The Byron Line

Track plus Trail: from Billinudgel to Bangalow
Multiple use of a section of the Casino/Murwillumbah Rail Line
To serve the Byron Shire community

Proposal
About this document

This document serves the following purposes

1. Collaborative Visioning and Brainstorming Tool – to flesh out the benefits of the proposal
2. Communication tool – to communicate what benefits The Byron Line offers to various stakeholders and the wider community
3. Planning tool – to outline what needs to be done to bring it to life and to provide steps forward: from funding a feasibility report to developing a management model, to finally, utilising each section of the corridor

This document is prepared by:
Simon Richardson, Mayor, Byron Shire Council (principal author). Other contributing co-authors include: Amy Phillips and Chris Harris, with editing by Peter Gough,

NOTE: Much of this document has been informed by NRRT’s Regional Tourism Infrastructure Fund EOI Business Case and Project Proposal. Though the funding component of the NRRT proposal is uncertain, there is certainly some great work in these documents: the economic, tourism and health and wellbeing aspects of the rail trail and activation of the corridor is thoroughly explored and key assumptions underpinning the value of this project are valid.
# Table of Contents

<table>
<thead>
<tr>
<th>Subject</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Executive Summary</td>
<td>5</td>
</tr>
<tr>
<td>1.1 Over-view</td>
<td>5</td>
</tr>
<tr>
<td>1.2 Usage of the line</td>
<td>6</td>
</tr>
<tr>
<td>1.3 Economic and social benefits</td>
<td>6</td>
</tr>
<tr>
<td>1.4 Integration with existing planning and decision making</td>
<td>7</td>
</tr>
<tr>
<td>1.5 Management of the line</td>
<td>7</td>
</tr>
<tr>
<td>2. The Proposal</td>
<td>8</td>
</tr>
<tr>
<td>2.1 Vision</td>
<td>8</td>
</tr>
<tr>
<td>2.2 Objectives</td>
<td>8</td>
</tr>
<tr>
<td>2.3 Outcomes</td>
<td>8</td>
</tr>
<tr>
<td>3. Resolving some key issues</td>
<td>8</td>
</tr>
<tr>
<td>3.1 Use of a partial section of the existing line</td>
<td>8</td>
</tr>
<tr>
<td>3.2 Accessing beyond the corridor</td>
<td>9</td>
</tr>
<tr>
<td>4. The Iconic Rail Corridor (Location, Location, Location)</td>
<td>9</td>
</tr>
<tr>
<td>5. Best of both Worlds</td>
<td>10</td>
</tr>
<tr>
<td>6. Track Based Tourism Uses</td>
<td>10</td>
</tr>
<tr>
<td>6.1 Rail Bikes and other ‘products’</td>
<td>10</td>
</tr>
<tr>
<td>6.2 Light Rail</td>
<td>11</td>
</tr>
<tr>
<td>6.3 Park and Ride</td>
<td>11</td>
</tr>
<tr>
<td>6.4 Trail based Tourism Products</td>
<td>11</td>
</tr>
<tr>
<td>6.4.1 Walking</td>
<td>12</td>
</tr>
<tr>
<td>6.4.2 Cycling</td>
<td>12</td>
</tr>
<tr>
<td>6.5 Public Space Activation</td>
<td>12</td>
</tr>
<tr>
<td>6.5.1 Users: Visitors and Locals</td>
<td>12</td>
</tr>
<tr>
<td>7. Benefits to the region</td>
<td>13</td>
</tr>
<tr>
<td>7.1 Economic</td>
<td>13</td>
</tr>
<tr>
<td>7.1.1 The Byron Line in Motion</td>
<td>13</td>
</tr>
<tr>
<td>7.1.2 Rail Trail</td>
<td>14</td>
</tr>
<tr>
<td>7.1.3 Other (non-cycling) Track Based Products:</td>
<td></td>
</tr>
<tr>
<td>Shuttles, Rail Bikes and Park &amp; Ride</td>
<td>15</td>
</tr>
<tr>
<td>7.1.4 Train stations and immediate surrounds</td>
<td>15</td>
</tr>
<tr>
<td>7.1.5 Ancillary Enterprises</td>
<td>15</td>
</tr>
<tr>
<td>7.2 Expenditure Benefits</td>
<td>16</td>
</tr>
<tr>
<td>7.3 Support for Work Access</td>
<td>16</td>
</tr>
<tr>
<td>7.4 Social</td>
<td>17</td>
</tr>
<tr>
<td>7.5 Health and Wellness</td>
<td>17</td>
</tr>
<tr>
<td>7.6 Environmental</td>
<td>18</td>
</tr>
<tr>
<td>8. Along the Route - benefits to regional communities</td>
<td>19</td>
</tr>
</tbody>
</table>
Executive Summary

1.1 Overview

The Byron Line is a smart solution to a wicked problem. It transforms a disused transport corridor into a space that caters for various new tourism products whilst also providing for a local public transport dividend.

Cycle and walkways, which are problematic to fund, are paid for by complementary commercial shuttle and transport options upon which locals can hitch a consistent and reliable ride.

An incredible opportunity to transform an unused State asset into a wonderful tourism thread that binds the shire, benefiting both visitors and locals and becoming a NSW tourism treasure awaits activation. The Byron Line will be the economic, social and environmental game changer for the Byron Shire.

To use the rail infrastructure between Billinudgel and Bangalow within Byron Shire, for track based tourism shuttle and transport services and a rail trail is underpinned by the understanding that the rest of the corridor can still be used as other Councils, communities and the State government wish and allows for flexibility to weave the trail outside the corridor when beneficial to do so.

To take the first steps along the journey to bring this project to life, this proposal seeks to complete a rail infrastructure study to coincide with a business feasibility study. These two studies will answer the lingering questions of upgrade costs and exact ways the many uses will co-exist; whilst also ascertaining the feasibility of establishing tourism products, in the form of rail based shuttle services and an adjacent rail trail, predominantly utilising the existing rail corridor infrastructure.

The Byron Line is focused solely upon the rail corridor within Byron Shire only. It will however, not impinge on any future possibilities along the whole length of the corridor. Where the width of the rail corridor makes having both a path and rail based track alongside each other impossible, or lighting and signalling systems can be shown to be inadvisable, the rail trail will briefly leave the corridor, re-joining the corridor when most beneficial to do so. This is a great opportunity for the project. Route flexibility should provide even better opportunities and outcomes for a rail trail.

The corridor could not be better designed for future tourism uses if were designed today: at either end, both Bangalow and Billinudgel provide commuter options around peak tourism times and provide perfect length trips for wonderful visitor tours. Mullumbimby, Tyagarah and Sunrise/Belongil break up the journey and connect beautiful coastal landscapes and of course, the NSW tourism jewel and globally iconic hotspot- Byron Bay sits right in the middle.

Already acknowledged by both rail corridor activation advocate groups, Trains On Our Tracks (TOOT) and Northern Rivers Rail Trail (NRRT) as being capable of maintaining multi modal uses, the Byron Line is truly the best of both worlds.
1.2 Usage of the line

The opportunities for the track include all of the following:

- slower, more traditional shuttles services,
- night-time restaurant trams, downhill rail cars,
- provision for a large scale park and ride service
- high yield transporters in times of festivals and events,

As long as there is space within the timetable and safety is guaranteed, many proposals to provide services on the tracks could be considered and added to the mix of uses and services. The whole length would also provide great opportunities for walking trails. Within the walking track length, the Green Line could be a globally known public park and walk. (see 8.1.4)

A cycling path within the corridor or occasionally skirting outside when necessary or to allow for more scenic benefits allows locals and visitors to cycle for fun, fitness or as a new travel experience.

1.3 Economic and social benefits

The Byron Line will benefit the shire and region economically, environmentally and socially. The economic benefits arising from this corridor activation are almost incalculable. The Byron Line will create the foundation for the creation and renewal of tourism products along its’ length- dispersing visitors across the Shire.

Employment benefits from the Byron Line are both direct and indirect. Direct employment benefits include both employment during the construction phase and then attributable to the activities within the corridor and indirect benefits include employment related to the tourism, accommodation and services found outside the corridor.

The Byron Line will capitalise on the greatest need facing the tourism sector in regional Australia- a diversity of tourism products.

The Byron Line will also respond to the greatest need facing the overall economic and social health of regional Australia- suitable public transport availability.

The creative industries, especially the events, festivals and markets sectors, would be massive winners as the Byron Line establishes itself along the corridor, markets, festivals and events abound. Stations could become hubs for both the rail trail and the development of creative and knowledge industry hubs, whilst alongside the Stations, the expansive public spaces provide exceptional opportunities to play host to pop up or regular markets, exhibitions or public performances.

The social benefits of the Byron Line begin before the line becomes operational. By bringing together all stakeholders: residents, business leaders and all levels of government, the community begins to collaborate and unify. It may be that younger people will benefit the most from the Byron Line. Having a regular, cheap transport option and one that can be used
on weekends, nights and across the shire will change the lives of many youth and their parents.

1.4 Integration with existing planning and decision making

The Byron Line clearly illustrates to both the State and Federal Governments that strategic planning is at the forefront of Byron Shire decision-making. When seeking partnerships and support from other bodies, an adherence and commitment to best practice decision-making is crucial.

The Byron Line is borne from the needs; opportunities and benefits found in a myriad of Local, State and Federal Government level strategic planning and policy objectives and priorities.

The users of the Byron Line would be varied and diverse, including: those wishing to attend festivals, events and markets, visitors seeking to utilise a visitor product to experience the wider Shire and its villages and towns, local workers and those locals utilising the shuttle to attend sporting or social commitments would flood the peak hour demand, visitors seeking to utilise the park and ride service, those seeking a walking and cycling experience, including day users of the landscaped and curated walking track- the Green Line and of course, those fit and inspired to use the cycling paths.

1.5 Management of the line

An overarching body will be installed to implement and manage the Byron Line. This body will have the support and trust of the community and the acumen and skills to be able to fulfil the tasks it is given.

It is proposed that a central governance body (i.e a Trust) would be established to manage the Byron Line.

Amongst the many functions of the Trust, vital ones would include:

- construction of the Byron Line and other improvements,
- ensuring appropriate business and commercial activity in both the corridor and beyond, and
- advocating and promoting the Byron Line to communities and markets within the region, NSW, Australia and overseas and to seek and secure business opportunities.

The realisation of the Byron Line will require many stages to success; the process from idea to implementation will be dynamic but determined. It will include firstly, securing a social license.

To this end, a diverse community group- Friends of the Byron Line- should be formed to take carriage of the project until a Trust is established. The Friends of the Byron Line (the Friends) should broaden the project’s support to include formal in principle endorsement with key
Once established, the Friends of the Byron Line should complete a Byron Line Feasibility Report and Business Plan with funding obtained from the key stakeholders listed above, including community financial support. Once the Byron Line is shown to be a viable use of the rail corridor, the State government, working alongside Byron Shire Council and the specifically established Byron Line Trust, will coordinate the overall development as an exemplar project illustrating best practice private-public engagement and partnership outcomes.

2. The Proposal

2.1 Vision

The Byron Line is a smart solution to a wicked problem. It transforms a disused transport corridor into a space that caters for various new tourism products whilst also providing for a local public transport dividend. Financially problematic cycle and walkways are paid for by complementary commercial shuttle and transport options upon which locals can hitch a consistent and reliable ride. An incredible opportunity to transform an unused State asset into a wonderful tourism thread that binds the shire, benefiting both visitors and locals and becoming a NSW tourism treasure awaits activation. The Byron Line will be the economic, social and environmental game changer for the Byron Shire.

2.2 Objectives

To use the rail infrastructure between Billinudgel and Bangalow within Byron Shire, for track based tourism shuttle and transport services and a rail trail. The funds raised by the commercial uses of the track will assist in the funding of the development and maintenance of the line, including the rail trail, and thus, creating a truly sustainable economic model.

2.3 Outcomes

That a state of the rail infrastructure study be completed, along with a business feasibility study, to ascertain the feasibility of establishing tourism products, in the form of rail based shuttle services and an adjacent rail trail, using and within the existing rail corridor infrastructure.

3. Resolving some key issues

This initiative requires a few points of clarity- in effect to identify and embrace the elephants in the room.

3.1 Use of a partial section of the existing line
The Byron Line is focused solely upon the rail corridor within Byron Shire only. It will however, not impinge on any future possibilities along the whole length of the corridor. As it has a multiple use commitment at its core, there should be no reason why these uses cannot be extended, when in some time in the future, regional aspiration is determined. Shuttle, walking and cycling uses successfully complimenting each other will provide the template for further expansion of this model, or any part of it, along the corridor and across other Shires.

3.2 Accessing beyond the corridor

Where the width of the rail corridor makes having both a path and rail based track alongside each other impossible, or lighting and signalling systems can be shown to be inadvisable, the rail trail will briefly leave the corridor, re-joining the corridor when most beneficial to do so.

This is a great opportunity for the project. Route flexibility should provide even better opportunities and outcomes for a rail trail. Though most likely requiring some small land acquisitions, as many hilly sections have deep cuttings to allow easier train travel, they therefore also block some amazing views and vistas that could be enjoyed by cycling and walking up to these higher points just outside the corridor.

Also, an openness to leave the rail corridor could open up increased scenic and wondrous natural experiences- by providing opportunities to explore nature reserves and gorgeous bush land; the rail trail experience is heightened.

Lastly, adjoining land-owners could take advantage of the proximity of the trail and provided more accommodation or cellar door type businesses.

4. The Iconic Rail Corridor

(Location, Location, Location)

Rail corridors and their related infrastructure conjure within us feelings that roads and highways can never compete. Whether it be the nostalgic love of trains, the winding tracks that provide views and glimpses of the natural environment, the experiences we’ve had being alongside other people journeying together or simply the love of our train stations, bridges, and the familiar sounds of bells and horns, a rail corridor allows more than just moving. It allows for our senses to be revitalised and our sense of place to be enriched.

We are incredibly lucky to have a rail corridor link our towns and our beaches to our hinterland. Vitally, it will, as previously described so beautifully, “be an antidote for loneliness” ¹

The corridor could not be better designed for future tourism uses if were designed today: at either end, both Bangalow and Bilinudgel provide commuter options around peak tourism times and provide perfect length trips for wonderful visitor tours. Mullumbimby, Tyagarah and Sunrise/Belongil break up the journey and connect beautiful coastal landscapes and of course, NSW tourism jewel and global iconic hotspot- Byron Bay-sits right in the middle.

¹ http://www.northernriversrailtrail.org.au/benefits/community
5. Best of Both Worlds
Many Uses and Users

Between Billinudgel and Bangalow, there will be many uses within and beside the Byron Line. From the creative and fauna focused Green Line walk, to the light rail shuttles, cycling journeys, tourist experiences and activated spaces along the way, the Byron Line, by incorporating many uses, can provide one of the great tourist products in Australia.

At the same time it will provide locals with jobs, transport and more connected communities. It is already an accepted position of NRRT, as seen in their FAQ:

Q. “Can the Rail Trail co-exist with trains(multi modal)?

A. Yes, the Rail Trail can share the corridor with trains. For example, the state government has asked that the rail shuttle service planned to run from Bayshore Drive to Byron Bay Station to ensure the Rail Trail can operate alongside their train. NRRT are working with the rail shuttle proponents to ensure both projects can successfully share the corridor.”

Its’ position is ‘to support viable rail services.’ This is also an objective of TOOT - to support a multimodal use of the corridor, as, “Bikes, trains, buses, and planes are all part of the system. TOOT has always supported a dual use corridor.”

This proposal seeks to connect the dots of multi modal uses, connect groups inspired by the possibilities within the rail corridor and to create a destination to journey to together.

6. Track Based Tourism Uses

6.1 Rail Bikes and other ‘products’

The proposal is based around utilising the tracks for faster travel experiences that are commercial in nature, so the possible ‘products’ and services are numerous.

Rail Bikes, or other experiences could operate on a complimentary timetable with more traditional rail shuttle services. At night, tramcar restaurants could use the tracks, and festivals could employ many different options to get attendees to and from venues.

As long as there is space within the timetable and safety is guaranteed, many proposals to provide services on the tracks could be considered and added to the mix. There have been already a few local proposals to provide this type of tourism product. Rail Explorers that are already successfully operating in the US, propose to use the rail line from Bangalow to Byron Bay to run a tourist operation using rail bikes. (See Appendix I)

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2 http://www.northernriversrailtrail.org.au/faqs/
3 ibid
4 http://toot.org.au
6.2 Light Rail

Tourist focused light rail or tram services like which already operate around the world, to great effect, could operate across the Byron Line.

With regular timetables and providing incredibly beautiful scenic experiences, travelling to Bangalow or Mullumbimby on a tourist tram will quickly become a mandatory visitor experience.

There have been already a few local proposals to provide this type of tourism product. The North Byron Railcar Shuttle, an additional service for guests of the Elements resort, and available for use by the public, has already gained approval for, a rail shuttle between Bayshore Drive and Byron Bay township.

The North Byron Railcar Shuttle will support the construction of a rail trail beside the rail line with the bridge over Belongil Creek supporting a cantilevered walking and cycling path. The Byron Bay Tramlink has also proposed a heritage tram tourist service linking Mullumbimby to Bangalow.

6.3 Park and Ride

Along the stretch between Tyagarah and Belongil, the Byron Line offers an incredible opportunity to develop and operate a major park and ride service. With a large enough space to cater for huge numbers of day visitor cars, the tourist experience can begin before they even arrive in Byron. Travelling on a tram, behind the dunal system and alongside the gardens and art of the Green Line, the visitor will already be getting into the ‘Byron-vibe’.

Their cars will be off the road, reducing congestion and, therefore, allowing pedestrian zones that will greet them and locals within Byron Bay town centre.

6.4 Trail based Tourism Products

6.4.1 Walking

The entire length of the line could be used to provide a great walking experience.

The Byron Green Line could be a globally known public walk and park. Inspiration for the Green Line comes from the Manhattan’s famous High Line - a 2.33 km long linear park built on an elevated section of a disused New York Central Railroad spur called the West Side Line. Initially predicted to attract 300,000 people, annually, during the year ending September 2014, the High Line received nearly 6 million visitors.  

Sydney, like many other cities are now getting in on the act. Part thoroughfare and city park, a new $15 million Goods Line turns a short ribbon of railway into an elevated walkway that

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links pedestrians between Central Station and Darling Harbour for the first time since the railway was built.  

With its position, nestled behind coastal dunes, opening into expansive public spaces in and around the Byron Train Station and trailing through the Cumbiebin Wetland, this section of the Green Line walking track could celebrate the sub tropical coastal environment, with The Green Line- ‘from the Treehouse to the Roadhouse’ - incorporating a coastal garden, art walk, viewing experiences and gathering places.

6.4.2 Cycling

The Northern Rivers Rail Trail has thoroughly explored the cycling possibilities within this section of the rail corridor.

A cycling path allows for those keen to cycle for fun, fitness or as a travel experience. The path will run within the corridor or, occasionally skirt outside when necessary or to allow for more scenic benefits, .

As part of the Byron Line, a rail trail could, as proposed by NRRT," be part of a new way of thinking about walking and riding and public health and happiness, particularly in the regions. As a valid means of transport, or simply for recreational pleasure, a journey along the rail trail would be safe from traffic and free of exhaust fumes. It would be quiet, interesting, social, comfortable and beautiful and it could inspire the sort of personal changes that people find difficult to make. It may also add impetus to the development of a nationally integrated pedestrian and cycling network."  

6.5 Public Space Activation

Around the stops and stations along the length of the Byron Line, will be opportunities for economic, creative and or social activities. The areas surrounding the train stations at Mullumbimby, Bangalow and Byron Bay are sufficiently wide to lend themselves beautifully for multiple integrated activities.

Whether it be public amphitheatres, market sites, outdoor galleries, passive recreation spaces, retail and hospitality pop ups or just passive open space on which to sit, breathe and celebrate life, these new public spaces could be meccas of renewed activity for local and visitor alike.

6.6 Users: Visitors and Locals

It is the benefits that come from multiple uses along the Byron Line that elevates this project as a game changer for the region. The job creation possibilities that this project offers are obvious and significant. So too are the other ways it could bring communities together.

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8 http://www.northernriversrailtrail.org.au/benefits/overview/
The newly formed ‘Friends of the Green Line’ will curate the art and tend to the native gardens and provide a core framework for connection of supporters and users.

As with every tourism focused tram or shuttle service around the world, the ancillary public transport will benefit the local community who can also use the transport services.

Adults will use the light rail shuttles to commute to work. Children can catch be dropped off at the station by a parent in order to visit a friend, get to sport or find and keep work. Families can jump on board and head to the beach. A clear and major benefit will be in reducing traffic congestion through reduction of car use.

Locals and visitors will enjoy the health benefits of walking and cycling and our villages and towns will be closer and more accessible for locals and visitors.

7. Benefits to the region

7.1 Economic

The economic benefits arising from this corridor activation will be substantial. The Byron Line will create the foundation for the creation and renewal of sustainable tourism along its length - by dispersing visitors across the Shire - rather than the current focus largely on Byron Bay and by reducing both car use and congestion it will create a more pleasant and community focused tourism experience.

The Byron Line will assist in dispersing visitors around the shire, relieving the pressure on Byron Bay, and increasing visitor spending in other communities across the Shire.

Employment benefits from the Byron Line are both direct and indirect. Direct employment benefits include both employment during the construction phase and the ongoing employment attributable to the activities within the corridor. There should be significant indirect benefits including additional employment and increased income for those running tourist activities, accommodation and other services outside the immediate corridor.

The economic stimulation will derive from a variety sources. Benefits will start to flow as soon as development begins, with a significant economic boost during construction but will be ongoing as the Byron Line develops.

7.1.1 The Byron Line in Motion

The Byron Line will address one of the major needs facing the tourism sector in regional Australia - a diversity of tourism products.

This is especially true of the Northern Rivers in general, and Byron Shire specifically. The visitor focus has, to this point, mainly been fixed on beaches, and increasingly, the nightlife. Though a few inland and wet weather options exist (Crystal Castle for example) they are relatively scarce.
Among the key benefits of having multiple uses along the Byron Line is that it
• Captures and attracts both the overnight visitor and the day visitor
• Current day visitors will potentially extend their stay overnight.
• Attracts the range of visitors, not just the fit and young who wish to walk or cycle, the Byron Line can provide a visitor experience for all ages, in all weather, both day and night and across all seasons.

No other tourism product offers such accessibility and equality. The aim of attracting tourists who stay longer and spend more per day [higher yielding tourists] could be met, as would the long held desire of creating tourism attractions which suit all ages and which are all year and all weather.

As a tourism product, a light rail network alleviates stress for travellers, as studies show it is far simpler to navigate than a bus network route largely owing to the fact that these networks are far more visible and permanent in structure. Transport is a key element in the visitor experience and an efficient public transport system can significantly enhance a region’s city’s reputation among travellers. (TTF, 2010)

The creative industries, especially the events, festivals and markets sectors, would be major winners as the Byron Line establishes itself.

Along the corridor, festivals and events abound: the Tyagarah Tea Tree Farm hosts the Byron Blues Festival and other events for which it recently gained approval. Mullumbimby hosts many festivals, North Beach Byron hosts the Byron Bay Writers Festival with approval to hold 7 more similar events annually.

At Yelgun, North Byron Parklands hosts the Splendour in the Grass Festival and 2 other events per year with approval for up to 10 event days annually. This means that these sites alone, all of which are on or close to the rail corridor host between 5 and 16 major events annually depending. Three of these events are the biggest of their kind in regional Australia.

Markets are part of the creative, social and economic lifeblood of the shire. Bangalow, Byron Bay and Mullumbimby have many regular markets. Bangalow alone hosts between 80 events a year if the markets are included. All of these events, are accessible to the rail, accessible and would be supported by the Byron Line.

7.1.2 Rail Trail

Rail Trails have great capacity to provide heightened economic benefits to a region. Associate Professor Sue Beeton’s study: Cycling in Regional Communities, states, “The research findings demonstrate that cycle tourists are high yield visitors, regularly exceeding expenditure in regional areas of other visitors.”

NVS Statistics from 2010 show that NSW attracted 35% of the 1 million domestic overnight visitors in Australia that participated in cycling on their trip.

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9 Beeton, S. (2009) Cycling in Regional Communities: A Longitudinal Study of the Murray to Mountains Rail Trail, Victoria, Australia, Research Report, La Trobe University, Bundoora
Estimating numbers for a rail trail along the Byron Line is a difficult, as most of the NRRT reports used the whole of line as the proposed project. It is worth noting however, that although the Byron Line is of the same allure as the whole length, it is still as long as many globally renowned 30-50 kms rail trails.

7.1.3 Other (non-cycling) Track Based Products: Shuttles, Rail Bikes and Park and Ride

The success of the Kuranda Scenic Rail is just one example of the tourism boost this infrastructure could bring to Byron Shire. The rail winds 34 kilometres from Cairns through the Barron Gorge and World Heritage Listed Rainforest to Kuranda. It is widely considered one of Australia’s most unique rail experiences. Statistics provided by Queensland rail show the line now attracts 350,000 passengers each year, more than half of which are international visitors.\(^\text{10}\)

7.1.4 Train stations and immediate surrounds

Stations could become hubs for both the rail trail and the development of creative and knowledge industry hub either as traditional service centres, housing cafés, information centres, museums, galleries and the like, or they could be seen as centres capable of housing small IT, co working hubs, or creative spaces to incubate younger talented locals etc.

Alongside the Stations, the expansive public spaces provide exceptional opportunities to host to pop up or regular markets, exhibitions or public performances.

Image: Indicative Drawing- Byron Train Station - Bangalow Bound. Plummer and Smith

7.1.5 Ancillary Enterprises

Both existing and new businesses will benefit from the Byron Line. Any current business that is seeking to expand could benefit from the Byron Line.

Accommodation establishments will benefit and many may expand their services to provide dining and café type services to the Byron Line users seeking a rest or brief stop. Some properties adjoin the corridor will be able to take advantage of the Byron Line by having a platform, literally, dropping off visitors at their door. Access to farmers markets, monthly markets and events will become easier with the additional shuttle services providing car free travel. As a result these important industries will grow and there will be more employment within the associated businesses. Any new visitor service such as the Byron Line will generate additional related business activity and the Byron Line will provide the stimulus for many to provide additional services and products to compliment those within the corridor. Examples could be:

- tour operators
- rail memorabilia outlets such as museum, gifts, etc
- cycle and bush walking equipment
- services such as sales, rentals, repairs and gear
- App developers and brochure printers

There will be opportunities for entrepreneurs to build on a tourist product that moves many hundreds of thousands of people around the shire and they will, hopefully respond with new enterprises and products.

In conclusion, the economic benefits arising from the Byron Line are monumental and could be an economic game changer for Byron Shire, specifically, and the Northern Rivers region in general. The Byron Line will not only will substantially lift the economy but also provide a model of how an infrastructure project supported by an organised community and business response can change the economy of vulnerable regions.

7.2 Expenditure Benefits

Not all economic benefits arising from the Byron Line will be economic growth. Another key benefit is likely to be the budget savings it may offer.

Along Ewingsdale road alone, over the next decade, it is projected that Council will have spend between $20-30 million in order to cater for the projected increases of vehicle usage. That increased usage will also generate increased congestion and a reduced utility for both visitors and residents.

By providing other transport options into Byron Bay, for Northern and Mullumbimby residents and a park and ride service, cars will be removed from Ewingsdale road instead of being added to it with substantial cost benefits as well as major economic and social benefits in reduction of traffic delays and reduced congestion in Byron Bay.
7.3 Support for Local Workers and Students

*The Byron Line* will also respond to the greatest need facing the overall economic and social health of regional Australia- suitable public transport availability.

The *Regional Development Australia-Northern Rivers* (RDA-NR) Regional Plan states succinctly:

“The region’s transport infrastructure is insufficient. Transport infrastructure shortfalls limit equitable access to employment, services and recreational opportunities. There are many transport-disadvantaged residents in the region, particularly youth, Aboriginal people, those on low incomes, people with disabilities and older people. The region requires substantial investment in intra-regional transport infrastructure to ensure equitable access to services and employment opportunities for all individuals and communities of the Northern Rivers.”  

The need for better public transport is overwhelming. In 2011, the Lismore Commuter Hub Report found there was up to 500 commuter journeys between Byron Bay and Lismore. However, only one percent of these trips were made using public transport.

7.4 Social

There will be major social benefits from *the Byron Line* even before the line becomes operational.

By bringing together all stakeholders: residents, business leaders and all levels of government, the project will offer the community a major opportunity to collaborate and cooperate.

With community groups, volunteers, councils and tourism and other bodies working together to ensure *the Byron Line* operates effectively and successfully, lasting relationships will be formed.

Social interaction is an inevitable outcome of this proposal; a multi-use tourism project that will allow shared commuting that has not been available in Byron Shire previously.

The isolation that comes with a commute for solo travellers can be dissolved through positive engagements that come with meeting new people on shared transport. This benefit extends not only to tourists but locals who would use the line to commute to work, enjoying the connection of sharing the ride with others.


12 *Northern Rivers Regional Transport Plan*
Similarly a connection through rail can help dissolve isolation felt for those in the wider pockets of the Shire, symbolically an active network creates another level of connection for those living here.

By developing public transport options for travel into and from Byron Bay, car congestion and the resultant undesirable outcomes such as pollution, noise, safety, and isolation will be minimised. By providing options within the corridor, opportunities to connect with others will be enhanced - whether it is on a shuttle, a cycleway or walking.

Younger people may well benefit the most from the Byron Line. Having a regular, cheap transport option and one that can be used shire-wide on weekends, nights will change the lives of many young people and their parents.

Getting to sports training, work and school and simply visiting friends will become far more available for younger residents, and the need to be chauffeured by parents in cars can be avoided. This is important for the safety of your younger residents, especially young women, some of only have the option of hitch-hiking when trying to get home or move about the shire, especially on weekends.

7.5 Health and Wellness

Health and wellness experts are unanimous in agreeing that a sedentary lifestyle is at the heart of a myriad of health challenges we face. The ABS attributes changes to our transportation as having a direct correlation with a decline in physical activity across populations.\(^{13}\)

Obesity seems to be growing uncontrollably, due mainly to poor diet and insufficient exercise. A walking and cycling track along the Byron Line will provide a range of easy exercise options that will assist in reducing obesity. Sedentary commuting options could be reduced through use of the Byron Line. The proposal gets people on their feet to head towards the line, where they can choose to walk, cycle or stand up on the train. The benefits have been demonstrated in Salt Lake City, Utah, where a study found that light rail commuters have healthier walking habits, use their cars less with a resultant lower prevalence of obesity. Respondents also demonstrated a higher neighbourhood satisfaction, and confidence in the city’s liveability.\(^{14}\)

7.6 Environmental

Any measures to replace road vehicle use with cycling or track based movement will have beneficial environmental outcomes.

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\(^{13}\) ABS, 2012

The Zero Emissions Byron (ZEB) project has calculated that the total greenhouse gas emissions from the transport sector in Byron Shire is 95,004 tonnes CO₂e. The calculations included only vehicles registered in Byron Shire.

Councils MR545 Strategic Study of Ewingsdale road in 2008, indicated that there will be 30% more car trips by 2028, with traffic increasing from 1650 vehicles per hour at peak times in 2008 to 2500 vehicles per hour by 2028. It is in the field of renewably operated public transport that massive changes and opportunities can occur. Smart energy efficient track based vehicles could be an environmental breakthrough of national significance.

Light rail transport will shortly operate almost universally on battery storage as it improves at pace. For example, Siemens has been awarded a contract to build a tram system in Qatar’s capital city Doha. The new tram service will run without overhead wiring. Each of the 19 trams will be equipped with a combination capacitor/battery energy storage system that will be recharged at each of the 25 stations. It will also be possible to reuse up to 30 per cent of energy through recovering braking energy.

The image below of a light vehicle operating on battery power in Nice, France (Oct 2011) illustrates the current technology allowing for emission free transportation.

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15 ZEB- Byron Shire Emissions Report, 2016
16 pg 16
17 ZEB- ibid
18 Ben Johnston, Innovative Railway Engineering Solutions In Tasmania’s Challenging Environment
8. Along the Route

Benefits to Communities

The Byron Shire, as seen and enjoyed from the rail corridor, hardly needs an introduction and certainly doesn’t need flamboyant promotion. It is a beautiful part of the world and locals and visitors alike can provide testimony to that effect. The Byron Line offers major benefits to parts of the community away from Byron Bay right along the 30 odd kms of the Byron Line. These regional opportunities are a key outcome of the development and will be beneficial in understanding the importance of the proposal.

8.1 Beyond Byron Bay- Billinudgel to Mullumbimby

8.1.1 Billinudgel (including Ocean Shores and Yelgun)

This end of the Byron Line would provide a great stop for visitors to explore Bili, have a counter meal at the pub or pie at Humble Pies or simply stop and rest awhile. It could help create a wonderful economic stimulus for the main street of Billinudgel. Having access to the pub at night via a shuttle service would also provide great benefits for owners and patrons alike.

This station would serve as the catalyst for a commuter service for Ocean Shores. With a population of approximately 10,000, a commuter service, with accompanying ‘kiss and ride’ or parking infrastructure could connect the North to the rest of the Shire like never before.

A possible extension, north to Yelgun, would provide opportunities for festival patrons to attend festivals at North Byron Parklands. Situated only 100 metres from the front gate, the Yelgun platform would provide transport access via the Byron Line, strongly supporting the creative industries, and providing for an option that minimises car traffic along both the Pacific Hwy, and the internal Shire access roads.

Moving through the beautifully forested areas south of Billinudgel, and after crossing the Brunswick River, Mullumbimby comes into view.

8.1.2 Mullumbimby

As more visitors discover Mullum and its authentic ‘alternative’ atmosphere, they will utilise the Byron Line to visit. This will lead to a increased economic activity in town, whilst also providing more opportunities for visitors and locals to attend the monthly and farmers Markets, as well as events at the Mullum Civic Hall and festivals such as the Mullum Circus Festival, Mullum Music Festival and Byron Spirit Festival. The increasing grey nomad visitor sector already discovering Mullum would likely be drawn to a rail shuttle service.

The train station with its wide corridor space in the vicinity could be utilised both business and community activities. Situated right in the heart of town, the station would be utilised as a commuter service into Byron Bay.

From Mullumbimby, across the flat coastal plains, next stop-Tyagarah.
8.1.3 Tyagarah

Already complete with a platform, Tyagarah could be a hidden asset previously undervalued. The platform runs quite closely to the Tyagarah Tea Tree farm- home to Bluesfest and many other events, expo’s and gatherings as recently approved by Council. It also could be the key location for any expansive park and ride facility. Already, some conversations with nearby property owners have unearthed a willingness and interest to develop this type of infrastructure.

As Tyagarah disappears behind, up comes the Belongil.

8.2 The Green Line-Treehouse to Roadhouse

The rail corridor in this area is especially well placed for increased cycle use. It links Lilli Pilli, the close-in residential areas to the north and south of the CBD, the CBD, Sunrise and the Byron Industrial and Arts Estate providing a safe, cost free transport route. Children living in Sunrise, or the soon to be expanded residential zones within the industrial estate, could safely and quickly ride their bikes to Byron High and the adjoining St Finbarr’s Primary School on the opposite side of town. Residents of Suffolk Park and Baywood Chase would be able to use the existing bike path to the Lilli Pilli rail crossing, and then proceed on to the industrial estate where many residents now work.

Additionally the new regional multi-purpose sporting facility on Ewingsdale Road can be accessed from most of Byron Bay and the rural areas to the north and west along the rail trail.

8.2.1 Sunrise

The Sunrise residential area, alongside the Arts and Industry Estate and new and growing developments would be sourced as a commuter platform and a destination for visitors.

It would also be one end of the Green Line- the walking and landscape experience. Dispersing visitors into the arts and industry estate would provide increased economic stimulus to the many artisan and independent designer and crafted businesses. This stop would also be utilised by those patrons of events being held at Elements, including the Byron Writers Festival.

Crossing the beautiful Belongil creek, the next section will take a patrons from the Belongil to the most precious stone in the crown, Byron Bay

8.2.2 Byron Bay

Commuters, whether workers or locals seeking to get to the beach, sporting matches or just to visit friends would once again, be able to utilise the tracks to get to Byron Bay.

Thousands would access the Byron Line to attend the wonderful monthly craft and weekly farmers markets and festivals such as the Byron Surf Festival and Byron Film Festival and to attend events and gigs at the Community Centre or across town. The station itself would provide fantastic opportunities community, creative and economic interaction and the Green line would continue further South to LilyPily.

8.3 Hills and Thrills- Byron and Bangalow

8.3.1 Bangalow
Within the Bangalow township, the heightened use of the rail corridor would provide fantastic cycling opportunities. New housing developments are extending the township westward, requiring even more safe and level way for the many children living in these new estates to get to school. The Byron Line runs directly to the Primary School and the large sporting facility on the eastern edge of town. Parents would be able to walk their children and push prams to town and school.

The trip between Byron Bay and Bangalow is gorgeous and will no doubt be the most popular leg of the route for the visitor. Like the other towns, the economic stimulus provided to Bangalow would be immense, and Bangalow, more than other towns, would greatly benefit from the decreased traffic and parking problems that currently beset the towns. Visitors would simply leave their cars and instead, catch a shuttle to explore and enjoy beautiful Bangalow for the day.

The location in town also makes it a perfect commuter option for workers or youth seeking to access Byron Bay.

Like other towns, attendance to the markets and festivals such as Sample, Bangalow BBQ and Bluegrass Festival, the Classical music festival and Billycart Derby would all be made easier when utilising the Byron Line.

Like Mullumbimby and Byron Bay, the train station area in Bangalow would become a fantastic social, economic and creative hub also. Bangalow does offer an incredible additional opportunity for an additional tourism product. Returning to Byron consists of around 13 kilometres of mostly downhill fun. Thus catching the slower, more traditional shuttle up to Bangalow, could be mixed with catching a faster, more thrilling Rail Bike type product downhill back to Byron Bay.

9. The Market for the Byron Line

9.1 Who would use it?

The users of the Byron Line would be varied and diverse:

- Those wishing to attend festivals, events and markets would be well served as the Byron Line will provide access to most events and festivals.
- Users would also be visitors seeking to utilise a visitor product to experience the wider Shire and its villages and towns. Local workers and those locals utilising the shuttle to attend sporting or social commitments would flood the peak hour demand.
- Visitors seeking to utilise the park and ride service would use the corridor
- Those seeking a walking and cycling experience would utilise the Byron line, including day users of the landscaped and curated walking track- the Green Line.
- Those fit and inspired would use the cycling paths, whilst those elderly and less mobile would use the shuttle services. Others who simply wish to move about in all weather, at all times and in all weather, could utilise the shuttle services.
9.2 Other Successful Examples

Experiences around the nation and world point to a successful utilisation of the Byron Line. For example, in 2014/15, Cairns had a total of 723,628 international visitors and 1,035,739 domestic visitors, resulting in a total of 1,759,419 visitors.\(^{19}\) In comparison, Byron received 184,710 international visitors and 710,655 domestic visitors, resulting in a total of 895,365 overnight visitors.\(^{20}\) Its' scenic rail service received over 340,000 customers, or approximately 20% of total overnight visitors (second only to the Great Barrier Reef for day tours.)\(^{21}\) The Kuranda Scenic Railway is 37 km in length and provides the option of catching the Sky Rail amidst other packages. A similar percentage take up by overnight visitors on a shuttle service in Byron to that of Cairns and its Kuranda Railway would equate to nearly 180,000 patrons on the Byron Line per year.

Visitor focused shuttle and tram services operate around the world. Most also provide a popular local service, who mostly add to the numbers in times not heavily frequented by visitors or holiday off peak times. Examples of these include smaller towns and cities like Glenelg in Adelaide, Bendigo and Portland in Victoria and the “Tramway de Balagne” - the summer shuttle service between Calvi and Île Rousse at the north coast of Corsica, and, larger cities such as Lisbon, the İstiklal Caddesi Tram in Istanbul, and of course, San Francisco.

10. Possible Costs and Revenue

10.1 Estimated total cost of the infrastructure

The original NRRT Rail Trail proposal relied on access to the full $750,000 currently allocated for maintenance funding on the rail corridor and outlined that, ‘without this operational funding it would not be possible to manage and maintain the rail trail,’\(^{22}\) In contrast, the Byron Line has the added benefit of continual and substantial commercial revenue streams derived from the commercial track based services to ensure the whole corridor can be maintained.

Obviously, obtaining independent, expert advice on the estimated costs involved in establishing track based commercial services inside the Byron rail corridor and alongside a rail trail is required. There is much yet to be known. However, looking at one example, the costs may not be as dramatic as once thought. The two-carriage historical rail shuttle service provided by the North Byron Railcar Shuttle has provided estimates of approximately $300,000 per kilometre, which includes a bridge reinstatement, track repair, restoring level crossings and contingencies. Lighter rail shuttles would require less work to safely support track based uses. At just over 30 kms in length - the Byron Line will provide a whooping bang of experience and benefit for its relatively small investment buck.

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\(^{19}\) Tourism Research Australia

\(^{20}\) ibid


\(^{22}\) Regional Tourism Infrastructure Fund EOI: Casino To Murwillumbah Rail Trail -Business Case, pg 7
10.2 Estimated Sources of Revenue

10.2.1 Public Funding

Funding and revenue streams will arrive from varied sources. As already mentioned and within the NRRT proposal, obtaining a proportion of the currently allocated amount of $750,000 for corridor maintenance would be appropriate. Further funding would be sought from the Federal Government and others including: Federal Government funding through the Department of Infrastructure and Regional Development Regional and Local Community Infrastructure, the Community Infrastructure Grants Program and the State Government funding through Destination NSW and it’s Regional Visitor Economy Fund.

10.2.2 Private Funding

Revenue would be derived from the commercial operators of the tracks, either as stand alone payments to upgrade and maintain the tracks, or fees paid to the governing Trust to ensure all maintenance requirements are funded. This can be decided by the Trust and as the business proposal is more firmly developed.

Significant funding will be raised through leasing assets on the rail corridor and sponsorship, in particular, the ideally located train stations and others that may be built to provide further stops along the route. Similarly, vacant rail land could generate income from community markets, parking, etc.

11. Governance and Management Model

11.1 Establishment of the Byron Line Trust

It is crucial an overarching body be installed to implement and manage the Byron Line. This body must have the support and trust of the community and must have the acumen and skills to be able to fulfil the tasks it is given. Therefore, it is proposed that a central governance body (i.e a trust) would be established to manage the Byron Line.

Key Points include:

- Ownership of the rail corridor would remain with Transport for NSW.
- The Trust would be established by the Minister, under existing legislation
- Appointment to the Trust would be by the Minister and be based on skills and include stakeholder representation, including community representation.
- The Board of the Trust will include:
  - An independent and experienced chair,
  - A representative of the relevant Minister/s, Department/s and/or
  - A representative of Tourism NSW,
  - Representatives of Byron Shire Council,
  - Those experienced in local business and community development,
  - A cultural heritage officer.
• The Trust would employ its own staff to operate and manage the Byron Line and it would engage other entities to undertake all or a portion of its functions. Volunteers would play a critical role in supporting the operations of the rail trail.
• An Advisory Committee would also be established by the Trust made up of community and stakeholder representatives to provide further support and guidance to the Trust.

11.2 Functions of the Byron Line Trust
Functions of The Byron Line Trust would include would include:

• Construction of the Byron Line and other improvements, including specifications, design guidelines and operational plans for its’ construction, operation and maintenance
• To ensure appropriate business and commercial activity in both the corridor and beyond- including liaising with tour operators, accommodation, food and retail providers
• To advocate and promote the Byron Line to communities and markets within the region, NSW, Australia and overseas
• To seek and secure business opportunities, sponsorship and fees for use of the Byron Line, associated stations, buildings and brand.
  • To manage and administer the corridor and its' structures and relations with neighbouring landowners
• Oversee bush fire management, vegetation management, insurance etc.

12. Stages to Success- Getting to Yes
The Process from Idea to Implementation should be dynamic but determined.

12.1 Social License- Community Ownership
Firstly, a social license is critical. Just rattling off how many public meetings and how many groups are supportive is not enough to show the depth of community support. It is crucial there is as close to unanimous support as possible achieved. By realising a sustainably funded rail trail alongside a diversely used tourist shuttle product that will provide much needed and wanted public transport benefits for locals, the Byron Line is beautifully placed to achieve this unambiguous social license.

At the outset, a diverse community group- Friends of the Byron Line- should be formed to take carriage of the project until a Trust is established.

The Friends of the Byron Line would be best placed:
• To seek to engage the vibrant and diverse Byron Shire community on and around the Byron Line
• To advocate for the Byron Line's activation and reimagining
• To broaden community support of public redevelopment and develop fundraising, community awareness raising events.
• Develop social media and other media messaging and promotion
• To begin ascertaining the possible commuting potential-organising surveys of communities in Ocean Shores, Mullumbimby, Sunrise, Byron and Bangalow to seek further commuting needs and potential.
• To consist of a diverse, broad congregation of stakeholders, thus, members of TOOT, NRRT, the creative industries, community services, schools, festivals and business chambers, tourism bodies, progress associations, Council and representatives from all affected areas should be part of the Friends of the Byron Line
• To liaise with neighbouring councils, especially Tweed Council to align with its’ proposed Tweed Valley Rail Trail.

12.2 Getting Approval for an Approval
Once established, the Friends of the Byron Line should broaden the project’s support to include formal in principle endorsement with key stakeholders, including: Byron Shire Council, NOROC, the RDA, local State and Federal M.P’s.

Once achieved, The Byron Line Feasibility Report and Business Plan should be undertaken, with funding obtained from the key stakeholders listed above, including community financial support. It would be envisaged that both Byron Shire Council and RDA would be best placed to provide the bulk of the funds required to undertake and facilitate such a report. As it promotes on its website, “RDA-NR is a leadership voice for the region. We support the development of local economies and dynamic communities; and enhance liveability in the Northern Rivers by:
• Improving access to government funding and programs
• Facilitating partnerships and linkages with all tiers of government and the community; and
• Managing a diverse range of projects that strengthen economic, social and natural capital.

12.3 The Byron Line Feasibility Report and Business Plan
It is crucial this report and plan provides clear, acceptable and best practice information in order to maintain the social licence and to keep all stakeholders unified. It should:
• Develop a preferred concept
• Identify points that don’t allow for multi modal use within the corridor and nominate options for sharing the corridor or preferred routes for alternative rail trail route options and engineering requirements
• Identify areas for dual tracks to allow two way track based uses
• Ascertain the condition of the track base, bridges etc.
• Provide approximate project costing for construction and maintenance
• Review and summarise of the literature concerning the economic and related benefits of existing rail trails and tourist shuttle services and other products
• Identify and explore potential business and organisation growth and job potential as a result of the establishment of the Byron Line, including the use of the existing infrastructure, and commercial activities within and around the corridor and resulting from the Byron Line’s establishment
• Identify and outline potential commercial services and products within the corridor
• Ascertain level of potential local commuting usage

The feasibility report must fill in the gaps that currently exist, for example: the state of the rail infrastructure, the cost of repairs to allow for a light rail usage and how dual direction movement could occur. Presently, these questions cannot be answered.

The state of the rail infrastructure is not known. The ARUP condition assessment report only superficially inspected the actual tracks.  

This map shows the large percentage of track within the Byron Shire that was not inspected. This lack of knowledge needs addressing.

Once the Byron Line is shown to be a viable use of the rail corridor, the State government, working alongside Byron Shire Council and the specifically established Byron Line Trust, will coordinate the overall development as an exemplar project illustrating best practice private-public engagement and partnership outcomes.

13. Friends of the Byron Line

Initial supporters of the concept and need for a feasibility study

The following individuals and organisations have given unqualified support for this initial concept proposal.

<table>
<thead>
<tr>
<th>Community Organisations</th>
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<tbody>
<tr>
<td>Simon Richardson- Mayor, Byron Shire Council</td>
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<tr>
<td>TOOT-Trains On Our Tracks</td>
</tr>
<tr>
<td>NRRT-Northern Rivers Rail Trail</td>
</tr>
</tbody>
</table>

23 Transport for New South Wales: Casino to Murwillumbah Rail Line Study Stage 1 - Condition Assessment

24 ARUP GIS Map, 2012
14. References

Key Websites

- Northern Rivers Rail Trail: http://www.northernriversrailtrail.org.au
- Trains On Our Tracks: toot.org.au/

Further Reading

- ARUP- on behalf of Transport for New South Wales: Casino to Murwillumbah Rail Line Study Stage 1 - Condition Assessment, 2012
- Beeton, S. Cycling in Regional Communities: A Longitudinal Study of the Murray to Mountains Rail Trail, Victoria, Australia, Research Report, La Trobe University, Bundoora, 2009
- Ben Johnston, Innovative Railway Engineering Solutions In Tasmania’s Challenging Environment
- NRRT: Regional Tourism Infrastructure Fund EOI: Casino To Murwillumbah Rail Trail - Business Case
- NSW Govt- Northern Rivers Regional Transport Plan
- Other Track Based Examples and Links:
  *TTF Transport Position Paper- Benefits of Light Rail - 2010:
  *file:///C:/Users/organ/Downloads/Light%20Rail%20FINAL%20FINAL2%20(1).pdf

- Transport for New South Wales: Casino to Murwillumbah Rail Line Study Stage 1 - Condition Assessment

Strategic Alignment Documents

• Health Risk Factors
  http://www.abs.gov.au/ausstats/abs@.nsf/Lookup/by%20Subject/1301.0~2012~Main%20Features~Health%20risk%20factors~233

• NSW Government, Department of Planning, Draft North Coast Regional Plan:

• NSW Government, Department of Industry, Industry Action Plan - Visitor Economy

• Regional Development Australia-Northern Rivers, Northern Rivers Regional Plan 2013-2016:

• Regional Development Australia-Northern Rivers, Northern Rivers Regional Social Plan 2013-2018:

• VIA Byron: Destination Management Plan for Byron Shire.
15. Annexures

Annexure A: The High Line

Annexure B: Alignment with Strategic Planning

Annexure C: FAQ

Annexure D: Byron Bay Railroad Company Ltd

Annexure E: Rail Explorers

Annexure F:
Annexure A

The High Line

Friends of the High Line raises 98% of the High Line’s annual budget. Owned by the City of New York, the High Line is a public park maintained, operated, and programmed by Friends of the High Line, in partnership with the New York City Department of Parks & Recreation.

HIGH LINE

The High Line is an elevated freight rail line transformed into a public park on Manhattan’s West Side. It is owned by the City of New York, and maintained and operated by Friends of the High Line.

Founded in 1999 by community residents, Friends of the High Line fought for the High Line’s preservation and transformation at a time when the historic structure was under the threat of demolition. It is now the non-profit conservancy working with the New York City Department of Parks & Recreation to make sure the High Line is maintained as an extraordinary public space for all visitors to enjoy. In addition to overseeing maintenance, operations, and public programming for the park, Friends of the High Line works to raise the essential private funds to support more than 90% of the park’s annual operating budget, and to advocate for the transformation of the High Line at the Rail Yards, the third and final section of the historic structure, which runs between West 30th and West 34th Streets.

HIGH LINE MEMBERSHIP

Members help provide more than 90% of the High Line’s operating support each year. Friends of the High Line depends on members to hire staff who keep the park clean, tend the plantings, and create programs for visitors. Members receive the bimonthly High Line Magazine, invitations to special events, discounts at local stores, and other benefits. Visit www.thehighline.org to learn more.

HIGH LINE ART

Friends of the High Line commissions site-specific artworks for the park, offering a platform for visual, performance, and sound art by emerging and established artists.

HIGH LINE FOOD

The High Line features food kiosks offering seasonal meals and snacks, as well as an open air café at The Porch, serving small plates, beer, and wine.

HIGH LINE PROGRAMS

Friends of the High Line offers free and low-cost public programs, including family activities, teen workshops, volunteer opportunities, film series, field trips, and tours for all ages.

HOURS

The High Line is open daily. Hours vary by season:

Winter Hours | December 1 – March 31
7:00 AM – 7:00 PM

Winter Hours | April 1 – May 31
7:00 AM – 10:00 PM

Summer Hours | June 1 – September 30
7:00 AM – 11:00 PM

Fall Hours | October 1 – November 30
7:00 AM – 10:00 PM

STAY CONNECTED

www.thehighline.org

This map was produced by Friends of the High Line.
Map Photos by Ivan Baam, Austin Kennedy, Annik La Farge, Liz Ligon, Barry Munger, Steven Severinghaus, Sean Walsh.
Map design by OCD. Third Edition © 2013
Annexure B:

Alignment with Strategic Planning

The Byron Line clearly illustrates to both the State and Federal Governments that strategic planning is at the forefront of Byron Shire decision-making. When seeking partnerships and support from other bodies, an adherence and commitment to best practice decision-making is crucial. The Byron Line is borne from the needs; opportunities and benefits found in a myriad of Local, State and Federal Government level strategic planning and policy objectives and priorities.

Local Government Strategic Planning Alignment

The overarching Council Strategic document is the Community Strategic Plan (CSP) 2022. The CSP defines a sustainable direction for Byron Shire, and sets out the strategic direction which Council will follow in achieving the needs of our community for the next 10 years to 2021/22.

Community Strategic Plan (CSP) 2022

Across the 5 broad themes, The Byron Line satisfies most outcomes and strategies, including but limited to:

Theme: Corporate Management

Outcome CM3: Effective partnerships with all levels of government

Strategies: CM3.1 Implement collaborative partnerships that support efficient use of resources.

Theme: Economy

Outcome EC2: A sustainable tourism industry that respects and promotes our natural environment and community values

Strategies:

EC2.1 Build a tourism industry that delivers local and regional benefits in harmony with the community’s values.

EC2.2 Develop Byron Shire as a leader in responsible and sustainable tourism and encourage sustainable business practices within the tourism industry.

EC2.3 Support and promote a collaborative shire-wide approach to managing tourism.

Theme: Community Infrastructure

Outcome CI1: Planning for the future

Strategies:
CI1.1 Provide a network of accessible cycleways and walkways that link with public transport.

CI1.2 Encourage sustainable and accessible transport solutions between towns and villages.

**Strategic Transport Statement (Transport Policy)**

*The Byron Line* neatly fits within the articulated Policy Statement/Vision:

In an era of depleting natural resources, climate change and increasing financial, environmental and community costs, Byron Shire Council aim is:

To develop and support an effective, convenient, efficient, equitable and integrated shire-wide transport network and management approach that improves mobility, accessibility and choice for all users, especially the transport disadvantaged, while reducing use of non-renewable energy and improving sustainability, amenity and opportunities for individual, community and environmental health, wellbeing and interaction.

This will be achieved by delivering an integrated and partnership approach of developing, managing, constructing and/or maintaining all facets of the multi-modal transport mix to meet the above objectives; the attainment, responsibility and measurement of which will be subject to the transport strategy and its subsequent actions.

**Byron Shire Economic Development Strategy – Enterprising Byron 2025**

The Byron Line delivers on all three key objectives within the Byron Shire Economic Development Strategy:

1. Accelerate employment generation and work creation,
2. Create resilient communities and
3. Retain and attract industry investment.

It also successfully supports the four guiding principles that clearly represent the sentiment of community and the desire to hold true to community values.

1. Leverage and enhance Byron’s strengths and our emerging opportunities
2. Sustain our sense of place, maintaining the integrity of our people and our brand
3. Create economic enablers and support sustainable practices
4. Show leadership, work cooperatively and seek out collaborative partnerships

Within the strategic directions, the following are especially pertinent:

3. Develop industry access to new and expanding markets
4. Develop the full potential and capacity of Byron’s towns, villages and rural lands
5. Facilitate partnerships with Council and other Government agencies
6. Activate workforce development, skills and training for future needs
7. Promote an attractive investment environment
8. Secure industry competitive and comparative advantage
Tourism Management Plan 2008-2018

The TMP declares, “A sustainable tourism destination is reached when environmental, community and economic values are balanced and resolved through collaboration and compromise and a situation is reached whereby the destination is environmentally sustainable, economically competitive and community well-being and harmony are enhanced through tourism.”

This declaration describes the collaborative, competitive and economically sustainable underpinnings of the Byron Line, which is specifically addressed within the objectives, strategies and actions from the TMP as illustrated below:

Objective Seven: Seek support and funding for the development of infrastructure and facilities

Strategy: S7.1 Develop an Investment and Infrastructure Strategy to identify and encourage public and private sector investment for priority infrastructure and facilities

Action: S7.1.5 Investigate additional transport options between the towns and villages. S7.3.3 Investigate the opportunity to develop and promote Byron Shire as a destination that embraces alternative transport systems.

Objective Eight: Investigate opportunities to enhance, develop and promote appropriate tourism products that will improve the visitor experience and length

Strategy: S8.2: Extend length of stay and improve yield and visitor dispersal across the Shire in accordance with each town’s interest, needs and branding subject to the proviso that new tourist development/activities not be undertaken on high conservation value land and subject to the terms of the Rural Settlement Strategy and local rural consultation

Action: S8.2.1 Investigate the feasibility to develop and promote a series of village touring, nature-based and cultural itineraries connected throughout the region by rail, cycleway, walkway, horse-riding and road.

Byron Shire- Destination Management Plan

The Byron Line clearly and significantly supports the objectives of the Destination Management Plan for Byron Shire (VIA Byron, 2013).

Product Development Objective 1: Investigate opportunities to enhance, develop and promote appropriate tourism products that will improve the visitor experience and length of stay to double the overnight visitor expenditure by 2020.

Product Development Objective 2: Develop Byron Shire as a world leading, best practice environmentally responsible destination

Product Development Objective 3: Developing product that encourages visitor dispersal.

Destination Management Objective 1: Plan for improved infrastructure and the development of visitor facilities
Byron Shire Low Carbon Strategy, 2014

As well as some of the Actions listed, The Byron Line supports the aim articulated within the Byron Shire Low Carbon Strategy, namely to: Mitigate climate change through reducing Byron Shire’s greenhouse gas emissions whilst improving the resilience of Council and the community for future scenarios such as peak oil.

State Government and Regional Alignment

The NSW 2021 Plan

The Byron Line clearly many of the goals of the NSW 2021 Plan, including:

*Improve the performance of the NSW economy* - by increasing visitor numbers to NSW and encouraging the expansion and creation of businesses.

*Reduce travel times* - travel into Byron Bay from the Pacific Highway can be particularly busy, especially during summer holidays. The Byron Line will provide alternative ways to bypass the traffic, especially supporting residents to use the shuttles as a commuting option thus reducing traffic on the roads in peak hours.

*Keep people healthy and out of hospital* - the Byron Line’s rail trail would provide a safe cycling and walking route thereby keeping people off dangerous roads and reducing walking and cycling accidents. It would also provide a free exercising option thus improving the health of local residents and visitors.

*Better protect the most vulnerable members of our community and break the cycle of disadvantage* - establishing a fast, cheap and accessible travel option within the corridor, supported by cycling and walking options, would allow for people on low incomes to travel without having to hitch-hike or be forced to remain at home.

*Invest in critical infrastructure* - the Byron Line would provide critical infrastructure to build and enhance local communities by creating a safe and healthy transport corridor and to attract expenditure in the area.

The Byron Line is a model project to illustrate principles in action- supporting the five principles underpinning the NSW Economic Development Framework:

1. Demonstrate leadership. Champion growth through leadership, vision and partnerships.
2. Make it easier to do business. Reduce costs and provide greater certainty for industry.
3. Collaborate to drive innovation and competitiveness. Respond to new challenges, create new products and markets, and take advantage of emerging opportunities.
4. Invest in critical infrastructure. Plan strategic and efficient infrastructure needed to drive the economy.
5. Raise the global profile of Sydney and NSW. Promote NSW in a more strategic and coordinated way, to attract businesses, entrepreneurs and talent to the State.

**NSW Visitor Economy Industry Action Plan**

The *Byron Line* is in line with the following Strategic Imperatives underpinning the *Visitor Economy Industry Action Plan*:

1: Increase Visitation

2: Grow Physical Capacity

3: Renew And Revitalise Destinations: Especially worth noting within this Strategic Imperative is recommendation 19. ‘Ensure that key tourism destinations and precincts are protected against encroachment by other forms of development activity which may impact on their sustainability or potential to contribute to the visitor economy.’

4: Improve The Visitor Experience: Especially worth noting within this Strategic Imperative is action 25b. ‘Review the opportunities to provide greater and more accessible rail transport into regional NSW and improved visitor experiences.’

5: Increase Visitor Spend

6: Make NSW More Competitive: Especially worth noting within this Strategic Imperative is action 35c. ‘Increase the use of planning incentives and land use controls to stimulate tourism development, especially for visitor accommodation and attraction investment.’

7: Change Of Mindset

Also-regional transport, regional creative, regional visitor plans-

**Draft: North Coast Regional Plan**

The *Byron Line* significantly supports the following goals and actions:

Goal 2- Focus growth opportunities to create a great place to live and work.’ Especially pertinent is Action 2.4.2- Encourage healthy living by increasing options for public transport, walking and cycling

Goal 4- A prosperous economy with services and infrastructure. Especially pertinent is Action 4.1.1- facilitate the nature based, events and cultural tourism sectors

Goal 5- Improved transport connectivity and freight networks. Especially pertinent is Action 5.3.3- identify and protect future rail corridors on the North Coast

**North Coast NSW Destination Management Plan**

The need for more tourism products is outlined consistently throughout the Plan, including:

2.10.2 International assets, products and experience gaps: ‘More product and experiences to account for the growing international visitors but without the region losing its charm and natural assets.’
Also, the needs and opportunities outlined for Byron that would be catered for by the **Byron Line** include, ‘Rail corridor - rail trail, light rail opportunities’ and, ‘Traffic management - park and ride, bypass, alternative parking in villages’

Finally, within the SWOT analysis outlined, the opportunities that could be exploited by the Byron Line include: ‘Develop export ready destinations and products’, ‘Connecting the region’s tourism assets and spread benefits through an integrated transport systems’, and, ‘the development of themed trails.’

**Federal Government Alignment**

Regional Development Australia (RDA) is an Australian Government initiative that brings together all levels of government to enhance the development of Australia’s regions. The plan is a clearly articulated strategy for future development. In consultation with stakeholders, each of the 14 regional sections of the RDA have developed Regional Plans which articulates the vision, issues and opportunities facing each area.

**The Northern Rivers Regional Plan 2013-2016**

Within the Plan, support for the establishment of the Byron Line finds resonance in the following activities, projects and initiatives:

1.1 Develop an integrated regional transport plan to address the Northern Rivers’ intra-regional transport infrastructure shortfalls.

1.3 Support initiatives to use existing or ageing infrastructure to meet future needs (e.g. the Casino to Murwillumbah rail trail)

4.6 Promote R&D and investment in technologies which support the generation and delivery of renewable energy.

4.8 Attract investment to the region to complement and grow established and emerging new industries.

6.2 Grow and develop the Northern Rivers’ visitor economy consistent with the region’s identity.
Annexure C
FAQ

How is this different from TOOT or the Northern Rivers Rail Trail Proposal?

The Byron Line overcomes the problems and enhances benefits of other previous proposals, including.

Funding

The commercial funding from track-based products overcomes the on-going funding vagaries and uncertainties within a rail trail project; nor does it rely on on-going government subsidisation for both initial infrastructure funding and ongoing maintenance. Funding is gained through local commuting usage, tourism products and services and park and ride usage. For example, morning commuter usage by locals prior to 9 am, provides great economic stimulus prior to and additional to visitor patronage, whilst overall, private operators pay for any infrastructure upgrade and ongoing maintenance, as is occurring with the two carriage train from Sunrise to Byron Bay scheduled to start in 2016.

Local public transport

With concerns that a stand alone locally focused public transport would struggle to be financially viable to due a small population base, the Byron Line allows the massive visitor sector to generate the substantial usage, therefore in part establish the financial viability, with the use by locals for transport as a bonus or value add to the whole project’s viability. The Byron Line will therefore provide the significant public transport that a rail trail does not, especially for night shift workers for example; whilst providing the high level usage a local public transport option would not. A public transport benefit riding on the back of a tourism use also provides more likelihood of State government support.

Additional Tourism Products

The Byron Line allows for enhanced tourism usage, by combining options for the fit and health conscious visitor attracted by a rail trail, with the more traditional dispersal and experience-centred shuttle services. NRRT expect between 25,900 and 97,100 users of the trail per annum, with a base case estimate of around 88,300 users. If 20% of overnight visitors utilised a rail shuttle product, as is comparable with Cairns and its Kuranda Scenic Railway service, a shuttle could cater for approximately 180,000 passengers per annum. What visitor staying for a few days wouldn't jump on a solar powered track based vehicle to go to Bangalow for lunch before returning later, whilst enjoying the scenic views? Added to this, festival attendees and other single day events would generate even more usage as would other products such as rail bikes.

Additional Uses and Benefits

The Byron Line, complementing a world leading rail trail with a series of shuttle and tourism experience options, provides not only additional public transport benefits, it will get cars off our congested roads. For example, allowing attendees to easily get around the shire during market days, during events and festivals and more will ease the pressure off the Shire’s roads, whilst adding to the patronage and viability of services. Anecdotally, one facilitator of events at the North Byron Parklands site at Yelgun stated he would book enough for 100,000 attendees per year (at $10 per person, this equates to $1 million per annum alone)
Can the Rail Trail co-exist with a shuttle service (multi modal)?
According to both TOOT and NRRT, the answer is YES. When the will exists, a way can be found. For example, the state government asked that the rail shuttle service planned to run from Bayshore Drive to Byron Bay Station ensure the Rail Trail can operate alongside their train. This led to the good will between two users of the corridor to work together to achieve this a successful sharing of the corridor.
In essence, where a viable use for the rail line is identified, and a reasonable alternative site for the rail trail exists within and occasionally near the corridor, coexistence can occur.
Annexure D

Byron Bay Railroad Company Ltd

Byron Bay Railroad Company Ltd, a not-for-profit enterprise owned by the people behind Elements of Byron Resort, is reinstating a heritage train between Sunrise Beach, just outside Elements of Byron Resort, and Byron township. Our final approval was achieved 17 September 2015, with 8 of 9 Councillors approving our DA for a shed and two platforms. The train, a 660 series two car rail motor, will be up and running in 2016. All costs of repairing and maintaining the track, refurbishing and operating the train are being borne by Byron Bay Railroad Company Ltd.

Timetable and fare
- A reliable hourly service will be run in the initial stages of operation to ascertain user demand and establish an ongoing timetable.
- As the rail service is not subsidised by Government (all other public transport receives subsidies) the timetable will be reviewed from time to time in line with passenger demand and operating costs.
- The train will not operate prior to 7:30am or after 10:30pm.
- The fare will be $3 for a one way journey. The train has provision for surf boards, bicycles and luggage (carried free).

Diesel engine
- Our train uses standard diesel or distillate available from any service station.
- It is the same diesel fuel used in trucks, buses, 4WD's and diesel engine cars.
- Fuel will be delivered straight into the railcar’s fuel tanks.
- Diesel fuel will not be stored on site.
- Cummins diesel engines are renowned as clean burning engines.
- All Cummins engines are fitted with a turbo manifold pressure fuel limiter, which limits the amount of fuel fed into the engine during acceleration until the turbo pressure increases. More oxygen than fuel is fed into the engine which ensures complete combustion and no unburnt fuel being emitted as black smoke.
- The existing engine was fitted new to the railcar in the mid 70’s. During its 30 year operational life the engine was upgraded numerous times.
- The existing engines are far more economical and gentler on the environment than when first built 40 years ago.

Fuel consumption
- Our 660 class diesel train uses on average between 45 and 56 litres per 100km [Dept of Railways, NSW]
- An average car uses 12 litres per 100km [Australian Bureau of Statistics]
- A Sydney bus uses on average between 53 and 69 litres per 100km [TfNSW website]

**Fuel consumption per passenger journey:**
1. Standard car carrying 2 people - 0.181 litres
2. Standard car carrying 1 person - 0.362 litres
3. Train carrying 50 passengers - 0.030 litres
4. Train carrying 100 passengers (seated capacity for our service) - 0.015 litres
5. Standard bus carrying 50 passengers - 0.036 litres

Solar conversion
Getting the train and track restored and operating is Byron Bay Railroad Company’s first priority.  
It remains our intention to convert the train to solar powered electric operation and we are committed to making this a reality.  
Our rail engineers in Lithgow have been liaising with multiple solar technology companies capable of this conversion.

1. One diesel engine will be replaced with a 150 kW (200 hp) AC synchronous electric traction motor and the other engine will remain for use when the sun is not shining  
2. The traction motor will be powered by a 400 volt DC battery bank through a traction inverter.  
3. Solar panels mounted on the roof can collect 12 kW (16 hp) of solar energy whenever the sun is out  
4. 50% of the energy used during acceleration will be reclaimed during regenerative braking, to recharge the battery bank.  
Solar powered buses are currently operating in South Australia and, with additional research and design, similar technology can be applied to our train.

Fencing
The safety management and operating procedures for our train do not require Byron Bay Railroad Company to fence any of the rail corridor. They have been developed around low speed operation and clear sighting along the rail corridor rather than restrictive (and expensive) fencing. Independently however, Elements of Byron Resort is required as a condition of Council consent for the accommodation cabins to fence the resort side boundary of the rail corridor from Belongil Creek to Bayshore Drive. There will be no additional fencing on the southern side of the corridor and no fencing past Belongil Creek, ie in town. The fence along Elements of Byron Resort boundary will be a 1.8m high open style fence with a 30cm opening at the bottom for wildlife. Transport for NSW still reserves the right, however, to direct Byron Bay Railroad Company to fence some or all of the rail corridor boundary.

Rail Trail
- The rail corridor is a minimum of 40 metres wide throughout. There is ample room to provide a Rail Trail and cycle path within the rail corridor and clear of the operating rail line.  
- Byron Bay Railroad Company (BBRC) has a non-exclusive licence to use the rail corridor and operate trains.  
- Transport for NSW can licence other parties including a Rail Trail or other rail operators to also use the rail corridor.

Noise
- The engine is quieter than a truck or bus.  
- In the rail industry the 600 series are known as one of the quietest trains.  
- The track is almost dead level for its entire length, thus no loud engine noise labouring uphill.  
- Maximum speed from Shirley to Kendall St will be 25 km/h and from Kendall St to Bayshore Drive will be 60 km/h, however the train is likely to run 20% below these speeds.  
- The train will start from station with 2/3 throttle to gain momentum then be in 1/3 throttle or idle for the rest of the journey.  
- The train is fitted with two Cummins 14 litre NT855 engines which are much quieter than the automotive version. Our train, however, will only be operating one of these engines at any time.
· The rail version of this engine is downgraded to 300 hp with maximum engine revs of 1900 rpm. The standard truck or bus with these engines operates at between 2100 and 2300 rpm and generates from 335 to 475 hp. The higher the horsepower and engine speed the nosier the engine.
· The rails are welded into 110m lengths, substantially minimising track noise from the rail joints (clickety-clack).
· Apart from one short curve the track is otherwise straight, all but eliminating any rail squeal.
· The “town” horn is actually a whistle which is less intrusive than the louder “country” horns. The “town” whistle will be used as mandated by safety regulations e.g. approaching the Kendall St level crossing. The “country” horn would only be used in emergencies.
· There will be no public address system or any other noise generating equipment at the platforms.

Platforms
· Two passenger platforms will be constructed within the rail corridor. Both will have disabled access, seating and shelter.
· One will be adjacent to Bayshore Drive serving the Arts & Industry Estate, Sunrise Beach and Elements of Byron Resort. This platform will have a disabled access toilet. Another will be adjacent to the Shirley St level crossing in Byron Bay between the First Sun Caravan Park and Simmos Caltex Service Station.
· The train will not cross Shirley Street and a stop-block will be constructed just short of this.
· Solar powered LED lighting will be provided at both platforms for passenger safety and security. It will be aimed directly down and shielded from the sides to prevent glare to the train driver and nuisance to residences.

Parking
· Elements of Byron has on-site parking for all resort guests adjacent to each villa plus 125 car spaces for day visitors to the resort.
· In addition there are a further 100 car spaces being constructed in the Council Road Reserve on Bayshore Drive.
· Council operates two public car parks within 100m of the new town platform.

Effect on traffic
· The train will take some cars off Ewingsdale Road and alleviate some traffic congestion entering Byron township.
· This may help reduce demand for the limited parking spaces available in Byron township.
· The train will not cross Shirley Street and so will not disrupt traffic.
· Australian Standards and the Rail Safety Regulator require the re-installation of STOP signs at the Kendall St level crossing. The train will pass over Kendall St level crossing in 7 seconds at a maximum speed of 25 km/h.

Park and Ride
· To further reduce traffic congestion on Ewingsdale Road we support Byron Shire Council to establish a dedicated park and ride facility immediately west of Bayshore Drive, or on any number of other appropriate sites along the rail corridor. This would also ease the pressure on limited parking spaces within Byron town centre.
· Byron Bay Railroad Company will work with Council to service a new dedicated park and ride facility.

Shed
· The train storage shed is a garage for the train.
· It will also be used for cleaning, inspections and maintenance.

**Lighting**
· Rail Safety Regulations require the train to operate with the headlights on at all times.
· The train is equipped with dual sealed beam headlights which shine a beam directly in front of the train. As most of the track is straight and on the only curve all residences are located on the inside of the curve any impact from lighting is mitigated.

**Asbestos**
· Our train does not contain any asbestos.
· The train brake blocks do not contain asbestos.
· Our Licence Agreement with TfNSW prohibits bringing any item containing asbestos into the rail corridor.

**Vegetation clearing**
· BBRC is required to clear and maintain minimal track and corridor vegetation within the existing rail corridor for safety and compliance with various legislation.

**Safety**
· BBRC is required to comply with the Rail Safety National Law and Regulations.
· All Rail Safety Workers are subject to random drug and alcohol testing with zero level of drug and alcohol permitted.
· All Rail Safety Workers are required to undergo pre-employment and periodical medical examinations to confirm fitness to perform tasks.
· The Rail Safety Regulator has mandated that two competent employees must be in charge of every train.
· There are maximum permissible hours on duty for train crew.
· There is extensive training and competency assessment for train driver positions.

**Approvals**
· BBRC holds a non-exclusive licence from TfNSW to use the rail corridor and rail infrastructure.
· BBRC must allow other parties authorised by TfNSW to use the rail corridor and rail infrastructure.
· BBRC is required to maintain the rail corridor and rail infrastructure at its cost.
· The rail corridor and rail infrastructure including any improvements made by BBRC remain the property of TfNSW.
· BBRC has obtained accreditation from the Office of the National Rail Safety Regulator as a Rail Transport Operator being both a Rail Infrastructure Manager and a Rolling Stock Operator.
· BBRC is required to comply with the Rail Safety National Law including mandatory safety and operating procedures. A comprehensive safety management plan has been developed in collaboration with expert consultants and industry practitioners specifically for this operation.
· Development Approval was granted on 17 September 2015 from Byron Shire Council for the construction of the two platforms and the train storage shed.

**Byron Bay Railroad**
· Byron Bay Railroad Company Ltd (BBRC) is a not for profit company limited by guarantee.
· BBRC is a heritage rail operator.
· BBRC is a separate and independent company to Elements of Byron Resort.
· All revenue must be re-invested in the company’s rail assets.
· Dividends cannot be disbursed to any individual or company.
· In the event of the company being wound up any assets must be distributed to other similar not for profit heritage rail organisations.
Annexure E

Rail Explorers

About Rail Explorers
http://www.railexplorers.net/index.html

• Rail Explorers is a company that is passionate about sharing the fun and adventure of riding the rails. Based in Saranac Lake, New York, we provide a unique way of experiencing the outdoors in a safe, relaxed and enjoyable way.

• The summer of 2015 represented the first time our rail explorers have been ridden in the United States, and was the culmination of 3 years of hard work and preparation.

• Rail Explorers is working alongside the Adirondack Scenic Railroad, a nonprofit organization who have been operating passenger train services along the Utica to Lake Placid railroad since 1992. The Adirondack Scenic Railroad is working to restore the rail line from Utica to Lake Placid and the partnership with Rail Explorers will help further their mission of preserving, promoting and protecting the Adirondack Park and this historic rail line. Both Adirondack Scenic Railroad and Rail Explorers endeavor to create a lasting partnership beginning in 2016 and aim to fully restore the Remsen - Lake Placid Corridor. Rail Explorers’ operations are compatible with fully restored passenger service. The Adirondack Scenic Railroad offers regular train excursions between Lake Placid and Saranac Lake. For more information and online ticket sales for the Adirondack Scenic Railroad visit