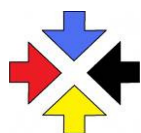


## Project Update 3

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# Carpentaria Rail

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## Port Carpentaria Railway Project



Carpentaria Rail

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Port Carpentaria community consultation commenced in March 2012.

Based on this community and industry feedback the project is progressing.

Further submissions can still be made or request our community update.

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## Introduction

Carpentaria Rail proposes the construction of a new deep water bulk minerals export port on the lower Gulf of Carpentaria with an associated all weather road and rail infrastructure connection from the port to the major towns North Western Minerals province.

The Port Carpentaria Railway project is based on the principles of:

- Economic viability
- Environmental Sustainability
- Cultural sensitivity
- Local empowerment

Improving the access to port and rail infrastructure in the North West Minerals Province will lead to increased mining activities and opportunities within the region. Reduced export costs will also sustain the viability of existing operations in times of moderating world commodity prices and increased international competition.

Growth over time will lead to increasing rail activity and linkages across the state and country and reduced east coast shipping activity in the Great Barrier Reef area.

Constraints on existing infrastructure make the development of new facilities more economically viable than upgrading existing infrastructure.

This project will lead to sustainable jobs and increased regional development and services in the lower Gulf. The separation of the route from existing communities means there will be no adverse impact on existing communities and amenity. In addition it reduces potential risk to the Great Barrier Reef from existing operations.

## Project Description

The proposal of a new bulk minerals handling export port and rail link involves the revitalisation of the 151km Normanton to Croydon railway line, construction of 450km of narrow gauge, on dual gauge sleeper, new railway construction, 40 km of trolley tramway jetty on screw piles above the estuarine marine environment and an artificial loading island in up to 25 m of water. The Jetty will be developed in stages to allow earlier loading of shallower draft vessels and extended to meet demand with multiple loading berths along the jetty. Early operation will use a floating harbour transshipment vessel, shuttle barges and some trucking before the completion of the jetty.

Due to the curvature of the earth, you will not be able to see the end of the jetty or the export vessels from the shore with no impact on the Karumba community. The jetty will be available for public access and fishing. It is envisaged that the jetty will be of cyclone rated minimal construction for maintenance access and the support of the tramway and include facilities for the passage of fishing vessels.

The trolley tramway jetty will pass over the estuarine marine environment with minimal impact upon it to the rail unloading facilities located on high country 15 km inland.

The jetty will be designed for a corrosive marine environment with stringent environmental regulation. The trolley tramway consists of sealed skip cars giving no possibility of any spillage at all. Each trolley carries 10 tonnes and the total consist length is 2.5km.

On shore facilities include a balloon loop and rail unloader with dedicated covered storage for each company using the port. High environmental standards are built in to the project.

This project will lead to sustainable jobs and increased regional development and services in the lower Gulf. The separation of the route from existing communities mean there will be no adverse impact on existing communities and amenity. This buffer could also allow the transport of hazardous materials if required with no potential impact on community safety. The project route options map is detailed in Fig. 1 of Appendix 1.

## **Mount Isa and Cloncurry extensions**

The heart of the project is a rail connection north of Mt Isa and also north of Cloncurry to give access to major current and proposed projects in the region. This will significantly reduce heavy haulage on public roads and reduce transport costs. Initially the existing Mt Isa to Cloncurry railway line will be used and when additional capacity is required a more direct route from Calton Hills to Kajabbi will be investigated.

## **Gulf connection**

It is proposed to go north from Cloncurry via the old Kajabi rail alignment, following the Burke development road to the west of Normanton. A major road and rail bridge will be constructed at the Flinders River. Then travel north to the coast at Alligator Point west of Karumba with a 40 km of trolley tramway jetty to reach the existing Karumba loading area. This will provide permanent all weather access to Normanton and Karumba, via a barge on the Norman River and will see Normanton develop as a regional infrastructure hub. This connects the lower Gulf region to the rest of Australia by linking to the national rail network at Cloncurry giving rail access to and from the region.

## **Croydon connection**

The connection to Normanton also connects to the existing Normanton to Croydon railway line and will lead to the revitalisation of the line with possible further extension to the North East Minerals province and Galilee basin.

## **Burketown connection**

As a subsequent stage it is proposed to also connect Burketown to Normanton utilising the existing Century mine pipeline and infrastructure corridor alignment.

## **Proposed Operational Date**

The Port Carpentaria railway will commence operation in 2016 and may include some interim trucking measures. In the early stages of operation a floating harbour transshipment vessel will undertake the loading activities. This will be supplied by smaller barges shuttling from the loader to the initial loading facilities on the western side of the Norman River close to the rail unloading facilities. This incremental development approach will allow a short lead time to commencement, leveraging on the back of existing agreements and approvals and will allow the project to grow viably as demand increases.

## Project Rationale

With increased mineral export volumes projected from the North West Minerals Province and North East Minerals Province, it is more economically viable to build a new port on the Gulf of Carpentaria rather than expand the capacity of the Townsville railway line and port.

A port on the Gulf of Carpentaria is 450 km closer to Mt Isa than the port at Townsville. Without any additional new rolling stock the Gulf line would have twice the capacity and half the carbon footprint of the Townsville line.

Better loading and unloading technologies and a shorter distance give a turnaround time from mine to the gulf port of 24 hours as opposed to the current 4 days to Townsville.

A port on the Gulf of Carpentaria is three or four days closer to Asia than Townsville with savings in demurrage and shipping costs.

Vessels would not have to traverse the Torres Strait or Great Barrier Reef reducing environmental risk with savings in navigational and piloting costs and removing the current 12.2m draft restriction.

Even with major expansion and investment Townsville will remain a small harbour, close to the CBD, constrained by area and requiring constant dredging to remain in operation.

Once the offshore depth is achieved at Port Carpentaria, the gulf is a huge natural harbour with no navigational hazards and capable of accommodating Cape, New Panamax, Suezmax and Chinamax vessels and almost unlimited room to move.

Due to NW Queensland's proximity to the Northern Territory it is proposed to build the railway in narrow gauge but on dual gauge concrete sleepers to allow for easy conversion to standard gauge in the future and achieve better track quality.

The shorter route length has a lower fuel cost and lower carbon liability. Possible future electrification of the Port Carpentaria Railway would reduce carbon liabilities further and improve the competitive advantage of mining in the region.

It is envisaged to utilise 50% to 100% local and indigenous personnel across all levels of the company and provide substantial training and mentoring to achieve this goal.

At all stages of the project and operation, the aim is to maximise the long term value to the local communities, augment the value for shareholders and customers, while broadening environmental, native title and cultural protection. This project will harness value for local people, which currently flows to the east coast and in the longer term grow the operations of all the existing players.

## Financial Rationale

The Port Carpentaria Railway is a \$1.5B project aimed at increasing export productivity and lowering export costs from the North West and North East minerals provinces.

Carpentaria Rail is an alliance between the local aboriginal native title owners and MIEPCO Pty Ltd, the lead project manager, for approximately 7% or \$100M of the project value. Carpentaria Rail seeks to form an alliance between mining companies, operators, suppliers, customers or investors of \$100M to \$700M each for the \$1.5B price tag.

The project has a design capacity of 10MTpa. At this capacity the project gives a return of 8%, at 5MTpa the return is 4%. Above 10MTpa the return will be capped at 8% for the short term with higher internal investment in growth capacity.

It is anticipated that this port will start as a small 10 Mtpa port and grow to be the highest value bulk minerals and general access port in Australia with considerable export cost efficiencies to Asia.

## Appendix 1 – Route maps

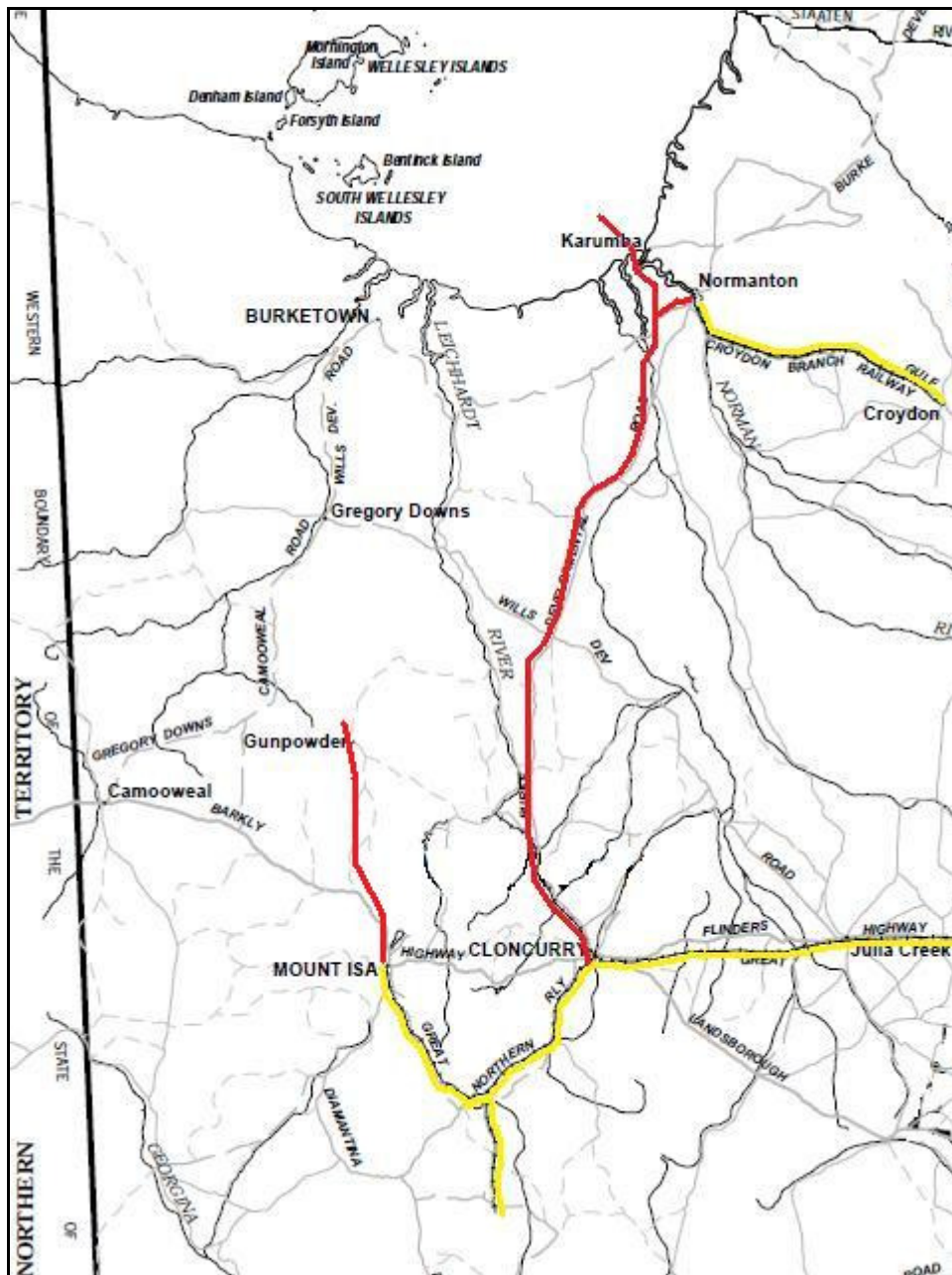


Fig. 1 - Route detail.

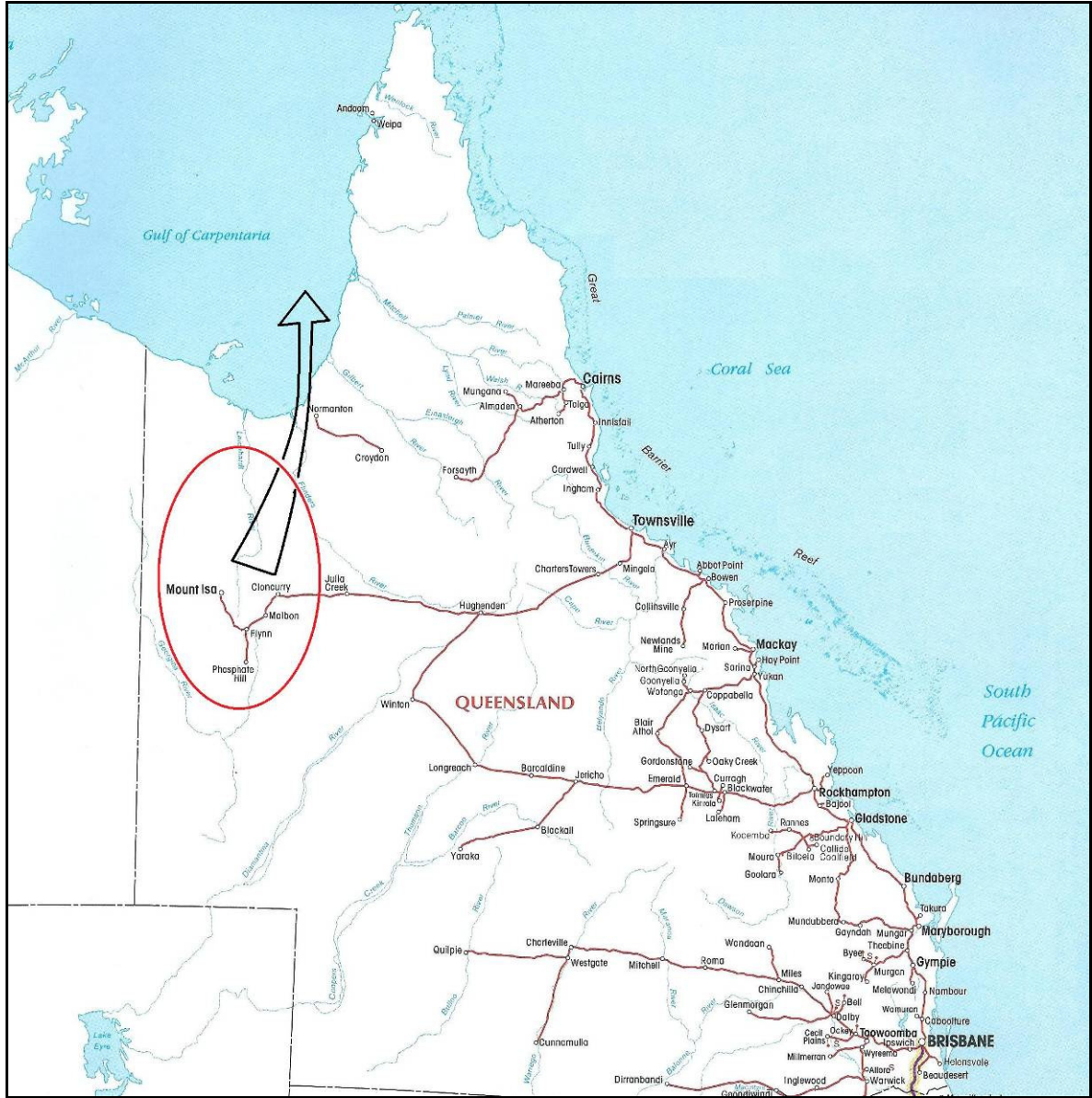


Fig. 2 - Location map.