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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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*

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 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.*

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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

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.

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.

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.

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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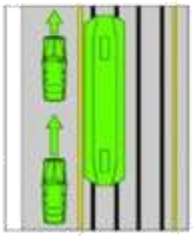
There are definitions also for:

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

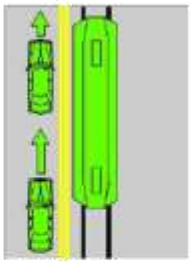
tram stop - means a place on a road at which there is a sign indicating that trams will stop to enable people to get on or off.

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

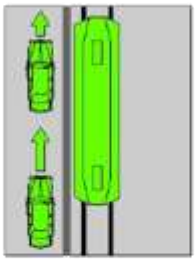

Tramway with separation kerb

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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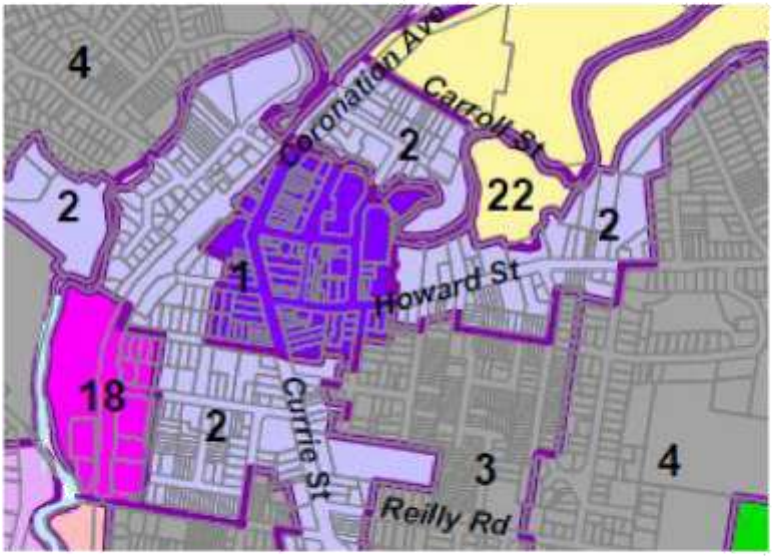
Maroochy Plan 2000

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.



Precincts

1. Nambour Central (Town Centre Core)
2. Nambour Central Frame (Town Centre Frame).
3. Nambour Village Residential (Mixed Housing)
4. Nambour Central Residential (Mixed Housing)
18. Moreton Mill (Core Industry)
22. Nambour Showground (Special Purposes)

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**

Residential Zones Category
- Low Density Residential Zone
- Precinct LDR1 (Dual Occupancy Area)
- Medium Density Residential Zone
- High Density Residential Zone
- Tourist Accommodation Zone

Centre Zones Category
- Principal Centre Zone
- Major Centre Zone
- District Centre Zone
- Local Centre Zone

Recreation Zones Category
- Sport and Recreation Zone
- Open Space Zone

Environmental Zones Category
- Environmental Management and Conservation Zone

Industry Zones Category
- Low Impact Industry Zone
- Medium Impact Industry Zone
- High Impact Industry Zone
- Waterfront and Marine Industry Zone

Other Zones Category
- Community Facilities Zone
- Emerging Community Zone
- Limited Development (Constrained Land) Zone
- Rural Zone
- Precinct RUR (Meridan Plains Extractive Resource Area)
- Rural Residential Zone
- Specialised Centre Zone
- Tourism Area Zone

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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

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.

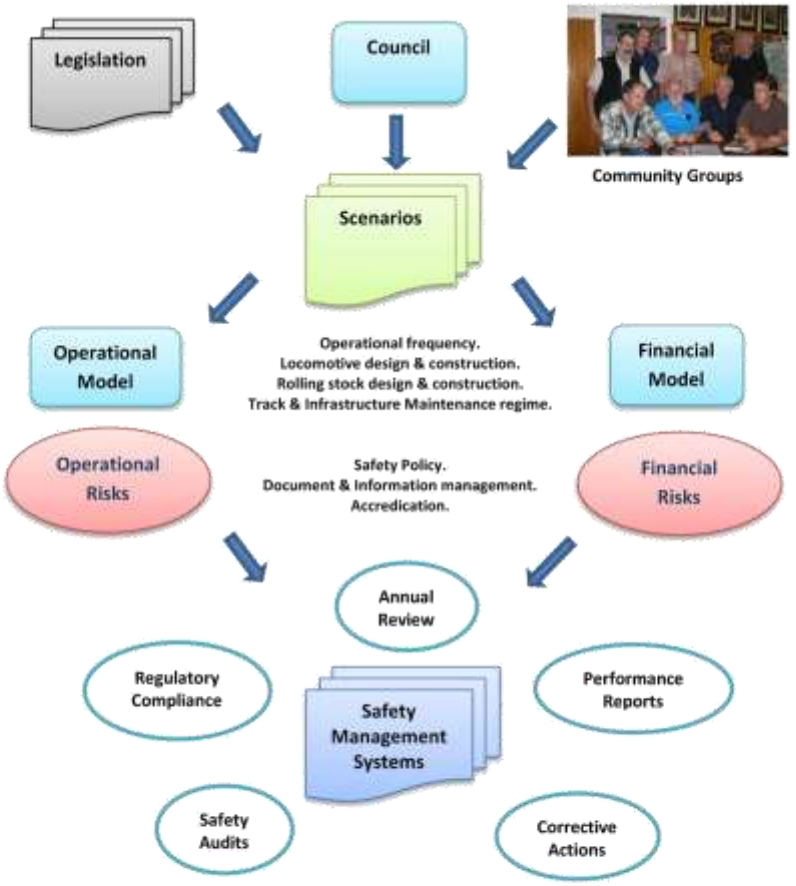

Figure 5 Governance relationships

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 [5] above. Additionally, may include purpose built "tram" on regular timetable.

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:

- 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.

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

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

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

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Heritage Collection, Nambour.

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

Internet References & Links

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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