December 2012, Council resolved, inter alia, that a report, including an issues paper, be presented to Council regarding the development of the Nambour Tramway utilising the existing heritage-listed sugar cane locomotive line.

The resolution made reference to *community aspirations and limitations*. To this end the local councillor, Cr Greg Rogerson invited persons from the local business community and other organisations to form an interest group to canvass community opinions and to discuss and consider the options. The Nambour Heritage Tramway Group was formed at a meeting on 13 March 2013.

To assist this Group in their discussions a Discussion Paper (No 1) was prepared and distributed to those persons attending the initial and subsequent meetings. The purpose of the Discussion Paper was to inform interested persons and organisations on the progress of investigations, and to invite contributions to the debate and to the final Issues Paper.

This Discussion Paper was also sent to the Department of Transport and Main Roads (DTMR) prior to a meeting with Director Rail Safety Regulation and the Manager Road Operations (North Coast).

A further Discussion Paper (No 2) was prepared and distributed to members of the local Group and some Council staff on 20 May 2013. Both Papers had limited distribution.

Whilst the resolution referred to the utilisation of the *existing heritage listed sugar cane locomotive line*, it must be said at the outset that additional track and other infrastructure will need to be provided beyond the ends of the existing track to support the management, maintenance and running of any rolling stock.

To determine the extent of this additional infrastructure requires consideration of a scenario, or a series of scenarios, particularly with respect to rolling stock. To a large extent, track infrastructure including stations, maintenance and storage facilities and traffic control will be common for each scenario.

The variables considered in developing these scenarios include not only the rolling stock and other infrastructure but also the governance, and the legal and financial liability of the managing parties.

The *Sugar Industry Act 1999* (similarly under the former *Sugar Industry Act 1991*) permits a mill owner to maintain rail lines on roadways "for the supply of cane to a mill".

The conduct of other rail operations within Queensland is subject to the *Transport (Rail*

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Safety) Act 2010. This Act is administered by the Department of Transport and Main Roads, and together with the *Work Health and Safety Act* imposes duties and obligations on rail transport operators and workers including those of State owned entities.

On 20th January 2013, the Office of the National Rail Safety Regulator (ONRSR) became the rail safety regulator for rail activities under the Rail Safety National Law (RSNL) in the jurisdictions of New South Wales, South Australia, Tasmania and the Northern Territory.

Subject to the passage of further state law, it is expected that Western Australia, Victoria, Queensland and the Australian Capital Territory will also be regulated by the ONRSR by the end of 2013.

Both the current Queensland and National legislation seek a common outcome requiring an accreditation process for rail infrastructure managers and rolling stock operators with a strong focus on the preparation and adherence to a Safety Management Plan.

Council Resolution

8.1.3 Notice of Motion – Nambour Tramway Development (OM12/197), 13 Dec 2012.

That Council request the Chief Executive Officer, in consultation with the Divisional Councillor, to bring to Council a repot including an issues paper for the development of the Nambour Tramway utilising the existing heritage listed sugar cane locomotive line with such reports to cover the following:

- *outline of the proposal;*
- *proposed ownership and operations of rolling stock;*
- *route alignment;*
- *property tenure issues;*
- *essential infrastructure required;*
- *planning and approval issues;*
- *key stakeholders and any agreements required;*
- *community aspirations and limitations;*
- *cost estimates for –*
  - *construction (Capital Costs);*
  - *operating costs;*
  - *revenue potential; and*
- *other items as relevant.*

NAMBOUR HERITAGE TRAMWAY – ISSUES PAPER

Scope of this Issues Paper

The specific items in the Council resolution are addressed under the following general headings;

- **Legislation** - legislation or regulation may either give authority to use the existing tracks, or constrain or prevent some courses of action.

  The critical legislation is the *Transport (Rail Safety) Act 2010* and the accompanying *Transport (Rail Safety) Regulation 2010*. The primary objective of this legislation is to provide for the improvement to safety and the management of risks associated with rail operations. To achieve this objective, accreditation is required by both the Rail Infrastructure Manager and the Rolling Stock Operator.

  Like all vehicles travelling on public roads the tram will be subject to the *Transport Operations (Road Use Management) Act 1995* and the *Transport Operations (Road Use Management—Road Rules) Regulation 2009*, albeit with specific rules applicable to trams, and the relationship to other vehicles in the roadway.

  Any modification to the heritage-listed track will require approval under the *Queensland Heritage Act 1992* and the accompanying *Queensland Heritage Regulation 2000*.

  Any extension of the track to provide end-of-track facilities will require the acquisition of additional land, an application for a Material Change of Use (MCU), compliance with the current Planning Scheme and consistency with the Draft Planning Scheme.

- **Governance** - the process for making and implementing decisions to meet the aims and objectives of the organisation. Good governance within a not-for-profit organisation needs to be consistent, accountable, transparent, participatory, and follow the rule of law.

  Standards and policies need to be established early, particularly with respect to the involvement of volunteers.

  Issues to be addressed include:
  - Policies and procedures
  - Management responsibilities
  - Recruitment
  - Work and the workplace
  - Training and development
  - Service delivery
  - Documentation
  - Continuous improvement

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Some of the issues above will be addressed in the Safety Management System document and the accreditation process.

- **Scenarios** – these are the operational scenarios that may make use of the tracks.

The scenarios considered in this document are seen to represent the gamut of reasonable options. Their consideration does not in any way endorse or recommend these scenarios as a course, or courses of action, but collectively allows consideration of the wide range of issues associated with any future scenario.

The obvious variations between scenarios are the type and form of the locomotive and the passenger rolling stock. This may lead to variations in the end of track facilities required, not only for storage and maintenance purposes, but also for staff and passenger amenity.

The frequency of the tram operation will determine the level of staffing and the extent of facilities at either end of the track. The frequency will also lead to a variation in the level of operational and financial risk.

These scenarios are not necessarily mutually exclusive. Scenarios may have different Governance and Financial Models but there will be overlap and these can best be represented in the form of a table for comparison.

Whilst there will probably be a common Rail Infrastructure Manager, the different rolling stock scenarios may have different Rolling Stock Managers. This will certainly apply if there are visiting locomotives using steam power which will require its own accredited team.

NAMBOUR HERITAGE TRAMWAY – ISSUES PAPER

Legislative Issues

General

The operation of trains or trams on the heritage-listed sugar cane track will be subject to a range of State Acts and Regulations. It is important to investigate thoroughly that there is the legislative authority to do so, and that all legal issues are identified.

The following list is not exhaustive, but represents the most applicable:-

- *Queensland Heritage Act 1992*
  - *Queensland Heritage Regulation 2003*
- *Transport (Rail Safety) Act 2010.*
  - *Transport (Rail Safety) Regulation 2010.*
- *Rail Safety National Law (South Australia) Act 2012.*
- *Transport Operations (Road Use Management) Act 1995.*
  - *Transport Operations (Road Use Management—Road Rules) Regulation 2009*
- *Transport Infrastructure Act 1994*
- *Local Government Act 2009*
- *Sustainable Planning Act 2009*
- *Maroochy Plan 2000 & Draft Sunshine Coast Planning Scheme*

Running passenger vehicles on unused cane tracks down the centre of a town is unique and does not appear to be specifically identified in legislation or regulation however it is clear that the *Transport (Rail Safety) Act & Regulations* apply in this case and, subject to the passage of further state law, the *Rail Safety National Laws* will apply in Queensland by the end of 2013.

The *Transport Operations (Road Use Management—Road Rules) Regulation 2009* provide road rules in Queensland under the *Transport Operations (Road Use Management) Act 1995 (RUM)* that are substantially uniform with road rules elsewhere in Australia. As part of this consistency they refer to trams and the specific rules applicable to trams travelling in the road carriageway (as in Melbourne, Bendigo, Adelaide and Sydney).

The RUM Act defines a tram as "any conveyance or group of connected conveyances used or designed for use upon a tramway". A tramway is not defined.

Under the *Transport Infrastructure Act 1994*, the terms tram and tramway specifically refer to cane trams and cane tramways. There is however considerable reference to light rail and light rail transport infrastructure.

Is this a tram or a light rail? The distinction between tram and light rail is not always clear. The term *light rail* was devised in 1972 by the U.S. Urban Mass Transportation Administration

(UMTA) to distinguish between the earlier urban streetcars and the current resurgence of urban rail systems using exclusive and shared right-of-way.

Generally, the term *tram* refers to a public passenger vehicle travelling in a public road at the road surface level. The term *light rail* is increasingly used to describe high capacity modern public passenger systems operating in a separate right-of-way (sometimes still within a road reserve) with less frequent stops compared to the traditional *trams*.

Queensland Heritage Act & Regulations

The object of this Act is to provide for the conservation of Queensland's cultural heritage for the benefit of the community and future generations. This is achieved by regulating, in conjunction with other legislation, development affecting the cultural heritage significance of Queensland heritage places.

It should be noted here that the legislation consistently uses the term ***place*** to define or identify land that is historically significant. It may be held on two or more titles and includes any ***features*** and their immediate surrounds that may be on the land. A feature may include a part or whole of a building or structure, an artefact including an archaeological artefact, a precinct, or a natural or landscape feature.

The Act promotes heritage agreements to encourage appropriate management of Queensland heritage places, and provides appropriate enforcement powers to help protect Queensland's cultural heritage. Heritage places are defined spatially and include objects within that defined space.

Under the Act, the local government is the *owner* for a road or other land under a local government's control. This would include the assets in the road reserve including the cane tracks.

The portion of roadway 1.5 metres either side of the centre of the cane tracks within the Howard Street and Mill Street road reserves, and the their intersection with Currie Street, is registered as a heritage place.

Entry in the Queensland Heritage Register does not exclude changes, additions or the construction of new works, provided the proposed work does not detract from the heritage values of a place.

Owners of heritage places are not obliged to fully restore their property. However, owners are advised to maintain their place to ensure it is protected from serious or irreparable damage or deterioration. The tracks in Mill Street west of Currie Street show considerable wear and the concrete surround is crumbling. Maintenance will be required by Council in the near future.

The registration of the two former mill cottages in Mill Street extends to the road centreline and therefore includes the footpath mounted, cane train warning sign.

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Transport (Rail Safety) Act 2010.

The conduct of rail operations within Queensland is subject to the *Transport (Rail Safety) Act 2010*. This Act is administered by the Department of Transport Main Roads. This Act, together with the *Work Health and Safety Act* imposes duties and obligations on rail transport operators and workers including State owned entities.

The Act also requires for a system of accreditation to ensure that the rail operators have the competence and capacity to operate their system safely and to manage the risks associated with rail operations.

Cane railways are also exempt from the Act which, by definition do not carry passengers or freight other than sugar cane products.

Specifically, the legislation requires the accreditation of the Rail Infrastructure Manager, and the Rolling Stock Operator.

The two functions may be separately accredited and the accreditation may apply to an individual or a corporation.

The Rail Infrastructure Manager need not be the owner of the rail infrastructure, however the applicant must demonstrate that they have effective management and control by written contract.

Similarly, the Rolling Stock Operator need not be the owner of the rolling stock, however again the applicant must demonstrate that they have effective management and control by written contract.

An initial accreditation fee, and annual fees based on the revenue range and the total length of track travelled are payable by both the Rail Infrastructure Manager and the Rolling Stock Operator.

Further requirements in support of the Act are contained within the *Transport (Rail Safety) Regulation 2010*.

As of 1 September 2010, all Queensland rail infrastructure managers and road managers must enter into an interface agreement for rail crossings on public roads.

An interface agreement is a written agreement for managing risks in relation to rail or road crossings. As a minimum an interface agreement must include provisions for:

- implementation and maintaining measures to manage those risks,
- the evaluation, testing, and where appropriate, revision of those measures,
- the respective roles and responsibilities of each party to the agreement in relation to those measures,
- procedures by which each party to the agreement will monitor and determine whether the other party complies with its obligations under the agreement,
- a process for reviewing the agreement and how it will be conducted and implemented.

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The definition for a crossing includes not only a railway level crossing but also pedestrian level crossing and ***a lane of a road on which trains move alongside road vehicles***. This is particularly applicable to Howard Street and Mill Street.

An agreement will be required between the State (as road manager of the Currie Street intersection) and the rail manager.

A further agreement will be required between council (as road manager of Howard Street and Mill Street) and the rail manager, if the rail manager is not council.

National Rail Safety Legislation and Regulations

The Council of Australian Governments decided on 7 December 2009 to implement a single National Rail Safety Regulator ('National Regulator') and a body of National Rail Safety Law ('National Law').

The Rail Safety Regulators' Panel (RSRP) consists of the Rail Safety Regulators from all States, the Northern Territory and New Zealand.

The key role of the RSRP is to provide advice to the Safety Standing Sub-Committee (Safety SSC) and National Transport Commission (NTC) on rail safety regulatory issues to help enhance safety and regulatory outcomes consistent with the co-regulatory framework.

The Panel has produced a publication *Safety Management System Guidance for Tourist and Heritage Rail Transport Operators – February 2010*. This guidance material outlines the legislative requirements and associated processes for Tourist and Heritage Rail Transport Operators in preparing their Safety Management Systems, as reflected in the National Model Rail Safety Legislation.

On 7 June 2012 the South Australian Government Gazette proclaimed the *Rail Safety National Law (South Australia) Act 2012*.

On 20th January 2013, the Office of the National Rail Safety Regulator (ONRSR) became the rail safety regulator for rail activities under the Rail Safety National Law (RSNL) in the jurisdictions of New South Wales, South Australia, Tasmania and the Northern Territory.

Subject to the passage of further state law, it is expected that Western Australia, Victoria, Queensland and the Australian Capital Territory will also be regulated by the ONRSR by the end of 2013.

The Executive Office and the Central Branch (SA, Tas, NT) are based in Adelaide with a Branch office established for New South Wales. Further Branch Offices will be established for Western Australia, Victoria and Queensland. Staff from DTMR will move to the Queensland Branch Office.

The Queensland *Transport (Rail Safety) Act 2010* and the *Rail Safety National Law Act* were developed in the same environment and with the same intent. In many cases the wording of the various clauses is the same.

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The transition from the Queensland Regulations to the National Regulations should be seamless for almost all operators.

Transport Operations (Road Use Management Act) 1995

This Act provides for the effective and efficient management of road use in the State. The Act establishes a scheme for the identification and performance of vehicles, drivers and road users. The scheme monitors compliance and manages non-performing vehicles, drivers and road users. It also manages traffic to improve safety.

Under this Act a local authority may install or remove official traffic signs on local roads in its area, notwithstanding that the State may override this and serve notice on a local authority to remove or install such sign. An official traffic sign must be installed in a way specified by the Manual of Uniform Traffic Control Devices (MUTCD).

In general terms, councils are limited to controlling the local road space and how it can be used (including parking). Refer also to *Local Government Act 2009* re temporarily or permanently closing a road to any class of traffic.

Transport Operations (Road Use Management—Road Rules) Regulation 2009

The object of this regulation is to provide road rules in Queensland that are substantially uniform with road rules elsewhere in Australia.

It is not the intent of this summary to reproduce the complete regulations relating to the operation of trams in the road but to highlight those that might influence the operation of trams on these particular tracks.

It is extremely important that it is quite clear to the other drivers that trams are operating in the area and that there are regulations that apply that may well be unique in Queensland. These regulations also apply to pedestrians most particularly those accessing or leaving the tram.

A critical issue is the safety of pedestrians / passengers at tram stops. Whilst it may be desirable that passengers only alight from, or access the tram at the off-road stations at either end of the tram tracks, we must consider the contingency where tram stops may be created along the route.

In general, if a tram is stopped, then other traffic travelling alongside or behind in the same direction must also stop. Even after stopping, a driver cannot drive past a tram if the tram doors are open, or a pedestrian is crossing the road between the tram and the left side of the road.

The definition of *vehicle* includes *tram*, even though currently trams or light rail are not a feature in Queensland roadways.

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There are definitions also for:

tram lane - the part of a road with tram tracks between a tram lane sign and an end tram lane sign, and marked on either side by a continuous yellow line parallel to the tracks. A driver of any vehicle may drive up to 50m in a tram lane to enter or leave the road.

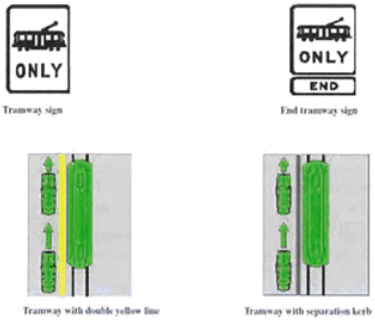
Tram lane sign | Tram lane | End tram lane sign

Figure 1 Tram Lane signs and linemarking

tram stop - means a place on a road at which there is a sign indicating that trams will stop to enable people to get on or off.

tram tracks - includes a rail designed for a light rail vehicle to run on.

tramway - the part of a road with tram tracks between a tramway sign and an end tramway sign, and marked on either side by 2 continuous yellow lines parallel to the tracks, or a structure such as a pedestrian refuge, traffic island or kerb.



Tramway sign | End tramway sign

Tramway with double yellow line | Tramway with separation kerb

Figure 2 Tramway signs & Linemarking

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Local Government Act 2009

This Act gives a local authority its authority. Generally, a local government has the power to do anything that is necessary or convenient for the good rule and local government of its local government area.

The question is what limitations might apply to Council becoming the rail infrastructure manager and a rolling stock operator (manager)?

A local government may close a road (permanently or temporarily) to all traffic, or traffic of a particular class, if there is another road or route reasonably available for use by the traffic.

If a road is closed to traffic for a temporary purpose, the local government may permit the use of any part of the road (including for the erection of any structure during a fair for example, for example) on the conditions the local government considers appropriate.

This could be applicable if council sought to temporarily close portions of road for the purposes of a fair or celebration of a historically, significant event linked to the sugar industry.

Sustainable Planning Act & Regulations

The Sustainable Planning Act seeks to achieve ecological sustainability by the coordination and integration of planning at the local, regional and State levels, and by managing the development process and the impact development may have on the environment and the use of premises.
A Local Government Planning Scheme and a planning scheme policy are local planning scheme instruments under the Act.

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Maroochy Plan 2000

The current Maroochy Plan 2000 did not envisage closure of the Moreton Sugar Mill and supported the development of ancillary land uses in the vicinity of the Mill.

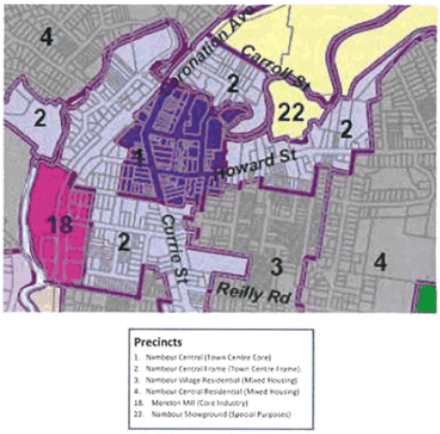

Figure 3 Maroochy Plan 2000

The following statements are made within the Maroochy Plan, Planning Areas, Precincts and Precinct Classes (Volume 3) under the following heading and sub-headings:

3.2 Planning Area No. 2 – Nambour

3.2.2 Vision Statement (in part)

Nambour will be a major activity centre, providing higher order goods and services to the hinterland and rural parts of the region. It will also provide a focus for a number of important industry and administration activities as well as accommodating the headquarters of a number of rural focussed State and Commonwealth government agencies.

(b) New development in the Town Centre will be sited and designed to address the street and will reinforce the cultural heritage values and contemporary rural character of the town.

3.2.3 Key Character Elements,

(1) Location of Uses and Activities,

(d) The existing industrial areas and industrial uses throughout Nambour, including the Moreton Sugar Mill.....will be retained and consolidated. Ancillary or compatible uses will be encouraged to co-locate in these specific areas.

Precinct 2 surrounds the Town Centre Core. The intent for this Precinct is to provide a range of commercial, business and service activities at a scale and intensity less than the scale and intensity of activities in the core (Precinct 1). Uses such as business and professional offices, fast food establishments and service trades requiring proximity to the Town Centre should be located in this Precinct. There is also a mix of housing in this Precinct. Some reuse of detached dwellings is encouraged provided it does not adversely impact on surrounding residential uses.

Under the Maroochy Plan 2000, track facilities could fall under the following use;

Industrial Use
Transport Use
Transport Station - the use of premises for a road transport passenger terminal.
Vehicle Depot - the use of premises for the overnight or longer storage of more than one motor vehicle, or premises used as an operational base or depot for any such vehicles.
Vehicle Repair Workshop - the use of premises for commercially servicing, repairing or maintaining motor vehicles or motor vehicle equipment, including engine tuning, engine reconditioning, radiator repairs and panel beating.

Subject to detailed design and application, it is probable that facilities at the eastern end of the track in the vicinity of the former Marshalling Yards would include all three categories above, whilst facilities at the western, former Mill site would be a transport station. If an intermediate station is proposed then it would also be considered a transport station.

Additional facilities such as Tourist Information would be under the category of;

Other Use
Community Use
Local Utility - the provision of neighbourhood or district community services such as libraries, theatres, galleries, tourist information facilities, and the like;

It is most likely that the provision of track facilities overall would be impact assessable.

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Nambour MDA Town Centre Structure Plan

The South East Queensland Regional Plan (SEQRP) 2005-2026 was released in June 2005 designating Nambour as a Major Activity Centre for the Sunshine Coast, complementing the Principle Activity Centre of Maroochydore.

Nambour Central was designated a **Major Development Area (MDA)** by the State Government on 27 June 2007. The designation triggered the need to prepare a Structure Plan for the town centre consisting of precincts 1 (Nambour Central), 2 (Nambour Village Residential) and 18 (Moreton Mill) of the Nambour Planning Area.

The Structure Plan was required to support future infrastructure provision, urban development, economic growth and social and community development needs of Nambour. Some of the key outcomes for the town centre included a detailed master plan for the MDA including new redevelopment areas and precincts supported by improved infrastructure provision supported by SIA (State Infrastructure Agreement) planning and budgetary process.

The planning steps were;

- an *Enquiry by Design* Workshop,
- Technical Studies & Investigations,
- Consultation, and,
- Preparation of a Draft Structure Plan.

The Draft Structure Plan was endorsed by (the former Maroochy Shire) Council at its meeting of 12 Dec 2007.

The next step was to prepare planning scheme amendments to the Maroochy Plan 2000, however this has not occurred as a Material Change of Use (MCU) application for the former Mill site has now been approved.

Any statutory planning changes required within the MDA area will be dealt with by the new Planning Scheme.

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Draft Sunshine Coast Planning Scheme

The Draft Planning Scheme was placed on Public Display for comment on 19 October 2012. The public consultation period for the Draft Sunshine Coast Planning Scheme ended on the 14 December 2012. Council is considering a report outlining the issues raised in each submission and any recommended changes to the draft planning scheme at a series of Special Meetings.

Following a further report to Council on the submissions, the amended Scheme will be presented to the State Minister for approval. The timetable for completion is at this stage unknown.

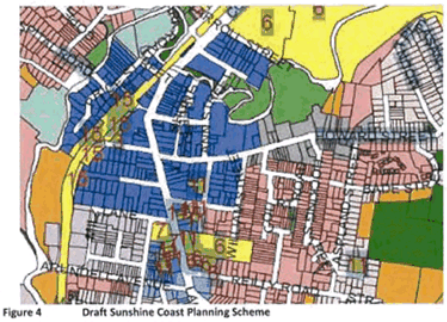

Figure 4 Draft Sunshine Coast Planning Scheme

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Nambour is designated a Major Centre under the SEQ Regional Plan. The Major Centre Zone above extends the current Town Centre Core to include parts of the current Town Centre Frame.

The former Marshalling Yards off Howard Street are now designated Medium Density Residential.

A Transport Depot is defined as a Medium Impact Industry - premises used for the storage, for commercial or public purposes, of more than one motor vehicle. The use includes premises for the storage of taxis, buses, trucks, heavy machinery and uses of a like nature. The term may include the ancillary servicing, repair and cleaning of vehicles stored on the premises.

There may be some argument however that the maintenance and storage use may be defined as Low Impact Industry. Nevertheless, all industry is impact assessable in the Medium Density Residential Zone.

Within the Specialised Centre Zone however Low Impact Industry is self-assessable in an existing building and code-assessable otherwise. Medium Impact Industry is impact-assessable.

Within the Major Centre Zone, facilities for Community Use (western end-of-track facilities) are self-assessable if located on Council owned or controlled land **and** undertaken by or on behalf of Council **or** in an existing building, otherwise code-assessable

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Governance Issues

General

Governance of the proposal is the most critical issue to be addressed in the first instance. The most likely entity for both the Track Manager and the Rolling Stock Operator is probably in the form of a Trust and the appropriate legal and financial advice should be sought.

The following simplistic diagram indicates that whilst there are operational risks that need to be addressed, the Track & Infrastructure Manager and the Rolling Stock Operator must also have the capacity to meet the financial demands of accreditation, most particularly with regards to maintenance, staff training and insurance.

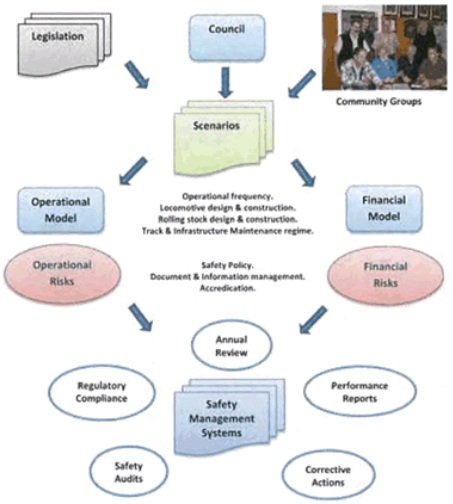

Figure 5 Governance relationships

The Safety Management System is an active, cyclic process of Regulatory Compliance, Annual Review, Performance Reports, Corrective Actions, and Safety Audits.

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The *Transport (Rail Safety) Act 2010* and the *Transport (Rail Safety) Regulation 2010* refer to ***prescribed railway operations*** and make a clear distinction between the functions of the Rail Transport Operator and the Rail Infrastructure Manager, although a person or entity may function in both capacities.

Furthermore, the Rolling Stock Operator need not necessarily be the owner of the rolling stock, however the Operator must have effective management and control of the rolling stock. Similarly, the Rail Infrastructure Manager need not necessarily be the owner of the infrastructure however the Manager must have effective management and control of the infrastructure.

Two or more Rolling Stock Operators may operate on the same rail infrastructure but there needs to be an ***infrastructure arrangement*** applying to the safety risks arising, or potentially arising, from railway operations carried out by or on behalf of any of them. This would include the operator of a visiting locomotive invited to a Special Event, where an infrastructure arrangement would need to be negotiated with the current Rolling Stock Operator.

There are three governance structures that may apply:-

Governance	Infrastructure Ownership[1]	Infrastructure Manager	Transport Operator(1)	Transport Operator(2)
G1. Council as Rail Infrastructure Manager & Rail Transport Operator	Council	Council[2]	Council[3]	Contracted[4] Operator
G2. Council as Rail Infrastructure Manager; contracted Rail Transport Operator	Council	Council	Contracted[5] Operator	Contracted Operator
G3. Contracted Rail Infrastructure Manager ; contracted Rail Transport Operator	Council	Contracted[6] Manager	Contracted Operator	Contracted Operator

Table 1 Governance Responsibilities

[1] This includes all Council owned or controlled land, including land necessary for track extension, and all fixed assets and buildings thereon.
[2] Council is responsible for maintenance and management of all infrastructure including tracks and traffic control.
[3] Special, single day event celebrating the Sugar Industry, using diesel powered locomotive with cane trucks. No passenger carriages. Council will need to implement temporary road closures and special traffic control.
[4] Special, single day event celebrating the Sugar Industry, using visiting locomotive with cane trucks, e.g. BFC5 from Woodford Museum. Accredited rolling stock and operators - may include passenger rolling stock, otherwise cane trucks without passengers..
[5] As for [3] above, but with purpose-built passenger rolling stock for use with local diesel-powered locomotive or visiting steam-powered locomotive.
[6] Accredited Infrastructure Manager and Transport Operator, together with [1] above. Additionally, may include purpose built "tram" on regular timetable.

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Council currently owns the heritage listed track and several locomotives. Western track extensions may be on extended road reserve. Council should be the owner of land for the future eastern track extension.

Council may decide to adopt G3 from the outset minimising its involvement and risk. Alternatively, the above Governance structures may evolve over time and will be dependant to some extent on the scenarios that are adopted.

For example, initially G1 may apply for a special, single day events with "enactments" using a diesel locomotive towing cane trucks without passengers and the appropriate risk assessments made. As part of the event, road closures may be implemented whilst the tram is travelling along the track.

As passenger carriages are developed and the volunteer organisations gain expertise, financial support and accreditation, G2 may be implemented, finally evolving into G3 with or without the purpose-built tram.

Notwithstanding which scenario is adopted, the latter structure (G3) where Council is neither the Infrastructure Manager nor the Transport Operator presents the widest range of issues to be addressed, including the contracts and interface agreements between Council, DTMR and the infrastructure and operator entities.

Operational Risk Assessment

The object of accreditation is the safe operation of railway operations and the management of the risks associated with such operations. It is acknowledged that not all risk can be eliminated, but that risks need to be reduced so far as it is reasonably practicable.

For the definition of reasonably practicable refer to the ONRSR Guideline, *Meaning of Duty to Ensure Safety So Far As Is Reasonably Practicable*.

The Safety Management System shall provide sufficient detail appropriate to:-

- the scope and nature of the rail operations,
- the potential risks to persons by these operations,
- the operators duties.

Accreditation does not attest that all risks have been identified or controlled. It is not a guarantee by the regulator that the controls employed will be adequate in all foreseeable circumstances.

It is not a process whereby the regulator takes over the responsibility for the safety of the railway operation by giving approval to the detail within operating systems.

At all times the responsibility for ensuring the safety of railway operations remains with the railway organisation.

There are four key areas that must be considered:

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- Track and Infrastructure – fit for purpose, track bed, vertical and horizontal alignment. Safety alighting to and from the carriage at stations. Appropriate maintenance.
- Rolling stock – safe containment of passengers. Appropriate maintenance.
- Operation – identification and management of risks. Competence and skill of staff.
- Management – policies and procedures.

In addition to the systems and procedures required to eliminate or reduce risk, an assessment must include a register of **potential risks**.

This register shall consider for each potential risk the:-

- likelihood of the risk eventuating.
- degree of harm as a result.
- reasonable knowledge of person(s) concerned.
- availability of ways to eliminate or reduce the risk.
- suitability of ways to eliminate or reduce the risk.
- cost to eliminate or reduce the risk.

All documentation must be stored and made available to the regulatory body. This includes the safety responsibilities, accountabilities, authorities and interrelationships of persons who manage or verify rail safety work, the test results from scheduled maintenance programs, to the financial capacity or public risk insurance arrangements to meet potential accident liabilities arising from railway operations.

It is not the role of the regulatory body to design the rolling stock or specify in detail the day to day operation of the rail system.

Organisation Structure and Volunteers

The Australian Bureau of Statistics (ABS) publishes data quantifying the extent of volunteering within the Australian population. In 2010, 6.1 million people (36% of the Australian population aged 18 years and over) participated in voluntary work, with women (38%) more likely to volunteer than men (34%). The 2010 overall volunteer rate was up slightly from 34% in 2006; however this increase was not statistically significant.

Sport and physical recreation organisations were the most common type that people volunteered for (44% of male volunteers and 32% of female volunteers). The age groups with the highest proportions volunteering for these types of organisations were 35-44 years and 45-54 years (47% and 46% of volunteers respectively). People aged 65 years and over most commonly volunteered for welfare and community organisations (37%).

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The operation of Heritage Railways around Australia invariably relies very heavily on volunteers. It is important that the organisational structure of the volunteer group is robust enough to undertake the responsibilities of Rail Infrastructure Manager and Rail Transport Operator.

The roles can be defined under three categories, although individuals may volunteer in several categories. These categories are;

- Management, including finance and fund raising.
- Administration and Semi-skilled operations.
- Skilled operation; infrastructure, track and rolling stock refurbishment and maintenance.

The Project will move through a Development Phase before reaching an Operational Phase.

Management volunteers may include a high proportion of business and professional people still in full or part time employment. Financial, accounting and legal advice may be offered pro bono from within the community, particularly during the development phase.

Many older Australians move to volunteering as a way of seeking satisfaction beyond the normal material gains they have received from long years in the workforce. These volunteers are often looking for activities which will offer new and stimulating experiences in a social atmosphere, and many will bring technical skills to the Project. This skills base is critical in the Operational Phase.

No matter how much enthusiasm there is within the Management team during its Development Phase, the Project will struggle if it cannot attract sufficient skilled volunteers for its Operational Phase.

Recruitment needs to focus on skilled volunteers who are able to pass on skills to other volunteers.

Financial Risk Assessment

In a previous section it was identified that the Operational Risk Assessment should consider the "cost to eliminate or reduce the (potential) risk". If the cost to "eliminate or reduce the risk" cannot be met then this can be a showstopper putting the whole Project at risk or at least stalling its progress.

In its simplest terms financial management may be seen simply as efficient and effective management to achieve business vision and goals. In a commercial environment, time becomes an important element as the budget and cash flow are not only time-dependent, but may also be time-constrained. Labour resources may be varied to meet projected timetables, although this may come at additional incremental costs.

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Where the Project has a high proportion of volunteers, time may not be the dominant dependency. The timetable will extend if the volunteer workforce numbers and/or the skillset is limited with little impact on the budget unless this delay impacts on ticket sales and other fundraising. This may be particularly applicable where the operation of the tramway was to be a headline act at a celebratory event.

Expenditure will fall into two broad categories:-

- Capital,
- Recurrent - **Insurance, particularly Public Liability, will be a major, recurrent cost.**

Capital costs may be met by income from a range of sources including:-

- Federal Grants
- State Grants
- Council Grants
- Other Grants
- Sponsorship
- Donations
- Other, including ticket sales and on-going fundraising.

An important aspect of fundraising is Deductible Gift Recipient (DGR) status granted by the Federal Government. Potential donors may be attracted by the tax-exempt opportunity.

In general, grants are not given for on-going, recurrent expenditure and this needs to be covered by sponsorship, donations, ticket sales and other fund raising activities.

Track and rolling stock maintenance will be primarily a function of usage, whereas building and other facilities maintenance will be more time dependant.

The high proportion of volunteers can skew the financial model, hiding the real cost of the operation or the liability, if the labour component cannot be met by skilled volunteers.

As the owner of the track infrastructure and facilities, and some of the rolling stock (locomotives), Council needs to be aware that it may be exposed to financial risk to maintain these assets if the other entities are unable to do so..

This risk increases as the operational frequency is increased and there is a commitment, or implied commitment, to a regular service throughout the day using a single locomotive.

Regular maintenance must be then scheduled out of hours and breakdown maintenance assumes a priority that comes at a premium, commercial price. Alternatively the service is irregular and confidence of the patrons is undermined.

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Scenarios

General

The scenarios considered in this Issues Paper are seen to represent the gamut of options of rolling stock, track & infrastructure (including passenger and public facilities), and the management and frequency of operation being considered by the Nambour Heritage Tramway Group.

The consideration of these Scenarios does not in any way endorse or recommend these Scenarios individually or collectively as a course or courses of action, but allows consideration of the wide range of issues that may be encountered in any future Scenario.

Passenger carriages were regularly used on the Nambour-Mapleton tramway, and intermittently on the eastern track along Howard Street to Coolum for special occasions up to the mid-1930s. These carriages, particularly those to Coolum, were open sided and would not meet the more stringent safety standards of today.

Given the heritage listing of the tram track and the houses at the former Moreton Mill site it is important that there are tangible links in the design of the rolling stock to the sugar industry and the particular role the Moreton Mill and the cane tram played in the development of Nambour.

These links may range from the authenticity of the rolling stock, including their colours and appearance, to the experience and celebration of milestone events. We should however be pragmatic in the selection of locomotive power as replica locomotives taking advantage of modern power sources and technology will be more sustainable in the longer term.

The obvious Scenario variations are type and form of the locomotive and the passenger rolling stock. This may lead to variations in the end of track facilities required, not only for storage and maintenance purposes, but also for staff and passenger amenity.

These scenarios are not necessarily mutually exclusive. Scenarios will evolve and within any period of a year or so several scenarios or events may occur. Whilst there will probably be a common Rail Infrastructure Manager, the different rolling stock scenarios may have different Rolling Stock Managers. This will certainly apply if there is a visiting locomotive using steam power which would be accompanied by its own Rolling Stock Manager and operational staff.

For planning purposes, the Scenarios are considered to evolve in three phases;

- **Short term - less than 5 years**
- **Medium term - 5 – 10 years**
- **Long term - more than 10 years.**

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The following Scenarios are presented in the order described in the Discussion Paper 2. This is not the anticipated chronological sequence.

Scenario 1 is a stand-alone tram.

Scenarios 2, 3 &4 are locomotives pulling purpose-built passenger rolling stock. This rolling stock may be shared between each of these Scenarios. The description of this rolling stock is considered after the description of the individual Scenarios.

Additional track and other infrastructure will need to be provided beyond the ends of the existing track to support the management, storage, maintenance and running of any rolling stock. To maximise future opportunities the land requirements should be determined to meet the long-term uses. Outlines of the land and infrastructure requirements follow consideration of the passenger rolling stock.

Scenario 1 – Electric passenger Tram

Some members of the NHTG have aspirations for a single unit, battery powered passenger tram, running on a frequent, daily timetable along the heritage listed track. The batteries would be recharged using solar panels located on the storage facilities at the eastern end of the track. An example cited is designed and manufactured by Gromaco Trolley Co, Iowa, USA.

An alternative designer/manufacturer is Severn Lamb (UK) who offer a wide range of rail rolling stock designs ranging from 15" to 3' gauge (380mm – 900mm) for theme parks around the world. Severn-Lamb manufactured the locomotives for Hong Kong Disneyland.

Recently, members of the NHTG have made enquiries with a foundry in Bundaberg regarding the design and manufacture of a tram based on a Melbourne cable car (similar to the Portland, Victoria tram), or an historical Brisbane "toast rack" tram.

This scenario would require a capital budget in the order of $800,000. Whilst it may attract Grants and Sponsorship there will be little opportunity for a local volunteer component save the construction of the superstructure on a supplied chassis and bogie sub-structure. This may be able to be negotiated with the Bundaberg manufacturer.

It is assumed that this Scenario operation would require two shifts per day of 3 volunteers to operate the tram (skilled volunteers), together with management/administration/ticket sales staff (semi-skilled volunteers). Operating daily, this would require a pool of at least 60 volunteers which is comparable to the Portland, Victoria experience.

Additionally, track and facilities maintenance will increase with usage and additional volunteers and sponsorship will be required for this task. Furthermore, operating daily will require more stringent traffic control compared to running at events or once a month where manual traffic control and partial road closures might be applicable.

Recurrent expenditure including management salaries, vehicle maintenance, insurance, accreditation fees, consultant fees for review of SMS, additional track maintenance due to higher usage could be of the order of $200,000 pa, although some of this could be offset by

sponsorship and ticket sales.

This should be considered a medium to long-term Scenario after the establishment of Scenarios operating less frequently.

Scenario 2 – ex Moreton Mill Diesel Locomotive

Discussion Paper 2 identified several ex Moreton Mill diesel locomotives owned by Bundaberg Sugar that are apparently no longer in use by the company. An estimate was made that the cost of purchase and refurbishment could be of the order of $70,000.

Recently, it was announced that Bundaberg Sugar would give an ex Moreton Mill, diesel locomotive to Council. Whilst the detailed, overall condition of the locomotive is unknown at this stage, it is acknowledged that this is an important "gift" and is likely to bring forward in time this Scenario, if only for a special event with cane trucks but no passengers.

Revised budget for refurbishment is $30,000. Some costs may be offset by sponsorship and volunteer labour.

This is probably the most achievable Scenario in the short-term. It could be used to generate and maintain interest in the overall project, attracting sponsorship and contributions in cash and kind.

Maintenance and insurance is estimated to be in the order of $20,000 pa. Refurbishment and maintenance offset by sponsorship and volunteer labour.

Scenario 3 – ex Moreton Mill Steam Locomotive refurbished to diesel power.

The ex-Moreton Mill steam locomotive "Bli Bli" is currently stored on a plinth at the north-west corner of the Nambour & District Historical Museum in Bury St, Nambour, overlooking the Coles development site, having been recently located on ex-Mill land off Mitchell Street. It had previously been on display in Muller Park off the David Low Way on the eastern side of the Maroochy River at Bli Bli.

It is not feasible to refurbish it as an operating steam locomotive. It could however be refurbished to be driven by a diesel engine. Much of the steel plate will need replacing.

Budget for refurbishment is $80,000. Some costs may be offset by sponsorship and volunteer labour.

Maintenance and insurance is estimated to be in the order of $20,000 pa. Refurbishment and maintenance offset by sponsorship and volunteer labour.

Scenario 4 – Visiting Steam Locomotive

Using designs licensed from John Fowler & Co Leeds (UK), eight "Bundy Fowlers" were constructed by the Bundaberg Foundry Co Ltd in 1952 and 1953.

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The steam engine "BFC5 - Bundy Fowler #5" operated at the Pleystowe Sugar Mill, Mackay. In 1971 it was donated to the Australian Narrow Gauge Railway Museum Society (ANGRMS) at Woodford, Queensland, and restored to operation by volunteers. It is currently out of service for boiler tube renewal.

In 1997, during a week of centenary celebrations for the Moreton Mill, BFC5 hauled cane from the Marshalling Yards to the Mill. It returned in August 1999 for similar duties. These events have been recorded on video.

In celebration of milestone events linked to the sugar industry, BFC5 could be returned to Nambour. At these events it could pull either refurbished cane trucks (with cane but without passengers), or purpose-built passenger carriages.

Budget for a single visit is $10,000 to cover costs of insurance, transport, cranage, coal and water supply and ash disposal. Some costs may be offset by sponsorship.

Passenger Rolling Stock

Passenger carriages will need to be purpose designed and built. The narrow gauge restricts the width of the carriages. There are many 610 mm gauge carriage designs currently in use throughout Queensland and virtually all have transverse seating arrangements. Access is gained to each passenger module directly from the side platform. This may not be acceptable to the safety regulator for a train operating in a road environment where access to and from the carriage may need to be more closely controlled.

The design of the carriage sub-structure needs to take into account the reduced track radii proposed at the eastern and western track extensions.

Budget for design and construction is $100,000. Some costs may be offset by sponsorship and volunteer labour. The chassis / sub-structure may be commercially manufactured with the superstructure constructed by volunteers and sponsorship.

Maintenance and insurance is estimated to be in the order of $10,000 pa. Maintenance offset by sponsorship and volunteer labour.

Cane Trucks

For special occasions in celebration of Nambour's sugar industry past, a group of refurbished cane trucks loaded with cane would offer an authentic experience – probably only 10 or 12 carriages. They could be towed by locomotives in either Scenario 2, 3 or 4. They may be owned locally and refurbished, or they may be loaned from an operating Mill for the specific occasion. In the latter case the provision and transport of the cane trucks to Nambour may be sponsored.

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Additional Land, track & Infrastructure

None of the above Scenarios can operate without additional land being provided for a terminus at both ends of the heritage-listed track. Additionally, storage and maintenance facilities will need to be provided at one end.

Operationally, the locomotive will be required to pull the carriages, not push. Pulling reduces the risk of derailing the carriages. Pulling gives the greatest visibility in a pedestrian environment. The locomotive will need a passing loop at both termini to pass to the other end of the carriages. This also includes two sets of track points. The passing loop would not be required for Scenario 1, the single-unit tram as it would be designed to be driven from either end.

Locomotives both steam and diesel can operate as effectively in either forward or reverse gear and there is no performance advantage one over the other. A diesel locomotive and a steam locomotive without a coal tender both offer greater visibility in reverse gear.

Aesthetically, it would be more appealing to have the locomotive in forward gear for both directions but this can only be achieved at a significant cost.

To pull in forward gear both ways would require a turntable at both the eastern and western ends.

This may be problematical at the western, Mill site end where the site is constrained. Manoeuvring will need to be within a safe environment.

At the **western end**, additional land would need to accommodate as a minimum, a track extension, a passing loop with two sets of points, and a station platform. The Nambour Heritage Tramway Group is investigating a widening of the Mill Lane extension road reserve to the boundary of heritage listed house in Mill Street. Careful consideration needs to be given to the safe operation of a station, passing loop and rail points in a public road reserve environment.

If the widening of the Mill Lane road reserve is insufficient to safely accommodate the rail terminus functions then the whole project is at risk. Additional land may need to be purchased.

To the south there is a further parcel of land proposed as part of the Coles' development, immediately west of the heritage-listed, former Mill Manager's house in Bury Street. This proposed parcel, greater than 1,000 m^2 will be offered to the market as a commercial development site.

If purchased, this area would be in excess of the requirements for the terminus and the residual could be made available for some other public or commercial function.

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Budget for land and rail terminus facilities at the Western end required.

At the eastern end of the track, Bundaberg Sugar has considerable land holdings formerly used for the marshalling yards. The land has been on the market for some time. Some parcels are flood prone. The Draft Sunshine Coast Planning Scheme designates the land as Medium Density Residential.

For each scenario, and additionally for the passenger rolling stock, the requirement would be for a shed 18m x 6m, i.e. say 18m x 30m under cover if all scenarios are to be supported. Staff facilities would be required.

Additional land required for offloading rolling stock and turning around locomotives (turntable) and parking. Land requirement would be at least 2000 m^2 plus corridor access.

For the visiting steam locomotive, provision needs to be made for coal and water loading, and ash disposal facilities.

Budget for land and rail terminus facilities at the Eastern end required.

Total terminus facilities and land requirements attract preliminary estimated cost of $1,800,000.

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Track Extension & Traffic Control

Passing Loop, Station, Workshop and Storage at eastern end in part of the former Marshalling Yards.

Traffic control required where the track leaves Howard Street (eastern end) and Mill Street (western end).

Signal control required at William Street roundabout.

Track detector inputs required at existing traffic signals.

Passing Loop, and Station required at the western end in the vicinity of the intersection of Mill Street and Mill Lane.

Figure 6 Track extension & Traffic Control

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Scenario Locomotive Summary

Scenario 1

Locomotive:	New, Purpose-built tram; heritage design.
Frequency / Hours:	To a daily timetable.
Staff:	Minimum 3 operational staff plus management.
Rolling Stock Management:	would require some full-time, paid staff to manage the workload. On-going training programs would require "professional" trainers.
	Estimated capital cost $800,000

Scenario 2a (with Cane trucks) & Scenario 2b (with passenger carriages)

Locomotive:	Ex Moreton Mill diesel locomotive *Petrie*
Frequency / Hours:	Monthly, 10 times per annum
Staff:	2 volunteer crews per day (min 5 persons), short shifts.
Rolling Stock Management:	refresher training and briefing required before each shift and debriefing after shift as part of the SMS.
	Estimated capital cost $30,000 (excl carriages)

Scenario 3

Locomotive:	Ex Moreton Mill steam *Bli Bli* locomotive converted to diesel
Frequency / Hours:	Monthly, 10 times per annum
Staff:	2 volunteer crews per day (min 5 persons), short shifts.
Rolling Stock Management:	refresher training and briefing required before each shift and debriefing after shift as part of the SMS.
	Estimated capital cost $80,000 (excl carriages)

Scenario 4

Locomotive:	Visiting Steam locomotive, e.g. BFC5 from Woodford Museum.
Frequency / Hours:	Special Occasions or celebrations.
Staff:	Volunteer crews with locomotive. Additional local volunteers required for track management.
Rolling Stock Management:	refresher training and briefing required before each shift and debriefing after shift as part of the SMS.
	Estimated capital cost nil

Table 2 Scenario locomotive summary

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Development Sequence

Period	Item	Action by[7]	Comments
Stage 1 Short Term <5 years	Legal and financial review	Council	Project *due diligence*.
	Expressions of Interest from Community not-for-profit groups.	Council	Publically invite submissions
	Secure land at both ends of track.	Council	Negotiate with owners
	Build workshop, storage& loop at eastern end, loop and station at western end. Refurbish track.	Community Sponsors Council	Refurbish & extend tracks. Workshop possibly with sponsorship.
	Refurbish Ex Moreton Diesel & Cane trucks.	Community Sponsors	
	Develop interim SMS[8] and agreements for Scenario 2a with cane trucks.	Community Council/State	Scenario 2a with cane trucks for promotional & celebratory events
	Build passenger carriages	Community Sponsors	Capacity to match tourist bus, nominally 50 passengers.
	Develop SMS[8] and agreements for Scenario 2b with passenger carriages including traffic control	Community Council/State	Probably requires external, professional, expert advice.
	Commence regular operation of Scenario 2b with passengers	Community Sponsors	Monthly operation for Scenario 2b
Stage 2 Medium 5-10 years	Refurbish ex-Moreton steam locomotive *Bli Bli* to diesel operation.	Community Sponsors	Workshop possibly with sponsorship.
	Develop SMS[8] and agreements for Scenario 3.	Community Council/State	Probably requires external, professional, expert advice.
	Commence regular operation of Scenario 3 with passengers.	Community Sponsors	Monthly operation for Scenario 3
	Develop SMS[8] and agreements for Scenario 4.	Community Council/State	Scenario 4 for promotional & celebratory events
Stage 3 Long >10 years	Manufacture vintage tram for Scenario 1	Community Sponsors	Bogeys & sub-structure commercially built. Superstructure possibly by volunteers with sponsorship.
	Develop SMS[8] and agreements for Scenario 1 including traffic control	Community Council/State	Probably requires external, professional, expert advice.
	Commence regular operation of Scenario 1 with passengers	Community Sponsors	Regular operation for Scenario 1

Table 3 Development Sequence

[7] In the context of this Table, the term *Sponsors* includes Cash Grants from all sources as well as donated material and labour. The term *Community* includes the approved Management Entity, volunteers and professional pro bono advice.
[8] SMS - Safety Management System

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Operation Summary

Scenario	Locomotive	Rolling Stock[9] options		Operational Frequency	Comments
1	Tram	Nil	Nil	Daily	Purpose built tram - heritage design
2	Diesel	P	C	Monthly	Ex-Moreton Mill diesel *Petrie*
3	Ex-Steam	P	C	Monthly	Ex-Moreton Mill steam loco , to diesel.
4	Steam	P	C	Annual	Steam loco from Woodford Museum

Table 4 Operation Summary

Expenditure Summary

Scenario	Locomotive	Plan[10]	Heritage[11] Value	Capital $	Recurrent $ pa
1	Tram	L	Low	$800k	$200k
2	Diesel	S	High	$30k	$20k
3	Ex-Steam	M	Medium	$80k	$20k
4	Steam	M	High	Nil	$10k

Scenario	Rolling Stock	Plan	Heritage Value	Capital $	Recurrent $ pa	Comments
2, 3 & 4	P- passenger	S	Low	$100k	$10k	Purpose built passenger carriages.
2, 3 & 4	C-cane truck	S	High	$20k	$5k	Refurbished cane trucks (non-passenger)

Track and Infrastructure	Capital $	Recurrent $ pa	Comments
Eastern end	$1,000k	$5	Maintenance and services to storage/workshop
Western end	$800k	$1.5k	Maintenance of track & points on passing loop
Track	$500k	$8k	Including traffic control
Total	$3,330k	$279.5k	Offset by sponsorship and volunteers.

Table 5 Expenditure Summary

[9] **Rolling Stock** P – Purpose-built carriage(s) for 50 passengers. Common to Scenarios 2,3 & 4.
C – Cane trucks with cane (non-passenger) at celebratory events. Also common to Scenarios 2,3 & 4.

[10] **Planning Horizon** S – Short term less than 5 years
M – Medium term, 5 – 10 years
L – Long term, greater than 10 years

[11] **Heritage Value** High – direct link to Moreton Mill and sugar industry.
Medium – link to Moreton Mill, but with modified drive.
Low – no tangible link to Moreton Mill

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Cash Flow Summary

Period	Item	Action by	Capital	Recurrent
Stage 1 Short Term <5 years	Legal and financial review	Council		
	Expressions of Interest from Community not-for-profit groups.	Council		
	Secure land at both ends of track.	Council	$1,400 k	
	Build workshop, storage& loop at eastern end, loop and station at western end. Refurbish track.	Community Sponsors Council	$900 k	$5 k pa
	Refurbish Ex Moreton Diesel & Cane trucks.	Community Sponsors	$50 k	$20 k pa
	Develop interim SMS[12] and agreements for Scenario 2a with cane trucks.	Community Council/State		
	Build passenger carriages	Community Sponsors	$100 k	$10 k pa
	Develop SMS[12] and agreements for Scenario 2b with passenger carriages including traffic control	Community Council/State		
	Commence regular operation of Scenario 2b with passengers	Community Sponsors		
	Sub-Total		**$2,450 k**	**$105 k over 3 years[13]**
Stage 2 Medium 5-10 years	Refurbish ex-Moreton steam locomotive *Bli Bli* to diesel operation.	Community Sponsors	$80 k	
	Develop SMS[12] and agreements for Scenario 3.	Community Council/State		
	Commence regular operation of Scenario 3 with passengers.	Community Sponsors		
	Develop SMS[12] and agreements for Scenario 4.	Community Council/State		
	Sub-Total		**$80 k**	**$175 k over 5 years**
Stage 3 Long >10 years	Manufacture vintage tram for Scenario 1	Community Sponsors	$800 k	$200 k
	Develop SMS[12] and agreements for Scenario 1 including traffic control	Community Council/State		
	Commence regular operation of Scenario 1 with passengers	Community Sponsors		
	Sub-Total		**$800 k**	**$235 k pa**
15 year Total			**$3,330 k**	**$1,455 k**

Table 6 Cash Flow Summary - Short, Medium & Long Term

[12] SMS - Safety Management System
[13] Recurrent costs probably commence in year 3

References

Publications from Sunshine Coast Libraries, Heritage Collection, Nambour.

Moreton Sugar Mill *Sweet Heart of Nambour* -	*Berenis Alcorn and Robin Dunn*
The Mapleton Tramway -	John Knowles
Built by Baldwin -	Craig Wilson
Making Maroochy -	Helen Gregory

Internet References & Links

Queensland Acts & Regulations

Queensland Heritage Act 1992
www.legislation.qld.gov.au/LEGISLTN/CURRENT/Q/QldHeritageA92.pdf
Queensland Heritage Regulation 2003
www.legislation.qld.gov.au/LEGISLTN/CURRENT/Q/QldHeritageR03.pdf
Transport (Rail Safety) Act 2010.
www.legislation.qld.gov.au/LEGISLTN/ACTS/2010/10AC006.pdf
Transport (Rail Safety) Regulation 2010
www.legislation.qld.gov.au/LEGISLTN/CURRENT/T/TrantRailR10.pdf
Transport Operations (Road Use Management) Act 1995.
www.legislation.qld.gov.au/legisltn/current/t/trantoprua95.pdf
Transport Operations (Road Use Management—Road Rules) Regulation 2009
www.legislation.qld.gov.au/LEGISLTN/CURRENT/T/TrantOpRURR09.pdf

Planning Schemes

Maroochy Plan 2000
www.sunshinecoast.qld.gov.au/sitePage.cfm?code=maroochy-plan
Draft Sunshine Coast Planning Scheme 2012
www.sunshinecoast.qld.gov.au/sitePage.cfm?code=sc-planning-scheme

Policies

Road and Rail Crossing Interface Agreements – Guidance Manual
www.tmr.qld.gov.au/~/media/Safety/railsafety/GuidanceManual130911V5.pdf
Road and Rail Crossing Interface Agreements – Template
www.tmr.qld.gov.au/~/media/Safety/railsafety/InterfaceAgreement190911V4.pdf
SCC Policy Register (Internal Council link)
http://collaboration/sites/topics/policies/Documents/Forms/Policy%20Register%20View.aspx

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Place Making ***(Internal Council Documents)***

SCC Place Making Policy
http://collaboration/sites/topics/Placemaking/Documents/Place%20Making%20Policy.pdf
SCC Place Making Charter
http://collaboration/sites/topics/Placemaking/Documents/Place%20Making%20Charter.pdf
SCC Place Making Guidelines
http://collaboration/sites/topics/Placemaking/Documents/Placemaking%20Guidelines.pdf

Narrow Gauge Heritage Rail in Australia

The Australian Narrow Gauge Railway Museum Society (ANGRMS), Woodford.
www.angrms.org.au/
The Australian Sugar Cane Railway (ASCR), Bundaberg
www.qldrailheritage.com/ascr/
The Bally Hooley Steam Railway, Port Douglas
www.ballyhooley.com.au/
The Ginger Factory, Yandina,
www.gingerfactory.com.au/park-information/ginger-train
Dreamworld on the Gold Coast
www.dreamworld.com.au/Rides/Family-Rides/?tileid=633940722911814680
The Big Pineapple, Woombye.
www.bigpineapple.com.au/big-pineapple-train-ride/

Other Heritage Rail Sites, Australia

Portland Cable Trams
www.portlandcabletrams.com.au
Brisbane Tramway Museum
www.brisbanetramwaymuseum.org/
Bendigo Tramways
www.bendigotramways.com/

Photos from the Sunshine Coast Library

http://library.sunshinecoast.qld.gov.au/sitePage.cfm?code=picture-sunshine-coast

Sunshine Coast Council

Nambour Heritage Tramway

Discussion Paper No 1

Inside this issue

Introduction

At the Ordinary Meeting of Council on 13 December 2012, Council resolved, inter alia, that a report, including an issues paper, be presented to Council regarding the development of the Nambour Tramway utilising the existing heritage listed sugar cane locomotive line.

Whilst the historical aspects of the sugar industry on the Sunshine Coast and the role of cane trains and associated infrastructure are the basis for the heritage listing of the rail line in Mill Street and Howard Street, Nambour, they will not be dealt with in great depth in this paper. There are several excellent documents available in Council's libraries and on the world wide web authored by people with a passion for history and the local area.

This Discussion Paper is the first in a series of papers to be prepared to inform interested persons and organisations on the progress of investigations, and to invite contributions to the debate and to the final Issues Paper.

Council Resolution

That Council request the Chief Executive Officer, in consultation with the Divisional Councillor, to bring to Council a report including an issues paper for the development of the Nambour Tramway utilising the existing heritage listed sugar cane locomotive line with such reports to cover the following:

- *outline of the proposal;*
- *proposed ownership and operations of rolling stock;*
- *route alignment;*
- *property tenure issues;*
- *essential infrastructure required;*
- *planning and approval issues;*
- *key stakeholders and any agreements required;*
- *community aspirations and limitations;*
- *cost estimates for –*
  - *construction (Capital Costs);*
  - *operating costs;*
  - *revenue potential; and*
- *other items as relevant.*

Milestones

1897 First Crush, initially hauled by horses to the Mill.

1904 First steam locomotive purchased by the Mill.

1914 Maroochy Shire takes over the Dulong line.

1915 Maroochy Shire extends line to Mapleton using two Shay locomotives.

1922 Haulage by horses phased out.

1920's Tram lines extended eastwards to serve new plantings.

1927 Trams carrying passengers to Maroochydore and Coolum.

1935 Passenger services to Coolum and Maroochydore discontinued.

1944 Maroochy Shire closes the Mapleton line. Mill takes over cane haulage from Perwillowen and Burnside.

1953 Marshaling yards developed off Howard Street.

1967 Steam powered locomotives decommissioned.

1970 Last cane train from Burnside due to increasing urbanization.

1972 A steam locomotive from the Woodford Museum (WFCS) hauled cane to the Mill from the marshaling yards celebrating the centenary for a week in August.

1999 WFCS revisited. Recorded on youtube.

2003 'LAST CRUSH', Thursday, 4 December.

Brief History of the Sugar Cane Tramway, Sunshine Coast

For the initial crush of 1897, drays and horse teams were used to haul cane to the cane carrier at the Mill or to waiting trucks on the one and a half miles of tramline. Horses continued to be used over the years on permanent and temporary tram lines and on the road network until they were eventually phased out by 1922.

In 1904 the first steam locomotive was purchased signalling the transition to steam power. Steam continued to be the power of choice until the general transition to diesel power across all rail networks in Australia in the 1960's.

The tram line west of the Mill to Dulong was taken over by Maroochy Shire in 1914. The Shire extended the line to Mapleton and by August 1915 a reliable service was running bringing timber, farm produce and passengers to the Nambour railhead. The rolling stock included the Shay gear driven steam locomotive, two passenger carriages, and eleven goods and livestock wagons.

Council controlled all the lines west of the mill, and the running rights over various lands. Council purchased a second Shay locomotive also in 1914. Cane was being phased out at Dulong but was still hauled by the Mill from Perwillowen and Burnside.

The Mapleton line was closed by Council at the end of 1944. The Mill purchased the rail assets and dismantled the line beyond Burnside. The Nambour to Burnside cane tram line remained in operation until the end of the 1970 crushing season, and then the rail was dismantled in 1971 due to the increasing pressure from urban development in the Burnside area.

In the 1920's the Mill continued to extend the tram lines to east of Nambour to service new plantings. Trams were carrying passengers en route to Maroochydore and Coolum in 1927 but these services "were not paying their way". Revenue from the carriage of passengers and freight on the Coolum line continued to diminish and was almost non existent in July 1935 when the service was discontinued. The services to Maroochy River continued on Wednesdays and Saturdays, but by 1936 locomotives and carriages were not made available for community groups.

In 1953, the Company developed a marshalling yard off Howard Street after the Maroochy Shire insisted that the shunting loop in Howard Street should be relocated due to traffic congestion.

The steam powered "Moreton" was decommissioned in 1967 after sixty three years of service. By October 1967 the steam powered "Petrie", "Bli Bli" and "Valdora" were also out of service. The names of the steam engines not in use were transferred to diesel locomotives.

The Company's 1967 Christmas card included a photo of "Coolum" and entitled "the Last of Steam". In 1968 during a visit by the Australian Railway Society a steam locomotive hauled cane to the Mill from the marshalling yard.

Whilst many requests were received for the for the decommissioned steam locomotives from as far afield as California, USA, the locomotives surplus to the Mill's requirements were promised to local organisations within Maroochy Shire.

The Australian Narrow Gauge Railway Museum Society at Woodford, Qld (ANGRMS) owns and operates the *Bundy Fowler #5* steam locomotive (BCF5) which, for a week in August 1997 took part in the Moreton Mill centenary hauling trains from the marshalling yard to the Mill.

In 1999, BFCS returned hauling cane from the marshalling yards to the mill;

see www.youtube.com/watch?v=9NOBiIjxRyc

Thursday 4 December 2003 saw the completion of the last crushing season for the Moreton Sugar Mill in Nambour, ending an era for the sugar industry on the Sunshine Coast that lasted for 106 years. The events of this last crushing season have been captured for posterity in the documentary of "The Last Crush" produced by the University of the Sunshine Coast for Maroochy Shire Council. This film was funded through a State Library of Queensland Innovation Grant and the DVD is available for purchase from Council library.

http://vimeo.com/23033075

Photos by courtesy of Picture Sunshine Coast, Sunshine Coast Libraries

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Heritage Listing

Before commencing discussion on the project itself it is worthwhile commenting on the Heritage Listing of the existing cane train tracks and the obligations and limitations that this may impose upon any operation on those tracks.

Maroochy Shire commissioned Thom Blake, Historian, and David Mewes, Assistant Curator, *The Workshops Rail Museum*, Ipswich to assess the cultural heritage significance of the cane train network and identify components of the network that should be conserved. Their report contains a brief description of the network which comprised over 100 km of two foot (610 mm) gauge track including sidings.

The Report identified that Moreton Mill cane railway was one of 23 privately operated cane railways in Queensland, but was unique as being perhaps the only remaining "light" tramway system. Other systems developed as heavy haulage systems hauling up to 2 000 tonnes in weight using locomotives up to 40 tonnes in weight. In contrast, the Moreton Mill locomotives were only 16‒18 tonnes in weight hauling loads of about 300 tonnes.

Whilst the report acknowledged that the network could not be conserved in its entirety, there were significant components that should be preserved, including the Howard Street / Mill Street track. This had been a feature in the Nambour streetscape for almost 100 years, and is the only cane track in Queensland within a main township.

Additional elements identified were the three Mill employee cottages in Mill Street and Bury Street, and the Maroochy River lift bridge located at the northern end of River Store Road, although the southern approach is over land owned by Bundaberg Sugar.

These elements have been listed on the Queensland Heritage Register linked to the Sugar Industry on the Sunshine Coast.

Under the Queensland Heritage Act 1992 , the local government is the *owner* for a road or other land under a local government's control. This would include the assets in the road reserve including the cane tracks. The tracks in Mill Street west of Currie Street show considerable wear and the concrete surround is crumbling. Maintenance will be required in the near future.

It should be noted here that the current alignment of the rail in Mill Street and Howard Street dates from the early 1950s, as part of the establishment of the marshalling yards.

Prior to that date, the alignment was on the northern side of the carriageway as shown in this photo from the 1920s.

Picture Sunshine Coast, Sunshine Coast Libraries

Legislative Requirements

The conduct of rail operations within Queensland is subject to the *Transport (Rail Safety) Act 2010*. This Act is administered by the Department of Transport Main Roads. This Act, together with the *Work Health and Safety Act* imposes duties and obligations on rail transport operators and workers including State owned entities.

The Act also requires for a system of accreditation to ensure that the rail operators have the competence and capacity to operate their system safely and to manage the risks associated with rail operations.

The Act does not apply to a railway that is operated solely within an amusement or theme park and does not operate on or across a road. Cane railways are also exempt from the Act which, by definition do not carry passengers or freight other than sugar cane products.

Further requirements in support of the Act are contained within the *Transport (Rail Safety) Regulation 2010*.

The Rail Safety Regulators' Panel (RSRP) consists of the Rail Safety Regulators from all States, the Northern Territory and New Zealand. The key role of the RSRP is to provide advice to the Safety Standing Sub Committee (Safety SSC) and National Transport Commission (NTC) on rail safety regulatory issues to help enhance safety and regulatory outcomes consistent with the co regulatory framework.

The Panel has produced a publication *Safety Management System Guidance for Tourist and Heritage Rail Transport Operators – February 2010*. This guidance material outlines the legislative requirements and associated processes for Tourist and Heritage Rail Transport Operators in preparing their Safety Management Systems, as reflected in the National Model Rail Safety Legislation.

This document aims to help operators understand the overarching requirements of an SMS and is intended as a guide only. It is not legally binding but it has legal effect once each jurisdiction enacts its own legislation.

Applications for accreditation may be to carry out railway operations as a rail infrastructure manager or as a rolling stock operator, or both.

This includes for the following railway operations:

Infrastructure: construction, management, commissioning, maintenance, repair, modification, installation, operation, decommissioning

Rolling stock: construction, commissioning, maintenance, repair, modification, decommissioning, operation or movement or causing the operation or movement by any means on a railway.

http://www.rsrp.asn.au/files/publications/23_44.SMS%20Guidance%

Key Issues from Guide

1. **Establish appropriate Governance, Management, Accountabilities, Responsibilities and Authorities for the Management Committee** which may include:
   - Leadership
   - Financial
   - Regulatory
   - Safety
   - Operational
   - Infrastructure
   - Rolling stock
2. **Develop an effective Safety Policy** communicated throughout the organisation.
3. **Regulatory Compliance.** Systems must be in place to ensure Regulatory Compliance.
4. **Document and Information Management.** All rail safety documents must be approved and reviewed before they are issued. A Document Register must be maintained.
5. **Annual Review of SMS.** The Review shall include performance against goals and measures; Safety alerts, directions or prohibition notices since the last review.
6. **Safety Performance Measures and Reports.** An operator must give the Rail Safety Regulator a safety performance report for each reporting period.
7. **Safety Audits** using Audit Checklists and Audit Report Form.
8. **Corrective Actions** to be appropriately prioritised, assigned and implementation monitored.

Accredited Narrow Gauge Tram Lines, Qld.

Each of the following organisations has been accredited by the Department of Transport Main Roads to operate as a rail infrastructure manager and rolling stock operator. Accreditation and auditing ensure that the rail operators have the competence and capacity to operate their system safely and to manage the risks associated with rail operations.

The **Australian Narrow Gauge Railway Museum Society (ANGRMS),** a Non-Profit company, was formed in 1971 by a group of enthusiasts with the aim of preserving a representative collection of locomotive and rolling stock used on Queensland sugar mill tramways. The Society has established a large collection of locomotives and rolling stock and has a working and static display at Woodford. The Society has running days on the first and third Sunday of each month.
www.angrms.org.au/

The Society owns and operates the *Bundy Fowler #5* steam locomotive which, for a week in August 1997 took part in the Moreton Mill centenary hauling trains from the marshalling yard to the Mill. The locomotive returned in 1999 for a further visit.

In a letter addressed to the Maroochy Shire Mayor dated 15 October 2004, the (then) President of the Australian Narrow Gauge Railway Museum Society (ANGRMS) Mr Paul Rollason offered advice and the assistance of the Society in establishing a heritage rail on the Sunshine Coast.

The **Australian Sugar Cane Railway (ASCR), Bundaberg** (formerly the Botanical Gardens Railway) is maintained and operated by volunteers, the members of the Bundaberg Steam Tramway Preservation society (BSTPS). The ASCR has three operating steam locomotives and a further one awaiting restoration. It also has the diesel powered *Valdora* ex Moreton Mill. The one kilometre track was constructed in 1986 with assistance from a Commonwealth Government CEP grant. It operates every Sunday, and Wednesdays during school holidays.
www.qldrailheritage.com/ascr/

The **Bally Hooley Steam Railway** operates two steam locomotives in Port Douglas. These steam locomotives were the last ones used by the Mossman Mill before switching to diesel power. The system is maintained and operated by volunteers on Sundays and selected Public Holidays. It operates over a tram line originally owned and operated by the Mossman Central Mill.
www.ballyhooley.com.au/

Private Narrow Gauge Tram Lines, Qld

There are several narrow gauge lines which operate entirely within theme parks or other private land, and as such do not require accreditation by the Department of Transport Main Roads under the *Transport (Rail Safety) Act 2010*. They do however need to comply with the *Work Health and Safety Act*. Several sugar cane locomotives are running in theme parks.

The 1901 steam powered *Krauss* named **"Moreton"** was the first locomotive operated by the Moreton Mill. Now powered by a diesel engine housed in a tender **"Moreton"** operates daily in the **Ginger Factory, Yandina,** hauling tourists in purpose built carriages through the gardens.

http://www.gingerfactory.com.au/park/information/ginger-train/

Dreamworld on the Gold Coast operates two steam powered locomotives. The 1951 **Perry** was operated by the Bingera Mill, north of Bundaberg until the 1970's. It has been heavily "Americanised" with a large cow-catcher. The 1917 **Baldwin** (US) originally operated at the Racecourse Mill, Mackay. It was relocated to Dreamworld in December 1981 and converted to an oil burner.

http://www.dreamworld.com.au/Rides/Family-Rides/?titleid=6339407229118146803

The **Big Pineapple** train operates on a one kilometre track taking allowing visitors to see tropical fruits under cultivation. Commencing at Christmas 1971 it used a succession of second-hand *Ruston* model diesel locomotives one from the Bingera Sugar Mill and another from Caledonian Colliery, South Maitland. In 1977, E.M.Baldwin, Castle Hill, NSW supplied a further locomotive based on a Ruston frame and wheelsets. Using the Pineapple's Bingera Mill Ruston frame and wheelsets Baldwin delivered a mechanically similar locomotive to the first but with cosmetic extras to add to the tourist appeal.

http://www.bigpineapple.com.au/big-pineapple-train-ride/

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Steam Locomotives

1904: **Moreton** purchased, decommissioned July 1967.

1908: **Dulong**, Shay.

1914: **Mapleton**, Shay. In 1948 Dulong was cannibalized for parts. Decommissioned 1960.

1914: **Nambour** purchased, then renamed **Maroochy** in 1922. Decommissioned 1963.

1924: **Coolum** purchased. Decommissioned in 1970.

1925: **Eudlo** purchased. Decommissioned in 1970.

1937: **Valdora** (c 1893) purchased from Racecourse Mill, Mackay. Decommissioned 1964.

1960: **Bli Bli** (c 1913) purchased from Babinda Mill 1960. Decommissioned 1967.

1950s: **Petrie** (c 1933) purchased from Babinda Mill 1960. Decommissioned 1967.

Moreton Mill Locomotives

In general, the locomotives fell into two categories: pre 1960s steam power and post 1960s diesel power, although there were several early, smaller, petrol or diesel powered locomotives used for maintenance or yard work.

Further research is needed to definitively locate all examples of rolling stock associated with the Moreton Mill. From the Light Rail Research Society of Australia Inc website the following information has been extracted.

Steam Locomotives

Name	Builder/ date	Current Location
Moreton	Krauss / 1901	Ginger Factory, Yandina[1]
Shay	Lima / 1908, 1948	Nambour Museum[2]
Maroochy	Hudswell Clarke /	Narangba
Coolum	Fowler / 1923	Eudlo [3]
Eudlo	Fowler / 1925	Nambour Museum[2?]
Valdora	Dick Kerr / 1893	Nambour Museum[2?]
Bli Bli	Fowler / 1915	Nambour Museum[2]
Petrie	Fowler / 1933	Geelong, Victoria

Diesel Locomotives

Name	Builder/ date	Current Location
Maroochy	E M Baldwin / 1964	Eudlo
Valdora	E M Baldwin / 1965	Bundaberg Botanic Gardens [4]
Dunethin	Com/Eng / 1958 /	Bingera Mill [5]
Bli Bli	E M Baldwin / 1965	Bingera Mill [5]
Petrie	E M Baldwin / 1968	Bingera Mill [5]

[1] Converted to run hydraulically with diesel engine in tender.
[2] Nambour & District Historical Museum Association
[3] Cosmetically restored , privately owned.
[4] Australian Sugarcane Railway, Bundaberg Botanic Gardens Railway
[5] Bundaberg Sugar Limited, Bingera Mill, locomotives apparently now out of service.

Passenger Rolling Stock

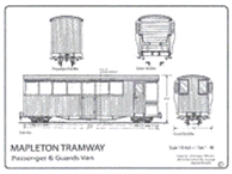
Passenger rolling stock was used regularly on the Mapleton line by Council, and irregularly by the Moreton Mill on the Coolum and Deep-water lines.

Coolum carriages about to leave Nambour, c 1917

There doesn't appear to be any drawings available of these carriages

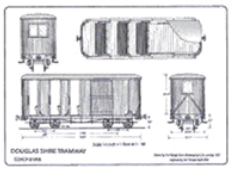
On occasions, improvised seating was provided, something that would not be allowed under accreditation (see adjacent extract from Nam-bour Chronicle).

The rail gauge is a limiting factor to the overall width of the carriages.



The adjacent draw-ings are by Jim Fainges.

They depict passen-ger carriages that operated on a 2' 0" gauge.



The Buderim Tram-way operated on a 2' 6" gauge.

Nambour Chronicle and North Coast Advertiser 12 October 1923 extract.

Two special trains left Brisbane Cen-tral at about 9 a.m. and 9.30 a.m., and arrived at Nambour at 11.30 and 12 noon respectively, and the esti-mated number of persons who trav-elled to Nambour was close on 700.

To cater for so vast a crowd on the Moreton Mill tramway special trucks had to be requisitioned at compara-tively short notice. The extra seating comprised a 6inch board, two on each truck; ex tending full length, and a railing at the back of each, which could be taken out in order to allow free access to the passengers.

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Maroochy Plan 2000

3.2 Planning Area No. 2 – Nambour

3.2.2 Vision Statement (in part)

(b) New development in the Town Centre will be sited and designed to address the street and will reinforce the cultural heritage values and contemporary rural character of the town.

3.2.3 Key Character Elements,

(1) Location of Uses and Activities,

d) The existing industrial areas and industrial uses throughout Nambour, including the Moreton Sugar Mill.....will be retained and consolidated. Ancillary or compatible uses will be encouraged to collocate in these specific areas.

Precinct Summaries

(2) Nambour Centre Frame)

(Precinct Class = Town Centre Frame))

This Precinct surrounds Nambour's Town Centre Core. The intent for this Precinct is to provide a range of commercial, business and service activities at a scale and intensity less than the scale and intensity of activities in the core.

There is also a mix of housing in this Precinct.

(18) Moreton Mill)

(Precinct Class = Core Industry))

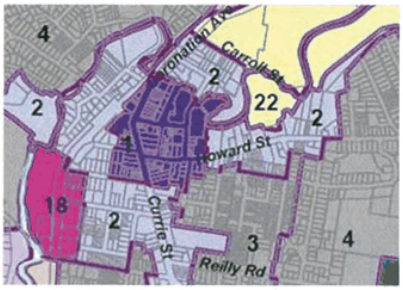
This Precinct is intended to accommodate:

- industrial uses which have regional and subRegional markets covering the Sunshine Coast Region and hinterland;
- major sugar industry plant and ancillary industrial activities, including transport operations;
- specialist service trades and automotive services and repairs, and;
- business and commercial equipment services and repairs outlets.

Maroochy Plan 2000

The current Maroochy Plan 2000 did not envisage closure of the Moreton Sugar Mill and supported the development of ancillary land uses in the vicinity of the Mill.

Precinct 2 surrounds the Town Centre Core. The intent for this Precinct is to provide a range of commercial, business and service activities at a scale and intensity less than the scale and intensity of activities in the core. Uses such as business and professional offices, fast food establishments and service trades requiring proximity to the Town Centre should be located in this Precinct. There is also a mix of housing in this Precinct. Some reuse of detached dwellings is encouraged provided it does not adversely impact on surrounding residential uses.



Precincts

1.1 Nambour Central (Town Centre Core)
2.1 Nambour Central Frame (Town Centre Frame)
3.1 Nambour Village Residential (Mixed Housing)
4.1 Nambour Central Residential (Mixed Housing)
18 Moreton Mill (Core Industry)
22 Nambour Showground (Special Purposes)

Precinct 18, Arundell Avenue to Bury Street focuses on the Moreton Sugar Mill. The preferred and acceptable uses are those particularly related to the sugar industry.

Text:
www.sunshinecoast.qld.gov.au/addfiles/documents/planning/maroochy_plan/vol_pdf/vol3/v3_2_nambour_310111.pdf

Map:
www.sunshinecoast.qld.gov.au/addfiles/documents/planning/maroochy_plan/maps/pa_02_nambour.pdf

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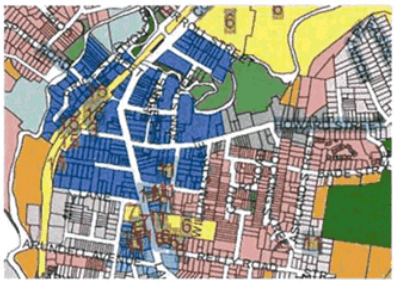
Draft Sunshine Coast Planning Scheme

The Draft Planning Scheme was placed on Public Display for comment on 19 October 2012. The public consultation period for the Draft Sunshine Coast Planning Scheme ended on the 14 December 2012. Council is considering a report outlining the issues raised in each submission and any recommended changes to the draft planning scheme at a series of Special Meetings.

Following a further report to Council on the submissions, the amended Scheme will be presented to the State Minister for approval. The timetable for completion is at this stage unknown.



Nambour is designated a Major Centre under the SEQ Regional Plan. The Major Centre Zone above extends the current Town Centre Core to include parts of the current Town Centre Frame.

The former Marshalling Yards off Howard Street are now designated Medium Density Residential.

Text:
www.sunshinecoast.qld.gov.au/addfiles/documents/planning/dscpstext2/part7/s_7_2_26.pdf

Map:
www.sunshinecoast.qld.gov.au/addfiles/documents/planning/dscpsmaps2/zone_maps/ZM37.pdf

The **Draft Planning Scheme** sets out the Sunshine Coast Council's intention for the future development in the planning scheme area, over the next twenty years to 2031.

It will be reviewed periodically in accordance with the Act to ensure that it responds appropriately to the changes of the community at a local, regional and state level.

Part 6 contains the zone codes for the 22 zones covering residential, centre, industry, open space and other zones. The zones are mapped and included in Schedule 2 (Mapping). Each zone code includes the purpose of the code, the intent and overall outcomes for the zone and may also include a table of consistent and inconsistent uses.

7.2.26 Nambour local plan code

Development in the Medium density residential zone provides for a mix of housing types and densities with dwellings that are generally of a domestic scale or are provided in small groups so as to reduce the perceived scale and mass of development relative to its surrounds.

Performance outcome
PO3 Nambour Local Plan Area

Development provides for the retention and possible future operation of the former sugar cane train railway along the Mill Street/Howard Street route between the former mill site and the former marshalling yards off Howard Street for the purpose of tourism, transportation, connectivity and retention of heritage values.

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References:

The photos on pages 1,2,3, 4 & 9 are produced with permission from the Sunshine Coast Library

http://library.sunshinecoast.qld.gov.au/sitePage.cfm?code=picture?sunshine?coast

Other web sites accessed are

The **Australian Narrow Gauge Railway Museum Society (ANGRMS),**
www.angrms.org.au/

The **Australian Sugar Cane Railway (ASCR), Bundaberg**
www.qldrailheritage.com/ascr/

The **Bally Hooley Steam Railway**
www.ballyhooley.com.au/

The **Ginger Factory, Yandina,**
http://www.gingerfactory.com.au/park?information/ginger?train

Dreamworld on the Gold Coast
http://www.dreamworld.com.au/Rides/Family?Rides/?tileid=6339407229118146803

The **Big Pineapple**
http://www.bigpineapple.com.au/big?pineapple?train?ride/

Publications from Sunshine Coast Libraries, Heritage Collection, Nambour.

- Moreton Sugar Mill *Sweet Heart of Nambour* *Berenis Alcorn and Robin Dunn*
- The Mapleton Tramway John Knowles
- Built by Baldwin Craig Wilson
- Making Maroochy Helen Gregory

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Sunshine Coast Council

Nambour Heritage Tramway

Discussion Paper No 2

Introduction

At the Ordinary Meeting of Council on 13 December 2012, Council resolved, inter alia, that a report, including an issues paper, be presented to Council regarding the development of the Nambour Tramway utilising the existing heritage listed sugar cane locomotive line.

This is the second of a series of Discussion Papers prepared to inform interested persons and organisations on the progress of investigations, and to invite contributions to the debate and to the final Issues Paper.

The resolution made reference to *community aspirations and limitations.* To this end the local councillor invited persons from the local business community and other organisations to form an interest group to canvass community opinions and to discuss and consider the options.

The Nambour Heritage Tramway Group was formed at a meeting on 13 March 2013. Paul Moriarty was elected as Chairperson and Michael Foley as Secretary.

Whilst the Council resolution referred to the utilisation of the *existing heritage listed sugar cane locomotive line*, it must be said at the outset that additional track and other infrastructure will need to be provided beyond the ends of the existing track to support the management, storage, maintenance and running of any rolling stock.

To determine the extent of this additional infrastructure requires consideration of a scenario, or a series of scenarios, particularly with respect to rolling stock. To a large extent, much of the track infrastructure including stations, storage and maintenance facilities, and traffic control will be common to all scenarios.

The variables considered in developing these scenarios include not only the rolling stock and other infrastructure but also the governance, and legal and financial liability of the managing parties.

This Document is for discussion only and is not Council Policy.

Previous issue (No 1)

Inside this issue

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Legislative Authority

The Local Government Act gives a local authority its authority.

Generally, a local government has the power to do anything that is necessary or convenient for the good rule and local government of its local government area.

A local government may close a road (permanently or temporarily) to all traffic, or traffic of a particular class, if there is another road or route reasonably available for use by the traffic.

If a road is closed to traffic for a temporary purpose, the local government may permit the use of any part of the road (including for the erection of any structure during a fair for example), on the conditions the local government considers appropriate.

This could be applicable if council sought to temporarily close portions of road for the purposes of a fair or celebration say, of an historically, significant event linked to the sugar industry.

Legislative Requirements

General

The operation of trains or trams on the heritage listed sugar cane track will be subject to a range of State Acts and Regulations. It is important to investigate thoroughly that there is the legislative authority to operate, and that all legal issues are identified.

The following list is not exhaustive, but represents the most applicable:

- *Queensland Heritage Act 1992*
  - *Queensland Heritage Regulation 2003*
- *Transport (Rail Safety) Act 2010*
  - *Transport (Rail Safety) Regulation 2010*
- *Rail Safety National Law (South Australia) Act 2012*
- *Transport Operations (Road Use Management) Act 1995*
- *Transport Operations (Road Use Management—Road Rules) Regulation 2009*
- *Transport Infrastructure Act 1994*
- *Local Government Act 2009*
- *Other Acts & Regulations applicable to development.*

Running passenger vehicles on unused cane tracks down the centre of a town is unique and does not appear to be specifically identified in legislation or regulation. The interpretation and application of existing legislation will require some discussion and debate, legal interpretation and advice.

It is clear that the *Transport (Rail Safety) Act & Regulations* apply in this case and, subject to the passage of further state law, the *Rail Safety National Laws* will apply in Queensland within 12 months.

The *Transport Operations (Road Use Management—Road Rules) Regulation 2009* provide road rules in Queensland under the *Transport Operations (Road Use Management) Act 1995* that are substantially uniform with road rules elsewhere in Australia. As part of this consistency they refer to trams and the specific rules applicable to trams travelling in the road carriageway (as in Melbourne, Bendigo, Adelaide and Sydney).

The Act defines a tram as "any conveyance or group of connected conveyances used or designed for use upon a tramway". A tramway is not defined.

Under the Queensland *Transport Infrastructure Act 1994*, the terms tram and tramway specifically refer to cane trams and cane tramways. There is however considerable reference to light rail and light rail transport infrastructure.

Queensland Heritage Act & Regulations

The object of this Act is to provide for the conservation of Queensland's cultural heritage for the benefit of the community and future generations. This is achieved by regulating, in conjunction with other legislation, development affecting the cultural heritage significance of Queensland heritage places.

It should be noted here that the legislation consistently uses the term ***place*** to define or identify land that is historically significant. It may be held on two or more titles and includes any ***features*** and their immediate surrounds that may be on the land. A feature may include a part or whole of a building or structure, an artefact including an archaeological artefact, a precinct, or a natural or landscape feature.

The Act promotes heritage agreements to encourage appropriate management of Queensland heritage places, and provides appropriate enforcement powers to help protect Queensland's cultural heritage. Heritage places are defined spatially and include objects within that defined space.

Under the Act, the local government is the *owner* for a road or other land under a local government's control. This would include the assets in the road reserve including the cane tracks. The exception would be the public utilities such as drainage, electricity, gas, sewerage, telecommunications or water.

The portion of roadway 1.5 metres either side of the centre of the cane tracks within the Howard Street and Mill Street road reserves, and the their intersection with Currie Street, is registered as a heritage place.

Entry in the Queensland Heritage Register does not exclude changes, additions or the construction of new works, provided the work does not detract from the heritage values of a place.

Owners of heritage places are not obliged to fully restore their property. However, owners are advised to maintain their place to ensure it is protected from serious or irreparable damage or deterioration. The tracks in Mill Street west of Currie Street show considerable wear and the concrete surround is crumbling. Maintenance of the surrounds will be required in the near future.

The registration of the two former mill cottages in Mill Street extends to the road centreline and therefore includes the footpath mounted, cane train warning sign in Mill Street.

Mill Street, west of Currie Street showing broken concrete surround.

Tracks pass through the William Street roundabout on Howard Street.

Heritage sign, Mill Street in "Off season" position.

Accreditation

Requires:

- Safety Management Systems (SMS),
- SMS suitable and sufficient for their operations, and
- that the management, staff and contractors have the competency and capacity to implement those systems.

Four key areas:

- Track & Infrastructure
- Rolling Stock
- Operation
- Management

Interface Agreements

The DTMR has developed a guidance manual under the requirements of the *Transport (Rail Safety) Act 2010*.

http://www.tmr.qld.gov.au/~/media/Safety/railsafety/GuidanceManual130911V5.pdf

A template interface agreement is provided on the DTMR website, viz:

http://www.tmr.qld.gov.au/~/media/Safety/railsafety/InterfaceAgreement190911V4.pdf

Transport (Rail Safety) Act 2010.

The conduct of rail operations within Queensland is subject to the *Transport (Rail Safety) Act 2010*. This Act is administered by the Department of Transport and Main Roads. This Act, together with the *Work Health and Safety Act* imposes duties and obligations on rail transport operators and workers including State owned entities.

The Act also requires for a system of accreditation to ensure that the rail operators have the competence and capacity to operate their system safely and to manage the risks associated with rail operations.

The Act does not apply to a railway that is operated solely within an amusement or theme park and does not operate on or across a road. Cane railways are also exempt from the Act which, by definition do not carry passengers or freight other than sugar cane products.

Further requirements in support of the Act are contained within the *Transport (Rail Safety) Regulation 2010*.

As of 1 September 2010, all Queensland rail infrastructure managers and road managers must enter into an interface agreement for road or rail crossings on public roads.

An interface agreement is a written agreement for managing risks in relation to rail or road crossings. As a minimum an interface agreement must include provisions for:

- implementation and maintaining measures to manage those risks,
- the evaluation, testing, and where appropriate, revision of those measures,
- the respective roles and responsibilities of each party to the agreement in relation to those measures,
- procedures by which each party to the agreement will monitor and determine whether the other party complies with its obligations under the agreement,
- a process for keeping the agreement under revision and how it will be conducted and implemented.

The definition for a crossing includes not only a railway level crossing but also pedestrian level crossing and a lane of a road on which trains move alongside road vehicles. This is particularly applicable to Howard Street and Mill Street.

An agreement will be required between the State (as road manager of the Currie Street intersection) and the rail manager.

A further agreement will be required between council (as road manager of Howard Street and Mill Street) and the rail manager if the rail manager is not council.

National Rail Safety Legislation and Regulations

The Council of Australian Governments decided on 7 December 2009 to implement a single National Rail Safety Regulator ('National Regulator') and a body of National Rail Safety Law ('National Law').

The Rail Safety Regulators' Panel (RSRP) consists of the Rail Safety Regulators from all States, the Northern Territory and New Zealand.

The key role of the RSRP is to provide advice to the Safety Standing Sub Committee (Safety SSC) and National Transport Commission (NTC) on rail safety regulatory issues to help enhance safety and regulatory outcomes consistent with the co regulatory framework.

The Panel has produced a publication *Safety Management System Guidance for Tourist and Heritage Rail Transport Operators – February 2010*. This guidance material outlines the legislative requirements and associated processes for Tourist and Heritage Rail Transport Operators in preparing their Safety Management Systems, as reflected in the National Model Rail Safety Legislation.

On 7 June 2012 the South Australian Government Gazette proclaimed the *Rail Safety National Law (South Australia) Act 2012*.

On 20th January 2013, the Office of the National Rail Safety Regulator (ONRSR) became the rail safety regulator for rail activities under the Rail Safety National Law (RSNL) in the jurisdictions of New South Wales, South Australia, Tasmania and the Northern Territory.

Subject to the passage of further state law, it is expected that Western Australia, Victoria, Queensland and the Australian Capital Territory will also be regulated by the ONRSR within 12 months.

The Executive Office and the Central Branch (SA, Tas, NT) are based in Adelaide with a Branch office established for New South Wales. Further Branch Offices will be established for Western Australia, Victoria and Queensland. Staff from DTMR will move to the Queensland Branch Office.

The Queensland *Transport (Rail Safety) Act 2010* and the *Rail Safety National Law Act* were developed in the same environment and with the same intent. In many cases the wording of the various clauses is the same.

The transition from the Queensland Regulations to the National Regulations should be seamless for almost all operators.

national rail safety regulator

Exemptions

The *Rail Safety National Law Act* provides for general exclusions in relation to various functions such as underground mining, slipways and overhead cranes.

It also does not apply to private, non-commercial, hobby railways operated only on private property to which members of the public do not have access.

Furthermore, it does not apply to railways not connected to an accredited railway and used as an amusement structure wholly within an amusement park, for example, *Dreamworld* on the Gold Coast.

The Ginger Factory at Yandina and the Big Pineapple at Woombye will now be required to attain accreditation for the operation of their tourist rail facilities.

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Tram lane sign

End tram lane sign

Tram lane

Transport Operations (Road Use Management Act) 1995

This Act provides for the effective and efficient management of road use in the State. The Act establishes a scheme for the identification and performance of vehicles, drivers and road users. The scheme monitors compliance and manages non-performing vehicles, drivers and road users. It also manages traffic to improve safety.

Under this Act a local authority may install or remove official traffic signs on local roads in its area, notwithstanding that the State may override this and serve notice on a local authority to remove or install such sign. An official traffic sign must be installed in a way specified by the Manual of Uniform Traffic Control Devices (MUTCD).

In general terms, councils are limited to controlling the local road space and how it can be used (including parking). Refer also to *Local Government Act 2009* re temporarily or permanently closing a road to any class of traffic.

Transport Operations (Road Use Management—Road Rules) Regulation 2009

The object of this regulation is to provide road rules in Queensland that are substantially uniform with road rules elsewhere in Australia.

It is not the intent of this summary to reproduce the complete regulations relating to the operation of trams in the road but to highlight those that might influence the operation of trams on these particular tracks.

It is extremely important that it is quite clear to the other drivers that trams are operating in the area and that there are regulations that apply that may well be unique in Queensland. These regulations also apply to pedestrians most particularly those accessing or leaving the tram.

The definition of *vehicle* includes *tram*, even though currently trams or light rail are not a feature in the Queensland roadspace.

There are definitions also for:

tram lane the part of a road with tram tracks between a tram lane sign and an end tram lane sign, and marked on either side by a continuous yellow line parallel to the tracks. A driver of any vehicle may drive up to 50m in a tram lane to enter or leave the road.

tram tracks includes a rail designed for a light rail vehicle to run on.
tram stop means a place on a road at which there is a sign indicating that trams will stop to enable people to get on or off.

tramway the part of a road with tram tracks between a tramway sign and an end tramway sign, and marked on either side by 2 continuous yellow lines parallel to the tracks, or a structure such as a pedestrian refuge, traffic island or kerb.

A critical issue is the safety of pedestrians / passengers at tram stops. Whilst it may be desirable that passengers only alight from, or access the tram at the off-road stations at either end of the tram tracks, the contingency where tram stops may be created along the route must also be considered.

In general, if a tram stops then other traffic travelling alongside or behind in the same direction must also stop.

Even after stopping, a driver cannot drive past a tram if the tram doors are open, or a pedestrian is crossing the road between the tram and the left side of the road.

Transport Infrastructure Act 1994

The Transport Infrastructure Act provides for a strategic overview and integrated planning and management of the provision and operation of all transport infrastructure, from road to rail, from marine ports to airports, and to busways and light rail.

The key issue with respect to road infrastructure and this Act is the authority of the State to "declare" a road to be a State-controlled road.

It also authorises the agreements that may be made between the State and local government for the joint funding of works on either the State or local road networks that contribute to the effectiveness and efficiency of the overall road network.

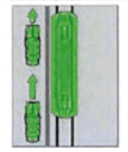
More specifically, with respect to this project, it requires a Transport Interface Agreement to be entered into between the road authority and the "light rail" entity to define the responsibilities of the parties involved.

See further information under *Transport (Rail Safety) Act 2010*.

Tramway sign

End tramway sign


Tramway with double yellow line


Tramway with separation kerb

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Rail Transport Operations and Rail Infrastructure Management are separate functions and may be managed by different persons or entities.

The Applicant for accreditation need not necessarily be the owner of the Rolling Stock or Track Infrastructure and may be another person or entity.

A contract must exist between the owner of the rolling stock and the Operator, and the owner of the infrastructure and the Infrastructure Manager providing for the applicant to have effective management and control at the relevant time.

A safety performance report must be submitted to the regulatory body at least annually.

This report must include a description and assessment of the safety performance of the rail transport operator, any deficiencies or irregularities that may be relevant to rail safety, a description of initiatives undertaken in the reporting period (or the next reporting period) relating to rail safety, and any other performance indicator required under accreditation.

Further reports must be submitted about accidents or incidents related to rail safety within the prescribed period.

The fees payable to the regulator will depend on the scenario or scenarios adopted.

Governance

The *Transport (Rail Safety) Act 2010* and the *Transport (Rail Safety) Regulation 2010* refer to ***prescribed railway operations*** and make a clear distinction between the functions of the Rail Transport Operator and the Rail Infrastructure Manager, although a person or entity may be subject to rail safety duties in both capacities.

Furthermore, the Rolling Stock Operator need not necessarily be the owner of the rolling stock, however the Operator must have effective management and control of the rolling stock.

Similarly, the Rail Infrastructure Manager need not necessarily be the owner of the infrastructure however the Manager must have effective management and control of the infrastructure.

Two or more Rolling Stock Operators may operate on the same rail infrastructure but there needs to be an ***infrastructure arrangement*** applying to the safety risks arising, or potentially arising, from railway operations carried out by or on behalf of any of them. This would include the operator of a visiting locomotive invited to a Special Event, where an infrastructure arrangement would need to be negotiated with the current Rolling Stock Operator.

There are three governance structures that may apply:

- Council as Rail Infrastructure Manager & Rail Transport Operator
- Council as Rail Infrastructure Manager; contracted Rail Transport Operator
- Contracted Rail Infrastructure Manager & contracted Rail Transport Operator (Council as infrastructure owner).

The governance structure will be dependant to some extent on the scenarios that are adopted.

Notwithstanding which scenario is adopted, the latter structure where Council is neither the Infrastructure Manager nor the Transport Operator presents the widest range of issues to be addressed, including the contracts and interface agreements between Council, DTMR and the infrastructure and operator entities.

All documentation must be stored and made available to the regulatory body. This includes the safety responsibilities, accountabilities, authorities and interrelationships of persons who manage or verify rail safety work, the test results from scheduled maintenance programs, to the financial capacity or public risk insurance arrangements to meet potential accident liabilities arising from railway operations.

The ONRSR is moving to full cost recovery from the industry (current cost of regulator activities nationally is $35m, 39% recovered). Variable fees will be calculated on track kilometres managed (30%) and train kilometres travelled (70%).

Whilst the previous page focusses on the Governance requirements with respect to the *Transport (Rail Safety) Act 2010* and the *Transport (Rail Safety) Regulation 2010*, there are wider governance issues that need to be addressed.

An appropriate fiscal management structure is required by the Tramway Management entity to be able to :

- Enter into contractual arrangements to manage rail infrastructure and rolling stock.
- Obtain accreditation with ONRSR.
- Become a registered charity and be registered with the Australian Charities and Not-for-profits Commission (ACNC).
- Apply for, and receive Grants from the Federal and State governments, the Sunshine Coast Council and philanthropic organisations (e.g. service clubs).
- Gain the confidence of the business sector and receive sponsorship and contributions in kind.
- Gain the confidence of the general public and receive support through donations and voluntary assistance.

The appropriate management structure is also required to ensure all workers, whether paid or as volunteers have the appropriate skills to undertake the tasks required and receive on-going training and protective equipment.

On 1 January 2012, Queensland, the Australian Capital Territory, New South Wales, the Northern Territory and the Commonwealth harmonised their Work Health and Safety (WHS) laws protecting workers, including volunteers, in these jurisdictions with the same WHS laws.

WHS isn't just about the responsibilities of the employer with respect to a safe working environment and staff training.

It is also about the responsibilities of the employees, including volunteers, to ensure they are fit to undertake the assigned tasks.

Heritage tram and train operations need a large number of enthusiastic volunteers to function.

Volunteers in general will be retired persons who will, as time moves on, be facing increasing issues with respect to general mobility and mental alertness.

Working shifts need to be short and back-up staff available at all times.

Appropriate advice should be sought from legal and accounting professionals to prepare, discuss and negotiate the structure and responsibilities of the managing entities.

The three personal health issues of :

- **health and fitness;**
- **drugs and alcohol;**
- **fatigue risk management;**

are extremely important in operating a tram or train in what is essentially a road environment.

They assume greater importance when applied to a volunteer workforce whose average age will be much higher than that of the general workforce.

For staff operating with, or around machinery the overall Health & Fitness needs to be assessed in terms of mobility and mental alertness.

The term 'drugs' isn't just confined to illicit substances or 'performance enhancing' substances that some athletes are using.

In this instance it is more likely to mean legitimately prescribed drugs which can cause drowsiness or other physical impairments.

There will be a "zero tolerance" to alcohol.

Regular voluntary health checks and certificates may need to be the norm for operating personnel.

Fatigue management should not only look at the length of the working shift but also the travel time at either end.

Volunteer rail enthusiasts may travel for several hours either side of their shift and this needs to be taken into account.

The object of accreditation is the safe operation of railway operations and the management of the risks associated with such operations. It is acknowledged that not all risk can be eliminated, but that risks need to be reduced so far as it is reasonably practicable.

For the definition of reasonably practicable refer to the ONRSR Guideline, Meaning of Duty to Ensure Safety So Far As Is Reasonably Practicable.

The Safety Management System shall provide sufficient detail appropriate to :

- **the scope and nature of the rail operations,**
- **the potential risks to persons by these operations,**
- **the operators duties.**

In addition to the systems and procedures required to eliminate or reduce risk, an assessment must include a **register of potential risks.**

This register shall consider for each potential risk the :

- likelihood of the risk eventuating,
- degree of harm as a result,
- reasonable knowledge of person(s) concerned,
- availability of ways to eliminate or reduce the risk,
- suitability of ways to eliminate or reduce the risk,
- cost to eliminate or reduce the risk.

Safety Management System

The matters (elements) that must be addressed in the safety management system are:

- safety policy;
- safety culture;
- governance and internal control arrangements;
- management responsibilities, accountabilities and authorities;
- regulatory compliance;
- document control arrangements and information management;
- review of the safety management system;
- safety performance measures;
- safety audit arrangements;
- corrective action;
- management of change;
- consultation;
- internal communication;
- training and instruction;
- risk management;
- human factors;
- procurement and contract management;
- general engineering and operational systems safety requirements;
- process control;
- asset management;
- safety interface coordination;
- management of notifiable occurrences;
- rail safety worker competence;
- security management;
- emergency management;
- health and fitness;
- drugs and alcohol;
- fatigue risk management;
- resource availability.

Each of the above topics are dealt with in detail in the *Transport (Rail Safety) Regulation 2010,* Schedule 1.

www.legislation.qld.gov.au/LEGISLTN/CURRENT/T/TrantRailR10.pdf

The Safety Management System is the most important document.

Appropriate professional, rail safety personnel should be engaged to prepare , discuss and negotiate the form and content of the SMS.

Financial Considerations

Liabilities

The operation of Heritage Railways around Australia invariably relies very heavily on volunteers. This can skew the financial model, hiding the real cost of the operation or the liability, if the labour component cannot be met by skilled volunteers.

This may then represent a financial risk.

This risk increases as the operational frequency is increased and there is a commitment, or implied commitment, to a regular service throughout the day using a single locomotive.

Regular maintenance must be then scheduled out of hours and breakdown maintenance assumes a priority that comes at a premium price. Alternatively the service is irregular and confidence of the patrons is undermined.

Later in this paper a range of Rolling Stock scenarios are considered.

Insurance, particularly Public Liability will be a major cost to all Scenarios.

Track and rolling stock maintenance will be a function of usage, whereas building and other facilities maintenance will be time dependant.

Income sources

Expenditure will fall into two broad categories:

- Capital,
- Recurrent.

Capital costs may be met by income from a range of sources including:

- Federal Grants
- State Grants
- Council Grants
- Other Grants
- Sponsorship
- Donations
- Other, including ticket sales and on going fundraising.

In general, grants are not given for on going, recurrent expenditure and this needs to be covered by sponsorship, donations, ticket sales and other fund raising activities.

Portland Cable Tram, Victoria

Portland, in the Glenelg Shire 360 km west of Melbourne, is the oldest European settlement in Victoria and has a population of some 10,000 residents out of a total Shire population of about 21, 240.

PORTLAND CABLE TRAMS INC. was established in 1996. and has in excess of 20,000 hours of voluntary community labour. The tramway carried its first paying passengers in February 2002.

The Tram links many of Portland's major tourism attractions.

The tram runs seven days a week, between 10am-3pm in summer and 10am-3pm in winter.

The Tramway is operated under the direction of a full time manager, and the services of a band of 60 volunteers on the roll .

The project has received funding from all three tiers of Government as well as significant donations from the Community in terms of cash, materials and time.

Specific donations included the Community Support Fund Victoria and the Regional Solutions Programme totalling $1,275,000.

See

www.portlandcabletrams.com.au

Disclaimer.

This Document is for discussion only and is not Council Policy.

The consideration of these Scenarios does not in any way endorse or recommend these Scenarios individually or collectively as a course or courses of action, but allows consideration of the wide range of issues that may be encountered in any future Scenario.

"Not everything that counts can be counted, and not everything that can be counted counts."

(Sign hanging in Einstein's office at Princeton)

Scenarios

The scenarios considered in this Discussion Paper are seen to represent the gamut of options of rolling stock, track & infrastructure (including passenger and public facilities), and management and frequency of operation being considered by some members of the community.

It may well be that when the risk analysis applicable to a particular Scenario is undertaken in detail, then the requirements outlined here, in particular relating to track and infrastructure, may seem to be excessive, or alternatively, be deficient.

The obvious Scenario variations are type and form of the locomotive and the passenger rolling stock. This may lead to variations in the end of track facilities required, not only for storage and maintenance purposes, but also for staff and passenger amenity.

Given the heritage listing of the tram track and the houses at the former Moreton Mill site it is important that there are tangible links in the design of the rolling stock to the sugar industry and the particular role the Mill and the cane tram played in the development of Nambour.

These links may range from the celebration of milestone events to the colours and appearance of the rolling stock which will all contribute to the experience. We should however be pragmatic in the selection of locomotive power as replica locomotives taking advantage of modern power sources and technology will be more sustainable in the longer term.

None of these scenarios will make any measurable contribution to the overall *Public Transport* task and we should be wary about attributing value in this regard. The transport demand modelling doesn't stack up.

Scenarios may have different Governance and Financial Models but there will be overlap and these can best be represented in the form of a table for comparison.

These scenarios are not necessarily mutually exclusive and within any period of a year or so several scenarios may apply. Whilst there will probably be a common Rail Infrastructure Manager, the different rolling stock scenarios may have different Rolling Stock Managers. This will certainly apply if there are visiting locomotives using steam power.

Some people within the community see these scenarios being extended to a wider area. No attempt has been made in this Study to consider wider planning issues other than to provide end of track facilities necessary to directly support the use of the heritage listed track. This is in accordance with the Brief developed from the Council resolution.

Rolling Stock—Locomotive

Scenario 1

New, Vintage style, standalone tram, example manufactured by Gromaco Trolley Co, Iowa, USA. This example is powered by 30 lithium phosphate batteries. Would need special design to run on 620mm gauge (shown on Standard 1,435 mm gauge).

Alternate manufacturers Severn Lamb (UK), or possibly local manufacturer of a replica Brisbane "toast rack" tram with battery electric power train.

Estimated capital cost $800,000

Scenario 2

Photo from Moreton Mill. Diesel Locomotive on the right is "Petrie" which is now apparently out of service at the Bingera Mill, Bundaberg.

"Petrie" was manufactured by E M Baldwin, NSW in 1968.

Estimated capital cost $70,000, (without carriages).
Some costs may be offset by sponsorship and volunteer labour.

Scenario 3

Refurbished ex Moreton Mill Steam locomotive, example "Moreton" locomotive running at the Ginger Factory, Yandina, now diesel power.

Possible option is to use ex steam "Bli Bli" currently on a plinth at the Nambour & District Museum, refurbished to be diesel powered. "Bli Bli " was built by Fowler , UK in 1915. Decommissioned in 1967.

Estimated capital cost $80,000 , (without carriages)
Some costs may be offset by sponsorship and volunteer labour.

Scenario 4

Visiting steam powered locomotive running for Special Occasions or celebrations. Example BFC5 from Woodford Museum. "BFC5 Bundy Fowler #5" Bundaberg Foundry, 1952. Fowler design under licence.

Currently out of action. With volunteer labour will not be available till late 2014.

Estimated Capital Cost Nil, however weekend cost including transport at commercial rates would be in the order of $10,000.
Could be offset by sponsorship and volunteer labour.

Rolling Stock—Passenger carriages

Scenario 1

As a standalone tram no additional passenger rolling stock is required.

The example shown here was commissioned to run in Glendale, California. The 15.5 acre development contains 100 condominiums, 238 apartments, and more than 74 shops along with cafes and restaurants.

Scenarios 2, 3 & 4

Passenger rolling stock for these scenarios can essentially be the same design although the livery may be changed to reflect sponsorship or special events.

A particular issue is the scale of the carriages. The narrowness of the gauge makes it impractical to have an aisle with transverse seating either side. The Mapleton passenger carriages had longitudinal seating about a central aisle but had low passenger capacity.

Both the Ginger Train at Yandina, and the Pineapple Train at Woombye have transverse bench seats. This ensures that the passengers can experience the activities on either side of the track.

It is unlikely that these designs will be totally acceptable in the "road" environment and additional passenger constraint would be required to ensure that passengers do not inadvertently step into road traffic.

The Bally Hooley carriages in Port Douglas would appear to be more appropriate with transverse seating in pairs facing each other in a compartment. Each compartment has a door or gate.

From "The Newsport", Port Douglas & Mossman News First, 30 Jan 2012.

Budget 4 carriages at $25,000 = $100,000

Rolling Stock

Operation & Management

The primary purpose of accreditation is to attest that railway organisations have satisfied the Rail Safety Regulator (RSR) that they

- have established Safety Management Systems (SMS),
- that these systems are suitable and sufficient for their operations, and
- that they have the competency and capacity to implement those systems.

Sufficient funding would be required for the recurrent expenditure associated with annual training, maintenance and statutory reporting. Some of this expenditure may be offset by volunteer labour.

Scenario 1

Frequency / Hours: To a daily timetable.
Staff: Minimum 3 operational staff plus management.
Rolling Stock Management: would require some full time, paid staff to manage the workload.
On going training programs would require "professional" trainers.

Scenarios 2 & 3

Frequency / Hours: Monthly, 10 times per annum.
Staff: 2 volunteer crews (min 5 persons), short shifts.
Rolling Stock Management: refresher training and briefing required before each shift and debriefing after shift as part of the SMS.

Both Scenarios may operate on the same shift with an interface arrangement if managed separately.

Scenario 4

Frequency / Hours: Special Event or Festival
Staff: From visiting organisation
Rolling Stock Management: By visiting Rolling Stock Manager with an interface arrangement with the other Rolling Stock Managers.

Important to have briefing and debriefing session with Rolling Stock Operators, Track and Infrastructure Managers and staff as part of the SMS

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Track & Infrastructure

General

The track within the road reserve has infill between the rails and the train wheels travel in "slots" inside the rails. Debris can accumulate in these "slots".

In each of the scenarios that have a locomotive with carriages, a risk analysis will require the locomotive to "pull" the carriages, not push. The heavier locomotive will offer more stability around curves and crush objects within the "slots" that might otherwise derail the lighter passenger carriages. The Mill always 'pulled' the cane trucks.

Pulling gives the greatest visibility in an pedestrian environment.

At the termini at either end the locomotive will need a passing loop to pass to the other end of the carriages.

Locomotives, both steam and diesel can operate as effectively in either forward or reverse gear and there is no performance advantage one over the other. A diesel locomotive and a steam locomotive without a coal tender both offer greater visibility in reverse gear.

Aesthetically, it would be more appealing to have the locomotive in forward gear for both directions.

To pull in forward gear both ways would require a turntable at both the eastern and western ends. This may be problematical at the western, Mill site end where the site is constrained. Manoeuvring will need to be within a safe environment.

The photo top left shows the turntable at the southern end of the Bally Hooley train at Port Douglas

The middle photos show the platform, passing loop and turntable at the Marina Mirage, Wharf Street, Port Douglas.

As the Tram will be able to be driven from both ends there is no need for a turntable or loop at the ends of the track for that particular scenario.

Track & Infrastructure

Eastern Track Extension:

Bundaberg Sugar have considerable land holdings formerly used for the marshalling yards. The land has been on the market for some time. Some parcels are flood prone. The Draft Sunshine Coast Planning Scheme designates the land as Medium Density Residential.

For each scenario, and additionally for the passenger rolling stock, the requirement would be for a shed 18m x 6m, i.e. say 18m x 30m under cover if all scenarios are to be supported. Staff facilities required.

Additional land required for offloading rolling stock and turning around locomotives (turntable) and parking. Land requirement at least 2000 m^2 plus corridor access.

For the visiting steam locomotive, provision needs to be made for coal and water loading, and ash disposal facilities.

If the proposal is to run a tram (Scenario 1) from battery power re-charged from solar power then there needs to be sufficient roof and solar panel area at the eastern depot.

Western Track Extension:

West of the heritage – listed cottage in Mill Street (Lot 2) , there will be a portion of land between that parcel and the Mill Lane extension that is proposed to be incorporated into the heritage parcel.

There is to be a retaining wall along the road boundary. There has been some discussion whether this segment could be dedicated as road reserve and accommodate the eastern station.

There would appear to be insufficient land to include a passing loop and certainly not a turntable unless Lot 5 was also used.

West of the Coles Development there is land owned by QR, part of which is used for QR staff parking. It is not required for the future rail duplication. It should also be considered if the turntable and /or the passing loop is required.

Marshalling Yards:

Budget up to $1,000,000

At the eastern end rolling stock storage, workshop and staff facilities would be required.

At the western end the overall facilities would include a terminus / station and possibly could include a visitors information centre

Budget up to $800,000

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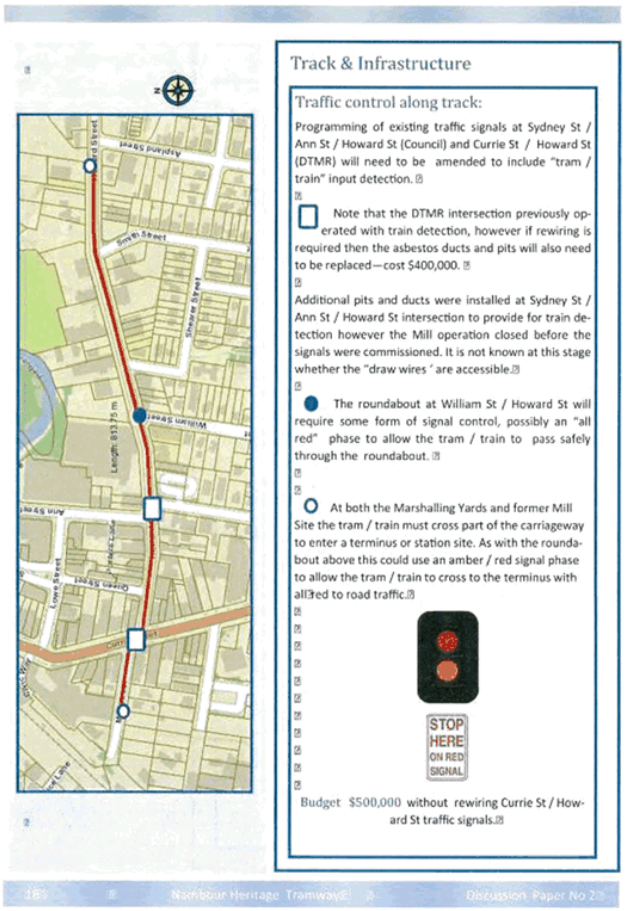
Track & Infrastructure
Traffic control along track:
Programming of existing traffic signals at Sydney St / Ann St / Howard St (Council) and Currie St / Howard St (DTMR) will need to be amended to include "tram / train" input detection.
Note that the DTMR intersection previously operated with train detection, however if rewiring is required then the asbestos ducts and pits will also need to be replaced—cost $400,000.
Additional pits and ducts were installed at Sydney St / Ann St / Howard St intersection to provide for train detection however the Mill operation closed before the signals were commissioned. It is not known at this stage whether the "draw wires ' are accessible.
The roundabout at William St / Howard St will require some form of signal control, possibly an "all red" phase to allow the tram / train to pass safely through the roundabout.
At both the Marshalling Yards and former Mill Site the tram / train must cross part of the carriageway to enter a terminus or station site. As with the roundabout above this could use an amber / red signal phase to allow the tram / train to cross to the terminus with all red to road traffic.
STOP HERE ON RED SIGNAL
Budget $500,000 without rewiring Currie St / Howard St traffic signals.
Nambour Heritage Tramway
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Track & Infrastructure

Operation & Management

General

Traffic signals throughout the Sunshine Coast on State and Council controlled roads are maintained under contract by RoadTek, a commercial business within Transport and Main Roads.

The additional traffic control elements identified on the previous page together with the associated train detection input will need to be similarly maintained.

Budget provision needs to be made for the inspection and maintenance of these signals. Visual, operational inspections may be carried out by volunteer staff , but electrical inspections will need qualified staff.

Regular , visual track inspection will be required.

Budget $ 8,000 pa across all scenarios.

The Rail Infrastructure Manager will need to ensure that there is a regular inspection regime to ensure the signals along the route are functioning correctly.

The Rolling Stock Operator will need clearance from the Infrastructure Manager before proceeding.

Scenario 1

If the proposal is to run from battery power recharged from solar power then there needs to be sufficient roof and solar panel area at the eastern depot.

Budget $ 5,000 pa for maintenance and back-up power.

As the Tram can be driven from both ends there is no need for a turntable or loop at the ends of the track.

Scenarios 2, 3 & 4

In each of these scenarios a risk analysis will require the locomotive to "pull" the carriages , not "push", as this offers the greater stability and less risk of derailing the carriages. It also gives the greatest visibility in a pedestrian environment.

The locomotive, will need a passing loop to pass to the other end of the carriages. And it is important that points are clear of pedestrian areas.

Budget $ 1,500 pa for points maintenance.

Additional funds required for turntable maintenance if installed.

A passing loop with points well clear of pedestrian areas is required at both ends.

To pull in forward gear both ways would require a turntable as well as a passing loop at both ends, however this offers no performance advantage.

In San Francisco, operation of the cable car turntable is an attraction in its own right.

Summary

Sequence: Governance of the proposal is the most critical issue to be addressed in the first instance. The most likely entity is probably in the form of a Trust and the appropriate legal and financial advice should be sought as to the most appropriate way forward.

The purchase of land to enable track infrastructure to be extended would be the first expenditure priority. None of the Scenarios can proceed until this is resolved. Scenario 2 could have the shortest lead time and be able to provide the earliest demonstration project. The carriage design and construction could proceed concurrently. Scenario 3 could then follow.

The visiting locomotive may be available in 2015.

Scenario 1 will depend to a large extent on the success of the other Scenarios. Given that it requires a one off design and construction the lead time with protracted negotiation could be in the order of 5+ years.

Governance, Track & Infrastructure, including land;

Capital Cost: $2,300,000, including land purchase, traffic control, extension of track, station facilities, storage & workshop facilities. (Note there will be non recurring costs associated with the preparation of the initial SMS).

Recurrent cost: Governance (including accreditation), insurance, maintenance, training. $25,000 pa

Scenario 1 - purpose built passenger tram (imported).
Capital Cost: $800,000
Recurrent cost : management salaries, vehicle maintenance, insurance, accreditation fees, consultant fees for review of SMS, additional track maintenance due to higher usage. $200,000 pa

Scenario 2 - purchase and refurbish ex Mill diesel loco.
Capital Cost: $60,000 for locomotive.
Recurrent cost : Maintenance and insurance $20,000 pa
Refurbishment and maintenance offset by sponsorship and volunteer labour.

Scenario 3 - refurbished ex Mill steam loco with diesel power.
Capital Cost: $80,000 for locomotive.
Recurrent cost : Maintenance and insurance $20,000 pa
Refurbishment and maintenance offset by sponsorship and volunteer labour.

Scenario 4 - visiting locomotive.
Capital Cost: Nil
Recurrent cost : Transport and Insurance budget $10,000 per event.
Transport costs may be offset by sponsorship.

Scenarios 2,3 & 4 - 4# purpose built passenger carriages.
Capital Cost: $100,000
Recurrent cost : maintenance and insurance $10,000 pa
Construction and maintenance offset by sponsorship and volunteer labour.

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Appendix 2: Advice on Insurances

Provided by Sunshine Coast Regional Council, October 2014

Public liability insurance. It is likely that Council's existing Public Liability (PL) coverage would operate to provide PL cover for anyone injured through the use or operation of this tramway. If the project did proceed Council would be prudent and professional and confirm this with Council's insurers.

Asset Insurance: Council has advice that there is coverage available for what is called "rolling stock". This should provide the necessary coverage for the asset itself and also for other vehicles it may come in contact with as it will be operating in the domain of the roadways. It is unclear how much this coverage will cost.

Employee Insurance: Any Council employee, whilst acting within the scope of their duties, would be provided with workers compensation coverage if involved in any incident involving this asset.

Volunteer Workers Insurance: Volunteers are likely to be covered under Council's existing volunteer coverage once Council notifies the insurer of the details. It should be noted that this cover is limited in what it can provide and also sets out requirements in light of supervision.

Appendix 3: Community Survey Questionnaire

CChange
Sustainable Solutions

Nambour Heritage Tramway Feasibility Assessment: Visitors and Workers Survey

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Hi, my name is …. And I'm conducting some research on behalf of the Sunshine Coast Regional Council. Currently, Council is investigating the feasibility and economic impact of re-establishing the Nambour Heritage Tramway. The route would include the current extent of the heritage listed sugar cane locomotive line that travels from Mill Street (adjacent to Coles) up to the old marshalling yard 'Moreton Mill', (adjacent to Aldi Supermarket).

We are asking a number of stakeholders to comment on the project to provide us with additional information to assist in assessing the financial feasibility of the project, plus the economic and social impacts of re-establishment. Would you mind if I asked you a few questions in regards to the potential project? All information will be treated confidentially and no individual response will be able to be determined. The survey should only take about 7 minutes.

[Surveryor: Location of Survey ……]

1. In general terms, what is your view of the re-establishment of the Nambour Heritage Tramway? And why?
   a. I support it, it would be good for Nambour – why?
   b. I oppose it, I don't think it would be good for Nambour – why?
   c. I do not have an opinion

2. If the tramway was re-established, what would you be willing to pay to use the tram?
   a. Under $1
   b. Between $1 and $3
   c. Between $3 and $5
   d. Between $5 and $7
   e. More than $7
   f. I would only use it if it was free
   g. I would not use it

3. If you would use the tramway and the fare was what you considered reasonable, how often would you use it?
   a. More than twice a day
   b. At least twice a day
   c. At least once a day
   d. A few times a week
   e. Once a week
   f. Once a month
   g. Less frequently than once a month

4. What would you use the tramway for? (multiple answers allowed)
   a. Shopping
   b. Browsing
   c. Recreation
   d. Access work
   e. Access other services and facilities
   f. Other (please specify)

5. Is there anything that could be added to the Tram to entice you to either use it or use it more? Eg. free internet?

6. If the tramway existed, do you think you would spend more in the Nambour centre? For example at the supermarkets, and/or other retail / service tenancies? Eg. would you purchase lunch more often? Would you go shopping more often? Etc If so, can you provide examples?

7. If you answered yes to the previous question, how much more would you be likely to spend?

8. If the re-establishment of the Tramway also included tourism features such as a Tram restaurant, and you considered the service and price reasonable, would you be likely to visit and utilise this?
   a. Yes.

If yes, how often would you visit?
   i. Weekly
   ii. Fortnightly
   iii. Monthly
   iv. Three monthly
   v. Six monthly
   vi. Less often
   vii. Don't know
b. No
c. Don't know

9. If the food and service was good, what price/s would you consider paying for a meal on the Tramway Restaurant?
   a. Below $10 for a meal
   b. Between $10 and $20 for a meal
   c. Between $20 and $40 for a meal
   d. Between $40 and $50 for a meal
   e. Above $50
   f. Don't know

10. What other opportunities do you think could be associated with the re-establishment of the Tramway?

11. Do you think that the tramway would attract additional tourists Nambour?
   a. Yes
   b. No
   c. Don't know

12. Do you think the re-establishment of the tramway is likely to be a catalyst for other redevelopment in Nambour?
   a. Yes
   b. No
   c. Don't know

13. Would you be willing to volunteer if that was required to get the tramway operating?
   a. Yes
   b. No
   c. Don't know

14. If yes, how much time would you be willing to spend volunteering?
   a. Up to 10 hours per week
   b. Up to 10 hours per fortnight
   c. Up to 10 hours per month
   d. Less than 10 hours per month
   e. More time than indicated here (if so how much?)

Some quick questions about you

15. Why are you in Nambour today?
    a. Working
    b. Shopping
    c. Using Services / Facilities
    d. Browsing
    e. Meeting friends / colleagues
    f. Other (please specify)
    g. Don't wish to answer

16. What is your home postcode?
    .....

17. How often do you come to Nambour
    a. Everyday
    b. Every weekday
    c. Once a week
    d. Once a fortnight
    e. Once a month
    f. Once every 3 months
    g. Less frequently
    h. Don't know

18. Please indicate:
    a. Male
    b. Female

19. Your age:
    a. Less than 18
    b. 18-24
    c. 25-34
    d. 35-44
    e. 45-54
    f. 55-65
    g. 65-74
    h. 75+
    i. Don't wish to answer

20. Employment status
    a. Working full time
    b. Working part time
    c. Looking for work (unemployed)
    d. Not looking for work
    e. Other.....
    f. Don't wish to answer

21. Are there any other comments you'd like to make with regard to the re-establishment of the Nambour Tramway?

Thank you for your time and consideration. It has been greatly appreciated.

Appendix 4: Potential Tram Suppliers

Alan Keef Limited
LOCOMOTIVE BUILDERS
LIGHT RAILWAY ENGINEERS
Est 1972

Lea Line
Ross-on-Wye
Herefordshire
HR9 7LQ
Tel: 01989 750757
Fax: +44 (0)1989 750780
Email: sales@alankeef.co.uk
Website: www.alankeef.co.uk

Directors: A M Keef
P M Keef
A E Basey

Nambour Heritage Tramway
Nambour
Sunshine Coast
Queensland
Australia

25 September 2014

Our Ref: NHT/001

QUOTATION

1 off	Traditional style K20E battery electric tramcar to suit 610mm gauge, fitted with 18kW 80 volt motor, driving to axle mounted drive gearboxes on both axles. Dual driving positions. Traditional steel and wooden construction bodywork with seating for 24 adult passengers. Finish painted and lined. Includes on site commissioning and staff training. Generally as per our drawing P3060-1 and associated specification. Fully packed for export shipping.	**Ex works GBP £287,000.00**
	Optional extra for 80V on board solar PV panels and charging circuit	**GBP £10,650.00**
	Shipment C.I.F. Brisbane	**GBP £ T.B.A.**

Delivery: 10 to 12 months from receipt of official purchase order and deposit payment. Subject to other commitments at time of order.

Payment: Stage payment schedule as follows:
- 25% of total contract value deposit with order
- 30% at approximate half way stage of construction
- 30% following completion and UK testing, prior to shipment
- 15% final payment due following satisfactory commissioning

Validity: This quotation is valid until 30 April 2015

For and on behalf of Alan Keef Limited

.....
Patrick Keef

Alan Keef Limited
LOCOMOTIVE BUILDERS
LIGHT RAILWAY ENGINEERS
Est 1972

Lea Line
Ross-on-Wye
Herefordshire
HR9 7LQ
Tel: 01989 750757
Fax: +44 (0)1989 750780
Email: sales@alankeef.co.uk
Website: www.alankeef.co.uk

Directors: A M Keef
P M Keef
A E Basey

Nambour Heritage Tramway
Nambour
Sunshine Coast
Queensland
Australia

25 September 2014

Our Ref: NHT/002

QUOTATION

1 off	Traditional style K20E battery electric tramcar chassis to suit 610mm gauge, fitted with 18kW 80 volt motor, driving to axle mounted drive gearboxes on both axles. Dual driving positions. To be supplied in operational state in readiness for fitting of locally manufactured body structure. Finish painted. Includes on site commissioning and staff training following completion of bodywork. Generally as per our drawing P3060-1 and associated specification. Fully packed for export shipping.	**Ex works GBP £186,500.00**
	Optional extra for 80V on board solar PV panels and charging circuit components for fitting and assembly to new bodywork.	**GBP £8,450.00**
	Shipment C.I.F. Brisbane	**GBP £T.B.A.**

Delivery: 10 to 11 months from receipt of official purchase order and deposit payment. Subject to other commitments at time of order.

Payment: Stage payment schedule as follows:
- 25% of total contract value deposit with order
- 30% at approximate half way stage of construction
- 30% following completion and UK testing, prior to shipment
- 15% final payment due following satisfactory commissioning

Validity: This quotation is valid until 30 April 2015

For and on behalf of Alan Keef Limited

.....
Patrick Keef

Alan Keef Limited

TRAMCAR SPECIFICATION

Type: K20E tramcar to seat 24 passengers

Customer: Nambour Heritage Tramway

Drawing: P3060-1

Dimensions:

Rail gauge:	24"/610mm
Length over headstocks:	5,800mm
Width:	2,364mm max
Height:	2,850mm
Total wheelbase:	2,000mm
Wheel diameter:	18"/460mm
Weight (unladen):	4,500kg
Maximum service speed:	15kph

Frame: Heavy fabrication from rolled steel sections, strengthened and gusseted to withstand all loads imposed upon it. Single slot drawheads built into both headstocks.

Wheelsets: Cast steel wheels press-fitted to axles with spherical roller bearing axleboxes "Metalastic" rubber chevron suspension units. Both axles fitted with axle mounted worm and wheel reduction gearboxes of our own manufacture. Drive to gearboxes by heavy duty cardan shaft.

Brake Gear: Hand operated parking disc brake, mounted on one gearbox. Motor mounted internal electromagnetic brake for emergency and "dead man" situation. Dynamic regenerative braking provided through electrical control gear.

Bodywork: To be of traditional early 20th century single deck tram appearance. Basic structure fabricated from rolled steel sections. Sheet steel front dash panels incorporating driver's control position and headlight. Two internal bulkheads behind driving positions. Roof to be of traditional wooden construction. Bulkheads to be glazed in laminated safety glass in wooden frames. Wooden panelling and cladding to be used as appropriate. Forged grab handles on uprights. Full-length footboards.

Interior: Of traditional appearance. Fixed wooden slatted seats on end balconies. Fixed wooden slatted seat bases with traditional "flip-over" seat backs. Internal lighting in traditional light units.

Electrical Equipment:

Motor:
- Single 18kW 80V 2100 rpm Sepex motor IP20 rated, incorporating electromagnetic brake. Fan cooled.

Battery:
- Lead-acid wet cell type, comprising of 1 x 80V battery split into 6 x 12V tanks in series, giving a total capacity of 420AH (equivalent to 34kW), suitable for 12 hour shift operation.
- Fitted into steel tanks with lift off lids.
- Includes auto-fill system.

Controller:	• Curtis Sepex motor controller, 80V up to 600 amps with two heavy duty bi-directional lever operated speed controls mounted in steel box, rated to IP20, mounted at each driving position, with key switch isolator.
Standard Features:	• neutral plug braking • speed control • safety trips • thermal protection • anti-roll-back
Adjustable Functions:	• creep speed • regenerative braking • acceleration • maximum speed • speed management
Safety Features:	• interlock switch on handbrake • control activating plug braking • explosion proof battery connector • heavy duty foot operated "dead man" switch linked to electromagnetic brake and controller at each driving position • current overload protection
Auxiliary Fittings:	• battery status indicator • 80V to 24V DC converter for ancillary electrics, lights, horn, etc
Battery Chargers:	***Fixed*** Single or three phase fully automatic unit. 80V, 100 amp output, IP55 rated. Complete with 5m of charging cable and plug. ***Optional on board*** 80V solar PV charging circuit comprising 10 x roof-mounted panels (1480mm x 670mm each) and associated control circuitry to provide an average of 5.5kW power per day.

Finish:	Railcar finish painted, lined and lettered to customer's specification. Woodwork to be painted, stained or varnished as appropriate.
Instructions:	Maintenance instruction and spare parts manuals provided.
Commissioning:	On site commissioning and full driver and maintenance training provided.
Warranty:	1 year or 2000 hours, whichever is less, from satisfactory commissioning, for materials and workmanship by Alan Keef Ltd. Manufacturer's warranty on motor and electrical equipment. 5 year warranty on battery. All subject to inspection, fair wear and tear and misuse.

Alan Keef Limited

Nambour Heritage Tramway

Notes to accompany quotation and specification

1. Background

The new tram is designed to operate along the remaining cane railway tracks left in situ following the closure of Moreton Sugar Mill. These run along Howard Street and Mill Street. Short extensions will be required to bring the track to a suitable terminus location at each end. At the Howard Street end a storage depot and maintenance building is planned. The total route will be approximately 800m. The steepest gradient is 1 in 32.

The new tram is designed to work within these parameters.

2. Proposed design

Based on discussions, the proposed tram is to be of a traditional "heritage" appearance with battery electric operation,

We propose to use traditional lead-acid traction batteries with solid-state control gear to run a single DC motor driving all four wheels via axle drive gearboxes of our own design. This arrangement has been well proven on both our industrial and passenger equipment, being robustly and heavily designed and built with minimal maintenance requirements.

The tram is designed with individual, isolatable driving positions on both ends to allow full visibility in both directions.

The traction package is designed to allow the tram to operate for a normal 12 hour shift without need for recharge. An 8 hour overnight recharge period is required to allow the battery to reach full capacity. Additionally, when new we allow for a 25% margin on this duty cycle.

3. Styling

The appearance of the tram is to be that of an early 20th century single deck, four wheel tram as those used in cities such as Brisbane and Melbourne.

The basic body style is of the "Open Toastrack" type for the main body of the tram with glazed bulkheads fitted to the front panels and inner bulkhead to afford the driver some degree of weather protection.

The bodywork will have a basic steel structure with a traditionally made hardwood roof, inner bulkhead panels and floor. Additional wooden panels and seat slats would be used to give the overall effect. Painting and lining out would be traditionally undertaken and styled.

The suggested styling is provisional only at this stage and is open to interpretation and revision if required.

Full length footboards are fitted to allow ease of access.

4. *Provision of bare chassis*

Our quotation NHT001 covers the supply of a completed, ready to run tram, which can be commissioned straight into service immediately following delivery.

During discussions on site, consideration was given to the supply of the bare chassis only, with the bodywork to be built locally. This way forward offers significant initial savings and a potential reduction in shipping cost as the bare chassis can be containerised. This option is covered by our second quotation NHT002.

5. *On board solar P.V. provision*

In line with instructions, we are able to provide a level of on board solar P.V. power provision by mounting solar panels on the tram roof. This installation will provide a relatively small amount (5.5kW in an average day) of additional power.

We would not recommend this approach as we feel that the visual effect of the panels on the tram roof will detract from the "heritage" appearance of the tram, with a relatively small gain in power and a not insignificant cost. Our suggestion would be that a fixed installation on the depot building feeding into the grid would be more appropriate.

6. *Commissioning*

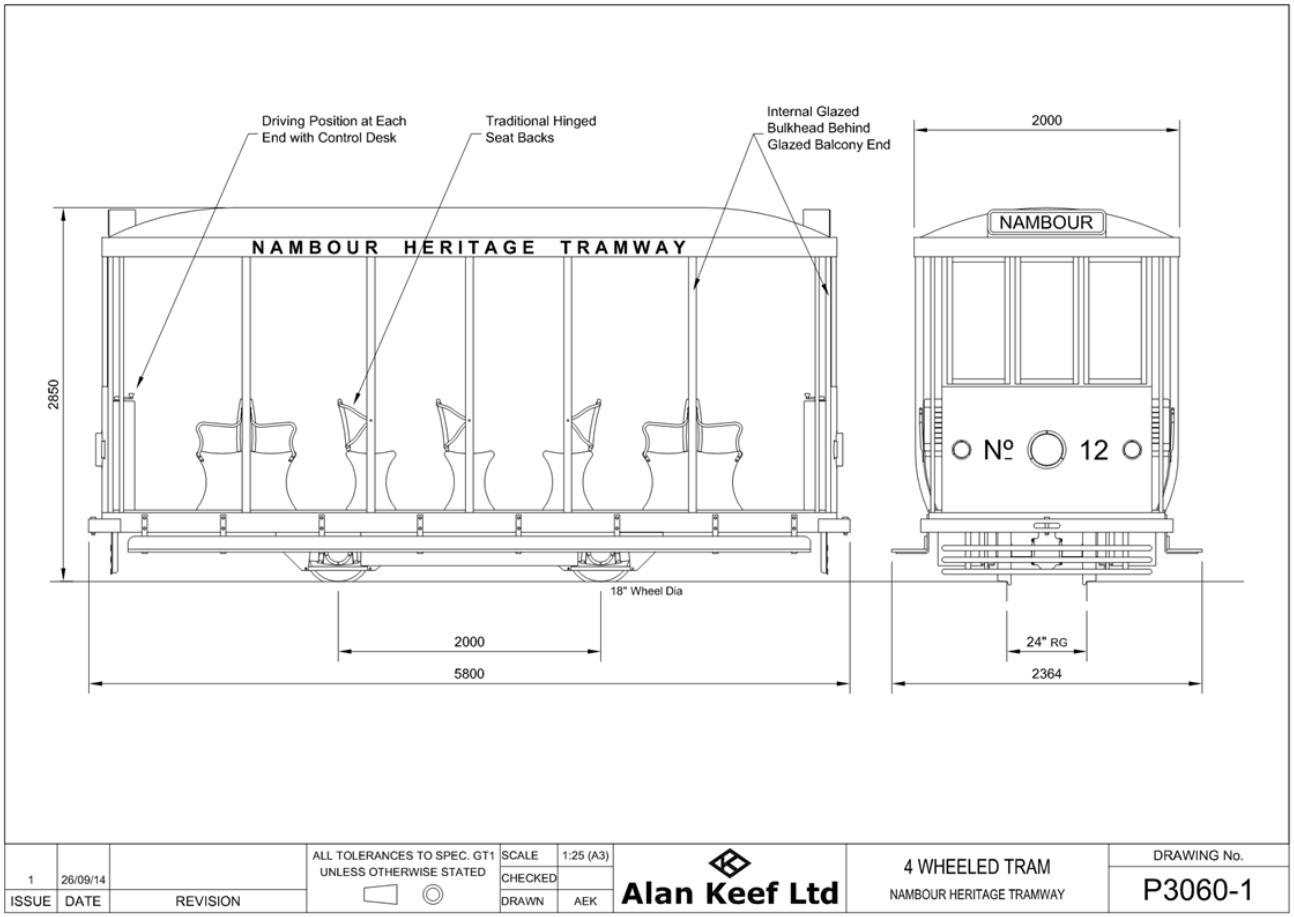
We have included the services of a commissioning engineer to oversee the tram into service following delivery and to undertake driver and maintenance training for local staff.

7. *Conclusion*

We trust that we have interpreted your requirements and look forward to working with the committee to bring this exciting project to fruition.

For and on behalf of Alan Keef Limited

.....
Patrick Keef


Driving Position at Each End with Control Desk
Traditional Hinged Seat Backs
Internal Glazed Bulkhead Behind Glazed Balcony End
2000
NAMBOUR HERITAGE TRAMWAY
NAMBOUR
2850
Nº 12
18" Wheel Dia
2000
5800
24" RG
2364
1
26/09/14
ISSUE
DATE
REVISION
ALL TOLERANCES TO SPEC. GT1 UNLESS OTHERWISE STATED
SCALE
1:25 (A3)
CHECKED
DRAWN
AEK
Alan Keef Ltd
4 WHEELED TRAM
NAMBOUR HERITAGE TRAMWAY
DRAWING No.
P3060-1

From: Gary Hardy [mailto:Gary.Hardy@severn-lamb.com]
Sent: Wednesday, 27 August 2014 2:08 AM
To: Ross Hunter **Cc:** Patrick Severn Lamb
Subject: RE: Electric Tram for Nambour, Queensland

Dear Ross,

Thank you again for your enquiry into our Trolley.

For more information about Severn Lamb and the range of products and services that we offer, please find attached our **People Movers Brochure**.

Our Trolley is a battery electric powered vehicle able to operate on 2 foot (24") gauge. The duty cycle of the battery pack is specified according to the required daily operational hours. This means that we take into account factors such the 1km route length, the number of stops, speed, gradient, daily operational hours etc… to ensure the Trolley can run without charging the whole day. Charging can occur overnight.

Considering your outline project needs, a single deck Trolley would meet your capacity (20-30 passengers) and period styling requirements. For more detail, I have attached our **Trolley Brochure** for your review. We recently delivered a Double Deck Trolley to a shopping centre in Turkey. You can read more about this project via our blog by clicking **here**.

My comments to your questions are below:

Is Severn Lamb able and interested in supplying this bespoke equipment ? We are very interested in projects of this nature. We have undertaken a number of very varied bespoke previously such as parade floats for the Athens Olympics and Electric Tour Trams built specifically to suit a cave tour to name but two.
Do you have anything in your previously supplied range approaching this? Please see the blog link as per the above.
What would be a notional cost to supply this unit? Subject to the required duty cycle and final specification, this would be from £200,000 ex-works Alcester, UK.
What is your experience with battery powered units, and likely duty life of a battery before need to re-charge We have vehicles still operating over 15 years without having to replace the battery pack. The system will need to be charged every night.
Does the depot need any special gear (eg pit, jacking/lifting equipment) for

normal maintenance? No, the Trolley is designed to be as easy to maintain as possible. The battery pack can be pulled out for ease of maintenance.
What normal warranty is offered? We offer a 12 month warranty.
What would a delivery period be from order placing to delivery? Subject to time of order and final specification, this would currently be around 12-18 months.

I look forward to hearing back from you.

Best regards,

Gary

Gary Hardy

Sales & Marketing Executive

www.severn-lamb.com

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Switchboard:	+44(0) 1789 400 140
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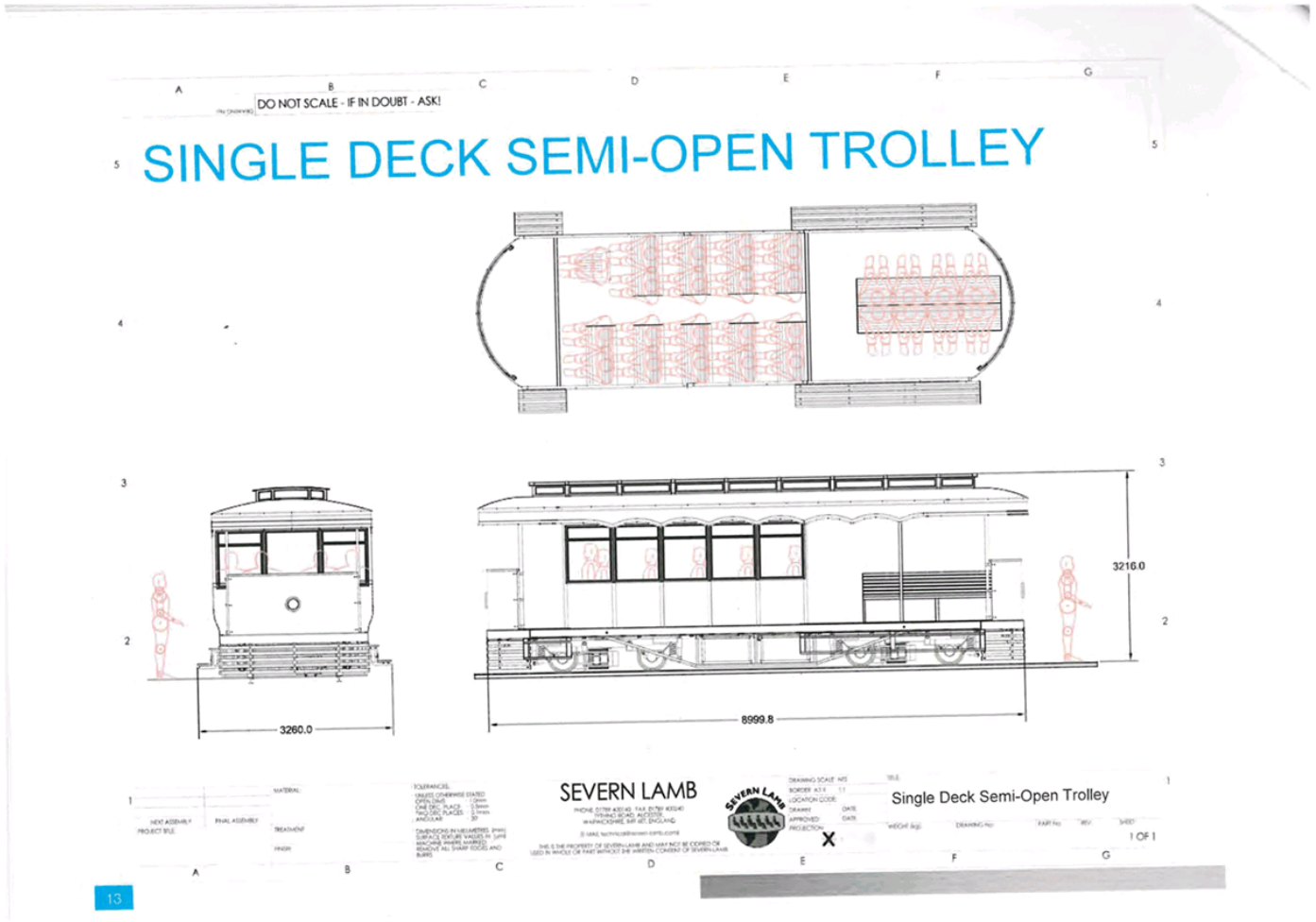
Email:	Gary.Hardy@severn-lamb.com

Severn Lamb, Tything Road, Alcester, Warwickshire, B49 6ET, United Kingdom


DO NOT SCALE - IF IN DOUBT - ASK!
SINGLE DECK SEMI-OPEN TROLLEY
3260.0
8999.8
3216.0
SEVERN LAMB
Single Deck Semi-Open Trolley
1 OF 1
13

Appendix 5: Assumed Capital & Ongoing Costs

Capital Costs – Ranbury Pty Ltd

		NAMBOUR TRAMWAY PROJECT					
		CAPEX					
						Updated 26 Oct14	
Features							
Route length	Approx 1 km						
Terminus stations	Single side platform (15 metres long), awning weather cover, lighting, signage						
	Mill Lane terminus include manned ticket office/memorabilia shop, with staff amenities						
Intermediate stops	Assume off road pavement only, raised signage and pavement markings only						
Depot	Includes workshop, office, crew amenities						
Track standard	Use pw rail end turnouts (20 or 31kg/m rail on new concrete ties)						
Run-around loops	At each end - Allow 30 metre length for 2 or 3 carriages only with 15 m dead end and buffer for loco release						
Turnouts	Assume 31 kg/m rail (1 in 7 or 8) and 2nd hand manual operated points are available						
Vehicle	Single vehicle (610 mm gauge). Double ended driving stations, battery powered						
Max speed	20 kph						
			Base Scheme		Extra Functionality		
Item	Unit	Rate	Quantity	Amount	Quantity	Amount	Comment
		$'000s		$'000s		$'000s	
Infrastructure Works							
Trackwork							Indicative estimate from Bundaberg Sugar (26 Feb14) $150k for 325 m extensions each end plus $50k for the depot run-around loop
New embedded track (in roadway, terminus platforms and in depot building)	metres	1	145	145			Assumes 2nd hand rail on concrete slab with bitumen infill in roadway and station areas
New ballasted track	metres	0.5	120	60	240	120	
Turnouts	No.	30			5	150	Assume 2nd hand turnouts on new timber ties< New quote= $70k to supply only
Demolish existing redundant track & reinstate road	Item			15			
Minor rehab/clean existing	Item			5			
Civil Works - Mill Lane							
Excavation	Cu.metres	0.1	150	15			
Retaining wall	sq.metres	1	60	60			Assumed decorative stone wall
Service modifications	Item			20			
Drainage modifications	Item			10			
Road/kerbing modifications	Item			10			
Miscellaneous							
Route signage	Item			10			
Flashing light warning lights	Item			30			Located where tramway crosses one lane of traffic in Howard St and Mill St
Theft Signals activation	Item			80			To cover both Currie St and Ann St intersections
Stations - Heritage themed							
Terminus station - Mill Lane end	Item			60			Includes kiosk and staff toilet
Depot end	Item			40			Basic platform & shelter
Intermediate stop	No.	2	3	6			Signage, pavement marking only
Depot							
Workshop Building	sq.metres	1.25	225	281			Allow 15 x 15m, inclusive of office, amenities, Brick walls, steel roof
Extra building size to fit loco operation	sq.metres	1			100	100	Allow 25 x 15 m building
Site services	Item			30			Power, water, sewage
Fencing - security (2.1m chainwire)	metres	0.1	170	17	100	10	Compound 60 x 25m for base. Increase to 100 x 35 m for extended operation
Security external lighting	Item			3			Off building corners
Solar power battery charging	Item			8			
Slab track in building	metres	1	25	25			Extra cost to encase rails. Increased slab thickness under track
Civil	sq.metres	0.02	2800	56			Back site treatment, drainage
Access Road	sq.metres	0.1	380	38			Sealed 4m wide road
Building fit-out tools, jacks	Item			10			
			Sub-totals	1032		380	
Design			15%	155		57	Excluding property and tram acquisition costs and
Project management/supervision			5%	52		19	
Contingency			30%	372		137	
	Total Infrastructure & Building Works			1610		593	
Property acquisition							
9 Mill Street (terminus site)	Item			20			Partial resumption off Mill St heritage listed property
10 Bury Street (depot)	Item			600			Require small part only of this site (site listed for sale at $600,000). Independent valued at $450,000.
Heritage Tram							
Supply	Item			562			Severn Lamb budget quote full train GBP298,000 estimate
Transport	Item			40			Herefordshire - Nambour
Procurement support for tram acquisition			8%	48			
Contingency on tram acquisition			15%	93			Includes scope/price contingency and ERV
Training Modules							
Supply training modules	Item			50			
	Total Property and Tram Supply			1418		0	
	TOTALS $000s			3028		593	

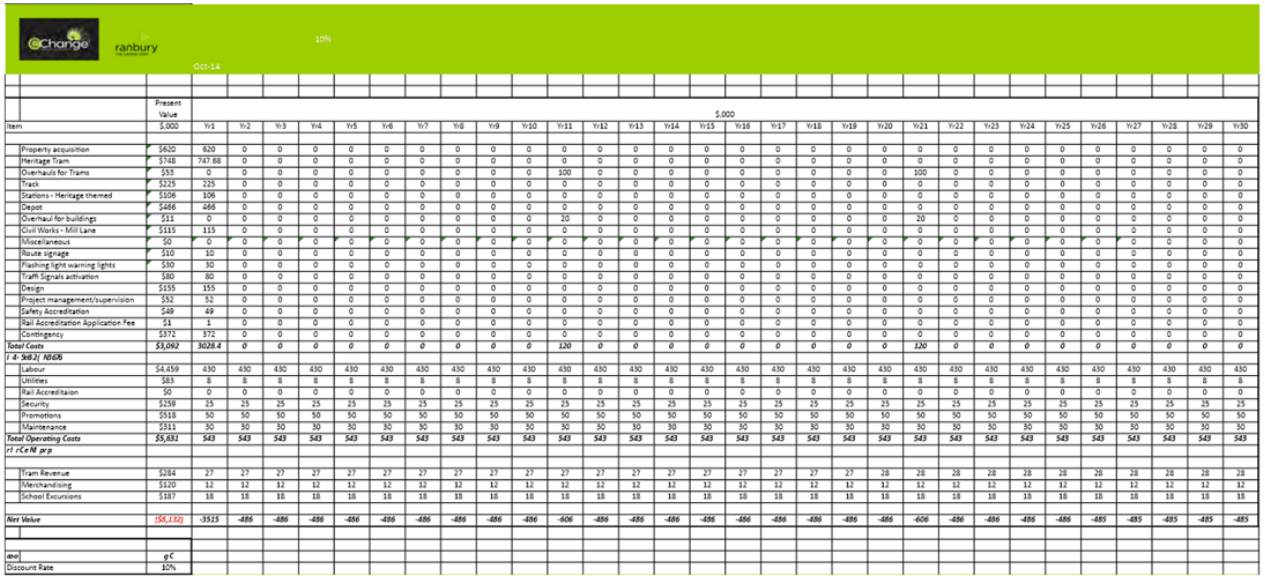
Operating and Maintenance Costs – Ranbury Pty Ltd

			NAMBOUR TRAMWAY PROJECT			
				OPEX		
Assumptions						
	Operated by Sunshine Coast Regional Council					
	Operating hours factored around a workforce of 4 FTE workers					
	Only single-person operating tram					
	Kiosk at Western Terminus manned					
	Multi-skilling with flexible work hours					
	Low maintenance vehicle					
	Low infrastructure maintenance (track, buildings, depots)					
	HR services, insurances, etc absorbed within SCRC current establishment, costs etc					
	Vehicle has an overhaul every 10 years (budget $100k)					
	Item	**Unit**	**Quantity**	**Rate $000s**	**Annual Cost $000s**	**Comment**
	Operating				**Budget Estimate**	
	Labour					
	Manager	FTE	1	130	130	including On-Costs
	Staff	FTE	3	100	300	
	Utilities	Item			8	Power, water supply/sewerage, telecoms
	Rail Accreditaion	Item			0	Nil for revenue <$250k. $6.5k for revenue>$250k
	Security				25	Regular drive-by patrols (out of hours)
	Promotions				50	
				Operating Costs	**513**	
	Maintenance					
	Tram				10	Excludes overhauls & labour
	Depots/Stations				10	Repairs, graffiti removal
	Infrastucture				10	Minor only expected
				Annual Maintenance Costs	**30**	
	Periodic Overhauls					
	Tram	Overhaul every 10 years			100	
	Buildings - repaint etc	Every 10 years			20	

Appendix 6: Financial Feasibility Assessments

Nambour Heritage Tramway Feasibility Assessment
Financial Feasibility: Scenario 1 (Week day only)
Discount Rate 7%
Sunshine Coast Regional Council
Oct-14

Item	Present Value $,000	$,000 Yr1	Yr2	Yr3	Yr4	Yr5	Yr6	Yr7	Yr8	Yr9	Yr10	Yr11	Yr12	Yr13	Yr14	Yr15	Yr16	Yr17	Yr18	Yr19	Yr20	Yr21	Yr22	Yr23	Yr24	Yr25	Yr26	Yr27	Yr28	Yr29	Yr30
Capital Costs																															
Property acquisition	$620	620	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Heritage Tram	$748	747.68	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Overhauls for Trams	$77	0	0	0	0	0	0	0	0	0	0	100	0	0	0	0	0	0	0	0	0	100	0	0	0	0	0	0	0	0	0
Track	$225	225	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Stations - Heritage themed	$106	106	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Depot	$466	466	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Overhaul for buildings	$15	0	0	0	0	0	0	0	0	0	0	20	0	0	0	0	0	0	0	0	0	20	0	0	0	0	0	0	0	0	0
Civil Works - Mill Lane	$115	115	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Miscellaneous																															
Route signage	$10	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Flashing light warning lights	$30	30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Traffi Signals activation	$80	80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Design	$155	155	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Project management/supervision	$52	52	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Safety Accreditation	$49	49	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rail Accreditation Application Fee	$1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Contingency	$372	372	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Costs	***$3,120***	***3028.4***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***120***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***120***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***
Operating Costs																															
Labour	$5,709	430	430	430	430	430	430	430	430	430	430	430	430	430	430	430	430	430	430	430	430	430	430	430	430	430	430	430	430	430	430
Utilities	$106	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
Rail Accreditaion	$0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Security	$332	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
Promotions	$664	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50
Maintenance	$398	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
Total Operating Costs	***$7,210***	***543***	***543***	***543***	***543***	***543***	***543***	***543***	***543***	***543***	***543***	***543***	***543***	***543***	***543***	***543***	***543***	***543***	***543***	***543***	***543***	***543***	***543***	***543***	***543***	***543***	***543***	***543***	***543***	***543***	***543***
TOTAL COSTS	**$10,330**	**3571.4**	**543**	**543**	**543**	**543**	**543**	**543**	**543**	**543**	**543**	**663**	**543**	**543**	**543**	**543**	**543**	**543**	**543**	**543**	**543**	**663**	**543**	**543**	**543**	**543**	**543**	**543**	**543**	**543**	**543**
Revenues																															
Tram Revenue	$364	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	28	28	28	28	28	28	28	28	28	28	28
Merchandising	$154	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
School Excursions	$240	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
Total Revenues	**$758**	**57**	**57**	**57**	**57**	**57**	**57**	**57**	**57**	**57**	**57**	**57**	**57**	**57**	**57**	**57**	**57**	**57**	**57**	**57**	**57**	**57**	**57**	**57**	**57**	**57**	**58**	**58**	**58**	**58**	**58**
Net Value	***($9,572)***	***-3515***	***-486***	***-486***	***-486***	***-486***	***-486***	***-486***	***-486***	***-486***	***-486***	***-606***	***-486***	***-486***	***-486***	***-486***	***-486***	***-486***	***-486***	***-486***	***-486***	***-606***	***-486***	***-486***	***-486***	***-486***	***-485***	***-485***	***-485***	***-485***	***-485***
Net Present Value	**($9,572)**																														
IRR	**NA**																														
Discount Rate	7%																														



Item	Present Value $,000	$,000																												
		Yr1	Yr2	Yr3	Yr4	Yr5	Yr6	Yr7	Yr8	Yr9	Yr10	Yr11	Yr12	Yr13	Yr14	Yr15	Yr16	Yr17	Yr18	Yr19	Yr20	Yr21	Yr22	Yr23	Yr24	Yr25	Yr26	Yr27	Yr28	Yr29	Yr30
Property acquisition	$620	620	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Heritage Tram	$748	747.68	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Overhauls for Trams	$53	0	0	0	0	0	0	0	0	0	0	100	0	0	0	0	0	0	0	0	0	100	0	0	0	0	0	0	0	0	0	0
Track	$225	225	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Stations - Heritage themed	$106	106	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Depot	$466	466	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Overhaul for buildings	$11	0	0	0	0	0	0	0	0	0	0	20	0	0	0	0	0	0	0	0	0	20	0	0	0	0	0	0	0	0	0	0
Civil Works - Mill Lane	$115	115	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Miscellaneous	$0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Route signage	$10	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Flashing light warning lights	$30	30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Traffi Signals activation	$80	80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Design	$155	155	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Project management/supervision	$52	52	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Safety Accreditation	$49	49	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rail Accreditation Application Fee	$1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Contingency	$372	372	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Costs	*$3,092*	*3028.4*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*120*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*120*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
I 4- 5t82(N8G6																														
Labour	$4,459	430	430	430	430	430	430	430	430	430	430	430	430	430	430	430	430	430	430	430	430	430	430	430	430	430	430	430	430	430	430
Utilities	$83	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
Rail Accreditation	$0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Security	$258	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
Promottions	$518	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50
Maintenance	$311	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
Total Operating Costs	*$5,631*	*543*	*543*	*543*	*543*	*543*	*543*	*543*	*543*	*543*	*543*	*543*	*543*	*543*	*543*	*543*	*543*	*543*	*543*	*543*	*543*	*543*	*543*	*543*	*543*	*543*	*543*	*543*	*543*	*543*	*543*
rl rCeM prp																														
Tram Revenue	$284	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	28	28	28	28	28	28	28	28	28	28	28
Merchandising	$120	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
School Excursions	$187	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
Net Value	*($8,132)*	*-3515*	*-486*	*-486*	*-486*	*-486*	*-486*	*-486*	*-486*	*-486*	*-486*	*-606*	*-486*	*-486*	*-486*	*-486*	*-486*	*-486*	*-486*	*-486*	*-486*	*-606*	*-486*	*-486*	*-486*	*-486*	*-485*	*-485*	*-485*	*-485*	*-485*
ano	gC																													
Discount Rate	10%																													

Nambour Heritage Tramway Feasibility Assessment
Financial Feasibility: Scenario 1 (Week day only)
Discount Rate: 12%
Sunshine Coast Regional Council
Oct-14

Item	Present Value $,000	$,000 Yr1	Yr2	Yr3	Yr4	Yr5	Yr6	Yr7	Yr8	Yr9	Yr10	Yr11	Yr12	Yr13	Yr14	Yr15	Yr16	Yr17	Yr18	Yr19	Yr20	Yr21	Yr22	Yr23	Yr24	Yr25	Yr26	Yr27	Yr28	Yr29	Yr30
Capital Costs																															
Property acquisition	$620	620	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Heritage Tram	$748	747.68	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Overhauls for Trams	$43	0	0	0	0	0	0	0	0	0	0	100	0	0	0	0	0	0	0	0	0	100	0	0	0	0	0	0	0	0	0
Track	$225	225	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Stations - Heritage themed	$106	106	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Depot	$486	486	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Overhaul for buildings	$9	0	0	0	0	0	0	0	0	0	0	20	0	0	0	0	0	0	0	0	0	20	0	0	0	0	0	0	0	0	0
Civil Works - Mill Lane	$115	115	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Miscellaneous	$0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Route signage	$10	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Flashing light warning lights	$30	30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Traffi Signals activation	$80	80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Design	$155	155	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Project management/supervision	$52	52	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Safety Accreditation	$49	49	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rail Accreditation Application Fee	$1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Contingency	$372	372	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Costs	***$3,079***	***3028.4***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***120***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***120***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***
Operating Costs																															
Labour	$3,879	430	430	430	430	430	430	430	430	430	430	430	430	430	430	430	430	430	430	430	430	430	430	430	430	430	430	430	430	430	430
Utilities	$72	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
Rail Accreditation	$0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Security	$226	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
Promotions	$451	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50
Maintenance	$271	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
Total Operating Costs	***$4,899***	***543***	***543***	***543***	***543***	***543***	***543***	***543***	***543***	***543***	***543***	***543***	***543***	***543***	***543***	***543***	***543***	***543***	***543***	***543***	***543***	***543***	***543***	***543***	***543***	***543***	***543***	***543***	***543***	***543***	***543***
TOTAL COSTS	**$7,978**	**3571.4**	**543**	**543**	**543**	**543**	**543**	**543**	**543**	**543**	**543**	**543**	**663**	**543**	**543**	**543**	**543**	**543**	**543**	**543**	**543**	**663**	**543**	**543**	**543**	**543**	**543**	**543**	**543**	**543**	**543**
Revenues																															
Tram Revenue	$247	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	28	28	28	28	28	28	28	28	28	28	28
Merchandising	$105	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
School Excursions	$163	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
Total Revenues	**$514**	**57**	**57**	**57**	**57**	**57**	**57**	**57**	**57**	**57**	**57**	**57**	**57**	**57**	**57**	**57**	**57**	**57**	**57**	**57**	**57**	**57**	**57**	**57**	**57**	**57**	**58**	**58**	**58**	**58**	**58**
Net Value	***($7,464)***	***-3515***	***-486***	***-486***	***-486***	***-486***	***-486***	***-486***	***-486***	***-486***	***-486***	***-606***	***-486***	***-486***	***-486***	***-486***	***-486***	***-486***	***-486***	***-486***	***-486***	***-606***	***-486***	***-486***	***-486***	***-486***	***-485***	***-485***	***-485***	***-485***	***-485***
Net Present Value	($7,464)																														
IRR	NA																														
Discount Rate	12%																														

Nambour Heritage Tramway Feasibility Assessment
Financial Feasibility: Scenario 1 (Week day only)
Discount Rate: 7% Sensitivity Testing: Increase costs 10%, revenue decrease 10%
Sunshine Coast Regional Council
Oct-14

Sensitivity Testing: Increase costs 10%, revenue decrease 10%

Item	Present Value $,000	$,000 Yr1	Yr2	Yr3	Yr4	Yr5	Yr6	Yr7	Yr8	Yr9	Yr10	Yr11	Yr12	Yr13	Yr14	Yr15	Yr16	Yr17	Yr18	Yr19	Yr20	Yr21	Yr22	Yr23	Yr24	Yr25	Yr26	Yr27	Yr28	Yr29	Yr30
Capital Costs																															
Property acquisition	$682	682	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Heritage Tram	$822	822.45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Overhauls for Trams	$84	0	0	0	0	0	0	0	0	0	0	110	0	0	0	0	0	0	0	0	0	110	0	0	0	0	0	0	0	0	0
Track	$248	247.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Stations - Heritage themed	$117	116.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Depot	$513	513	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Overhaul for buildings	$17	0	0	0	0	0	0	0	0	0	0	22	0	0	0	0	0	0	0	0	0	22	0	0	0	0	0	0	0	0	0
Civil Works - Mill Lane	$127	126.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Miscellaneous	$0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Route signage	$11	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Flashing light warning lights	$33	33	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Traffi Signals activation	$88	88	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Design	$170	170	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Project management/supervision	$57	57	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Safety Accreditation	$54	53.9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rail Accreditation Application Fee	$1	1.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Contingency	$408	409	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Costs	***$3,432***	***3331.2***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***132***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***132***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***
Operating Costs																															
Labour	$6,280	473	473	473	473	473	473	473	473	473	473	473	473	473	473	473	473	473	473	473	473	473	473	473	473	473	473	473	473	473	473
Utilities	$117	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8
Rail Accreditation	$0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Security	$365	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5
Promotions	$730	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55
Maintenance	$438	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33
Total Operating Costs	***$7,931***	***597.3***	***597.3***	***597.3***	***597.3***	***597.3***	***597.3***	***597.3***	***597.3***	***597.3***	***597.3***	***597.3***	***597.3***	***597.3***	***597.3***	***597.3***	***597.3***	***597.3***	***597.3***	***597.3***	***597.3***	***597.3***	***597.3***	***597.3***	***597.3***	***597.3***	***597.3***	***597.3***	***597.3***	***597.3***	***597.3***
TOTAL COSTS	**$11,363**	**3928.5**	**597.3**	**597.3**	**597.3**	**597.3**	**597.3**	**597.3**	**597.3**	**597.3**	**597.3**	**729.3**	**597.3**	**597.3**	**597.3**	**597.3**	**597.3**	**597.3**	**597.3**	**597.3**	**597.3**	**729.3**	**597.3**	**597.3**	**597.3**	**597.3**	**597.3**	**597.3**	**597.3**	**597.3**	**597.3**
Revenues																															
Tram Revenue	$331	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
Merchandising	$140	10	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11
School Excursions	$218	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	17	17	17	17	17	17	17	17	17	17	17	17	17
Total Revenues	**$689**	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52
Net Value	***($10,674)***	***-3877***	***-546***	***-546***	***-546***	***-546***	***-546***	***-546***	***-545***	***-545***	***-545***	***-677***	***-545***	***-545***	***-545***	***-545***	***-545***	***-545***	***-545***	***-545***	***-545***	***-677***	***-545***	***-545***	***-545***	***-545***	***-545***	***-545***	***-545***	***-545***	***-545***
Net Present Value	($10,674)																														
IRR	NA																														
Discount Rate	7%																														

Nambour Heritage Tramway Feasibility Assessment
Financial Feasibility: Scenario 1 (Week day only)
Discount Rate: 7% Sensitivity Testing: 0 increase costs, revenue decrease 10%
Sunshine Coast Regional Council
Oct-14

Sensitivity Testing: 0 increase costs, revenue decrease 10%

	Present Value	$,000																													
Item	$,000	Yr1	Yr2	Yr3	Yr4	Yr5	Yr6	Yr7	Yr8	Yr9	Yr10	Yr11	Yr12	Yr13	Yr14	Yr15	Yr16	Yr17	Yr18	Yr19	Yr20	Yr21	Yr22	Yr23	Yr24	Yr25	Yr26	Yr27	Yr28	Yr29	Yr30
Capital Costs																															
Property acquisition	$620	620	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Heritage Tram	$748	747.68	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Overhauls for Trams	$77	0	0	0	0	0	0	0	0	0	0	100	0	0	0	0	0	0	0	0	0	100	0	0	0	0	0	0	0	0	0
Track	$225	225	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Stations - Heritage themed	$106	106	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Depot	$466	466.25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Overhaul for buildings	$15	0	0	0	0	0	0	0	0	0	0	20	0	0	0	0	0	0	0	0	0	20	0	0	0	0	0	0	0	0	0
Civil Works - Mill Lane	$115	115	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Miscellaneous	$0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Route signage	$10	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Flashing light warning lights	$30	30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Traffi Signals activation	$80	80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Design	$155	154.84	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Project management/supervision	$52	51.613	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Safety Accreditation	$49	49	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rail Accreditation Application Fee	$1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Contingency	$372	372	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Costs	*$3,120*	*3028.4*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*120*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*120*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
Operating Costs																															
Labour	$5,709	430	430	430	430	430	430	430	430	430	430	430	430	430	430	430	430	430	430	430	430	430	430	430	430	430	430	430	430	430	430
Utilities	$106	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
Rail Accreditaion	$0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Security	$332	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
Promotions	$664	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50
Maintenance	$398	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
Total Operating Costs	*$7,210*	*543*	*543*	*543*	*543*	*543*	*543*	*543*	*543*	*543*	*543*	*543*	*543*	*543*	*543*	*543*	*543*	*543*	*543*	*543*	*543*	*543*	*543*	*543*	*543*	*543*	*543*	*543*	*543*	*543*	*543*
TOTAL COSTS	**$10,330**	**3571.4**	**543**	**543**	**543**	**543**	**543**	**543**	**543**	**543**	**543**	**663**	**543**	**543**	**543**	**543**	**543**	**543**	**543**	**543**	**543**	**663**	**543**	**543**	**543**	**543**	**543**	**543**	**543**	**543**	**543**
Revenues																															
Tram Revenue	$331	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
Merchandising	$140	10	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11
School Excursions	$218	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	17	17	17	17	17	17	17	17	17	17	17	17	17
Total Revenues	**$689**	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52
Net Value	*($9,641)*	*-3520*	*-491*	*-491*	*-491*	*-491*	*-491*	*-491*	*-491*	*-491*	*-491*	*-611*	*-491*	*-491*	*-491*	*-491*	*-491*	*-491*	*-491*	*-491*	*-491*	*-611*	*-491*	*-491*	*-491*	*-491*	*-491*	*-491*	*-491*	*-491*	*-491*
Net Present Value	($9,641)																														
IRR	NA																														
Discount Rate	7%																														

Nambour Heritage Tramway Feasibility Assessment
Financial Feasibility: Scenario 1 (Week day only)
Discount Rate: 7% Sensitivity Testing: 0 increase costs, revenue increase 10%
Sunshine Coast Regional Council
Oct-14

Sensitivity Testing: 0 increase costs, revenue increase 10%

	Present Value	$,000																													
Item	$,000	Yr1	Yr2	Yr3	Yr4	Yr5	Yr6	Yr7	Yr8	Yr9	Yr10	Yr11	Yr12	Yr13	Yr14	Yr15	Yr16	Yr17	Yr18	Yr19	Yr20	Yr21	Yr22	Yr23	Yr24	Yr25	Yr26	Yr27	Yr28	Yr29	Yr30
Capital Costs																															
Property acquisition	$620	620	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Heritage Tram	$748	747.68	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Overhauls for Trams	$77	0	0	0	0	0	0	0	0	0	0	100	0	0	0	0	0	0	0	0	0	100	0	0	0	0	0	0	0	0	0
Track	$225	225	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Stations - Heritage themed	$106	106	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Depot	$466	466.25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Overhaul for buildings	$15	0	0	0	0	0	0	0	0	0	0	20	0	0	0	0	0	0	0	0	0	20	0	0	0	0	0	0	0	0	0
Civil Works - Mill Lane	$115	115	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Miscellaneous	$0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Route signage	$10	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Flashing light warning lights	$30	30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Traffi Signals activation	$80	80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Design	$155	154.84	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Project management/supervision	$52	51.613	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Safety Accreditation	$49	49	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rail Accreditation Application Fee	$1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Contingency	$372	372	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Costs	*$3,120*	*3028.4*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*120*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*120*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
Operating Costs																															
Labour	$5,709	430	430	430	430	430	430	430	430	430	430	430	430	430	430	430	430	430	430	430	430	430	430	430	430	430	430	430	430	430	430
Utilities	$106	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
Rail Accreditaion	$0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Security	$332	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
Promotions	$664	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50
Maintenance	$398	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
Total Operating Costs	*$7,210*	*543*	*543*	*543*	*543*	*543*	*543*	*543*	*543*	*543*	*543*	*543*	*543*	*543*	*543*	*543*	*543*	*543*	*543*	*543*	*543*	*543*	*543*	*543*	*543*	*543*	*543*	*543*	*543*	*543*	*543*
TOTAL COSTS	**$10,330**	**3571.4**	**543**	**543**	**543**	**543**	**543**	**543**	**543**	**543**	**543**	**663**	**543**	**543**	**543**	**543**	**543**	**543**	**543**	**543**	**543**	**663**	**543**	**543**	**543**	**543**	**543**	**543**	**543**	**543**	**543**
Revenues																															
Tram Revenue	$400	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
Merchandising	$169	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13
School Excursions	$264	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20
Total Revenues	**$834**	**62**	**63**	**63**	**63**	**63**	**63**	**63**	**63**	**63**	**63**	**63**	**63**	**63**	**63**	**63**	**63**	**63**	**63**	**63**	**63**	**63**	**63**	**63**	**63**	**63**	**63**	**63**	**63**	**63**	**63**
Net Value	*($9,497)*	*-3509*	*-480*	*-480*	*-480*	*-480*	*-480*	*-480*	*-480*	*-480*	*-480*	*-600*	*-480*	*-480*	*-480*	*-480*	*-480*	*-480*	*-480*	*-480*	*-480*	*-600*	*-480*	*-480*	*-480*	*-480*	*-480*	*-480*	*-480*	*-480*	*-480*
Net Present Value	($9,497)																														
IRR	NA																														
Discount Rate	7%																														

Nambour Heritage Tramway Feasibility Assessment
Financial Feasibility: Scenario 2 (6 Days a Week)
Discount Rate 7%
Sunshine Coast Regional Council
Oct-14

Item	Present Value $,000	$,000 Yr1	Yr2	Yr3	Yr4	Yr5	Yr6	Yr7	Yr8	Yr9	Yr10	Yr11	Yr12	Yr13	Yr14	Yr15	Yr16	Yr17	Yr18	Yr19	Yr20	Yr21	Yr22	Yr23	Yr24	Yr25	Yr26	Yr27	Yr28	Yr29	Yr30
Capital Costs																															
Property acquisition	$620	620	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Heritage Tram	$748	747.68	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Overhauls for Trams	$77	0	0	0	0	0	0	0	0	0	0	100	0	0	0	0	0	0	0	0	0	100	0	0	0	0	0	0	0	0	0
Track	$225	225	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Stations - Heritage themed	$106	106	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Depot	$466	466	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Overhaul for buildings	$15	0	0	0	0	0	0	0	0	0	0	20	0	0	0	0	0	0	0	0	0	20	0	0	0	0	0	0	0	0	0
Civil Works - Mill Lane	$115	115	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Miscellaneous																															
Route signage	$10	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Flashing light warning lights	$30	30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Traffic Signals activation	$80	80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Design	$155	155	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Project management/supervision	$52	52	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Safety Accreditation	$49	49	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rail Accreditation Application Fee	$1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Contingency	$372	372	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Costs	***$3,120***	***3028.4***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***120***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***120***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***
Operating Costs																															
Labour	$5,709	430	430	430	430	430	430	430	430	430	430	430	430	430	430	430	430	430	430	430	430	430	430	430	430	430	430	430	430	430	430
Utilities	$106	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
Rail Accreditaion	$0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Security	$332	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
Promotions	$664	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50
Maintenance	$398	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
Total Operating Costs	***$7,210***	***543***	***543***	***543***	***543***	***543***	***543***	***543***	***543***	***543***	***543***	***543***	***543***	***543***	***543***	***543***	***543***	***543***	***543***	***543***	***543***	***543***	***543***	***543***	***543***	***543***	***543***	***543***	***543***	***543***	***543***
TOTAL COSTS	**$10,330**	**3571.4**	**543**	**543**	**543**	**543**	**543**	**543**	**543**	**543**	**543**	**663**	**543**	**543**	**543**	**543**	**543**	**543**	**543**	**543**	**543**	**663**	**543**	**543**	**543**	**543**	**543**	**543**	**543**	**543**	**543**
Revenues																															
Tram Revenue	$384	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29
Merchandising	$154	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
School Excursions	$240	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
Total Revenues	**$778**	**58**	**58**	**58**	**58**	**58**	**58**	**58**	**59**	**59**	**59**	**59**	**59**	**59**	**59**	**59**	**59**	**59**	**59**	**59**	**59**	**59**	**59**	**59**	**59**	**59**	**59**	**59**	**59**	**59**	**59**
Net Value	***($9,552)***	***-3513***	***-485***	***-485***	***-485***	***-485***	***-485***	***-485***	***-484***	***-484***	***-484***	***-604***	***-484***	***-484***	***-484***	***-484***	***-484***	***-484***	***-484***	***-484***	***-484***	***-604***	***-484***	***-484***	***-484***	***-484***	***-484***	***-484***	***-484***	***-484***	***-484***
Net Present Value	**($9,552)**																														
IRR	**NA**																														
Discount Rate	7%																														

Nambour Heritage Tramway Feasibility Assessment
Financial Feasibility: Scenario 2 (6 Days a Week)
Discount Rate 10%
Sunshine Coast Regional Council
Oct-14

	Present Value	$,000																													
Item	$,000	Yr1	Yr2	Yr3	Yr4	Yr5	Yr6	Yr7	Yr8	Yr9	Yr10	Yr11	Yr12	Yr13	Yr14	Yr15	Yr16	Yr17	Yr18	Yr19	Yr20	Yr21	Yr22	Yr23	Yr24	Yr25	Yr26	Yr27	Yr28	Yr29	Yr30
Capital Costs																															
Property acquisition	$620	620	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Heritage Tram	$748	747.68	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Overhauls for Trams	$53	0	0	0	0	0	0	0	0	0	0	100	0	0	0	0	0	0	0	0	0	100	0	0	0	0	0	0	0	0	0
Track	$225	225	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Stations - Heritage themed	$106	106	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Depot	$466	466	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Overhaul for buildings	$11	0	0	0	0	0	0	0	0	0	0	20	0	0	0	0	0	0	0	0	0	20	0	0	0	0	0	0	0	0	0
Civil Works - Mill Lane	$115	115	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Miscellaneous	$0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Route signage	$10	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Flashing light warning lights	$30	30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Traffic Signals activation	$80	80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Design	$155	155	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Project management/supervision	$52	52	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Safety Accreditation	$49	49	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rail Accreditation Application Fee	$1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Contingency	$372	372	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Costs	***$3,092***	***3028.4***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***120***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***120***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***
Operating Costs																															
Labour	$4,459	430	430	430	430	430	430	430	430	430	430	430	430	430	430	430	430	430	430	430	430	430	430	430	430	430	430	430	430	430	430
Utilities	$83	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
Rail Accreditaion	$0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Security	$159	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
Promotions	$518	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50
Maintenance	$311	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
Total Operating Costs	***$5,631***	***543***	***543***	***543***	***543***	***543***	***543***	***543***	***543***	***543***	***543***	***543***	***543***	***543***	***543***	***543***	***543***	***543***	***543***	***543***	***543***	***543***	***543***	***543***	***543***	***543***	***543***	***543***	***543***	***543***	***543***
TOTAL COSTS	**$8,723**	**3571.4**	**543**	**543**	**543**	**543**	**543**	**543**	**543**	**543**	**543**	**543**	**663**	**543**	**543**	**543**	**543**	**543**	**543**	**543**	**543**	**663**	**543**	**543**	**543**	**543**	**543**	**543**	**543**	**543**	**543**
Revenues																															
Tram Revenue	$299	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29
Merchandising	$120	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
School Excursions	$187	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
Total Revenues	**$607**	**58**	**58**	**58**	**58**	**58**	**58**	**58**	**59**	**59**	**59**	**59**	**59**	**59**	**59**	**59**	**59**	**59**	**59**	**59**	**59**	**59**	**59**	**59**	**59**	**59**	**59**	**59**	**59**	**59**	**59**
Net Value	***($8,116)***	***-3513***	***-485***	***-485***	***-485***	***-485***	***-485***	***-485***	***-484***	***-484***	***-484***	***-604***	***-484***	***-484***	***-484***	***-484***	***-484***	***-484***	***-484***	***-484***	***-484***	***-604***	***-484***	***-484***	***-484***	***-484***	***-484***	***-484***	***-484***	***-484***	***-484***
Net Present Value	($8,116)																														
IRR	NA																														
Discount Rate	10%																														

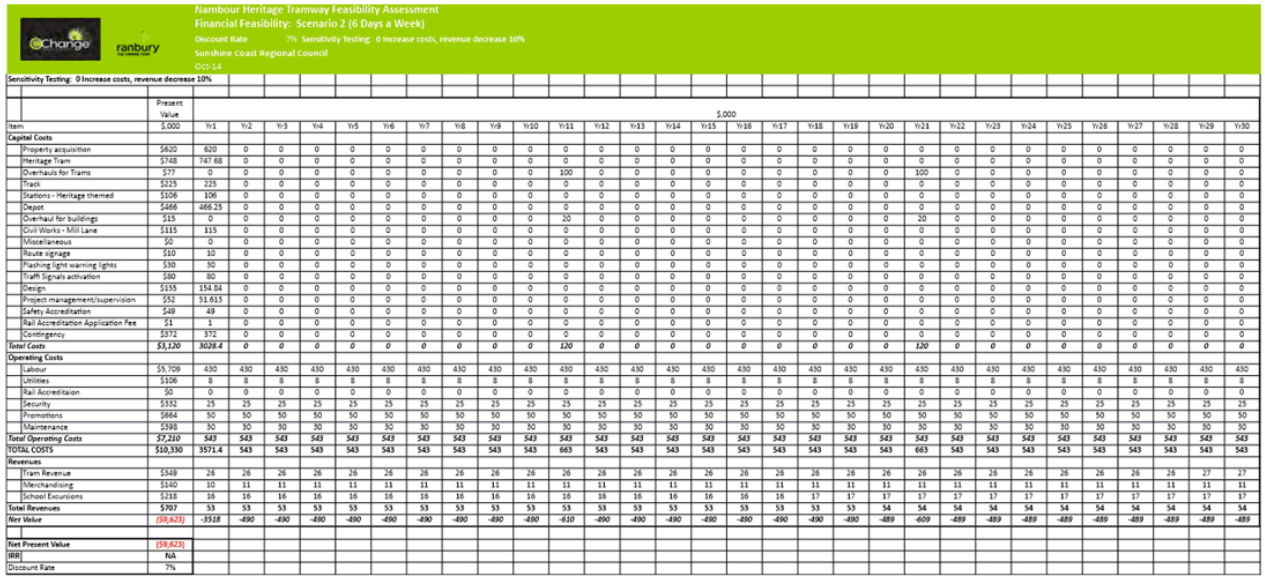
Nambour Heritage Tramway Feasibility Assessment
Financial Feasibility: Scenario 2 (6 Days a Week)
Discount Rate 12%
Sunshine Coast Regional Council
Oct-14

Item	Present Value $,000	$,000 Yr1	Yr2	Yr3	Yr4	Yr5	Yr6	Yr7	Yr8	Yr9	Yr10	Yr11	Yr12	Yr13	Yr14	Yr15	Yr16	Yr17	Yr18	Yr19	Yr20	Yr21	Yr22	Yr23	Yr24	Yr25	Yr26	Yr27	Yr28	Yr29	Yr30
Capital Costs																															
Property acquisition	$620	620	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Heritage Tram	$748	747.68	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Overhauls for Trams	$43	0	0	0	0	0	0	0	0	0	0	100	0	0	0	0	0	0	0	0	0	100	0	0	0	0	0	0	0	0	0
Track	$225	225	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Stations - Heritage themed	$106	106	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Depot	$466	466	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Overhaul for buildings	$9	0	0	0	0	0	0	0	0	0	0	20	0	0	0	0	0	0	0	0	0	20	0	0	0	0	0	0	0	0	0
Civil Works - Mill Lane	$115	115	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Miscellaneous	$0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Route signage	$10	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Flashing light warning lights	$30	30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Traffi Signals activation	$80	80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Design	$155	155	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Project management/supervision	$52	52	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Safety Accreditation	$49	49	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rail Accreditation Application Fee	$1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Contingency	$372	372	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Costs	***$3,079***	***3028.4***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***120***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***120***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***
Operating Costs																															
Labour	$3,879	430	430	430	430	430	430	430	430	430	430	430	430	430	430	430	430	430	430	430	430	430	430	430	430	430	430	430	430	430	430
Utilities	$72	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
Rail Accreditaion	$0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Security	$226	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
Promotions	$451	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50
Maintenance	$171	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
Total Operating Costs	***$4,899***	***543***	***543***	***543***	***543***	***543***	***543***	***543***	***543***	***543***	***543***	***543***	***543***	***543***	***543***	***543***	***543***	***543***	***543***	***543***	***543***	***543***	***543***	***543***	***543***	***543***	***543***	***543***	***543***	***543***	***543***
TOTAL COSTS	**$7,978**	**3571.4**	**543**	**543**	**543**	**543**	**543**	**543**	**543**	**543**	**543**	**663**	**543**	**543**	**543**	**543**	**543**	**543**	**543**	**543**	**543**	**663**	**543**	**543**	**543**	**543**	**543**	**543**	**543**	**543**	**543**
Revenues																															
Tram Revenue	$260	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29
Merchandising	$105	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
School Excursions	$163	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
Total Revenues	**$528**	**58**	**58**	**58**	**58**	**58**	**58**	**58**	**59**	**59**	**59**	**59**	**59**	**59**	**59**	**59**	**59**	**59**	**59**	**59**	**59**	**59**	**59**	**59**	**59**	**59**	**59**	**59**	**59**	**59**	**59**
Net Value	***($7,450)***	***-3513***	***-485***	***-485***	***-485***	***-485***	***-485***	***-485***	***-484***	***-484***	***-484***	***-604***	***-484***	***-484***	***-484***	***-484***	***-484***	***-484***	***-484***	***-484***	***-484***	***-604***	***-484***	***-484***	***-484***	***-484***	***-484***	***-484***	***-484***	***-484***	***-484***
Net Present Value	($7,450)																														
IRR	NA																														
Discount Rate	12%																														

Nambour Heritage Tramway Feasibility Assessment
Financial Feasibility: Scenario 2 (6 Days a Week)
Discount Rate 7% Sensitivity Testing: Increase costs 10%, revenue decrease 10%
Sunshine Coast Regional Council
Oct-14

Sensitivity Testing: Increase costs 10%, revenue decrease 10%

	Present Value	$,000																												
Item	$,000	Yr1	Yr2	Yr3	Yr4	Yr5	Yr6	Yr7	Yr8	Yr9	Yr10	Yr11	Yr12	Yr13	Yr14	Yr15	Yr16	Yr17	Yr18	Yr19	Yr20	Yr21	Yr22	Yr23	Yr24	Yr25	Yr26	Yr27	Yr28	Yr29	Yr30
Capital Costs																														
Property acquisition	$682	682	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Heritage Tram	$822	822.45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Overhauls for Trams	$84	0	0	0	0	0	0	0	0	0	0	110	0	0	0	0	0	0	0	0	0	110	0	0	0	0	0	0	0	0
Track	$248	247.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Stations - Heritage themed	$117	116.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Depot	$513	513	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Overhaul for buildings	$17	0	0	0	0	0	0	0	0	0	0	22	0	0	0	0	0	0	0	0	0	22	0	0	0	0	0	0	0	0
Civil Works - Mill Lane	$127	126.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Miscellaneous	$0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Route signage	$11	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Flashing light warning lights	$33	33	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Traffi Signals activation	$88	88	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Design	$170	170	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Project management/supervision	$57	57	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Safety Accreditation	$54	53.9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rail Accreditation Application Fee	$1	1.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Contingency	$409	409	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Costs	***$3,432***	***3331.2***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***132***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***132***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***
Operating Costs																														
Labour	$6,280	473	473	473	473	473	473	473	473	473	473	473	473	473	473	473	473	473	473	473	473	473	473	473	473	473	473	473	473	473
Utilities	$117	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8
Rail Accreditaion	$0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Security	$365	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5
Promotions	$730	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55
Maintenance	$438	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33
Total Operating Costs	***$7,931***	***597.3***	***597.3***	***597.3***	***597.3***	***597.3***	***597.3***	***597.3***	***597.3***	***597.3***	***597.3***	***597.3***	***597.3***	***597.3***	***597.3***	***597.3***	***597.3***	***597.3***	***597.3***	***597.3***	***597.3***	***597.3***	***597.3***	***597.3***	***597.3***	***597.3***	***597.3***	***597.3***	***597.3***	***597.3***
TOTAL COSTS	**$11,363**	**3928.5**	**597.3**	**597.3**	**597.3**	**597.3**	**597.3**	**597.3**	**597.3**	**597.3**	**597.3**	**729.3**	**597.3**	**597.3**	**597.3**	**597.3**	**597.3**	**597.3**	**597.3**	**597.3**	**597.3**	**729.3**	**597.3**	**597.3**	**597.3**	**597.3**	**597.3**	**597.3**	**597.3**	**597.3**
Revenues																														
Tram Revenue	$348	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	27	27
Merchandising	$140	10	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11
School Excursions	$218	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	17	17	17	17	17	17	17	17	17	17	17	17
Total Revenues	**$707**	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	54	54	54	54	54	54	54	54	54	54
Net Value	***($10,656)***	***-3876***	***-544***	***-544***	***-544***	***-544***	***-544***	***-544***	***-544***	***-544***	***-544***	***-676***	***-544***	***-544***	***-544***	***-544***	***-544***	***-544***	***-544***	***-544***	***-544***	***-676***	***-544***	***-544***	***-544***	***-544***	***-544***	***-544***	***-544***	***-544***
Net Present Value	**($10,656)**																													
IRR	**NA**																													
Discount Rate	7%																													



Nambour Heritage Tramway Feasibility Assessment
Financial Feasibility: Scenario 2 (6 Days a Week)
Discount Rate 7% Sensitivity Testing: 0 increase costs, revenue decrease 10%
Sunshine Coast Regional Council
Oct-14

Sensitivity Testing: 0 increase costs, revenue decrease 10%

	Present Value	$,000																													
Item	$,000	Yr1	Yr2	Yr3	Yr4	Yr5	Yr6	Yr7	Yr8	Yr9	Yr10	Yr11	Yr12	Yr13	Yr14	Yr15	Yr16	Yr17	Yr18	Yr19	Yr20	Yr21	Yr22	Yr23	Yr24	Yr25	Yr26	Yr27	Yr28	Yr29	Yr30
Capital Costs																															
Property acquisition	$620	620	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Heritage Tram	$748	747.68	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Overhauls for Trams	$77	0	0	0	0	0	0	0	0	0	0	100	0	0	0	0	0	0	0	0	0	100	0	0	0	0	0	0	0	0	0
Track	$225	225	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Stations - Heritage themed	$106	106	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Depot	$466	466.25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Overhaul for buildings	$15	0	0	0	0	0	0	0	0	0	0	20	0	0	0	0	0	0	0	0	0	20	0	0	0	0	0	0	0	0	0
Civil Works - Mill Lane	$115	115	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Miscellaneous	$0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Route signage	$10	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Flashing light warning lights	$30	30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Traffi Signals activation	$80	80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Design	$155	154.84	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Project management/supervision	$52	51.613	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Safety Accreditation	$49	49	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rail Accreditation Application Fee	$1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Contingency	$372	372	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Costs	***$3,120***	***3028.4***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***120***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***120***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***
Operating Costs																															
Labour	$5,709	430	430	430	430	430	430	430	430	430	430	430	430	430	430	430	430	430	430	430	430	430	430	430	430	430	430	430	430	430	430
Utilities	$106	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
Rail Accreditaion	$0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Security	$332	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
Promotions	$664	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50
Maintenance	$398	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
Total Operating Costs	***$7,210***	***543***	***543***	***543***	***543***	***543***	***543***	***543***	***543***	***543***	***543***	***543***	***543***	***543***	***543***	***543***	***543***	***543***	***543***	***543***	***543***	***543***	***543***	***543***	***543***	***543***	***543***	***543***	***543***	***543***	***543***
TOTAL COSTS	**$10,330**	**3571.4**	**543**	**543**	**543**	**543**	**543**	**543**	**543**	**543**	**543**	**663**	**543**	**543**	**543**	**543**	**543**	**543**	**543**	**543**	**543**	**663**	**543**	**543**	**543**	**543**	**543**	**543**	**543**	**543**	**543**
Revenues																															
Tram Revenue	$348	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	27	27
Merchandising	$140	10	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11
School Excursions	$218	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	17	17	17	17	17	17	17	17	17	17	17	17	17
Total Revenues	**$707**	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	54	54	54	54	54	54	54	54	54	54	54
Net Value	***($9,623)***	***-3518***	***-490***	***-490***	***-490***	***-490***	***-490***	***-490***	***-490***	***-490***	***-490***	***-610***	***-490***	***-490***	***-490***	***-490***	***-490***	***-490***	***-490***	***-490***	***-489***	***-609***	***-489***	***-489***	***-489***	***-489***	***-489***	***-489***	***-489***	***-489***	***-489***
Net Present Value	($9,623)																														
IRR	NA																														
Discount Rate	7%																														

Nambour Heritage Tramway Feasibility Assessment
Financial Feasibility: Scenario 2 (6 Days a Week)
Discount Rate 7% Sensitivity Testing: 0 increase costs, revenue increase 10%
Sunshine Coast Regional Council
Oct-14

Sensitivity Testing: 0 increase costs, revenue increase 10%

	Present Value	$,000																													
Item	$,000	Yr1	Yr2	Yr3	Yr4	Yr5	Yr6	Yr7	Yr8	Yr9	Yr10	Yr11	Yr12	Yr13	Yr14	Yr15	Yr16	Yr17	Yr18	Yr19	Yr20	Yr21	Yr22	Yr23	Yr24	Yr25	Yr26	Yr27	Yr28	Yr29	Yr30
Capital Costs																															
Property acquisition	$620	620	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Heritage Tram	$748	747.68	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Overhauls for Trams	$77	0	0	0	0	0	0	0	0	0	0	100	0	0	0	0	0	0	0	0	0	100	0	0	0	0	0	0	0	0	0
Track	$225	225	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Stations - Heritage themed	$106	106	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Depot	$466	466.25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Overhaul for buildings	$15	0	0	0	0	0	0	0	0	0	0	20	0	0	0	0	0	0	0	0	0	20	0	0	0	0	0	0	0	0	0
Civil Works - Mill Lane	$115	115	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Miscellaneous	$0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Route signage	$10	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Flashing light warning lights	$30	30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Traffi Signals activation	$80	80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Design	$155	154.84	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Project management/supervision	$52	51.613	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Safety Accreditation	$49	49	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rail Accreditation Application Fee	$1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Contingency	$372	372	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Costs	***$3,120***	***3028.4***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***120***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***120***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***
Operating Costs																															
Labour	$5,709	430	430	430	430	430	430	430	430	430	430	430	430	430	430	430	430	430	430	430	430	430	430	430	430	430	430	430	430	430	430
Utilities	$106	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
Rail Accreditaion	$0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Security	$332	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
Promotions	$664	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50
Maintenance	$398	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
Total Operating Costs	***$7,210***	***543***	***543***	***543***	***543***	***543***	***543***	***543***	***543***	***543***	***543***	***543***	***543***	***543***	***543***	***543***	***543***	***543***	***543***	***543***	***543***	***543***	***543***	***543***	***543***	***543***	***543***	***543***	***543***	***543***	***543***
TOTAL COSTS	**$10,330**	**3571.4**	**543**	**543**	**543**	**543**	**543**	**543**	**543**	**543**	**543**	**663**	**543**	**543**	**543**	**543**	**543**	**543**	**543**	**543**	**543**	**663**	**543**	**543**	**543**	**543**	**543**	**543**	**543**	**543**	**543**
Revenues																															
Tram Revenue	$422	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32
Merchandising	$169	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13
School Excursions	$264	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20
Total Revenues	**$856**	**64**	**64**	**64**	**64**	**64**	**64**	**64**	**64**	**64**	**64**	**64**	**64**	**65**	**65**	**65**	**65**	**65**	**65**	**65**	**65**	**65**	**65**	**65**	**65**	**65**	**65**	**65**	**65**	**65**	**65**
Net Value	***($9,475)***	***-3507***	***-479***	***-479***	***-479***	***-479***	***-479***	***-479***	***-479***	***-479***	***-479***	***-599***	***-479***	***-478***	***-478***	***-478***	***-478***	***-478***	***-478***	***-478***	***-478***	***-598***	***-478***	***-478***	***-478***	***-478***	***-478***	***-478***	***-478***	***-478***	***-478***
Net Present Value	($9,475)																														
IRR	NA																														
Discount Rate	7%																														

Nambour Heritage Tramway Feasibility Assessment
Financial Feasibility: Scenario 3 (Week day only, In-Kind works and Volunteers)
Discount Rate 7%
Sunshine Coast Regional Council
Oct-14

Item	Present Value $,000	$,000																													
		Yr1	Yr2	Yr3	Yr4	Yr5	Yr6	Yr7	Yr8	Yr9	Yr10	Yr11	Yr12	Yr13	Yr14	Yr15	Yr16	Yr17	Yr18	Yr19	Yr20	Yr21	Yr22	Yr23	Yr24	Yr25	Yr26	Yr27	Yr28	Yr29	Yr30
Capital Costs																															
Property acquisition	$620	620	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Heritage Tram	$748	748	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Overhauls for Trams	$77	0	0	0	0	0	0	0	0	0	0	100	0	0	0	0	0	0	0	0	0	100	0	0	0	0	0	0	0	0	0
Track	$225	225	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Stations - Heritage themed	$49	49	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Depot	$314	314	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Overhaul for buildings	$15	0	0	0	0	0	0	0	0	0	0	20	0	0	0	0	0	0	0	0	0	20	0	0	0	0	0	0	0	0	0
Civil Works - Mill Lane	$86	86	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Miscellaneous																															
Route signage	$10	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Flashing light warning lights	$30	30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Traffic Signals activation	$80	80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Design	$155	155	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Project management/supervision	$52	52	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Safety Accreditation	$49	49	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rail Accreditation Application Fee	$1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Contingency	$488	488	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Costs	***$2,998***	***2906***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***120***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***120***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***
Operating Costs																															
Labour	$863	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65
Utilities	$106	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
Rail Accreditaion	$0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Security	$332	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
Promotions	$332	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
Maintenance	$319	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24
Total Operating Costs	***$1,952***	***147***	***147***	***147***	***147***	***147***	***147***	***147***	***147***	***147***	***147***	***147***	***147***	***147***	***147***	***147***	***147***	***147***	***147***	***147***	***147***	***147***	***147***	***147***	***147***	***147***	***147***	***147***	***147***	***147***	***147***
TOTAL COSTS	**$4,950**	**3053**	**147**	**147**	**147**	**147**	**147**	**147**	**147**	**147**	**147**	**267**	**147**	**147**	**147**	**147**	**147**	**147**	**147**	**147**	**147**	**267**	**147**	**147**	**147**	**147**	**147**	**147**	**147**	**147**	**147**
Revenues																															
Tram Revenue	$364	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	28	28	28	28	28	28	28	28	28	28	28
Merchandising	$154	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
School Excursions	$240	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
Total Revenues	**$758**	**57**	**57**	**57**	**57**	**57**	**57**	**57**	**57**	**57**	**57**	**57**	**57**	**57**	**57**	**57**	**57**	**57**	**57**	**57**	**57**	**57**	**57**	**57**	**57**	**57**	**58**	**58**	**58**	**58**	**58**
Net Value	***($4,192)***	***-2996***	***-90***	***-90***	***-90***	***-90***	***-90***	***-90***	***-90***	***-90***	***-90***	***-210***	***-90***	***-90***	***-90***	***-90***	***-90***	***-90***	***-90***	***-90***	***-90***	***-210***	***-90***	***-90***	***-90***	***-90***	***-89***	***-89***	***-89***	***-89***	***-89***
Net Present Value	**($4,192)**																														
IRR	**NA**																														
Discount Rate	7%																														

Nambour Heritage Tramway Feasibility Assessment
Financial Feasibility: Scenario 3 (Week day only, In-Kind works and Volunteers)
Discount Rate 10%
Sunshine Coast Regional Council
Oct-14

Item	Present Value $,000	$,000 Yr1	Yr2	Yr3	Yr4	Yr5	Yr6	Yr7	Yr8	Yr9	Yr10	Yr11	Yr12	Yr13	Yr14	Yr15	Yr16	Yr17	Yr18	Yr19	Yr20	Yr21	Yr22	Yr23	Yr24	Yr25	Yr26	Yr27	Yr28	Yr29	Yr30
Capital Costs																															
Property acquisition	$620	620	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Heritage Tram	$748	748	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Overhauls for Trams	$53	0	0	0	0	0	0	0	0	0	0	100	0	0	0	0	0	0	0	0	0	100	0	0	0	0	0	0	0	0	0
Track	$225	225	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Stations - Heritage themed	$49	49	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Depot	$314	314	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Overhaul for buildings	$11	0	0	0	0	0	0	0	0	0	0	20	0	0	0	0	0	0	0	0	0	20	0	0	0	0	0	0	0	0	0
Civil Works - Mill Lane	$86	86	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Miscellaneous	$0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Route signage	$10	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Flashing light warning lights	$30	30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Traffic Signals activation	$80	80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Design	$155	155	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Project management/supervision	$52	52	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Safety Accreditation	$49	49	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rail Accreditation Application Fee	$1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Contingency	$488	488	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Costs	***$2,970***	***2906***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***120***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***120***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***
Operating Costs																															
Labour	$674	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65
Utilities	$83	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
Rail Accreditaion	$0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Security	$259	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
Promotions	$259	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
Maintenance	$249	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24
Total Operating Costs	***$1,524***	***147***	***147***	***147***	***147***	***147***	***147***	***147***	***147***	***147***	***147***	***147***	***147***	***147***	***147***	***147***	***147***	***147***	***147***	***147***	***147***	***147***	***147***	***147***	***147***	***147***	***147***	***147***	***147***	***147***	***147***
TOTAL COSTS	**$4,495**	**3053**	**147**	**147**	**147**	**147**	**147**	**147**	**147**	**147**	**147**	**267**	**147**	**147**	**147**	**147**	**147**	**147**	**147**	**147**	**147**	**267**	**147**	**147**	**147**	**147**	**147**	**147**	**147**	**147**	**147**
Revenues																															
Tram Revenue	$284	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	28	28	28	28	28	28	28	28	28	28	28
Merchandising	$120	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
School Excursions	$187	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
Total Revenues	**$591**	**57**	**57**	**57**	**57**	**57**	**57**	**57**	**57**	**57**	**57**	**57**	**57**	**57**	**57**	**57**	**57**	**57**	**57**	**57**	**57**	**57**	**57**	**57**	**57**	**57**	**58**	**58**	**58**	**58**	**58**
Net Value	***($3,903)***	***-2996***	***-90***	***-90***	***-90***	***-90***	***-90***	***-90***	***-90***	***-90***	***-90***	***-210***	***-90***	***-90***	***-90***	***-90***	***-90***	***-90***	***-90***	***-90***	***-90***	***-210***	***-90***	***-90***	***-90***	***-90***	***-89***	***-89***	***-89***	***-89***	***-89***
Net Present Value	($3,903)																														
IRR	NA																														
Discount Rate	10%																														

Nambour Heritage Tramway Feasibility Assessment
Financial Feasibility: Scenario 3 (Week day only, In-Kind works and Volunteers)
Discount Rate 12%
Sunshine Coast Regional Council
Oct-14

Item	Present Value $,000	$,000 Yr1	Yr2	Yr3	Yr4	Yr5	Yr6	Yr7	Yr8	Yr9	Yr10	Yr11	Yr12	Yr13	Yr14	Yr15	Yr16	Yr17	Yr18	Yr19	Yr20	Yr21	Yr22	Yr23	Yr24	Yr25	Yr26	Yr27	Yr28	Yr29	Yr30
Capital Costs																															
Property acquisition	$620	620	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Heritage Tram	$748	748	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Overhauls for Trams	$43	0	0	0	0	0	0	0	0	0	0	100	0	0	0	0	0	0	0	0	0	100	0	0	0	0	0	0	0	0	0
Track	$225	225	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Stations - Heritage themed	$49	49	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Depot	$314	314	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Overhaul for buildings	$9	0	0	0	0	0	0	0	0	0	0	20	0	0	0	0	0	0	0	0	0	20	0	0	0	0	0	0	0	0	0
Civil Works - Mill Lane	$86	86	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Miscellaneous	$0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Route signage	$10	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Flashing light warning lights	$30	30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Traffi Signals activation	$80	80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Design	$155	155	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Project management/supervision	$52	52	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Safety Accreditation	$49	49	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rail Accreditation Application Fee	$1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Contingency	$488	488	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Costs	***$2,957***	***2906***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***120***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***120***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***
Operating Costs																															
Labour	$586	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65
Utilities	$72	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
Rail Accreditaion	$0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Security	$226	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
Promotions	$226	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
Maintenance	$217	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24
Total Operating Costs	***$1,326***	***147***	***147***	***147***	***147***	***147***	***147***	***147***	***147***	***147***	***147***	***147***	***147***	***147***	***147***	***147***	***147***	***147***	***147***	***147***	***147***	***147***	***147***	***147***	***147***	***147***	***147***	***147***	***147***	***147***	***147***
TOTAL COSTS	**$4,284**	**3053**	**147**	**147**	**147**	**147**	**147**	**147**	**147**	**147**	**147**	**267**	**147**	**147**	**147**	**147**	**147**	**147**	**147**	**147**	**147**	**267**	**147**	**147**	**147**	**147**	**147**	**147**	**147**	**147**	**147**
Revenues																															
Tram Revenue	$247	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	28	28	28	28	28	28	28	28	28	28	28
Merchandising	$105	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
School Excursions	$163	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
Total Revenues	**$514**	**57**	**57**	**57**	**57**	**57**	**57**	**57**	**57**	**57**	**57**	**57**	**57**	**57**	**57**	**57**	**57**	**57**	**57**	**57**	**57**	**57**	**57**	**57**	**57**	**57**	**58**	**58**	**58**	**58**	**58**
Net Value	***($3,769)***	***-2996***	***-90***	***-90***	***-90***	***-90***	***-90***	***-90***	***-90***	***-90***	***-90***	***-210***	***-90***	***-90***	***-90***	***-90***	***-90***	***-90***	***-90***	***-90***	***-90***	***-210***	***-90***	***-90***	***-90***	***-90***	***-89***	***-89***	***-89***	***-89***	***-89***
Net Present Value	($3,769)																														
IRR	NA																														
Discount Rate	12%																														

Nambour Heritage Tramway Feasibility Assessment
Financial Feasibility: Scenario 3 (Week day only, In-Kind works and Volunteers)
Discount Rate 7% Sensitivity Testing: Increase costs 10%, revenue decrease 10%
Sunshine Coast Regional Council
Oct-14

Sensitivity Testing: Increase costs 10%, revenue decrease 10%

Item	Present Value $,000	$,000 Yr1	Yr2	Yr3	Yr4	Yr5	Yr6	Yr7	Yr8	Yr9	Yr10	Yr11	Yr12	Yr13	Yr14	Yr15	Yr16	Yr17	Yr18	Yr19	Yr20	Yr21	Yr22	Yr23	Yr24	Yr25	Yr26	Yr27	Yr28	Yr29	Yr30
Capital Costs																															
Property acquisition	$682	682	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Heritage Tram	$822	822.45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Overhauls for Trams	$84	0	0	0	0	0	0	0	0	0	0	110	0	0	0	0	0	0	0	0	0	110	0	0	0	0	0	0	0	0	0
Track	$248	247.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Stations - Heritage themed	$54	53.656	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Depot	$346	346	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Overhaul for buildings	$17	0	0	0	0	0	0	0	0	0	0	22	0	0	0	0	0	0	0	0	0	22	0	0	0	0	0	0	0	0	0
Civil Works - Mill Lane	$95	94.875	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Miscellaneous	$0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Route signage	$11	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Flashing light warning lights	$33	33	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Traffi Signals activation	$88	88	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Design	$170	170	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Project management/supervision	$57	57	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Safety Accreditation	$54	53.9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rail Accreditation Application Fee	$1	1.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Contingency	$536	536	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Costs	***$3,298***	***3196.8***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***132***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***132***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***
Operating Costs																															
Labour	$949	71.5	71.5	71.5	71.5	71.5	71.5	71.5	71.5	71.5	71.5	71.5	71.5	71.5	71.5	71.5	71.5	71.5	71.5	71.5	71.5	71.5	71.5	71.5	71.5	71.5	71.5	71.5	71.5	71.5	71.5
Utilities	$117	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8
Rail Accreditaion	$0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Security	$365	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5
Promotions	$365	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5
Maintenance	$351	26.4	26.4	26.4	26.4	26.4	26.4	26.4	26.4	26.4	26.4	26.4	26.4	26.4	26.4	26.4	26.4	26.4	26.4	26.4	26.4	26.4	26.4	26.4	26.4	26.4	26.4	26.4	26.4	26.4	26.4
Total Operating Costs	***$2,147***	***161.7***	***161.7***	***161.7***	***161.7***	***161.7***	***161.7***	***161.7***	***161.7***	***161.7***	***161.7***	***161.7***	***161.7***	***161.7***	***161.7***	***161.7***	***161.7***	***161.7***	***161.7***	***161.7***	***161.7***	***161.7***	***161.7***	***161.7***	***161.7***	***161.7***	***161.7***	***161.7***	***161.7***	***161.7***	***161.7***
TOTAL COSTS	**$5,445**	**3358.5**	**161.7**	**161.7**	**161.7**	**161.7**	**161.7**	**161.7**	**161.7**	**161.7**	**161.7**	**293.7**	**161.7**	**161.7**	**161.7**	**161.7**	**161.7**	**161.7**	**161.7**	**161.7**	**161.7**	**293.7**	**161.7**	**161.7**	**161.7**	**161.7**	**161.7**	**161.7**	**161.7**	**161.7**	**161.7**
Revenues																															
Tram Revenue	$331	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
Merchandising	$140	10	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11
School Excursions	$218	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	17	17	17	17	17	17	17	17	17	17	17	17	17
Total Revenues	**$689**	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52
Net Value	***($4,756)***	***-3307***	***-110***	***-110***	***-110***	***-110***	***-110***	***-110***	***-110***	***-110***	***-110***	***-242***	***-110***	***-110***	***-110***	***-110***	***-110***	***-110***	***-110***	***-110***	***-110***	***-242***	***-110***	***-109***	***-109***	***-109***	***-109***	***-109***	***-109***	***-109***	***-109***
Net Present Value	**($4,756)**																														
IRR	**NA**																														
Discount Rate	7%																														

Nambour Heritage Tramway Feasibility Assessment
Financial Feasibility: Scenario 3 (Week day only, In-Kind works and Volunteers)
Discount Rate 7% Sensitivity Testing: 0 increase costs, revenue decrease 10%
Sunshine Coast Regional Council
Oct-14

Sensitivity Testing: 0 increase costs, revenue decrease 10%

	Present Value	$,000																													
Item	$,000	Yr1	Yr2	Yr3	Yr4	Yr5	Yr6	Yr7	Yr8	Yr9	Yr10	Yr11	Yr12	Yr13	Yr14	Yr15	Yr16	Yr17	Yr18	Yr19	Yr20	Yr21	Yr22	Yr23	Yr24	Yr25	Yr26	Yr27	Yr28	Yr29	Yr30
Capital Costs																															
Property acquisition	$620	620	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Heritage Tram	$748	747.68	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Overhauls for Trams	$77	0	0	0	0	0	0	0	0	0	0	100	0	0	0	0	0	0	0	0	0	100	0	0	0	0	0	0	0	0	0
Track	$225	225	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Stations - Heritage themed	$49	48.78	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Depot	$314	314.38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Overhaul for buildings	$15	0	0	0	0	0	0	0	0	0	0	20	0	0	0	0	0	0	0	0	0	20	0	0	0	0	0	0	0	0	0
Civil Works - Mill Lane	$86	86.25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Miscellaneous	$0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Route signage	$10	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Flashing light warning lights	$30	30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Traffi Signals activation	$80	80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Design	$155	154.84	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Project management/supervision	$52	51.613	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Safety Accreditation	$49	49	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rail Accreditation Application Fee	$1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Contingency	$488	487.7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Costs	*$2,998*	*2906.2*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*120*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*120*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
Operating Costs																															
Labour	$883	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65
Utilities	$106	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
Rail Accreditaion	$0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Security	$332	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
Promotions	$332	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
Maintenance	$319	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24
Total Operating Costs	*$1,952*	*147*	*147*	*147*	*147*	*147*	*147*	*147*	*147*	*147*	*147*	*147*	*147*	*147*	*147*	*147*	*147*	*147*	*147*	*147*	*147*	*147*	*147*	*147*	*147*	*147*	*147*	*147*	*147*	*147*	*147*
TOTAL COSTS	**$4,950**	**3053.2**	**147**	**147**	**147**	**147**	**147**	**147**	**147**	**147**	**147**	**267**	**147**	**147**	**147**	**147**	**147**	**147**	**147**	**147**	**147**	**267**	**147**	**147**	**147**	**147**	**147**	**147**	**147**	**147**	**147**
Revenues																															
Tram Revenue	$331	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
Merchandising	$140	10	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11
School Excursions	$218	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	17	17	17	17	17	17	17	17	17	17	17	17	17
Total Revenues	**$689**	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52
Net Value	*($4,261)*	*-3002*	*-95*	*-95*	*-95*	*-95*	*-95*	*-95*	*-95*	*-95*	*-95*	*-215*	*-95*	*-95*	*-95*	*-95*	*-95*	*-95*	*-95*	*-95*	*-95*	*-215*	*-95*	*-95*	*-95*	*-95*	*-95*	*-95*	*-95*	*-95*	*-95*
Net Present Value	($4,261)																														
IRR	NA																														
Discount Rate	7%																														

Nambour Heritage Tramway Feasibility Assessment
Financial Feasibility: Scenario 3 (Week day only, In-Kind works and Volunteers)
Discount Rate 7% Sensitivity Testing: 0 increase costs, revenue increase 10%
Sunshine Coast Regional Council
Oct-14

Sensitivity Testing: 0 increase costs, revenue increase 10%

	Present Value	$,000																													
Item	$,000	Yr1	Yr2	Yr3	Yr4	Yr5	Yr6	Yr7	Yr8	Yr9	Yr10	Yr11	Yr12	Yr13	Yr14	Yr15	Yr16	Yr17	Yr18	Yr19	Yr20	Yr21	Yr22	Yr23	Yr24	Yr25	Yr26	Yr27	Yr28	Yr29	Yr30
Capital Costs																															
Property acquisition	$620	620	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Heritage Tram	$748	747.68	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Overhauls for Trams	$77	0	0	0	0	0	0	0	0	0	0	100	0	0	0	0	0	0	0	0	0	100	0	0	0	0	0	0	0	0	0
Track	$225	225	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Stations - Heritage themed	$49	48.76	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Depot	$314	314.38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Overhaul for buildings	$15	0	0	0	0	0	0	0	0	0	0	20	0	0	0	0	0	0	0	0	0	20	0	0	0	0	0	0	0	0	0
Civil Works - Mill Lane	$86	86.25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Miscellaneous	$0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Route signage	$10	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Flashing light warning lights	$30	30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Traffic Signals activation	$80	80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Design	$155	154.84	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Project management/supervision	$52	51.613	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Safety Accreditation	$49	49	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rail Accreditation Application Fee	$1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Contingency	$488	487.7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Costs	*$2,998*	*2906.2*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*120*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*120*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
Operating Costs																															
Labour	$863	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65
Utilities	$106	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
Rail Accreditaion	$0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Security	$332	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
Promotions	$332	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
Maintenance	$319	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24
Total Operating Costs	*$1,952*	*147*	*147*	*147*	*147*	*147*	*147*	*147*	*147*	*147*	*147*	*147*	*147*	*147*	*147*	*147*	*147*	*147*	*147*	*147*	*147*	*147*	*147*	*147*	*147*	*147*	*147*	*147*	*147*	*147*	*147*
TOTAL COSTS	**$4,950**	**3053.2**	**147**	**147**	**147**	**147**	**147**	**147**	**147**	**147**	**147**	**267**	**147**	**147**	**147**	**147**	**147**	**147**	**147**	**147**	**147**	**267**	**147**	**147**	**147**	**147**	**147**	**147**	**147**	**147**	**147**
Revenues																															
Tram Revenue	$400	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
Merchandising	$169	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13
School Excursions	$264	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20
Total Revenues	**$834**	**62**	**63**	**63**	**63**	**63**	**63**	**63**	**63**	**63**	**63**	**63**	**63**	**63**	**63**	**63**	**63**	**63**	**63**	**63**	**63**	**63**	**63**	**63**	**63**	**63**	**63**	**63**	**63**	**63**	**63**
Net Value	*($4,116)*	*-2991*	*-84*	*-84*	*-84*	*-84*	*-84*	*-84*	*-84*	*-84*	*-84*	*-204*	*-84*	*-84*	*-84*	*-84*	*-84*	*-84*	*-84*	*-84*	*-84*	*-204*	*-84*	*-84*	*-84*	*-84*	*-84*	*-84*	*-84*	*-84*	*-84*
Net Present Value	($4,116)																														
IRR	NA																														
Discount Rate	7%																														

Nambour Heritage Tramway Feasibility Assessment
Financial Feasibility: Scenario 4 (6 Days a Week day, In-Kind works and Volunteers)
Discount Rate: 7%
Sunshine Coast Regional Council
Oct-14

Item	Present Value $,000	$,000																													
		Yr1	Yr2	Yr3	Yr4	Yr5	Yr6	Yr7	Yr8	Yr9	Yr10	Yr11	Yr12	Yr13	Yr14	Yr15	Yr16	Yr17	Yr18	Yr19	Yr20	Yr21	Yr22	Yr23	Yr24	Yr25	Yr26	Yr27	Yr28	Yr29	Yr30
Capital Costs																															
Property acquisition	$620	620	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Heritage Tram	$748	747.68	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Overhauls for Trams	$77	0	0	0	0	0	0	0	0	0	0	100	0	0	0	0	0	0	0	0	0	100	0	0	0	0	0	0	0	0	0
Track	$225	225	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Stations - Heritage themed	$49	48.76	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Depot	$314	314	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Overhaul for buildings	$15	0	0	0	0	0	0	0	0	0	0	20	0	0	0	0	0	0	0	0	0	20	0	0	0	0	0	0	0	0	0
Civil Works - Mill Lane	$86	88.25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Miscellaneous																															
Route signage	$10	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Flashing light warning lights	$30	30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Traffi Signals activation	$80	80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Design	$155	155	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Project management/supervision	$52	52	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Safety Accreditation	$49	49	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rail Accreditation Application Fee	$1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Contingency	$488	488	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Costs	***$2,998***	***2906.2***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***120***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***120***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***
Operating Costs																															
Labour	$863	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65
Utilities	$106	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
Rail Accreditaion	$0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Security	$332	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
Promotions	$332	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
Maintenance	$319	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24
Total Operating Costs	***$1,952***	***147***	***147***	***147***	***147***	***147***	***147***	***147***	***147***	***147***	***147***	***147***	***147***	***147***	***147***	***147***	***147***	***147***	***147***	***147***	***147***	***147***	***147***	***147***	***147***	***147***	***147***	***147***	***147***	***147***	***147***
TOTAL COSTS	**$4,950**	**3053.2**	**147**	**147**	**147**	**147**	**147**	**147**	**147**	**147**	**147**	**267**	**147**	**147**	**147**	**147**	**147**	**147**	**147**	**147**	**147**	**267**	**147**	**147**	**147**	**147**	**147**	**147**	**147**	**147**	**147**
Revenues																															
Tram Revenue	$384	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29
Merchandising	$154	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
School Excursions	$240	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
Total Revenues	**$778**	**58**	**58**	**58**	**58**	**58**	**58**	**58**	**58**	**59**	**59**	**59**	**59**	**59**	**59**	**59**	**59**	**59**	**59**	**59**	**59**	**59**	**59**	**59**	**59**	**59**	**59**	**59**	**59**	**59**	**59**
Net Value	***($4,172)***	***-2995***	***-89***	***-89***	***-89***	***-89***	***-89***	***-89***	***-88***	***-88***	***-88***	***-208***	***-88***	***-88***	***-88***	***-88***	***-88***	***-88***	***-88***	***-88***	***-88***	***-208***	***-88***	***-88***	***-88***	***-88***	***-88***	***-88***	***-88***	***-88***	***-88***
Net Present Value	**($4,172)**																														
IRR	**NA**																														
Discount Rate	7%																														

Nambour Heritage Tramway Feasibility Assessment
Financial Feasibility: Scenario 4 (6 Days a Week day, In-Kind works and Volunteers)
Discount Rate: 10%
Sunshine Coast Regional Council
Oct-14

	Present Value	$,000																													
Item	$,000	Yr1	Yr2	Yr3	Yr4	Yr5	Yr6	Yr7	Yr8	Yr9	Yr10	Yr11	Yr12	Yr13	Yr14	Yr15	Yr16	Yr17	Yr18	Yr19	Yr20	Yr21	Yr22	Yr23	Yr24	Yr25	Yr26	Yr27	Yr28	Yr29	Yr30
Capital Costs																															
Property acquisition	$620	620	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Heritage Tram	$748	747.68	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Overhauls for Trams	$53	0	0	0	0	0	0	0	0	0	0	100	0	0	0	0	0	0	0	0	0	100	0	0	0	0	0	0	0	0	0
Track	$225	225	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Stations - Heritage themed	$49	48.78	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Depot	$314	314	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Overhaul for buildings	$11	0	0	0	0	0	0	0	0	0	0	20	0	0	0	0	0	0	0	0	0	20	0	0	0	0	0	0	0	0	0
Civil Works - Mill Lane	$86	86.25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Miscellaneous	$0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Route signage	$10	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Flashing light warning lights	$30	30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Traffi Signals activation	$80	80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Design	$155	155	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Project management/supervision	$52	52	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Safety Accreditation	$49	49	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rail Accreditation Application Fee	$1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Contingency	$488	488	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Costs	*$2,970*	*2906.2*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*120*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*120*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
Operating Costs																															
Labour	$674	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65
Utilities	$83	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
Rail Accreditaion	$0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Security	$159	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
Promotions	$159	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
Maintenance	$249	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24
Total Operating Costs	*$1,524*	*147*	*147*	*147*	*147*	*147*	*147*	*147*	*147*	*147*	*147*	*147*	*147*	*147*	*147*	*147*	*147*	*147*	*147*	*147*	*147*	*147*	*147*	*147*	*147*	*147*	*147*	*147*	*147*	*147*	*147*
TOTAL COSTS	**$4,495**	**3053.2**	**147**	**147**	**147**	**147**	**147**	**147**	**147**	**147**	**147**	**267**	**147**	**147**	**147**	**147**	**147**	**147**	**147**	**147**	**147**	**267**	**147**	**147**	**147**	**147**	**147**	**147**	**147**	**147**	**147**
Revenues																															
Tram Revenue	$299	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29
Merchandising	$120	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
School Excursions	$187	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
Total Revenues	**$607**	**58**	**58**	**58**	**58**	**58**	**58**	**58**	**58**	**59**	**59**	**59**	**59**	**59**	**59**	**59**	**59**	**59**	**59**	**59**	**59**	**59**	**59**	**59**	**59**	**59**	**59**	**59**	**59**	**59**	**59**
Net Value	*($3,888)*	*-2995*	*-89*	*-89*	*-89*	*-89*	*-89*	*-89*	*-88*	*-88*	*-88*	*-208*	*-88*	*-88*	*-88*	*-88*	*-88*	*-88*	*-88*	*-88*	*-88*	*-208*	*-88*	*-88*	*-88*	*-88*	*-88*	*-88*	*-88*	*-88*	*-88*
Net Present Value	($3,888)																														
IRR	NA																														
Discount Rate	10%																														

Nambour Heritage Tramway Feasibility Assessment
Financial Feasibility: Scenario 4 (6 Days a Week day, In-Kind works and Volunteers)
Discount Rate: 12%
Sunshine Coast Regional Council
Oct-14

Item	Present Value $,000	$,000 Yr1	Yr2	Yr3	Yr4	Yr5	Yr6	Yr7	Yr8	Yr9	Yr10	Yr11	Yr12	Yr13	Yr14	Yr15	Yr16	Yr17	Yr18	Yr19	Yr20	Yr21	Yr22	Yr23	Yr24	Yr25	Yr26	Yr27	Yr28	Yr29	Yr30
Capital Costs																															
Property acquisition	$620	620	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Heritage Tram	$748	747.68	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Overhauls for Trams	$43	0	0	0	0	0	0	0	0	0	0	100	0	0	0	0	0	0	0	0	0	100	0	0	0	0	0	0	0	0	0
Track	$225	225	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Stations - Heritage themed	$49	48.78	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Depot	$314	314	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Overhaul for buildings	$9	0	0	0	0	0	0	0	0	0	0	20	0	0	0	0	0	0	0	0	0	20	0	0	0	0	0	0	0	0	0
Civil Works - Mill Lane	$86	86.25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Miscellaneous	$0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Route signage	$10	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Flashing light warning lights	$30	30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Traffi Signals activation	$80	80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Design	$155	155	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Project management/supervision	$52	52	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Safety Accreditation	$49	49	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rail Accreditation Application Fee	$1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Contingency	$488	488	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Costs	***$2,957***	***2906.2***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***120***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***120***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***
Operating Costs																															
Labour	$586	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65
Utilities	$72	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
Rail Accreditaion	$0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Security	$226	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
Promotions	$226	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
Maintenance	$217	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24
Total Operating Costs	***$1,326***	***147***	***147***	***147***	***147***	***147***	***147***	***147***	***147***	***147***	***147***	***147***	***147***	***147***	***147***	***147***	***147***	***147***	***147***	***147***	***147***	***147***	***147***	***147***	***147***	***147***	***147***	***147***	***147***	***147***	***147***
TOTAL COSTS	**$4,284**	**3053.2**	**147**	**147**	**147**	**147**	**147**	**147**	**147**	**147**	**147**	**267**	**147**	**147**	**147**	**147**	**147**	**147**	**147**	**147**	**147**	**267**	**147**	**147**	**147**	**147**	**147**	**147**	**147**	**147**	**147**
Revenues																															
Tram Revenue	$260	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29
Merchandising	$105	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
School Excursions	$163	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
Total Revenues	**$528**	**58**	**58**	**58**	**58**	**58**	**58**	**58**	**59**	**59**	**59**	**59**	**59**	**59**	**59**	**59**	**59**	**59**	**59**	**59**	**59**	**59**	**59**	**59**	**59**	**59**	**59**	**59**	**59**	**59**	**59**
Net Value	***($3,756)***	***-2995***	***-89***	***-89***	***-89***	***-89***	***-89***	***-89***	***-88***	***-88***	***-88***	***-208***	***-88***	***-88***	***-88***	***-88***	***-88***	***-88***	***-88***	***-88***	***-88***	***-208***	***-88***	***-88***	***-88***	***-88***	***-88***	***-88***	***-88***	***-88***	***-88***
Net Present Value	($3,756)																														
IRR	NA																														
Discount Rate	12%																														

Nambour Heritage Tramway Feasibility Assessment
Financial Feasibility: Scenario 4 (6 Days a Week day, In-Kind works and Volunteers)
Discount Rate: 7% Sensitivity Testing: Increase costs 10%, revenue decrease 10%
Sunshine Coast Regional Council
Oct-14

Sensitivity Testing: Increase costs 10%, revenue decrease 10%

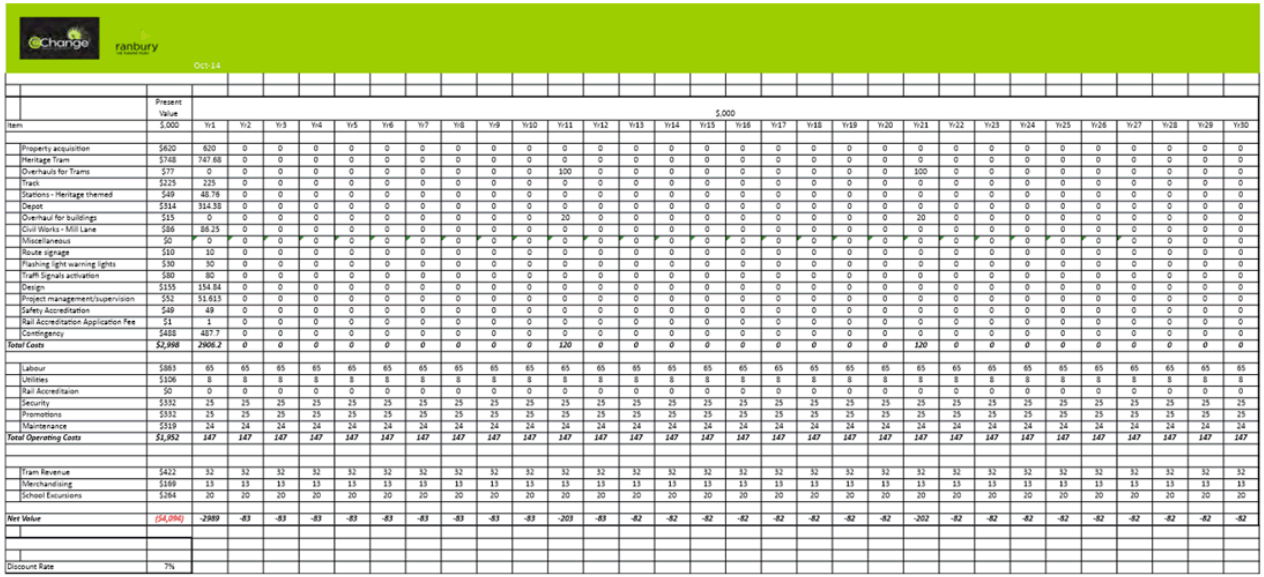
Item	Present Value $,000	$,000																													
		Yr1	Yr2	Yr3	Yr4	Yr5	Yr6	Yr7	Yr8	Yr9	Yr10	Yr11	Yr12	Yr13	Yr14	Yr15	Yr16	Yr17	Yr18	Yr19	Yr20	Yr21	Yr22	Yr23	Yr24	Yr25	Yr26	Yr27	Yr28	Yr29	Yr30
Capital Costs																															
Property acquisition	$682	682	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Heritage Tram	$822	822.45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Overhauls for Trams	$84	0	0	0	0	0	0	0	0	0	0	110	0	0	0	0	0	0	0	0	0	110	0	0	0	0	0	0	0	0	0
Track	$248	247.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Stations - Heritage themed	$54	53.656	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Depot	$346	346	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Overhaul for buildings	$17	0	0	0	0	0	0	0	0	0	0	22	0	0	0	0	0	0	0	0	0	22	0	0	0	0	0	0	0	0	0
Civil Works - Mill Lane	$95	94.875	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Miscellaneous	$0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Route signage	$11	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Flashing light warning lights	$33	33	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Traffi Signals activation	$88	88	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Design	$170	170	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Project management/supervision	$57	57	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Safety Accreditation	$54	53.9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rail Accreditation Application Fee	$1	1.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Contingency	$536	536	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Costs	***$3,298***	***3196.8***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***132***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***132***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***
Operating Costs																															
Labour	$949	71.5	71.5	71.5	71.5	71.5	71.5	71.5	71.5	71.5	71.5	71.5	71.5	71.5	71.5	71.5	71.5	71.5	71.5	71.5	71.5	71.5	71.5	71.5	71.5	71.5	71.5	71.5	71.5	71.5	71.5
Utilities	$117	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8
Rail Accreditaion	$0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Security	$365	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5
Promotions	$365	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5
Maintenance	$351	26.4	26.4	26.4	26.4	26.4	26.4	26.4	26.4	26.4	26.4	26.4	26.4	26.4	26.4	26.4	26.4	26.4	26.4	26.4	26.4	26.4	26.4	26.4	26.4	26.4	26.4	26.4	26.4	26.4	26.4
Total Operating Costs	***$2,147***	***161.7***	***161.7***	***161.7***	***161.7***	***161.7***	***161.7***	***161.7***	***161.7***	***161.7***	***161.7***	***161.7***	***161.7***	***161.7***	***161.7***	***161.7***	***161.7***	***161.7***	***161.7***	***161.7***	***161.7***	***161.7***	***161.7***	***161.7***	***161.7***	***161.7***	***161.7***	***161.7***	***161.7***	***161.7***	***161.7***
TOTAL COSTS	**$5,445**	**3358.5**	**161.7**	**161.7**	**161.7**	**161.7**	**161.7**	**161.7**	**161.7**	**161.7**	**161.7**	**293.7**	**161.7**	**161.7**	**161.7**	**161.7**	**161.7**	**161.7**	**161.7**	**161.7**	**161.7**	**293.7**	**161.7**	**161.7**	**161.7**	**161.7**	**161.7**	**161.7**	**161.7**	**161.7**	**161.7**
Revenues																															
Tram Revenue	$349	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	27	27	
Merchandising	$140	10	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	
School Excursions	$218	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	17	17	17	17	17	17	17	17	17	17	17	17	
Total Revenues	**$707**	**53**	**53**	**53**	**53**	**53**	**53**	**53**	**53**	**53**	**53**	**53**	**53**	**53**	**53**	**53**	**53**	**53**	**53**	**53**	**54**	**54**	**54**	**54**	**54**	**54**	**54**	**54**	**54**	**54**	
Net Value	***($4,738)***	***-3306***	***-109***	***-109***	***-109***	***-109***	***-109***	***-109***	***-109***	***-108***	***-108***	***-240***	***-108***	***-108***	***-108***	***-108***	***-108***	***-108***	***-108***	***-108***	***-240***	***-108***	***-108***	***-108***	***-108***	***-108***	***-108***	***-108***	***-108***	***-108***	

Net Present Value	($4,738)
IRR	NA
Discount Rate	7%

Nambour Heritage Tramway Feasibility Assessment
Financial Feasibility: Scenario 4 (6 Days a Week day, In-Kind works and Volunteers)
Discount Rate: 7% Sensitivity Testing: 0 increase costs, revenue decrease 10%
Sunshine Coast Regional Council
Oct-14

Sensitivity Testing: 0 increase costs, revenue decrease 10%

	Present Value	$,000																													
Item	$,000	Yr1	Yr2	Yr3	Yr4	Yr5	Yr6	Yr7	Yr8	Yr9	Yr10	Yr11	Yr12	Yr13	Yr14	Yr15	Yr16	Yr17	Yr18	Yr19	Yr20	Yr21	Yr22	Yr23	Yr24	Yr25	Yr26	Yr27	Yr28	Yr29	Yr30
Capital Costs																															
Property acquisition	$620	620	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Heritage Tram	$748	747.68	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Overhauls for Trams	$77	0	0	0	0	0	0	0	0	0	0	100	0	0	0	0	0	0	0	0	0	100	0	0	0	0	0	0	0	0	0
Track	$225	225	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Stations - Heritage themed	$49	48.78	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Depot	$314	314.38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Overhaul for buildings	$15	0	0	0	0	0	0	0	0	0	0	20	0	0	0	0	0	0	0	0	0	20	0	0	0	0	0	0	0	0	0
Civil Works - Mill Lane	$86	86.25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Miscellaneous	$0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Route signage	$10	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Flashing light warning lights	$30	30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Traffi Signals activation	$80	80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Design	$155	154.84	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Project management/supervision	$52	51.613	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Safety Accreditation	$49	49	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rail Accreditation Application Fee	$1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Contingency	$488	487.7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Costs	*$2,998*	*2906.2*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*120*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*120*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
Operating Costs																															
Labour	$883	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65
Utilities	$106	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
Rail Accreditaion	$0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Security	$332	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
Promotions	$332	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
Maintenance	$319	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24
Total Operating Costs	*$1,952*	*147*	*147*	*147*	*147*	*147*	*147*	*147*	*147*	*147*	*147*	*147*	*147*	*147*	*147*	*147*	*147*	*147*	*147*	*147*	*147*	*147*	*147*	*147*	*147*	*147*	*147*	*147*	*147*	*147*	*147*
TOTAL COSTS	**$4,950**	**3053.2**	**147**	**147**	**147**	**147**	**147**	**147**	**147**	**147**	**147**	**267**	**147**	**147**	**147**	**147**	**147**	**147**	**147**	**147**	**147**	**267**	**147**	**147**	**147**	**147**	**147**	**147**	**147**	**147**	**147**
Revenues																															
Tram Revenue	$348	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	27	27
Merchandising	$140	10	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11
School Excursions	$218	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	17	17	17	17	17	17	17	17	17	17	17	17	17
Total Revenues	**$707**	**53**	**53**	**53**	**53**	**53**	**53**	**53**	**53**	**53**	**53**	**53**	**53**	**53**	**53**	**53**	**53**	**53**	**53**	**53**	**54**	**54**	**54**	**54**	**54**	**54**	**54**	**54**	**54**	**54**	**54**
Net Value	*($4,243)*	*-3000*	*-94*	*-94*	*-94*	*-94*	*-94*	*-94*	*-94*	*-94*	*-94*	*-214*	*-94*	*-94*	*-94*	*-94*	*-94*	*-94*	*-94*	*-94*	*-93*	*-213*	*-93*	*-93*	*-93*	*-93*	*-93*	*-93*	*-93*	*-93*	*-93*
Net Present Value	($4,243)																														
IRR	NA																														
Discount Rate	7%																														



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Item	Present Value $,000	$,000 Yr1	Yr2	Yr3	Yr4	Yr5	Yr6	Yr7	Yr8	Yr9	Yr10	Yr11	Yr12	Yr13	Yr14	Yr15	Yr16	Yr17	Yr18	Yr19	Yr20	Yr21	Yr22	Yr23	Yr24	Yr25	Yr26	Yr27	Yr28	Yr29	Yr30
Property acquisition	$620	620	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Heritage Tram	$748	747.68	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Overhauls for Trams	$77	0	0	0	0	0	0	0	0	0	0	100	0	0	0	0	0	0	0	0	0	100	0	0	0	0	0	0	0	0	0
Track	$225	225	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Stations - Heritage themed	$49	48.78	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Depot	$314	314.38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Overhaul for buildings	$15	0	0	0	0	0	0	0	0	0	0	20	0	0	0	0	0	0	0	0	0	20	0	0	0	0	0	0	0	0	0
Civil Works - Mill Lane	$86	86.25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Miscellaneous	$0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Route signage	$10	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Flashing light warning lights	$30	30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Traffi Signals activation	$80	80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Design	$155	154.84	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Project management/supervision	$52	51.613	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Safety Accreditation	$49	49	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rail Accreditation Application Fee	$1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Contingency	$488	487.7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Costs	***$2,998***	***2906.2***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***120***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***120***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***
Labour	$883	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65
Utilities	$106	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
Rail Accreditaion	$0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Security	$332	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
Promotions	$332	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
Maintenance	$319	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24
Total Operating Costs	***$1,952***	***147***	***147***	***147***	***147***	***147***	***147***	***147***	***147***	***147***	***147***	***147***	***147***	***147***	***147***	***147***	***147***	***147***	***147***	***147***	***147***	***147***	***147***	***147***	***147***	***147***	***147***	***147***	***147***	***147***	***147***
Tram Revenue	$422	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32
Merchandising	$169	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13
School Excursions	$264	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20
Net Value	***(54,094)***	***-2989***	***-83***	***-83***	***-83***	***-83***	***-83***	***-83***	***-83***	***-83***	***-83***	***-203***	***-83***	***-82***	***-82***	***-82***	***-82***	***-82***	***-82***	***-82***	***-82***	***-202***	***-82***	***-82***	***-82***	***-82***	***-82***	***-82***	***-82***	***-82***	***-82***
Discount Rate	7%																														

Appendix 7: Cost Benefit Analysis

Nambour Heritage Tramway Feasibility Assessment
Cost Benefit Assessment: Scenario 1
Discount Rate: 7%
Sunshine Coast Regional Council
Oct-14

		Present Value																$,000													
Item		$,000	Yr1	Yr2	Yr3	Yr4	Yr5	Yr6	Yr7	Yr8	Yr9	Yr10	Yr11	Yr12	Yr13	Yr14	Yr15	Yr16	Yr17	Yr18	Yr19	Yr20	Yr21	Yr22	Yr23	Yr24	Yr25	Yr26	Yr27	Yr28	Yr29	Yr30
Capital Costs																															
	Capital Costs	3120	3028	0	0	0	0	0	0	0	0	0	120	0	0	0	0	0	0	0	0	0	120	0	0	0	0	0	0	0	0	0
	Operating Costs	7210	543	543	543	543	543	543	543	543	543	543	543	543	543	543	543	543	543	543	543	543	543	543	543	543	543	543	543	543	543	543
Total Costs		**10330**	**3571**	**543**	**543**	**543**	**543**	**543**	**543**	**543**	**543**	**543**	**543**	**663**	**543**	**543**	**543**	**543**	**543**	**543**	**543**	**543**	**543**	**663**	**543**	**543**	**543**	**543**	**543**	**543**	**543**	**543**
Benefits																															
	Tram Revenue	364	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	28	28	28	28	28	28	28	28	28	28	28
	Merchandising	154	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
	School Excursions	240	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
	Induced Spending from V	1704	128	128	128	128	128	128	128	128	128	128	128	128	129	129	129	129	129	129	129	129	129	129	129	129	129	129	129	129	130	130
	Increased tourism & visit	624	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47
	Increased tourism to Sun	375	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28
	Expenditure from new ev	3202	240	240	240	240	240	241	241	241	241	241	241	241	241	242	242	242	242	242	242	242	242	243	243	243	243	243	243	243	243	244
Total Revenues		**6663**	**499**	**500**	**500**	**500**	**500**	**501**	**501**	**501**	**501**	**502**	**502**	**502**	**502**	**503**	**503**	**503**	**503**	**504**	**504**	**504**	**504**	**505**	**505**	**505**	**505**	**506**	**506**	**506**	**506**	**507**
Net Present Value		-3667																													
Benefit Cost Ratio		0.65																													
Discount Rate		7%																													

Nambour Heritage Tramway Feasibility Assessment
Cost Benefit Assessment: Scenario 1
Discount Rate: 10%
Sunshine Coast Regional Council
Oct-14

		Present Value																$,000													
Item		$,000	Yr1	Yr2	Yr3	Yr4	Yr5	Yr6	Yr7	Yr8	Yr9	Yr10	Yr11	Yr12	Yr13	Yr14	Yr15	Yr16	Yr17	Yr18	Yr19	Yr20	Yr21	Yr22	Yr23	Yr24	Yr25	Yr26	Yr27	Yr28	Yr29	Yr30
Capital Costs																															
	Capital Costs	3092	3028	0	0	0	0	0	0	0	0	0	120	0	0	0	0	0	0	0	0	0	120	0	0	0	0	0	0	0	0	0
	Operating Costs	5631	543	543	543	543	543	543	543	543	543	543	543	543	543	543	543	543	543	543	543	543	543	543	543	543	543	543	543	543	543	543
Total Costs		**8723**	**3571**	**543**	**543**	**543**	**543**	**543**	**543**	**543**	**543**	**543**	**543**	**663**	**543**	**543**	**543**	**543**	**543**	**543**	**543**	**543**	**543**	**663**	**543**	**543**	**543**	**543**	**543**	**543**	**543**	**543**
Benefits																															
	Tram Revenue	284	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	28	28	28	28	28	28	28	28	28	28	28
	Merchandising	120	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
	School Excursions	187	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
	Induced Spending from V	1330	128	128	128	128	128	128	128	128	128	128	128	128	129	129	129	129	129	129	129	129	129	129	129	129	129	129	129	129	130	130
	Increased tourism & visit	487	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47
	Increased tourism to Sun	292	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28
	Expenditure from new ev	2499	240	240	240	240	240	241	241	241	241	241	241	241	241	242	242	242	242	242	242	242	242	243	243	243	243	243	243	243	243	244
Total Revenues		**5200**	**499**	**500**	**500**	**500**	**500**	**501**	**501**	**501**	**501**	**502**	**502**	**502**	**502**	**503**	**503**	**503**	**503**	**504**	**504**	**504**	**504**	**505**	**505**	**505**	**505**	**506**	**506**	**506**	**506**	**507**
Net Present Value		-3523																													
Benefit Cost Ratio		0.60																													
Discount Rate		10%																													

Nambour Heritage Tramway Feasibility Assessment
Cost Benefit Assessment: Scenario 1
Discount Rate: 12%
Sunshine Coast Regional Council
Oct-14

Item	Present Value $,000	Yr1	Yr2	Yr3	Yr4	Yr5	Yr6	Yr7	Yr8	Yr9	Yr10	Yr11	Yr12	Yr13	Yr14	Yr15	Yr16	Yr17	Yr18	Yr19	Yr20	Yr21	Yr22	Yr23	Yr24	Yr25	Yr26	Yr27	Yr28	Yr29	Yr30
		$,000																													
Capital Costs																															
Capital Costs	3079	3028	0	0	0	0	0	0	0	0	0	120	0	0	0	0	0	0	0	0	0	120	0	0	0	0	0	0	0	0	0
Operating Costs	4899	543	543	543	543	543	543	543	543	543	543	543	543	543	543	543	543	543	543	543	543	543	543	543	543	543	543	543	543	543	543
Total Costs	**7978**	**3571**	**543**	**543**	**543**	**543**	**543**	**543**	**543**	**543**	**543**	**663**	**543**	**543**	**543**	**543**	**543**	**543**	**543**	**543**	**543**	**663**	**543**	**543**	**543**	**543**	**543**	**543**	**543**	**543**	**543**
Benefits																															
Tram Revenue	247	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	28	28	28	28	28	28	28	28	28	28	28
Merchandising	105	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
School Excursions	163	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
Induced Spending from V	1157	128	128	128	128	128	128	128	128	128	128	128	128	129	129	129	129	129	129	129	129	129	129	129	129	129	129	129	129	130	130
Increased tourism & visit	424	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47
Increased tourism to Sun	254	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28
Expenditure from new ev	2173	240	240	240	240	240	241	241	241	241	241	241	241	241	242	242	242	242	242	242	242	242	243	243	243	243	243	243	243	243	244
Total Revenues	**4522**	**499**	**500**	**500**	**500**	**500**	**501**	**501**	**501**	**501**	**502**	**502**	**502**	**502**	**503**	**503**	**503**	**503**	**504**	**504**	**504**	**504**	**505**	**505**	**505**	**505**	**506**	**506**	**506**	**506**	**507**
Net Present Value	-3456																														
Benefit Cost Ratio	0.57																														
Discount Rate	12%																														

Nambour Heritage Tramway Feasibility Assessment
Cost Benefit Assessment: Scenario 1
Discount Rate: 7% Sensitivity Testing Increase costs by 10%, decrease benefits 10%
Sunshine Coast Regional Council
Oct-14

Item	Present Value $,000	Yr1	Yr2	Yr3	Yr4	Yr5	Yr6	Yr7	Yr8	Yr9	Yr10	Yr11	Yr12	Yr13	Yr14	Yr15	Yr16	Yr17	Yr18	Yr19	Yr20	Yr21	Yr22	Yr23	Yr24	Yr25	Yr26	Yr27	Yr28	Yr29	Yr30
		$,000																													
Capital Costs																															
Capital Costs	3432	3331	0	0	0	0	0	0	0	0	0	132	0	0	0	0	0	0	0	0	0	132	0	0	0	0	0	0	0	0	0
Operating Costs	7931	597	597	597	597	597	597	597	597	597	597	597	597	597	597	597	597	597	597	597	597	597	597	597	597	597	597	597	597	597	597
Total Costs	**11363**	**3929**	**597**	**597**	**597**	**597**	**597**	**597**	**597**	**597**	**597**	**729**	**597**	**597**	**597**	**597**	**597**	**597**	**597**	**597**	**597**	**729**	**597**	**597**	**597**	**597**	**597**	**597**	**597**	**597**	**597**
Benefits																															
Tram Revenue	331	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
Merchandising	140	10	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11
School Excursions	218	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	17	17	17	17	17	17	17	17	17	17	17	17	17
Induced Spending from V	1549	116	116	116	116	116	116	116	117	117	117	117	117	117	117	117	117	117	117	117	117	117	117	117	118	118	118	118	118	118	118
Increased tourism & visit	568	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43
Increased tourism to Sun	341	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26
Expenditure from new ev	2911	218	218	218	219	219	219	219	219	219	219	219	219	219	220	220	220	220	220	220	220	220	220	221	221	221	221	221	221	221	221
Total Revenues	**6058**	**454**	**454**	**454**	**455**	**455**	**455**	**455**	**456**	**456**	**456**	**456**	**457**	**457**	**457**	**457**	**457**	**458**	**458**	**458**	**458**	**459**	**459**	**459**	**459**	**459**	**460**	**460**	**460**	**460**	**461**
Net Present Value	-5305																														
Benefit Cost Ratio	0.53																														
Discount Rate	7%																														

Nambour Heritage Tramway Feasibility Assessment
Cost Benefit Assessment: Scenario 1
Discount Rate: 7% Sensitivity Testing Increase costs by 0%, decrease benefits 10%
Sunshine Coast Regional Council
Oct-14

	Present Value	$,000																														
Item	$,000	Yr1	Yr2	Yr3	Yr4	Yr5	Yr6	Yr7	Yr8	Yr9	Yr10	Yr11	Yr12	Yr13	Yr14	Yr15	Yr16	Yr17	Yr18	Yr19	Yr20	Yr21	Yr22	Yr23	Yr24	Yr25	Yr26	Yr27	Yr28	Yr29	Yr30
Capital Costs																																
Capital Costs	3120	3028	0	0	0	0	0	0	0	0	0	120	0	0	0	0	0	0	0	0	0	120	0	0	0	0	0	0	0	0	0
Operating Costs	7210	543	543	543	543	543	543	543	543	543	543	543	543	543	543	543	543	543	543	543	543	543	543	543	543	543	543	543	543	543	543
Total Costs	**10330**	**3571**	**543**	**543**	**543**	**543**	**543**	**543**	**543**	**543**	**543**	**663**	**543**	**543**	**543**	**543**	**543**	**543**	**543**	**543**	**543**	**663**	**543**	**543**	**543**	**543**	**543**	**543**	**543**	**543**	**543**
Benefits																																
Tram Revenue	331	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
Merchandising	140	10	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11
School Excursions	218	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	17	17	17	17	17	17	17	17	17	17	17	17	17
Induced Spending from V	1549	116	116	116	116	116	116	116	117	117	117	117	117	117	117	117	117	117	117	117	117	117	117	117	117	118	118	118	118	118	118
Increased tourism & visit	568	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43
Increased tourism to Sun	341	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26
Expenditure from new ev	2911	218	218	218	219	219	219	219	219	219	219	219	219	219	220	220	220	220	220	220	220	220	220	221	221	221	221	221	221	221	221
Total Revenues	**6058**	**454**	**454**	**454**	**455**	**455**	**455**	**455**	**456**	**456**	**456**	**456**	**457**	**457**	**457**	**457**	**457**	**458**	**458**	**458**	**458**	**459**	**459**	**459**	**459**	**459**	**460**	**460**	**460**	**460**	**461**
Net Present Value	-4272																															
Benefit Cost Ratio	0.59																															
Discount Rate	7%																															

Nambour Heritage Tramway Feasibility Assessment
Cost Benefit Assessment: Scenario 1
Discount Rate: 7% Sensitivity Testing Increase costs by 0%, increase benefits 10%
Sunshine Coast Regional Council
Oct-14

	Present Value	$,000																														
Item	$,000	Yr1	Yr2	Yr3	Yr4	Yr5	Yr6	Yr7	Yr8	Yr9	Yr10	Yr11	Yr12	Yr13	Yr14	Yr15	Yr16	Yr17	Yr18	Yr19	Yr20	Yr21	Yr22	Yr23	Yr24	Yr25	Yr26	Yr27	Yr28	Yr29	Yr30
Capital Costs																																
Capital Costs	3120	3028	0	0	0	0	0	0	0	0	0	120	0	0	0	0	0	0	0	0	0	120	0	0	0	0	0	0	0	0	0
Operating Costs	7210	543	543	543	543	543	543	543	543	543	543	543	543	543	543	543	543	543	543	543	543	543	543	543	543	543	543	543	543	543	543
Total Costs	**10330**	**3571**	**543**	**543**	**543**	**543**	**543**	**543**	**543**	**543**	**543**	**663**	**543**	**543**	**543**	**543**	**543**	**543**	**543**	**543**	**543**	**663**	**543**	**543**	**543**	**543**	**543**	**543**	**543**	**543**	**543**
Benefits																																
Tram Revenue	400	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
Merchandising	169	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13
School Excursions	264	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20
Induced Spending from V	1875	141	141	141	141	141	141	141	141	141	141	141	141	141	141	141	142	142	142	142	142	142	142	142	142	142	142	142	142	142	143
Increased tourism & visit	687	51	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52
Increased tourism to Sun	412	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31
Expenditure from new ev	3522	264	264	264	264	265	265	265	265	265	265	265	265	266	266	266	266	266	266	266	267	267	267	267	267	267	267	267	268	268	268
Total Revenues	**7330**	**549**	**550**	**550**	**550**	**550**	**551**	**551**	**551**	**552**	**552**	**552**	**552**	**553**	**553**	**553**	**553**	**554**	**554**	**554**	**555**	**555**	**555**	**555**	**556**	**556**	**556**	**557**	**557**	**557**	**557**
Net Present Value	-3000																															
Benefit Cost Ratio	0.71																															
Discount Rate	7%																															

Nambour Heritage Tramway Feasibility Assessment
Cost Benefit Assessment: Scenario 2
Discount Rate: 7%
Sunshine Coast Regional Council
Oct-14

Item	Present Value $,000	Yr1	Yr2	Yr3	Yr4	Yr5	Yr6	Yr7	Yr8	Yr9	Yr10	Yr11	Yr12	Yr13	Yr14	Yr15	Yr16	Yr17	Yr18	Yr19	Yr20	Yr21	Yr22	Yr23	Yr24	Yr25	Yr26	Yr27	Yr28	Yr29	Yr30
																$,000															
Capital Costs																															
Capital Costs	3120	3028	0	0	0	0	0	0	0	0	0	120	0	0	0	0	0	0	0	0	0	120	0	0	0	0	0	0	0	0	0
Operating Costs	7210	543	543	543	543	543	543	543	543	543	543	543	543	543	543	543	543	543	543	543	543	543	543	543	543	543	543	543	543	543	543
Total Costs	**10330**	**3571**	**543**	**543**	**543**	**543**	**543**	**543**	**543**	**543**	**543**	**663**	**543**	**543**	**543**	**543**	**543**	**543**	**543**	**543**	**543**	**663**	**543**	**543**	**543**	**543**	**543**	**543**	**543**	**543**	**543**
Benefits																															
Tram Revenue	384	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29
Merchandising	154	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
School Excursions	240	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
Induced Spending from V	1704	128	128	128	128	128	128	128	128	128	128	128	128	129	129	129	129	129	129	129	129	129	129	129	129	129	129	129	129	130	130
Increased tourism & visit	624	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47
Increased tourism to Sun	375	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28
Expenditure from new ev	3202	240	240	240	240	240	241	241	241	241	241	241	241	242	242	242	242	242	242	242	242	242	243	243	243	243	243	243	243	243	244
Total Revenues	**6683**	**501**	**501**	**501**	**502**	**502**	**502**	**502**	**503**	**503**	**503**	**503**	**504**	**504**	**504**	**504**	**505**	**505**	**505**	**505**	**506**	**506**	**506**	**506**	**507**	**507**	**507**	**507**	**508**	**508**	**508**
Net Present Value	-3647																														
Benefit Cost Ratio	0.65																														
Discount Rate	7%																														

Nambour Heritage Tramway Feasibility Assessment
Cost Benefit Assessment: Scenario 2
Discount Rate: 10%
Sunshine Coast Regional Council
Oct-14

Item	Present Value $,000	Yr1	Yr2	Yr3	Yr4	Yr5	Yr6	Yr7	Yr8	Yr9	Yr10	Yr11	Yr12	Yr13	Yr14	Yr15	Yr16	Yr17	Yr18	Yr19	Yr20	Yr21	Yr22	Yr23	Yr24	Yr25	Yr26	Yr27	Yr28	Yr29	Yr30
																$,000															
Capital Costs																															
Capital Costs	3092	3028	0	0	0	0	0	0	0	0	0	120	0	0	0	0	0	0	0	0	0	120	0	0	0	0	0	0	0	0	0
Operating Costs	5631	543	543	543	543	543	543	543	543	543	543	543	543	543	543	543	543	543	543	543	543	543	543	543	543	543	543	543	543	543	543
Total Costs	**8723**	**3571**	**543**	**543**	**543**	**543**	**543**	**543**	**543**	**543**	**543**	**663**	**543**	**543**	**543**	**543**	**543**	**543**	**543**	**543**	**543**	**663**	**543**	**543**	**543**	**543**	**543**	**543**	**543**	**543**	**543**
Benefits																															
Tram Revenue	299	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29
Merchandising	120	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
School Excursions	187	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
Induced Spending from V	1330	128	128	128	128	128	128	128	128	128	128	128	128	129	129	129	129	129	129	129	129	129	129	129	129	129	129	129	129	130	130
Increased tourism & visit	487	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47
Increased tourism to Sun	292	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28
Expenditure from new ev	2499	240	240	240	240	240	241	241	241	241	241	241	241	242	242	242	242	242	242	242	242	242	243	243	243	243	243	243	243	243	244
Total Revenues	**5216**	**501**	**501**	**501**	**502**	**502**	**502**	**502**	**503**	**503**	**503**	**503**	**504**	**504**	**504**	**504**	**505**	**505**	**505**	**505**	**506**	**506**	**506**	**506**	**507**	**507**	**507**	**507**	**508**	**508**	**508**
Net Present Value	-3508																														
Benefit Cost Ratio	0.60																														
Discount Rate	10%																														

Nambour Heritage Tramway Feasibility Assessment
Cost Benefit Assessment: Scenario 2
Discount Rate: 12%
Sunshine Coast Regional Council
Oct-14

Item	Present Value $,000	Yr1	Yr2	Yr3	Yr4	Yr5	Yr6	Yr7	Yr8	Yr9	Yr10	Yr11	Yr12	Yr13	Yr14	Yr15	Yr16	Yr17	Yr18	Yr19	Yr20	Yr21	Yr22	Yr23	Yr24	Yr25	Yr26	Yr27	Yr28	Yr29	Yr30
		$,000																													
Capital Costs																															
Capital Costs	3079	3028	0	0	0	0	0	0	0	0	0	120	0	0	0	0	0	0	0	0	0	120	0	0	0	0	0	0	0	0	0
Operating Costs	4899	543	543	543	543	543	543	543	543	543	543	543	543	543	543	543	543	543	543	543	543	543	543	543	543	543	543	543	543	543	543
Total Costs	**7978**	**3571**	**543**	**543**	**543**	**543**	**543**	**543**	**543**	**543**	**543**	**663**	**543**	**543**	**543**	**543**	**543**	**543**	**543**	**543**	**543**	**663**	**543**	**543**	**543**	**543**	**543**	**543**	**543**	**543**	**543**
Benefits																															
Tram Revenue	260	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29
Merchandising	105	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
School Excursions	163	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
Induced Spending from V	1157	128	128	128	128	128	128	128	128	128	128	128	128	129	129	129	129	129	129	129	129	129	129	129	129	129	129	129	129	130	130
Increased tourism & visit	424	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47
Increased tourism to Sun	254	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28
Expenditure from new ev	2173	240	240	240	240	240	241	241	241	241	241	241	241	242	242	242	242	242	242	242	242	242	243	243	243	243	243	243	243	243	244
Total Revenues	**4536**	**501**	**501**	**501**	**502**	**502**	**502**	**502**	**503**	**503**	**503**	**503**	**504**	**504**	**504**	**504**	**505**	**505**	**505**	**505**	**506**	**506**	**506**	**506**	**507**	**507**	**507**	**507**	**508**	**508**	**508**
Net Present Value	-3443																														
Benefit Cost Ratio	0.57																														
Discount Rate	12%																														

Nambour Heritage Tramway Feasibility Assessment
Cost Benefit Assessment: Scenario 2
Discount Rate: 7% Sensitivity Testing Increase costs by 10%, decrease benefits 10%
Sunshine Coast Regional Council
Oct-14

Item	Present Value $,000	Yr1	Yr2	Yr3	Yr4	Yr5	Yr6	Yr7	Yr8	Yr9	Yr10	Yr11	Yr12	Yr13	Yr14	Yr15	Yr16	Yr17	Yr18	Yr19	Yr20	Yr21	Yr22	Yr23	Yr24	Yr25	Yr26	Yr27	Yr28	Yr29	Yr30
		$,000																													
Capital Costs																															
Capital Costs	3432	3331	0	0	0	0	0	0	0	0	0	132	0	0	0	0	0	0	0	0	0	132	0	0	0	0	0	0	0	0	0
Operating Costs	7931	597	597	597	597	597	597	597	597	597	597	597	597	597	597	597	597	597	597	597	597	597	597	597	597	597	597	597	597	597	597
Total Costs	**11363**	**3929**	**597**	**597**	**597**	**597**	**597**	**597**	**597**	**597**	**597**	**729**	**597**	**597**	**597**	**597**	**597**	**597**	**597**	**597**	**597**	**729**	**597**	**597**	**597**	**597**	**597**	**597**	**597**	**597**	**597**
Benefits																															
Tram Revenue	349	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	27	27
Merchandising	140	10	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11
School Excursions	218	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	17	17	17	17	17	17	17	17	17	17	17	17	17
Induced Spending from V	1549	116	116	116	116	116	116	116	117	117	117	117	117	117	117	117	117	117	117	117	117	117	117	117	118	118	118	118	118	118	118
Increased tourism & visit	568	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43
Increased tourism to Sun	341	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26
Expenditure from new ev	2911	218	218	218	219	219	219	219	219	219	219	219	219	219	220	220	220	220	220	220	220	220	220	221	221	221	221	221	221	221	221
Total Revenues	**6076**	**455**	**456**	**456**	**456**	**456**	**457**	**457**	**457**	**457**	**457**	**458**	**458**	**458**	**458**	**459**	**459**	**459**	**459**	**459**	**460**	**460**	**460**	**460**	**461**	**461**	**461**	**461**	**462**	**462**	**462**
Net Present Value	-5287																														
Benefit Cost Ratio	0.53																														
Discount Rate	7%																														

Nambour Heritage Tramway Feasibility Assessment
Cost Benefit Assessment: Scenario 2
Discount Rate: 7% Sensitivity Testing Increase costs by 0%, decrease benefits 10%
Sunshine Coast Regional Council
Oct-14

	Present Value	$,000																												
Item	$,000	Yr1	Yr2	Yr3	Yr4	Yr5	Yr6	Yr7	Yr8	Yr9	Yr10	Yr11	Yr12	Yr13	Yr14	Yr15	Yr16	Yr17	Yr18	Yr19	Yr20	Yr21	Yr22	Yr23	Yr24	Yr25	Yr26	Yr27	Yr28	Yr29	Yr30
Capital Costs																														
Capital Costs	3120	3028	0	0	0	0	0	0	0	0	0	120	0	0	0	0	0	0	0	0	0	120	0	0	0	0	0	0	0	0
Operating Costs	7210	543	543	543	543	543	543	543	543	543	543	543	543	543	543	543	543	543	543	543	543	543	543	543	543	543	543	543	543	543
Total Costs	**10330**	**3571**	**543**	**543**	**543**	**543**	**543**	**543**	**543**	**543**	**543**	**663**	**543**	**543**	**543**	**543**	**543**	**543**	**543**	**543**	**543**	**663**	**543**	**543**	**543**	**543**	**543**	**543**	**543**	**543**
Benefits																														
Tram Revenue	349	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	27	27	
Merchandising	140	10	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11
School Excursions	218	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	17	17	17	17	17	17	17	17	17	17	17	17
Induced Spending from V	1549	116	116	116	116	116	116	116	117	117	117	117	117	117	117	117	117	117	117	117	117	117	117	117	117	118	118	118	118	118
Increased tourism & visit	568	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43
Increased tourism to Sun	341	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26
Expenditure from new ev	2911	218	218	218	219	219	219	219	219	219	219	219	219	219	220	220	220	220	220	220	220	220	220	221	221	221	221	221	221	221
Total Revenues	**6076**	**455**	**456**	**456**	**456**	**456**	**457**	**457**	**457**	**457**	**457**	**458**	**458**	**458**	**458**	**459**	**459**	**459**	**459**	**459**	**460**	**460**	**460**	**460**	**461**	**461**	**461**	**461**	**462**	**462**
Net Present Value	-4254																													
Benefit Cost Ratio	0.59																													
Discount Rate	7%																													

Nambour Heritage Tramway Feasibility Assessment
Cost Benefit Assessment: Scenario 2
Discount Rate: 7% Sensitivity Testing Increase costs by 0%, increase benefits 10%
Sunshine Coast Regional Council
Oct-14

	Present Value	$,000																												
Item	$,000	Yr1	Yr2	Yr3	Yr4	Yr5	Yr6	Yr7	Yr8	Yr9	Yr10	Yr11	Yr12	Yr13	Yr14	Yr15	Yr16	Yr17	Yr18	Yr19	Yr20	Yr21	Yr22	Yr23	Yr24	Yr25	Yr26	Yr27	Yr28	Yr29	Yr30
Capital Costs																														
Capital Costs	3120	3028	0	0	0	0	0	0	0	0	0	120	0	0	0	0	0	0	0	0	0	120	0	0	0	0	0	0	0	0
Operating Costs	7210	543	543	543	543	543	543	543	543	543	543	543	543	543	543	543	543	543	543	543	543	543	543	543	543	543	543	543	543	543
Total Costs	**10330**	**3571**	**543**	**543**	**543**	**543**	**543**	**543**	**543**	**543**	**543**	**663**	**543**	**543**	**543**	**543**	**543**	**543**	**543**	**543**	**543**	**663**	**543**	**543**	**543**	**543**	**543**	**543**	**543**	**543**
Benefits																														
Tram Revenue	422	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32
Merchandising	169	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13
School Excursions	264	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20
Induced Spending from V	1875	141	141	141	141	141	141	141	141	141	141	141	141	141	141	141	142	142	142	142	142	142	142	142	142	142	142	142	142	143
Increased tourism & visit	687	51	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52
Increased tourism to Sun	412	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31
Expenditure from new ev	3522	264	264	264	264	265	265	265	265	265	265	265	265	266	266	266	266	266	266	266	267	267	267	267	267	267	267	267	268	268
Total Revenues	**7352**	**551**	**551**	**552**	**552**	**552**	**552**	**553**	**553**	**553**	**553**	**554**	**554**	**554**	**555**	**555**	**555**	**555**	**556**	**556**	**556**	**557**	**557**	**557**	**557**	**558**	**558**	**558**	**558**	**559**	**559**
Net Present Value	-2978																													
Benefit Cost Ratio	0.71																													
Discount Rate	7%																													

Nambour Heritage Tramway Feasibility Assessment
Cost Benefit Assessment: Scenario 3 (Inkind and Volunteer services)
Discount Rate: 7%
Sunshine Coast Regional Council
Oct-14

			$,000																												
Item	Present Value $,000	Yr1	Yr2	Yr3	Yr4	Yr5	Yr6	Yr7	Yr8	Yr9	Yr10	Yr11	Yr12	Yr13	Yr14	Yr15	Yr16	Yr17	Yr18	Yr19	Yr20	Yr21	Yr22	Yr23	Yr24	Yr25	Yr26	Yr27	Yr28	Yr29	Yr30
Capital Costs																															
Capital Costs	2998	2906	0	0	0	0	0	0	0	0	0	120	0	0	0	0	0	0	0	0	0	120	0	0	0	0	0	0	0	0	0
Operating Costs	1952	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147
Total Costs	**4950**	**3053**	**147**	**147**	**147**	**147**	**147**	**147**	**147**	**147**	**147**	**147**	**267**	**147**	**147**	**147**	**147**	**147**	**147**	**147**	**147**	**147**	**267**	**147**	**147**	**147**	**147**	**147**	**147**	**147**	**147**	**147**
Benefits																															
Tram Revenue	364	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	28	28	28	28	28	28	28	28	28	28	28
Merchandising	154	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
School Excursions	240	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
Induced Spending from V	1704	128	128	128	128	128	128	128	128	128	128	128	128	129	129	129	129	129	129	129	129	129	129	129	129	129	129	129	129	130	130
Increased tourism & visit	624	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47
Increased tourism to Sun	375	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28
Expenditure from new ev	3202	240	240	240	240	240	241	241	241	241	241	241	241	241	242	242	242	242	242	242	242	242	243	243	243	243	243	243	243	243	244
Total Revenues	**6663**	**499**	**500**	**500**	**500**	**500**	**501**	**501**	**501**	**501**	**502**	**502**	**502**	**502**	**503**	**503**	**503**	**503**	**504**	**504**	**504**	**504**	**505**	**505**	**505**	**505**	**506**	**506**	**506**	**506**	**507**
Net Present Value	**1713**																														
Benefit Cost Ratio	**1.35**																														
Discount Rate	7%																														

Nambour Heritage Tramway Feasibility Assessment
Cost Benefit Assessment: Scenario 3 (Inkind and Volunteer services)
Discount Rate: 10%
Sunshine Coast Regional Council
Oct-14

			$,000																												
Item	Present Value $,000	Yr1	Yr2	Yr3	Yr4	Yr5	Yr6	Yr7	Yr8	Yr9	Yr10	Yr11	Yr12	Yr13	Yr14	Yr15	Yr16	Yr17	Yr18	Yr19	Yr20	Yr21	Yr22	Yr23	Yr24	Yr25	Yr26	Yr27	Yr28	Yr29	Yr30
Capital Costs																															
Capital Costs	2970	2906	0	0	0	0	0	0	0	0	0	120	0	0	0	0	0	0	0	0	0	120	0	0	0	0	0	0	0	0	0
Operating Costs	1524	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147
Total Costs	**4495**	**3053**	**147**	**147**	**147**	**147**	**147**	**147**	**147**	**147**	**147**	**147**	**267**	**147**	**147**	**147**	**147**	**147**	**147**	**147**	**147**	**147**	**267**	**147**	**147**	**147**	**147**	**147**	**147**	**147**	**147**	**147**
Benefits																															
Tram Revenue	284	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	28	28	28	28	28	28	28	28	28	28	28
Merchandising	120	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
School Excursions	187	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
Induced Spending from V	1330	128	128	128	128	128	128	128	128	128	128	128	128	129	129	129	129	129	129	129	129	129	129	129	129	129	129	129	129	130	130
Increased tourism & visit	487	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47
Increased tourism to Sun	292	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28
Expenditure from new ev	2499	240	240	240	240	240	241	241	241	241	241	241	241	241	242	242	242	242	242	242	242	242	243	243	243	243	243	243	243	243	244
Total Revenues	**5200**	**499**	**500**	**500**	**500**	**500**	**501**	**501**	**501**	**501**	**502**	**502**	**502**	**502**	**503**	**503**	**503**	**503**	**504**	**504**	**504**	**504**	**505**	**505**	**505**	**505**	**506**	**506**	**506**	**506**	**507**
Net Present Value	**705**																														
Benefit Cost Ratio	**1.16**																														
Discount Rate	10%																														

Nambour Heritage Tramway Feasibility Assessment
Cost Benefit Assessment: Scenario 3 (Inkind and Volunteer services)
Discount Rate: 12%
Sunshine Coast Regional Council
Oct-14

Item	Present Value $,000	Yr1	Yr2	Yr3	Yr4	Yr5	Yr6	Yr7	Yr8	Yr9	Yr10	Yr11	Yr12	Yr13	Yr14	Yr15	Yr16	Yr17	Yr18	Yr19	Yr20	Yr21	Yr22	Yr23	Yr24	Yr25	Yr26	Yr27	Yr28	Yr29	Yr30
		$,000																													
Capital Costs																															
Capital Costs	2957	2906	0	0	0	0	0	0	0	0	0	120	0	0	0	0	0	0	0	0	0	120	0	0	0	0	0	0	0	0	0
Operating Costs	1326	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147
Total Costs	**4284**	**3053**	**147**	**147**	**147**	**147**	**147**	**147**	**147**	**147**	**147**	**267**	**147**	**147**	**147**	**147**	**147**	**147**	**147**	**147**	**147**	**267**	**147**	**147**	**147**	**147**	**147**	**147**	**147**	**147**	**147**
Benefits																															
Tram Revenue	247	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	28	28	28	28	28	28	28	28	28	28	28
Merchandising	105	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
School Excursions	163	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
Induced Spending from V	1157	128	128	128	128	128	128	128	128	128	128	128	128	129	129	129	129	129	129	129	129	129	129	129	129	129	129	129	129	130	130
Increased tourism & visit	424	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47
Increased tourism to Sun	254	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28
Expenditure from new ev	2173	240	240	240	240	240	241	241	241	241	241	241	241	241	242	242	242	242	242	242	242	242	243	243	243	243	243	243	243	243	244
Total Revenues	**4522**	**499**	**500**	**500**	**500**	**500**	**501**	**501**	**501**	**501**	**502**	**502**	**502**	**502**	**503**	**503**	**503**	**503**	**504**	**504**	**504**	**504**	**505**	**505**	**505**	**505**	**506**	**506**	**506**	**506**	**507**
Net Present Value	**239**																														
Benefit Cost Ratio	**1.06**																														
Discount Rate	12%																														

Nambour Heritage Tramway Feasibility Assessment
Cost Benefit Assessment: Scenario 3 (Inkind and Volunteer services)
Discount Rate: 7% Sensitivity Testing Increase costs by 10%, decrease benefits 10%
Sunshine Coast Regional Council
Oct-14

Item	Present Value $,000	Yr1	Yr2	Yr3	Yr4	Yr5	Yr6	Yr7	Yr8	Yr9	Yr10	Yr11	Yr12	Yr13	Yr14	Yr15	Yr16	Yr17	Yr18	Yr19	Yr20	Yr21	Yr22	Yr23	Yr24	Yr25	Yr26	Yr27	Yr28	Yr29	Yr30
		$,000																													
Capital Costs																															
Capital Costs	3298	3197	0	0	0	0	0	0	0	0	0	132	0	0	0	0	0	0	0	0	0	132	0	0	0	0	0	0	0	0	0
Operating Costs	2147	162	162	162	162	162	162	162	162	162	162	162	162	162	162	162	162	162	162	162	162	162	162	162	162	162	162	162	162	162	162
Total Costs	**5445**	**3359**	**162**	**162**	**162**	**162**	**162**	**162**	**162**	**162**	**162**	**294**	**162**	**162**	**162**	**162**	**162**	**162**	**162**	**162**	**162**	**294**	**162**	**162**	**162**	**162**	**162**	**162**	**162**	**162**	**162**
Benefits																															
Tram Revenue	331	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
Merchandising	140	10	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11
School Excursions	218	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	17	17	17	17	17	17	17	17	17	17	17	17	17
Induced Spending from V	1549	116	116	116	116	116	116	116	117	117	117	117	117	117	117	117	117	117	117	117	117	117	117	117	118	118	118	118	118	118	118
Increased tourism & visit	568	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43
Increased tourism to Sun	341	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26
Expenditure from new ev	2911	218	218	218	219	219	219	219	219	219	219	219	219	219	220	220	220	220	220	220	220	220	220	221	221	221	221	221	221	221	221
Total Revenues	**6058**	**454**	**454**	**454**	**455**	**455**	**455**	**455**	**456**	**456**	**456**	**456**	**457**	**457**	**457**	**457**	**457**	**458**	**458**	**458**	**458**	**459**	**459**	**459**	**459**	**459**	**460**	**460**	**460**	**460**	**461**
Net Present Value	**613**																														
Benefit Cost Ratio	**1.11**																														
Discount Rate	7%																														

Nambour Heritage Tramway Feasibility Assessment
Cost Benefit Assessment: Scenario 3 (Inkind and Volunteer services)
Discount Rate: 7% Sensitivity Testing Increase costs by 0%, decrease benefits 10%
Sunshine Coast Regional Council
Oct-14

	Present Value	$,000																												
Item	$,000	Yr1	Yr2	Yr3	Yr4	Yr5	Yr6	Yr7	Yr8	Yr9	Yr10	Yr11	Yr12	Yr13	Yr14	Yr15	Yr16	Yr17	Yr18	Yr19	Yr20	Yr21	Yr22	Yr23	Yr24	Yr25	Yr26	Yr27	Yr28	Yr29	Yr30
Capital Costs																														
Capital Costs	2998	2906	0	0	0	0	0	0	0	0	0	120	0	0	0	0	0	0	0	0	0	120	0	0	0	0	0	0	0	0	0
Operating Costs	1952	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147
Total Costs	**4950**	**3053**	**147**	**147**	**147**	**147**	**147**	**147**	**147**	**147**	**147**	**147**	**267**	**147**	**147**	**147**	**147**	**147**	**147**	**147**	**147**	**147**	**267**	**147**	**147**	**147**	**147**	**147**	**147**	**147**	**147**
Benefits																														
Tram Revenue	331	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
Merchandising	140	10	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11
School Excursions	218	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	17	17	17	17	17	17	17	17	17	17	17	17	17
Induced Spending from V	1549	116	116	116	116	116	116	116	117	117	117	117	117	117	117	117	117	117	117	117	117	117	117	117	117	118	118	118	118	118	118
Increased tourism & visit	568	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43
Increased tourism to Sun	341	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26
Expenditure from new ev	2911	218	218	218	219	219	219	219	219	219	219	219	219	219	220	220	220	220	220	220	220	220	220	221	221	221	221	221	221	221	221
Total Revenues	**6058**	**454**	**454**	**454**	**455**	**455**	**455**	**455**	**456**	**456**	**456**	**456**	**457**	**457**	**457**	**457**	**457**	**458**	**458**	**458**	**458**	**459**	**459**	**459**	**459**	**459**	**460**	**460**	**460**	**460**	**461**
Net Present Value	**1108**																														
Benefit Cost Ratio	**1.22**																														
Discount Rate	7%																														

Nambour Heritage Tramway Feasibility Assessment
Cost Benefit Assessment: Scenario 3 (Inkind and Volunteer services)
Discount Rate: 7% Sensitivity Testing Increase costs by 0%, increase benefits 10%
Sunshine Coast Regional Council
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	Present Value	$,000																												
Item	$,000	Yr1	Yr2	Yr3	Yr4	Yr5	Yr6	Yr7	Yr8	Yr9	Yr10	Yr11	Yr12	Yr13	Yr14	Yr15	Yr16	Yr17	Yr18	Yr19	Yr20	Yr21	Yr22	Yr23	Yr24	Yr25	Yr26	Yr27	Yr28	Yr29	Yr30
Capital Costs																														
Capital Costs	2998	2906	0	0	0	0	0	0	0	0	0	120	0	0	0	0	0	0	0	0	0	120	0	0	0	0	0	0	0	0	0
Operating Costs	1952	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147
Total Costs	**4950**	**3053**	**147**	**147**	**147**	**147**	**147**	**147**	**147**	**147**	**147**	**147**	**267**	**147**	**147**	**147**	**147**	**147**	**147**	**147**	**147**	**147**	**267**	**147**	**147**	**147**	**147**	**147**	**147**	**147**	**147**
Benefits																														
Tram Revenue	400	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
Merchandising	169	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13
School Excursions	264	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20
Induced Spending from V	1875	141	141	141	141	141	141	141	141	141	141	141	141	141	141	141	142	142	142	142	142	142	142	142	142	142	142	142	142	142	143
Increased tourism & visit	687	51	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52
Increased tourism to Sun	412	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31
Expenditure from new ev	3522	264	264	264	264	265	265	265	265	265	265	265	265	266	266	266	266	266	266	266	267	267	267	267	267	267	267	267	268	268	268
Total Revenues	**7330**	**549**	**550**	**550**	**550**	**550**	**551**	**551**	**551**	**552**	**552**	**552**	**552**	**553**	**553**	**553**	**553**	**554**	**554**	**554**	**555**	**555**	**555**	**555**	**556**	**556**	**556**	**557**	**557**	**557**	**557**
Net Present Value	**2380**																														
Benefit Cost Ratio	**1.48**																														
Discount Rate	7%																														

Nambour Heritage Tramway Feasibility Assessment
Cost Benefit Assessment: Scenario 4 (Inkind and Volunteer services)
Discount Rate: 7%
Sunshine Coast Regional Council
Oct-14

Item	Present Value $,000	Yr1	Yr2	Yr3	Yr4	Yr5	Yr6	Yr7	Yr8	Yr9	Yr10	Yr11	Yr12	Yr13	Yr14	Yr15	Yr16	Yr17	Yr18	Yr19	Yr20	Yr21	Yr22	Yr23	Yr24	Yr25	Yr26	Yr27	Yr28	Yr29	Yr30
		$,000																													
Capital Costs																															
Capital Costs	2998	2906	0	0	0	0	0	0	0	0	0	120	0	0	0	0	0	0	0	0	0	120	0	0	0	0	0	0	0	0	0
Operating Costs	1952	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147
Total Costs	**4950**	**3053**	**147**	**147**	**147**	**147**	**147**	**147**	**147**	**147**	**147**	**147**	**267**	**147**	**147**	**147**	**147**	**147**	**147**	**147**	**147**	**147**	**267**	**147**	**147**	**147**	**147**	**147**	**147**	**147**	**147**	**147**
Benefits																															
Tram Revenue	384	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29
Merchandising	154	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
School Excursions	240	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
Induced Spending from V	1704	128	128	128	128	128	128	128	128	128	128	128	128	129	129	129	129	129	129	129	129	129	129	129	129	129	129	129	129	130	130
Increased tourism & visit	624	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47
Increased tourism to Sun	375	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28
Expenditure from new ev	3202	240	240	240	240	240	241	241	241	241	241	241	241	241	242	242	242	242	242	242	242	242	243	243	243	243	243	243	243	243	244
Total Revenues	**6683**	**501**	**501**	**501**	**502**	**502**	**502**	**502**	**503**	**503**	**503**	**503**	**504**	**504**	**504**	**504**	**505**	**505**	**505**	**505**	**506**	**506**	**506**	**506**	**507**	**507**	**507**	**507**	**508**	**508**	**508**
Net Present Value	**1733**																														
Benefit Cost Ratio	**1.35**																														
Discount Rate	7%																														

Nambour Heritage Tramway Feasibility Assessment
Cost Benefit Assessment: Scenario 4 (Inkind and Volunteer services)
Discount Rate: 10%
Sunshine Coast Regional Council
Oct-14

Item	Present Value $,000	Yr1	Yr2	Yr3	Yr4	Yr5	Yr6	Yr7	Yr8	Yr9	Yr10	Yr11	Yr12	Yr13	Yr14	Yr15	Yr16	Yr17	Yr18	Yr19	Yr20	Yr21	Yr22	Yr23	Yr24	Yr25	Yr26	Yr27	Yr28	Yr29	Yr30
		$,000																													
Capital Costs																															
Capital Costs	2970	2906	0	0	0	0	0	0	0	0	0	120	0	0	0	0	0	0	0	0	0	120	0	0	0	0	0	0	0	0	0
Operating Costs	1524	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147
Total Costs	**4495**	**3053**	**147**	**147**	**147**	**147**	**147**	**147**	**147**	**147**	**147**	**147**	**267**	**147**	**147**	**147**	**147**	**147**	**147**	**147**	**147**	**147**	**267**	**147**	**147**	**147**	**147**	**147**	**147**	**147**	**147**	**147**
Benefits																															
Tram Revenue	299	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29
Merchandising	120	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
School Excursions	187	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
Induced Spending from V	1330	128	128	128	128	128	128	128	128	128	128	128	128	129	129	129	129	129	129	129	129	129	129	129	129	129	129	129	129	130	130
Increased tourism & visit	487	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47
Increased tourism to Sun	292	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28
Expenditure from new ev	2499	240	240	240	240	240	241	241	241	241	241	241	241	241	242	242	242	242	242	242	242	242	243	243	243	243	243	243	243	243	244
Total Revenues	**5216**	**501**	**501**	**501**	**502**	**502**	**502**	**502**	**503**	**503**	**503**	**503**	**504**	**504**	**504**	**504**	**505**	**505**	**505**	**505**	**506**	**506**	**506**	**506**	**507**	**507**	**507**	**507**	**508**	**508**	**508**
Net Present Value	**721**																														
Benefit Cost Ratio	**1.16**																														
Discount Rate	10%																														

Nambour Heritage Tramway Feasibility Assessment
Cost Benefit Assessment: Scenario 4 (Inkind and Volunteer services)
Discount Rate: 12%
Sunshine Coast Regional Council
Oct-14

Item	Present Value $,000	Yr1	Yr2	Yr3	Yr4	Yr5	Yr6	Yr7	Yr8	Yr9	Yr10	Yr11	Yr12	Yr13	Yr14	Yr15	Yr16	Yr17	Yr18	Yr19	Yr20	Yr21	Yr22	Yr23	Yr24	Yr25	Yr26	Yr27	Yr28	Yr29	Yr30
		$,000																													
Capital Costs																															
Capital Costs	2957	2906	0	0	0	0	0	0	0	0	0	120	0	0	0	0	0	0	0	0	0	120	0	0	0	0	0	0	0	0	0
Operating Costs	1326	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147
Total Costs	**4284**	**3053**	**147**	**147**	**147**	**147**	**147**	**147**	**147**	**147**	**147**	**267**	**147**	**147**	**147**	**147**	**147**	**147**	**147**	**147**	**147**	**267**	**147**	**147**	**147**	**147**	**147**	**147**	**147**	**147**	**147**
Benefits																															
Tram Revenue	260	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29
Merchandising	105	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
School Excursions	163	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
Induced Spending from V	1157	128	128	128	128	128	128	128	128	128	128	128	128	129	129	129	129	129	129	129	129	129	129	129	129	129	129	129	129	130	130
Increased tourism & visit	424	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47
Increased tourism to Sun	254	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28
Expenditure from new ev	2173	240	240	240	240	240	241	241	241	241	241	241	241	241	242	242	242	242	242	242	242	242	242	243	243	243	243	243	243	243	244
Total Revenues	**4536**	**501**	**501**	**501**	**502**	**502**	**502**	**502**	**503**	**503**	**503**	**503**	**504**	**504**	**504**	**504**	**505**	**505**	**505**	**505**	**506**	**506**	**506**	**506**	**507**	**507**	**507**	**507**	**508**	**508**	**508**
Net Present Value	252																														
Benefit Cost Ratio	1.06																														
Discount Rate	12%																														

Nambour Heritage Tramway Feasibility Assessment
Cost Benefit Assessment: Scenario 4 (Inkind and Volunteer services)
Discount Rate: 7% Sensitivity Testing Increase costs by 10%, decrease benefits 10%
Sunshine Coast Regional Council
Oct-14

Item	Present Value $,000	Yr1	Yr2	Yr3	Yr4	Yr5	Yr6	Yr7	Yr8	Yr9	Yr10	Yr11	Yr12	Yr13	Yr14	Yr15	Yr16	Yr17	Yr18	Yr19	Yr20	Yr21	Yr22	Yr23	Yr24	Yr25	Yr26	Yr27	Yr28	Yr29	Yr30
		$,000																													
Capital Costs																															
Capital Costs	3298	3197	0	0	0	0	0	0	0	0	0	132	0	0	0	0	0	0	0	0	0	132	0	0	0	0	0	0	0	0	0
Operating Costs	2147	162	162	162	162	162	162	162	162	162	162	162	162	162	162	162	162	162	162	162	162	162	162	162	162	162	162	162	162	162	162
Total Costs	**5445**	**3359**	**162**	**162**	**162**	**162**	**162**	**162**	**162**	**162**	**162**	**294**	**162**	**162**	**162**	**162**	**162**	**162**	**162**	**162**	**162**	**294**	**162**	**162**	**162**	**162**	**162**	**162**	**162**	**162**	**162**
Benefits																															
Tram Revenue	349	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	27	27
Merchandising	140	10	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11
School Excursions	218	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	17	17	17	17	17	17	17	17	17	17	17	17	17
Induced Spending from V	1549	116	116	116	116	116	116	116	117	117	117	117	117	117	117	117	117	117	117	117	117	117	117	117	118	118	118	118	118	118	118
Increased tourism & visit	568	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43
Increased tourism to Sun	341	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26
Expenditure from new ev	2911	218	218	218	219	219	219	219	219	219	219	219	219	219	220	220	220	220	220	220	220	220	220	221	221	221	221	221	221	221	221
Total Revenues	**6076**	**455**	**456**	**456**	**456**	**456**	**457**	**457**	**457**	**457**	**457**	**458**	**458**	**458**	**458**	**459**	**459**	**459**	**459**	**459**	**460**	**460**	**460**	**460**	**461**	**461**	**461**	**461**	**462**	**462**	**462**
Net Present Value	631																														
Benefit Cost Ratio	1.12																														
Discount Rate	7%																														

Nambour Heritage Tramway Feasibility Assessment
Cost Benefit Assessment: Scenario 4 (Inkind and Volunteer services)
Discount Rate: 7% Sensitivity Testing Increase costs by 0%, decrease benefits 10%
Sunshine Coast Regional Council
Oct-14

	Present Value	$,000																												
Item	$,000	Yr1	Yr2	Yr3	Yr4	Yr5	Yr6	Yr7	Yr8	Yr9	Yr10	Yr11	Yr12	Yr13	Yr14	Yr15	Yr16	Yr17	Yr18	Yr19	Yr20	Yr21	Yr22	Yr23	Yr24	Yr25	Yr26	Yr27	Yr28	Yr29	Yr30
Capital Costs																														
Capital Costs	2998	2906	0	0	0	0	0	0	0	0	0	120	0	0	0	0	0	0	0	0	0	120	0	0	0	0	0	0	0	0	0
Operating Costs	1952	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147
Total Costs	**4950**	**3053**	**147**	**147**	**147**	**147**	**147**	**147**	**147**	**147**	**147**	**147**	**267**	**147**	**147**	**147**	**147**	**147**	**147**	**147**	**147**	**147**	**267**	**147**	**147**	**147**	**147**	**147**	**147**	**147**	**147**
Benefits																														
Tram Revenue	349	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	27	27
Merchandising	140	10	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11
School Excursions	218	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	17	17	17	17	17	17	17	17	17	17	17	17	17
Induced Spending from V	1549	116	116	116	116	116	116	116	117	117	117	117	117	117	117	117	117	117	117	117	117	117	117	117	117	118	118	118	118	118	118
Increased tourism & visit	568	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43
Increased tourism to Sun	341	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26
Expenditure from new ev	2911	218	218	218	219	219	219	219	219	219	219	219	219	219	220	220	220	220	220	220	220	220	220	221	221	221	221	221	221	221	221
Total Revenues	**6076**	**455**	**456**	**456**	**456**	**456**	**457**	**457**	**457**	**457**	**457**	**458**	**458**	**458**	**458**	**459**	**459**	**459**	**459**	**459**	**460**	**460**	**460**	**460**	**461**	**461**	**461**	**461**	**462**	**462**	**462**
Net Present Value	**1126**																														
Benefit Cost Ratio	**1.23**																														
Discount Rate	7%																														

Nambour Heritage Tramway Feasibility Assessment
Cost Benefit Assessment: Scenario 4 (Inkind and Volunteer services)
Discount Rate: 7% Sensitivity Testing Increase costs by 0%, increase benefits 10%
Sunshine Coast Regional Council
Oct-14

	Present Value	$,000																												
Item	$,000	Yr1	Yr2	Yr3	Yr4	Yr5	Yr6	Yr7	Yr8	Yr9	Yr10	Yr11	Yr12	Yr13	Yr14	Yr15	Yr16	Yr17	Yr18	Yr19	Yr20	Yr21	Yr22	Yr23	Yr24	Yr25	Yr26	Yr27	Yr28	Yr29	Yr30
Capital Costs																														
Capital Costs	2998	2906	0	0	0	0	0	0	0	0	0	120	0	0	0	0	0	0	0	0	0	120	0	0	0	0	0	0	0	0	0
Operating Costs	1952	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147
Total Costs	**4950**	**3053**	**147**	**147**	**147**	**147**	**147**	**147**	**147**	**147**	**147**	**147**	**267**	**147**	**147**	**147**	**147**	**147**	**147**	**147**	**147**	**147**	**267**	**147**	**147**	**147**	**147**	**147**	**147**	**147**	**147**
Benefits																														
Tram Revenue	422	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32
Merchandising	169	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13
School Excursions	264	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20
Induced Spending from V	1875	141	141	141	141	141	141	141	141	141	141	141	141	141	141	141	142	142	142	142	142	142	142	142	142	142	142	142	142	142	143
Increased tourism & visit	687	51	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52
Increased tourism to Sun	412	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31
Expenditure from new ev	3522	264	264	264	264	265	265	265	265	265	265	265	265	266	266	266	266	266	266	266	267	267	267	267	267	267	267	267	268	268	268
Total Revenues	**7352**	**551**	**551**	**552**	**552**	**552**	**552**	**553**	**553**	**553**	**553**	**554**	**554**	**554**	**555**	**555**	**555**	**555**	**556**	**556**	**556**	**557**	**557**	**557**	**557**	**558**	**558**	**558**	**558**	**559**	**559**
Net Present Value	**2402**																														
Benefit Cost Ratio	**1.49**																														
Discount Rate	7%																														

Appendix 8: Risk Assessment

Phase	Risk Driver/Cause	Impact	Treatment Action		Residual Risk Rating
Planning	Project scoping adequacy	Project viability & and community support	Comprehensive pre-feasibility phase		Low
	Forecast patronage too high	Project viability	Conservative planning assumptions		Medium
	Adequacy of scoping	Project viability	Effective stakeholder engagement. Lessons learnt from other projects		Medium
	Adequacy of capex estimates	Project viability	Engagement of experienced consultants		Medium
	Planning approvals -land impacts	Cost increases/delays	Establishment of competent, resourced Owner's team		Low
	Design of terminus stations and depot not acceptable to local businesses and neighbours	Possible cost increases and loss of functionality	Effective consultation provess		Low
Procurement	Acqusition of bespoke heritage tram	Level of market interest and pricing competition	Early engagement with likely suppliers prior to project approval		Medium
	Inadequate client management of procurement process	Increased costs/delays	Establishment of competent, resourced Owner's team		Medium
	inadequacy of specification of requirements (quality, reliability,	Inadequate performance, poor publicity, possibly extra costs/delays	Specifying proven products, designs		Low

Phase	Risk Driver/Cause	Impact	Treatment Action		Residual Risk Rating
	maintainability)				
	Purchase of property for depot and Mill Lane terminus	Delays, potential increased costs	Confirmation on acquisition prior to project approval		Medium
	Damage/loss of tram in transit	Delays, potential increased costs	Appropriate risk allocation, insurance		Medium
Construction	Inadequacy of civil/building contractor performance (management, quality, financial, resource availability, safety)	Increased costs/delays/poor publicity	Rigorous selection process of contractor and team (experience, skills, adequate resourcing)		Medium
	Poor performamce of heritage tram supplier (time, quality)	Increased costs/delays/poor publicity	Rigorous selection process. Contractor performance oversight		Medium
	PUP impacts (planned & unplanned)	Increased costs/delays/poor publicity	Design/construction solutions to ensure fit for purpose, no surprises, effective management of impacts (traffic, property)		Medium
	Excessive wet weather	Increased costs/delays	Contingency provisions (time, cost)		Medium
	Client initiated scope creep	Increased costs/delays	Effective project controls		Medium
	Inadequacy of commissioning activities	Delays and potential increased costs	Early engagement with potential suppliers re specific requirements. Contingency provisions (time, cost)		Low
	Loss of key staff (contractor's and owner's)	Increased costs/delays	Rigorous selection process of contractor and team (experience, skills, adequate resourcing)		Medium

Feasibility Assessment of Nambour Heritage Tramway

Phase	Risk Driver/Cause	Impact	Treatment Action		Residual Risk Rating
Operation					
Safety	Collision with road vehicle	Personal injuries/death, damage to tram, impacts on services, poor publicity, impacts on future patronage, increase in insurance costs, loss of accreditation	Adequacy of design/signage, maintenance and public awareness campaigns. Comprehensive staff (driver) training		Medium
	Injury to passenger/staff	Personal injury/death, impacts on services, poor publicity, impacts on future patronage, increase in insurance costs, loss of accreditation	Rigorous selection process for tram operations staff. Robust Safety Management System. Adequate staff training		Medium
	Injury to pedestrian	Personal injury/death, impacts on services, poor publicity, impacts on future patronage, increase in insurance costs	Slow speed operation, staff training, community awareness, signage, warning horns		Medium
Service reliability	Inadequate operating establishment	Impacts on services, poor publicity, impact on future patronage, potential safety risks	Thorough assessment of operational needs and ongoing reviews		Low
	Inadequate staff /volunteer training	Poor skills adversely impacting on safety and reliability	Effective training and management operations staff and (volunteers)		Low
	Sustainability of utilising volunteers	Inability to provide services. Poor safety performance and reliability	Adequate bench strength of volunteeers. Training of volunteers		Medium
	Inadequate maintenance practices	Impacts on services, poor publicity, impact on future patronage, potential safety risks, loss of accreditation	Appropriate vendor selection. Quality control and testing, vendor support, Operating & Mtce Manuals, training of maintainer/s, regular track/equipment inspections in conformane with Safety Management Plan		Low

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Feasibility Assessment of Nambour Heritage Tramway

Phase	Risk Driver/Cause	Impact	Treatment Action		Residual Risk Rating
	Vandalism damage	Cost to repair, Poor publicity, impact on future patronage	Provision of appropriate security at depot		Low
Commercial					
	Patronage less than planned, tram loses its novelty value	Poor publicity, impact on who is taking patronage/farebox risk	Robust business case. Conservative assessment of costs/benefits		High
	Sustainability of operating subsidy	SCRC withdraws its financial support			High

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Appendix 9: Funding Options

There are several forms of funding mechanisms associated with contributions that can assist in funding infrastructure, services and facilities. In no particular order of priority, contributions for infrastructure (and other services and facilities) can be broadly described in terms of:

- Rates and taxes;
- Other charges and levies;
- Grants;
- User pays;
- Impact mitigation payments;
- Betterment capture;
- Inclusionary provisions;
- Linkage fees and voluntary payment agreements;
- Private contributions.

Each of these systems have different intents and purposes, which are important to understand as the application of the systems can have different implications regarding fairness and equity in different circumstances, as well as cost recovery associated with infrastructure provision. The systems noted above are described briefly below.

Assuming that the Nambour Tramway will bring most benefits for the community of Nambour, the most appropriate funding avenues for the operation would be through other charges and levies, grants or through private contributions and donations. Rates could also potentially be used if Councillors felt there was significant external benefits to residents throughout the Sunshine Coast. As such, these elements are discussed below.

Rates and Taxes

Where significant external benefits to a community are present due to the provision of infrastructure or services, rates and taxes are appropriate.

Rates and taxes are levied by government on commercial, industrial and residential properties. They are used to provide essential or desired infrastructure that are considered necessary for the effective functioning of society.

Local governments can impose rates in a general or differential manner across the LGA and/or in a specified area rate. Within land uses, general

rates are applied uniformly across the Council but differential rates must be levied based upon the characteristics of the land. General rates can be used to fund any infrastructure service or facility. Specified area rates can be imposed upon land within a portion of the City for the purpose of meeting the cost of a specific work, service or facility but there needs to be a clear nexus between the areas subject to the specified area rate, and the benefits to be provided to residents or ratepayers within that area.

It is important to note that while general rates are applied uniformly within land uses, they can differ markedly between land uses.

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Other Charges (including 'pay as you go' charges)

Where there is a clear and transparent strategic rationale for collecting charges and levies from users of infrastructure, then the levying of 'other charges' is applicable.

Other charges such as those collected by the issuing of licenses and permits, plus user charges (pay as you go) applied for parking, airports, community services, libraries, recreation centres, and other community facilities are considered a 'user charge'. However, the collection of most of these is often on the end user on a 'pay as you go' basis, as opposed to the developer in an up-front manner (see user charges in next section). Moreover, the spending of the money raised by these measures is not always on the infrastructure networks from which they were collected. In some jurisdictions, revenue raised from these types of charges has been considerable. For example, in 2010-11, the City of Perth raised over $56.5m from car parking charges7, and the Shire of Roebourne earned $23m in 2011 from transport charges, predominantly consisting of fees for the use of Karratha Airport, which saw considerable passenger flows of during the year (over 800,000).

Other levies, such as visitor levies can also be charged (described more broadly as taxes). Overseas examples of visitor levies (also known as a 'tourism tax' or 'bed tax' where a tax is collected either as a flat rate or a percentage of the cost of accommodation for every night a visitor stays) have also been used to fund infrastructure. For example, the Upper Engadin Region in Switzerland levies a tourism tax to contribute towards the cost of public transport services. During the winter a tax of 0.25 euros is added to

[7] City of Perth Annual Report, 2010-11. It is noted that the City of Perth is the third largest car park operator in Australia, operating approximately 15,000 bays, and that this is not comparable to Upper Hunter sub-region.

the nightly tariff per person in hotels and 0.16 euros during the summer months and the owners of holiday apartments are charged a flat fee of 55 euros per year as a tourism tax. The revenue generated covers approximately 28% of the cost of public transport services in the region8. These levies have also been used in Australia. For example, the New South Wales government introduced a Sydney Bed Tax of 10% Sydney Central Business District and North Sydney hotels from 1998 to 2000 to assist in funding the Olympics Games.

Pay as you go charges would be necessary on the Nambour Heritage Tramway, and a parking charge could be instigated for strategic projects (a part of which could be directed towards an operation such as a Tramway).

Grants

Where an entity meets eligibility criteria, the use of grants is appropriate. If grants are used in items earmarked for cost recovery by other means (e.g. by user charges), the costs apportioned in the other means should be discounted by the grant or subsidy. Often they are provided by State and Federal Government and are for capital elements and/or 'events'. Local Governments also often have grants on offer for bona fide community services and events.

A review of grants currently on offer suggests that there are few that directly 'fit' the Nambour Heritage Tramway. Nonetheless, Heritage Grants are often on offer and the Nambour Tramways Group would be well served to monitor the grants overtime.

In addition to Federal and State Grants, advice from the Sunshine Coast Regional Council has indicated that the Tramways Group could apply for Council's Special Events Grant for assistance with a component of the costs.

Philanthropic Interests / Crowd funding

Often projects that have such a large level of community support, as the Nambour Heritage Tramway seems to have, can attract substantial funds from philanthropic interests. A recent phenomenom has seen the rise in the practice called crowd funding. Crowdfunding is the practice of funding a project or venture by raising monetary contributions from a large number of people, typically via the Internet, but not necessarily so. There are many

[8] MRCagney, unpublished information, 2011

types of crowd funding. Two general types are reward-based crowd funding and equity-based crowd funding. As suggested by their titles, a reward-based crowd funding rewards donators in ways that relate to the project they are donating to (in Nambour Tramway's case it could be through 'driving a tram for a day' or 'riding for free 2 times a year'), and equity based crowd funding provides a level of equity in a business. Given that the venture will not be commercially viable, a reward based crowd funding arrangement would be suitable.

Grants and subsidies

There is a range of Federal and State grants available to assist in developing community projects. A review of the grants and subsidies, however, suggest that the most current grants and subsidies are for specific events. It is often the case that heritage projects can be provided grants where they are serving a wide community benefit and/or are associated with renewal projects.

References

Bundaberg Sugar Letter regarding potential costs

Confidential Council correspondence regarding acquisition costs

Correspondence with Alan Keef

Personal communication: Nambour Tramway Group, Nambour Alliance, Divisional Councillor, Community Members (via community survey), Department of Transport, and Main Roads, Sunshine Coast Regional Council (transport officers, social and community devlopment officers, economic development officers)

Severn Lamb Product Information

South East Queensland Regional Plan 2009–2031 (SEQ Regional Plan)

Sunshine Coast Planning Scheme 2014.

Sunshine Coast Regional Council, Council resolution (OM14/1)

Sunshine Coast Regional Council, Nambour Heritage Tram Discussion Papers 1 and 2

Sunshine Coast Regional Council, Nambour Heritage Tram Issues Paper

The Nambour Heritage Tramway Project: Business Case update (Dec. 2016)

Overview:

Stage one of the Nambour Heritage Tramway Project, and the primary concern of this Business Case Update, is designed to re-activate the existing heritage listed tram line that was initially established (1897) to transport sugar cane through the centre of Nambour to the Moreton Central Sugar Mill. The Tram will journey from the Western Terminus at 28 Mill St Nambour down Howard Street and return, a round trip distance of approximately 2km. The project is a key component of the Nambour Activation Plan.

Stage Two (at some future date) would see the Tramway extended from Howard St to the Nambour Showgrounds via the Nambour State College Farm.

Stage Three would see the Tramway link with the proposed Nambour-Coolum Trail.

The project scope includes the purchase of a battery powered, solar generated, two foot gauge heritage style tram, along with the provision of depot and terminus facilities at 28 Mill St Nambour, and intersection and signal upgrades as necessary.

At the Ordinary Meeting of Council on 23 April 2015 Council resolved (OM15/52) to support the Nambour Heritage Tramway project via a joint funding and partnership arrangement with the Nambour Heritage Tramway Group (now the Nambour Tramway Company). Council will provide $1.5 million over three years to progress the project. Council funds were contingent on raising $600k in funds from the community, local businesses, and other sources of grant funding. TNT Co has met this fundraising requirement, with the assistance of the Nambour Alliance, through the granting of a National Stronger Regions Grant ($500,000.00) for the building of the Western Terminus and over $100,000.00 funds raised through various community based efforts (Tramfest, grants & donations).

The Nambour Tramway Company (TNT Co) is to act as Rail Infrastructure Manager and Rail Transport Operator, and are in the process of obtaining appropriate accreditations to satisfy the requirements of relevant Queensland legislation.

The governance and delivery model for the tramway scheme has been formalised in the Heads of Agreement.

The Feasibility Analysis that was presented to Council in April 2015 identified a range of social and economic benefits from the venture, including:

- the potential to assist in strengthening the identity and uniqueness of Nambour, leading to improved community pride, visitation and expenditure in the town.
- connect with and become part of the broader fabric of tourism attractions of the Sunshine Coast hinterland.
- commuter light rail link between two new supermarket precincts and

- the potential to connect, in future, to the Nambour State School Agricultural Faculty and Nambour Showgrounds precinct, and to Council's proposed Nambour – Coolum walking trail.

The Nambour Tram project also offers significant strategic value:

- A long term vision beyond current plans.
- Value for the region, as well as to Nambour.
- Attract visitors to Nambour.
- Nambour gets to tell it's story
- Linkages to Nambour's Historical Precinct and the recent past.
- A key element of Nambour Activation Plan.
- Businesses will leverage off a key tourist attraction.
- Presents opportunities to Nambour.

The Plan

We have borrowed heavily from the *Feasibility Analysis of the Nambour Heritage Tramway (R0300001) by C Change: October 2014.*

TNT Co have adopted a financial model based on the following:

- One Tram operating on a six day service, 8.00am to 6.00pm with an 'each way trip' interval of 30 minutes with a capacity to carry 28 passengers. Running times, days of operation and the type of service will be refined as the service matures.
- The advice and guidance of other Heritage and Tourist Rail operators has been sought and has been utilised when crafting this plan.

Assumptions are:

- Reduced land acquisition costs through a community lease
- Volunteer labour for ongoing operations and maintenance. Maintenance will include building maintenance as well as the Tram maintenance. Both tram & building are new and volunteers and working-bees will minimise this expense. We planned for an 'all volunteer' labour force for the start of operations. This is not unusual in the early days of heritage/tourist railways.
- We expect to have a manager/safety officer paid at ½ FTE.
- Gold coin ride ($2 adults, $1 school students, children, concession & seniors)
- Assumed 30% utilisation. Other heritage/tourist railways we have contacted have quoted between 65-85% utilisation. They have been operating for some time but their "bums on seats" numbers have remained remarkably steady. We decided on a 'worst case' number so halved their low number.

- Sale of annual passes, additional merchandise and sponsorship arrangements will add significantly to revenue.

- Other funds will be raised via:

    - Corporate sponsorship:
      We have to date received $28,180 from corporate donation and have strong indications from the business community that they see great benefits in being involved, long term, with the project. There are many opportunities for business to leverage off the presence of the Tram through Nambour and to interlink their particular customer base with its operation. We would expect sponsorship to increase as the project gains more traction and the public can see some on ground progress.

    - Community Funding:
      The current two streams of community funding come from the highly successful Tramfest which has raised, to date – 30/12/2016, $60,058.12 and community coin donation which has raised $10,050.10. Considering that the funding effort has only been underway for 12 months we believe it shows a strong level of support and community buy-in.

    - Grant applications:
      We have secured $500,000.00 from the National Stronger Regions Fund. We have also received $35,000 from the Gaming Fund for design and engineering work on the Tram.
      Our application for $300,000.00 from a State Tourism Infrastructure Grant has been upgraded and re-submitted. There are a number of additional opportunities for grant funding that have been identified.

    - Donations:
      TNT Co has Deductible Gift Recipient status. We expect this area to be developed substantially.

    - Crowd Funding:
      This trigger will be pulled to coincide with a major 'Tramway' milestone and will source further financial assistance from a national and international community. Crowd funding will be used as a marketing tool as well as a fundraising tool.

    - Lottery/Art Union:
      To be explored.

As is the nature of any Business Plan, a certain amount of flexibility and fluidity has been accommodated and provided for. This Plan is expected to develop and evolve, it is not a rigid structure. Opportunities, differing needs, and the unforeseen, will require a high degree of flexibility in effort, energies and management in response.

The capacity to implement this plan and to respond and evolve is well within the makeup of TNT Co board which has a mix of professional experience and expertise.

It's been done before (circa 1928), we can do it again!

Capacity to implement: Key personnel and experience

Paul Moriarty
Director, Nambour Tramway Company
Paul Moriarty is a recently retired professional consultant. Prior to his retirement he ran a management and marketing consultancy for more than 20 years, assisting clients in the public, private and not-for-profit sectors across Australia and South East Asia.

Paul has extensive experience devising and delivering management strategies, Marketing plans, Quality Assurance programs, and staff recruitment and training programs. Additionally, Paul has delivered dozens of successful media launches and advertising campaigns. He also has significant international business experience, especially in Singapore and Hong Kong.

Paul has also worked with volunteers across various endeavours over the past decade. The most notable of these involved recruiting, training and managing 85 volunteers for a community information centre. Paul has completed training courses in recruiting, managing, training and retaining volunteers through Volunteering Queensland.

Paul holds a Bachelor of Management from Sydney University and in 2001 was awarded a Centenary Medal for his services to international relations.

Peter Clark
Director, Nambour Tramway Company
Peter Clark is a registered commercial and residential builder with 35 years' experience as a qualified tradesman. Peter is also a business owner, manager and board member.

As a builder, Peter has undertaken dozens of commercial and residential projects throughout the Nambour region, with a particular passion for construction and

renovation projects that increase the amenity and appeal of Nambour's central business district.

Until recently, Peter and his wife owned a retail business in Nambour's main street, which they established in 1987 and sold in January 2016.

Peter has lived and worked in Nambour for more than 50 years. He is a recognised community leader, having served the Nambour community for decades through the Chamber of Commerce, Scouts, Rotaract, Jaycees, Rotary, Nambour Futures, Nambour Festivals Inc. and Nambour Alliance.

During his time volunteering for Nambour's community organisations, Peter has spearheaded (or been a key contributor) to some significant projects including:

- The redevelopment and ongoing operation of the Rotary Food Stall (at the Sunshine Coast Showgrounds, Nambour;
- The construction of the Centenary of Federation Clock Tower and Fountain in Nambour's main street, for which Peter also donated his labour; and
- In the early 2000s during his time as President of the Nambour Rotary Club, Peter secured land for, and then helped to oversee the construction of, the Hear and Say Centre Sunshine Coast (Nambour). This is now a vital piece of infrastructure for the Sunshine Coast's deaf community.

Peter is a Director of Sundale, a not-for-profit aged care provider headquartered in Nambour that has 12 facilities, 525 staff and an annual turnover of more than $47 million. Peter was previously a voluntary Board Member of Nambour Alliance from 2008-2016.

Peter is a member of the Australian Institute of Company Directors (AICD).

Kristen Beckhaus
Director, Nambour Tramway Company
Kristen Beckhaus is a qualified solicitor and the Director at Beckhaus Legal.

Kristen was admitted to practice law in 2004 and has worked in both the public and private sectors. She commenced her legal career with the Office of the Director of Public Prosecutions in Beenleigh, Queensland as a law clerk and then a prosecutor.

In 2006 Kristen joined H Drakos & Company in Brisbane and had carriage of numerous different matters including civil and commercial litigation, criminal matters and estates.

Before practising law, Kristen worked in marketing roles in the IT sector in Australia and abroad.

Kristen's professional qualifications include:

- Admitted as a Solicitor of the Supreme Court of Queensland
- Admitted as a Solicitor of the Supreme Court of NSW

- Admitted as a Solicitor in the High Court of Australia
- College of Law Course
- Bachelor of Laws from the University of NSW
- Bachelor of Commerce from the University of NSW.

Outside of the office, Kristen enjoys running, swimming, going to the horse races and spending time with family and friends. She is a member of the Sunshine Coast Law Association, Queensland Gallery of Modern Art, Gympie Turf Club, Lazy Runner Club, Brisbane Royal Show and the Royal Agricultural Society of NSW.

Ron King
Director, Nambour Tramway Company
Ron King is an IT professional and business owner, who has established and run two successful businesses and managed and delivered large projects in Australia and Europe.

Ron is the owner of Wilenco Pty Ltd, a respected equipment supplier and service provider within the digital printing industry in Australia. He founded Wilenco in 1984, in anticipation of the IT developments that were poised to revolutionise the signage and graphics industries worldwide.

In the late 1980s Ron formed an association with several key industry suppliers to develop and promote Sign Shows in Australia. While Ron is no longer involved directly, this has developed and grown to become Visual Impact Sign & Digital Print Exhibitions, hosting several major trade exhibitions annually.

In 2002 Ron was asked by Remark International BV to assess their IT systems. After undertaking a three week assessment at their head office in Amsterdam, The Netherlands, Ron was contracted to complete a €2 million project to develop new software, install new IT hardware and manage their IT requirements globally. The project and ongoing support were managed successfully, with Ron's involvement with Remark continuing until 2009. The software and systems developed are still in use.

Prior to establishing Wilenco, Ron founded Sewplus in 1978, an importing and Distribution Company providing supplies to the craft and home sewing industry in Australia. Sewplus sourced products globally and distributed nationally to retailers, department stores and manufacturers. Ron sold Sewplus in 1995 to concentrate on Wilenco.

Ron relocated from Sydney to the Sunshine Coast in 2001. He has strong local, roots with both family and his business located in the region.

Rhonda Billett-Haire
Board Member, Nambour Tramway Company
Rhonda Billett-Haire is a Sunshine Coast Business Owner of Uptown Hair Studio and Ocean Nomad Australia. Rhonda has been self-employed for some 20 or more years and prides herself on being an active member of the local Sunshine Coast community. Rhonda is Trade qualified and has expertise in Marketing and Social Media engagement.

Rhonda is a savvy business leader, and has held roles on various boards such as Nambour Alliance, Sunshine Coast Business Awards and Nambour Tram Way. Her business professionalism was acknowledged with her business being inducted into the Sunshine Coast business Awards Hall of Fame after winning 3 awards for her commitment to business profitability and success in the region. Rhonda has also been awarded with the Young Business Leader of the Year Award back in 2005. Rhonda's leadership and ability to train others is evident with her business involved with the Queensland Training Awards, leading the youth into positive employment outcomes.

Rhonda is a very connected professional, always with an open ear in the great community for the prosperity and future of the Sunshine Coast.

Key Advisory Personnel

Phil Barker
Director, Rail Safety Consulting Australia
Phil Barker has worked in the rail industry for over 35 years and has wide-ranging experience in the assessment and implementation of railway operations safety management systems and operating practices. His areas of specialisation include occurrence investigation and Exceeded Limit of Authority (SPAD) management.

Previous roles held include:

- Chief Accident Investigator, Saudi Railways Commission;
- Director, Rail Safety Regulation, Queensland Department of Transport;
- General Manager Safety - Rail, Adani Mining;
- Rail Business Manager and Principal Consultant, Halcrow Ltd;
- Senior Rail Accident Investigator, Australian Transport Safety Bureau,
- Train Crewing Manager, Queensland Rail; and
- Safeworking Superintendent at Queensland Rail, a role which he held for 25 years.

This experience is supported by formal qualifications including a Master's Degree in Rail Operations Management (with Distinction) from Central Queensland University,

an Advanced Diploma in OH&S Management, a Diploma of Transport Safety Investigation, a Diploma of Government (Investigation), an ATSB Human Factors in Transport Investigations Certificate, and a Certificate IV Total Quality Management. Phillip also holds a current Licence to Perform High Risk Work in Stream Boiler and Reciprocating Steam Engine.

Phillip has published a number of rail operations safety related articles in various industry journals and has received the Queensland Rail CEO's Certificate of Commendation for innovation.

Phil is a Fellow of the Institution of Railway Operators, Fellow of the Chartered Professional Member Safety Institute Australia and a Registered Safety Practitioner, Australia. He is also a Certified Generalist OHS Practitioner, and an Associate Fellow of the Australian Institute of Management (AIM).

Trevor Smith Dip Arch (QUT) PHF
Greenway Architects

Rod Wilkins BSc (Hons)
Quantity Surveyor/Cost Planner/Estimator/Project Manager

Christine Perren CPA
SDE Accountants

Rilla Kerr
Administration

Friends of the Tram: Volunteer Skills Audit

TNT Co has 23 registered volunteers on its books with specific skills in the areas of:

Architect, Art, Catering, Electronics, Engineering, Graphic Design, Guide, Heritage,

Marketing, Mechanic, Murals, Music, PR, Rail Operations (light), Rail Safety,

Safety (Workplace), Woodwork.

TNT Co also has 40 registered volunteers on its books with "anything we can do to help" skills.

In conclusion

This 5 year journey has continued to attract local, national and international interest. It has the unwavering support of a group of volunteers who can see the long-term benefits of this, big picture project for Nambour and the whole region. They carry

with them the attitude of 'whatever it takes' to see all three stages of the project reach fruition.

Our position remains unchanged from our initial presentation to Council, that –

- The business model we support is based on the predominant use of volunteers for the day to day operation of the Tramway, our Visitor Information Centre and building and vehicle maintenance.
- Donations of material and labour should be a factor in the construction of the Terminus building.
- By allowing those who wish to be part the construction process, we bring the whole community along for the journey and build strong community ownership.
- That the property situated at 28 Mill Street was one that council suggested, and offered us as the best site, we agree.
- The use of 28 Mill Street relieves the need for land acquisitions beside the Mill Cottage on the corner of Mill Street and Mill Lane and the Eastern, Aldi end to house and maintain the vehicle.
- This property has, since the early 70's, been a community use as a day care facility, it was originally built by the community as the first child care facility on the Sunshine Coast.
- We believe a community lease on this land is a fair and reasonable request, given that the substantial financial and physical input by the community will sit on council owned land and remain a council asset.

We ask that your deliberations give the whole project the dignity it deserves, the position it seeks and the best possible long term future.

THE NAMBOUR TRAMWAY COMPANY LTD
SUMMARY OF SCENARIO

Scenario relates to the following:

Location of Terminus	28 Mill St Nambour
Built by TNTCo	Cost $799,982
Lease of land from council	Community Rate

THE NAMBOUR TRAMWAY COMPANY LTD
PROJECTED CASHFLOW STATEMENT
NAMBOUR HERITAGE TRAMWAY PROJECT

OPERATING FUND	NOTE	Yr1 $	Yr2 $	Yr3 $	Yr4 $	Yr5 $	Yr6 $	Yr7 $	Yr8 $	Yr9 $	Yr10 $	Yr11 $
pening Balance of Operating Fund		*99,401*	*122,938*	*142,498*	*162,965*	*185,170*	*206,841*	*229,457*	*253,898*	*276,855*	*300,275*	*326,603*
evenues												
Daily Ticketing		32,506	32,506	32,506	33,676	33,676	33,676	34,879	34,879	34,879	36,127	36,127
Annual passes		30,000	30,000	30,000	30,900	30,900	30,900	31,850	31,850	31,850	32,805	32,805
Merchandising/Shopper Dockets		5,500	8,000	8,500	8,500	8,500	10,000	10,000	10,000	10,000	10,000	10,000
Advertising/Sponsorship		28,500	28,500	28,500	29,400	29,400	29,400	30,280	30,280	30,280	31,200	31,200
Tramfest		25,000	25,000	25,000	25,900	25,900	25,900	26,825	26,825	26,825	27,785	27,785
Interest Income	5	2,982	3,688	4,275	4,889	5,555	6,205	6,884	7,617	8,306	9,008	9,798
otal Revenues	10	*124,488*	*127,694*	*128,781*	*133,265*	*133,931*	*136,081*	*140,717*	*141,451*	*142,139*	*146,925*	*147,715*
perating Costs												
Labour		45,000	45,000	45,000	46,350	46,350	46,350	47,740	47,740	47,740	49,175	49,175
Utilities		4,000	4,000	4,000	4,120	4,120	4,120	4,244	4,244	4,244	4,370	4,370
Rail Accreditation		-	-	-	-	-	-	-	-	-	-	-
Security		2,700	2,700	2,700	2,781	2,781	2,781	2,865	2,865	2,865	2,950	2,950
Promotions		20,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000	10,000	10,000	10,000
Maintenance		4,000	5,000	5,000	6,000	6,000	6,000	8,000	9,000	7,000	7,000	20,000
Insurance		4,000	4,120	4,235	4,362	4,492	4,627	4,765	4,908	5,055	5,206	5,362
Lease of Terminus Land	7	250	254	258	261	265	269	273	277	282	286	290
Workcover Insurance		2,000	2,060	2,122	2,185	2,251	2,319	2,388	2,460	2,534	2,610	2,688
Sundries		4,000	2,000	2,000	2,000	2,000	3,000	2,000	2,000	2,000	2,000	5,000
otal Operating Costs	9	*85,950*	*73,134*	*73,314*	*76,060*	*76,259*	*77,466*	*80,275*	*81,494*	*81,719*	*83,596*	*99,835*
let Annual Surplus		*38,538*	*54,560*	*55,466*	*57,205*	*57,672*	*58,615*	*60,442*	*59,956*	*60,420*	*63,329*	*47,880*
Initial setup costs		15,000										
Less transfer to Sinking Fund		-	10,000	10,000	10,000	11,000	11,000	11,000	12,000	12,000	12,000	14,000
Less transfer to Future Fund		-	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000
losing Balance of Operating Fund		*122,938*	*142,498*	*162,965*	*185,170*	*206,841*	*229,457*	*253,898*	*276,855*	*300,275*	*326,603*	*335,483*

THE NAMBOUR TRAMWAY GROUP LTD
PROJECTED CASHFLOW STATEMENT (SCENARIO 3)
NAMBOUR HERITAGE TRAMWAY PROJECT

SINKING FUND	NOTE	Yr1 $	Yr2 $	Yr3 $	Yr4 $	Yr5 $	Yr6 $	Yr7 $	Yr8 $	Yr9 $	Yr10 $	Yr11 $
Opening Balance of Sinking Fund		*-*	*-*	*10,000*	*20,300*	*30,909*	*42,836*	*55,121*	*67,775*	*81,808*	*96,262*	*111,150*
Transfer from Operating Fund		-	10,000	10,000	10,000	11,000	11,000	11,000	12,000	12,000	12,000	14,000
Council Funding		1,500,000										
Initial Funding	6	601,704	-	-	-	-	-	-	-	-	-	-
Interest Income	5	-	-	300	609	927	1,285	1,654	2,033	2,454	2,888	3,335
Total Inflows		*2,101,704*	*10,000*	*10,300*	*10,609*	*11,927*	*12,285*	*12,654*	*14,033*	*14,454*	*14,888*	*17,335*
Capital Costs	8	2,101,704	-	-	-	-	-	-	-	-	-	-
Tram Overhauls	3	-	-	-	-	-	-	-	-	-	-	98,285
Building Overhauls	3	-	-	-	-	-	-	-	-	-	-	33,598
Total Outflows		*2,101,704*	*-*	*-*	*-*	*-*	*-*	*-*	*-*	*-*	*-*	*131,883*
Closing Balance of Sinking Fund		*-*	*10,000*	*20,300*	*30,909*	*42,836*	*55,121*	*67,775*	*81,808*	*96,262*	*111,150*	*(3,398*

THE NAMBOUR TRAMWAY COMPANY LTD
PROJECTED CASHFLOW STATEMENT (SCENARIO 3)
NAMBOUR HERITAGE TRAMWAY PROJECT

FUTURE FUND	NOTE	Yr1 $	Yr2 $	Yr3 $	Yr4 $	Yr5 $	Yr6 $	Yr7 $	Yr8 $	Yr9 $	Yr10 $	Yr11 $
Opening Balance of Future Fund		-	-	*25,000*	*50,750*	*77,273*	*104,591*	*132,728*	*161,710*	*191,562*	*222,308*	*253,978*
Transfer from Operating Fund		-	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000
Interest Income	5	-	-	750	1,523	2,318	3,138	3,982	4,851	5,747	6,669	7,619
Total Inflows		-	*25,000*	*25,750*	*26,523*	*27,318*	*28,138*	*28,982*	*29,851*	*30,747*	*31,669*	*32,619*
Total Outflows	4	-	-	-	-	-	-	-	-	-	-	-
Closing Balance of Future Fund		-	*25,000*	*50,750*	*77,273*	*104,591*	*132,728*	*161,710*	*191,562*	*222,308*	*253,978*	*286,597*

THE NAMBOUR TRAMWAY COMPANY LTD
NAMBOUR HERITAGE TRAMWAY PROJECT

NOTE 1 - STRUCTURE

- The Nambour Heritage Tramway Company Ltd is structured as a company limited by guarantee.
- The Company is registered as a charity and deductible gift recipient.

NOTE 2 - GST AND PAYG WITHHOLDING

- We have assumed for simplicity that any commitments will be paid monthly when incurred.

NOTE 3 - SINKING FUND EXPENDITURE

Assumptions

- Operated by The Nambour Tramway Company Ltd
- Operating hours factored around a workforce of 0.5 FTE worker
- Two persons operating tram at all times
- Kiosk at Western Terminus manned by volunteers
- Low maintenance vehicle
- Low infrastructure maintenance (track, buildings, depots)
- Vehicle has an overhaul every 10 years including a full replacement of the batteries
- Revenue amounts and increases have been adopted as provided by The Nambour Tramway Company Ltd

Item	Unit	Quantity	Rate	Annual Cost	Comment
Current quote for periodic overhauls (included in capital costs)					
Tram	Overhaul every 10 years			73,133	£36,750 (future exch 1.99 assumed)
Buildings - repaint etc.	Every 10 years			25,000	
Future Cost of Periodic Overhauls (indexed at 3% CPI)					
Tram				98,285	
Buildings - repaint etc.				33,598	

NOTE 4 - FUTURE FUND EXPENDITURE

Future Fund is to be used for:

- The on street beautification of Howard Street
- Track extensions to the Nambour Show Grounds

NOTE 5 - INVESTMENT EARNINGS

Assumed rate of interest on investment earnings 3%

NOTE 6 - FUNDING SOURCES

Initial Funding Sources:

- Corporate sponsorship
- Community funding
- Grant applications
- Council and non-council contributions
- Philanthropic donations

For the purpose of this cashflow statement the monetary value of these different funding sources has not been dissected.
Various funding scenarios have been modelled by The Nambour Tramway Company Ltd. This modelling has not been included as part of this cashflow statement.

NOTE 7 - LEASE OF TERMINUS LAND

Market Value of Land	N/A
Lease Rate	Community
Lease Cost per Year	$250 annual increase by CPI

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THE NAMBOUR TRAMWAY COMPANY LTD
NOTE 8 - CAPITAL EXPENDITURE
NAMBOUR HERITAGE TRAMWAY PROJECT

Features

Route length	1 km
Terminus stations	Single side platform (15 metres long), awning weather cover, lighting, signage Mill Lane terminus include manned ticket office/memorabilia shop, with staff amenities
Intermediate stops	Assume off road pavement only. Need signage and pavement markings only
Depot	Includes workshop, office, crew amenities
Track standard	Use pw rail end turnouts (20 or 31kg/m rail on new concrete ties)
Turnouts	Assume 31 kg/m rail (1 in 7 or 8) and 2nd hand manual operated points are available
Vehicle	Single vehicle (610 mm gauge). Double ended driving stations, battery powered
Max speed	11 kph

Item	Unit	Quantity	Rate	*Base Scheme* Amount		Comment
Property acquisition						
28 Mill Street (terminus site) Lease costs	Item			5,000		Lease costs
			Sub Total	**5,000**		
Heritage Tram						
Supply	Item			488,720		Severn Lamb budget quote full tram £298,000 @ exchange rate 1.64
Installation, Commissioning and Training	Item			22,632		Severn Lamb budget quote £13,800 @ exchange rate 1.64
Transport	Item			15,580		Severn Lamb budget quote - Herefordshire to Nambour £9,500 @ exchange rate 1.64
Procurement support for tram acquisition			4%	20,172		
Contingency on tram acquisition			5%	26,224		Includes scope/price contingency and ERV
			Sub Total	**573,328**		
Track						
New embedded track (in roadway, terminus platforms and in depot building)	metres	145	1000	145,000		Assumes 2nd hand rail on concrete slab with bitumen infill in station areas
Minor rehab/clean existing	Item			5,000		
Demolish existing redundant track & reinstate road	Item			15,000		
			Sub Total	**165,000**		
Extra for loco operation						
Turnouts	No.	5	30000	-		Assume 2nd hand turnouts on new timber ties>new quote "$70k to supply only. Induded in cost of western terminus.
Extra track	Item	240	500	120,000		Embedded thru station platform areas
			Sub Total	**120,000**		
Stations - Heritage themed						
Terminus station - Mill Lane end	Item			718,397		Includes kiosk and staff toilet. Constructed with in-kind labour and materials.
Depot end	Item	1		23,700		DDA Compliant stop (to be designed)
Intermediate stop	Item	1		23,700		DDA Compliant stop (to be designed)
Site services	Item			10,000		Power, water, sewage
Fencing - security (2.1m chain wire)	metres	170	50	8,500		Compound 70 x 40 m
Security system	Item	1		5,600		Alarm and CCTV
Solar power battery charging	Item	1		8,000		
Building fit-out tools, jacks	Item	1		10,000		
			Sub Totals	**807,897**		
Civil Works - Mill Lane						
Service modifications	Item	1		5,000		
Drainage modifications	Item	1		-		
Road/kerbing modifications	Item	1		4,000		
Relocation of car parking and one laning of Mill Lane beyond round-a-bout.	Item	1		176,800		Based on SCC prelim plans and estimate
			Sub Totals	**185,800**		
Miscellaneous						
Route signage	Item			10,000		
Flashing light warning lights	Item			30,000		Located where tramway crosses one lane of traffic in Howard St and Mill St
Traffic Signals activation	Item			80,000		To cover both Currie St and Ann St intersections
			Sub Totals	**120,000**		
			SUB-TOTAL	**1,977,025**		
Design				-		Included in costings or Provided on a volunteer basis
Project management/supervision				-		Included in costings or Provided on a volunteer basis
Safety Accreditation	Item			6,000		Safety Management System
Rail Accreditation Application Fee				5,000		Payable to TMR Rail Safety Regulator (2014 fee $1085)
Contingency		5.75%		113,679		Some contingencies already included in costings
			TOTAL	**2,101,704**		

Western Terminus Estimate
commercial vs utilisation of in-kind contributions

Trade	Full Cost $	**Revised Cost with Volunteer Contributions $
Preliminaries	85,000	85,000
Substructure	115,885	110,885
Frame	139,315	177,205
Roof	82,521	incl in Frame
External Walls	90,464	incl in Frame
Windows and External Doors	27,665	incl in Frame
Internal Walls	13,156	13,156
Internal Doors	4,411	4,411
Wall Finishes	20,902	20,901
Floor Finishes	24,511	19,510
Ceiling finishes	12,172	12,172
Fixtures and Fittings	14,465	14,465
Painting	15,307	15,307
Hydraulics	74,690	74,690
Electrical and Dry Fire Services	84,000	75,000
Mechanical Services	17,435	15,435
External Works	100,848	85,848
Contingency	106,000	96,000
Total Cost excl GST	1,088,742	799,902
Adjusted from 358m2 to 317m2 on a m2 rate for estimating purposes	977,708	718,397

THE NAMBOUR TRAMWAY COMPANY LTD

NOTE 9 - OPERATIONAL EXPENDITURE

NAMBOUR HERITAGE TRAMWAY PROJECT

Assumptions

- Operated by The Nambour Tramway Company Ltd
- Two persons operating tram at all times
- Kiosk at Western Terminus manned by volunteers
- Low maintenance vehicle
- Low infrastructure maintenance (track, buildings, depots)
- Vehicle has an overhaul every 10 years including a full replacement of the batteries
- Revenue amounts and increases have been adopted as provided by The Nambour Tramway Company Ltd

Item	Unit	Quantity	Rate	Annual Cost	Comment
Operating			**Budget Estimate**		
Labour					includes on-costs
Manager	FTE	1	45000	45,000	
Staff	FTE	0	0	-	All staff volunteers
Utilities	Item			4,000	Power, water supply/sewerage, telecoms
Rail Accreditation	Item			-	Nil for revenue <$250k. $6.5k for revenue>$250k
Security				2,700	2 nightly drive-by patrols incl lock up check $225.61 p/mth
Promotions				10,000	Facebook, twitter ($25k first year)
			Operating Cost	**61,700**	
Maintenance					
Tram				2,000	£36,750 (future exch 1.99 assumed)
Depots/Stations				1,000	Repairs, graffiti removal
Infrastructure				1,000	Minor only expected
		Annual Maintenance Costs		**4,000**	
Current quote for periodic overhauls (included in capital costs)					
Tram	Overhaul every 10 years			73,133	£36,750 (future exch 1.99 assumed)
Buildings - repaint etc.	Every 10 years			25,000	
Future Cost of Periodic Overhauls (indexed at 3% CPI)					
Tram				98,285	
Buildings - repaint etc.				33,598	

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THE NAMBOUR TRAMWAY COMPANY LTD

NOTE 10 - INCOME PROJECTION

NAMBOUR HERITAGE TRAMWAY PROJECT

Spreadsheet for tram movements, passenger numbers and fare revenue, working on a capacity of 28
The below chart is designed to stimulate a realistic estimate of usage and income to provide the committee with workable figures for budgeting and grant submissions.
*** I see a potential for relieving the traffic congestion around Nambour State High by utilising the tram and pedestrian links between Howard Street and the School.
*** Other sources of revenue could be monthly and yearly tickets, as well as off peak tickets. The funds would be received in advance and refreshed each month or year.

Day	Station	Arrival	Departure	Full Fare	Concession	Child	TOTAL	
Monday to Friday	28 Mill St		8.10am	5	2	3		
	Town Cnr	8.15am	8.20am					
	Aldi	8.25am	8.40am	4	2	2		
	Town Cnr	8.45am	8.50am					
	28 Mill St	9.00am	9.30am	3	1	1		
	Town Cnr	9.35am	9.40am					
	Aldi	9.45am	10.15am	4	2	2		
	Town Cnr	10.20am	10.25am					
	28 Mill St	10.30am	11.00am	5	2	3		
	Town Cnr	11.05am	11.10am					
	Aldi	11.15am	11.45am	5	2	3		
	Town Cnr	11.50am	11.55am					
	28 Mill St	12 noon	12.30pm	2	1	1		
	Town Cnr	12.35pm	12.40pm					
	Aldi	12.45pm	1.45pm	2	1	1		
	Town Cnr	1.50pm	1.55pm					
	28 Mill St	2.00pm	2.30pm	4	2	2		
	Town Cnr	2.35pm	2.40pm					
	Aldi	2.45pm	2.50pm	5	2	2		
	Town Cnr	2.55pm	3.00pm					
	28 Mill St	3.05pm	3.10pm	7	4	4		
	Town Cnr	3.15pm	3.20pm					
	Aldi	3.25pm	4.30pm	2	1	1		
	Town Cnr	4.35pm	4.40pm					
	28 Mill St	4.45pm						
Per Day				49	25	26		
Per week				246	123	129		
Saturday	28 Mill St		9.00am	4	2	2		
	Town Cnr	9.05am	9.10am					
	Aldi	9.15am	10.00am	4	2	2		
	Town Cnr	10.05am	10.00am					
	28 Mill St	10.05am	11.00am	8	4	4		
	Town Cnr	11.05am	11.10am					
	Aldi	11.15am	11.20am	8	4	4		
	Town Cnr	11.25am	11.30am					
	28 Mill St	11.35am	12.30pm	3	2	2		
	Town Cnr	12.35pm	12.40pm					
	Aldi	12.45pm	2.00pm	2	1	1		
	Town Cnr	2.05pm	2.10pm					
	28 Mill St	2.15pm						
Total over a 6 day period				**274**	**137**	**143**	*554.4*	
One-way fare cost				$ 2.00	$ 1.00	$ 1.00		
Weekly takings based on a one-way fare				$ 548.40	$ 138.40	$ 143.80		
Total annual fare income				$ 28,516.80	$ 7,196.80	$ 7,477.60	$ 43,191.20	
Discount Applied to Allow for people using annual passes							$ 10,685.50	24.74%
							$ 32,505.70	
Annual Passes - $150 x 200							$ 30,000.00	
Shopper Docket revenue							$ 5,500.00	
Sponsorship/advertising revenue							$ 28,500.00	
TOTAL ANNUAL REVENUE							**$ 96,505.70**	

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