



## CONVENTION 2008

# THE NEXT TRAM DEPARTING...

Presented by David Mewes

### Introduction:

The diversity of rail transport operations that were to be found in Queensland could be considered uniquely Queensland. The Government Railway system is well known as are the tramways associated with the State's sugar industry.

Queensland, like other States, also had railway systems used for mining, timber and construction. Western Australia had firewood tramways connected with the mining industry around Kalgoorlie. Queensland too had a tramway specifically for gathering firewood – for a water pumping station near Charters Towers.

One type of railway that offers a range of modelling and operational interest is the Shire Tramways. These tramways existed in a variety of gauges, lengths, types of traffic handled, locomotives, rolling stock and operations.

This talk is not so much about models of shire tramways that have been built; rather it is a story about the history of these tramways. It is hoped that it may encourage ideas for others to take up modelling aspects of these interesting rail systems. The diversity of shire tramways in this State is a part of Queensland's rail transport heritage that is uniquely Queensland.

### 1. Cairns – Mulgrave Tramway

The Cairns Divisional Board became the first local authority in Australia, to construct and operate its own railway. The Queensland Government had enacted *The Tramways Act of 1882*. The concept of establishing its own railway was first mooted in November 1893 following the foundation of The Mulgrave Central Mill Company Limited. The Mulgrave company considered transporting their raw sugar from the mill by building a 2 ft gauge line from their mill site to the wharf on Trinity Inlet operated by Swallow & Derham for their Hambledon Mill.

The Cairns Divisional Board saw this proposal as a threat to their idea of developing a major port in nearby Cairns rather than another town and port growing around Swallow & Derham's wharf site which was 6 miles further up Trinity Inlet from Cairns.

A local newspaper suggested the Cairns Divisional Board borrow money from the State government to build a tramway from Nelson (later Gordonvale), the site of the Mulgrave Mill, to Cairns. This suggestion was greeted with such enthusiasm by local people that a petition in support was presented to the Cairns Divisional Board on the 16 November 1894. The proposed tramway would benefit the rich agricultural lands to the south of Cairns as well as ensuring that Cairns became a major port and the centre of a thriving

community and business district. Many well known pioneering names of the Cairns District were very supportive of the tramway proposal. Sir Hugh Nelson, Premier of Queensland, was most impressed with the proposal put forward by a local land owner from the Lower Mulgrave, James Kenny, in December 1894. The Government was in favour as it relieved them of some responsibility in having to build a railway itself. The Cairns – Mulgrave Tramway was considered to be a brave experiment that would influence colonial Queensland's railway policy for years to come.

George Phillips, a consulting engineer, was contracted by the Cairns Divisional Board in May 1895, to prepare a report and inspect the proposed route.

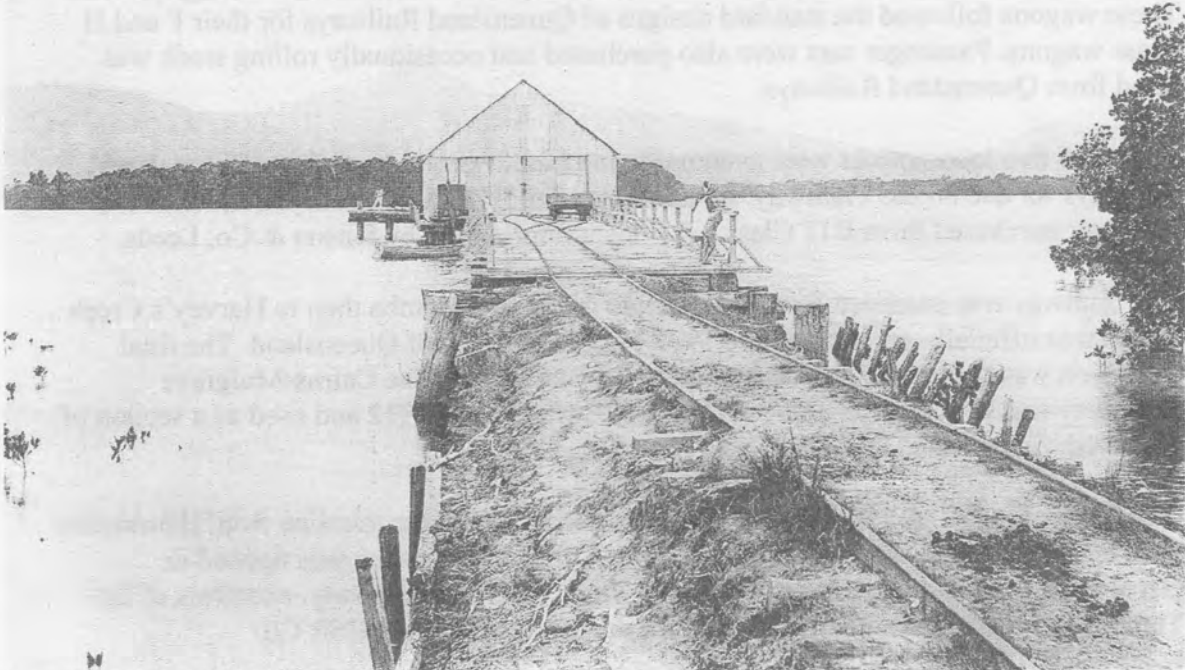
George Phillips was to be involved with many railway construction projects around Queensland. He was a strong advocate of what he called *Pioneer Railways* and had written a book on this subject published in 1892. His method of constructing his *Pioneer Railways* was put to the test in the construction of the Normanton – Croydon railway for Queensland Railways which opened in 1891.

Phillips strongly advocated the use of a 3 ft 6 ins gauge rather than 2 ft. He recommended the use of 2 ft gauge feeder lines to collect sugar cane. He felt that the rich agricultural land to be opened up warranted the extra £6,000. He also advocated the use of a dual gauge line to enable the sugar mills to use their own rolling stock on the main line.

George Phillips was then contracted by the Divisional Board, which had accepted Phillips recommendations, as consulting engineer for the project. The project began to move forward more rapidly as surveyors determined the route and land owners co-operated with resumptions in order to facilitate the tramway's development.

A tender of £15,319/13/0 from Kirk Bros & Frew was accepted on the 24 April 1896. Mulgrave Central Mill Company had had difficulties in construction of their mill because of transport problems for their machinery and with their first trial crushing approaching in late 1896. The promised date of completion for the tramway was 31 December 1896. An existing, horse-worked, 3 ft 6 ins gauge tramline existed to transport raw sugar from Swallow & Derham's mill at Hambledon to a private wharf on Trinity Inlet. This tramline was used to bring in the tramway material with Archibald Frew setting up his construction headquarters at Fretwell's Hotel about mid-way along Swallow's tramline. This site was later renamed Queerah.

The Queensland Railways sold surplus construction material from the Normanton – Croydon railway construction project to the new tramline project. This material was found to be badly corroded but, due to the tight construction schedule, the contractors had to "make do". This material was brought in over the tramway from Trinity Inlet.



*Swallow & Derham's tramway and wharf on Trinity Inlet*

*Source: Not Known*

A B11 Class 2-6-0 was purchased from Queensland Railways' Cairns Railway in November 1896. This locomotive, built by the Baldwin Locomotive Works in the United States in 1879 had also been used by the contractors who built the Cairns Railway.



*Cairns – Mulgrave Tramway at Harvey's Creek c.1910*

*Source: Cossar-Smith Album, Fryar Library, University of Queensland*

Wagons for construction purposes were also acquired. The Cairns Divisional Board also bought new rolling stock from Toowoomba Foundry and Phoenix Engineering, Ipswich. These wagons followed the standard designs of Queensland Railways for their F and H Class wagons. Passenger cars were also purchased and occasionally rolling stock was hired from Queensland Railways.

A total of five locomotives were eventually purchased second-hand from Queensland Railways for use on the Tramway. In addition to the B11 Class already mentioned the tramway purchased three B12 Class 2-6-0 locomotives built by Kitson & Co, Leeds.

The tramway was extended from Gordonvale firstly to Aloomba then to Harvey's Creek which was officially opened in June 1903 by the Governor of Queensland. The final extension was to Babinda which opened in February 1910. The Cairns-Mulgrave Tramway was taken over by Queensland Railways in early 1912 and used as a section of the North Coast Line.

The Cairns Divisional Board also built and owned a 2 ft gauge tramline from Hambledon Mill to the 4000 acre Green Hills Estate. The 4 mile 35 chain line was opened in September 1904 and leased to the Colonial Sugar Refining Company, operators of the Hambledon Mill. It eventually came under the ownership of the CSR Co.

## 2. Ayr Tramway

Most of the shire tramways built ran within the boundaries of a single Shire Council or Divisional Board as they were originally called. Several tramways operated across adjacent shire boundaries and in these instances the tramway was operated by a Joint Tramways Board with representatives from each of the Shire Councils involved. One of these was the Ayr Tramway which ran south from Townsville to Ayr. The Ayr Tramway was built jointly by the Thuringowa and Ayr Shire Councils. The track gauge was 3 ft 6 ins and it ran from Ayr to Stuart where it joined Queensland Railways' line from Townsville to Charters Towers. The Ayr Tramway ran through relatively flat coastal plains to the Burdekin Delta. Sugar mills at Kalamia, near Ayr and Pioneer at Brandon were a major source of traffic.

The Ayr Tramway, like most of the others used Queensland Railways locomotives and rolling stock.

It was taken over by Queensland Railways on the 1 January 1911.

## 3. Bowen – Proserpine Tramway

The people of Bowen agitated for a railway for many years. Railway construction inland towards Central Queensland from Rockhampton and also from Townsville to Charters Towers with a branch line to Ravenswood meant a loss of markets and opportunities for Bowen. Bowen wanted a railway inland through Haughton Gap and repeatedly rejected

*South Coast to Ayr Shire Councils completed 1924.*



offers of a railway northwards towards Inkerman on the Burdekin and also towards the coalfields around Collinsville.

A 3 ft 6 ins gauge tramway was built by joint local authorities from Don (near Bowen) to Proserpine. It was opened on the 11 July 1910 and purchased by Queensland Railways on the 1 July 1917.

These three Shire Tramways were incorporated into the main North Coast Line linking Brisbane with Cairns. A link that was not finally made at Daradgee, near Innisfail, until December 1924.

#### 4. McGregor Creek Tramway

The Pioneer Divisional Board, based on Mackay, committed to an extension of the Queensland Railways' Mackay Railway to open up lands in the Pioneer Valley to the west of Mackay. The *Railways (Guarantee) Act of 1895* allowed local authorities to guarantee half of any shortfall in working expenses and interest payments through a levy on ratepayers. The Pioneer Board guaranteed an extension of ten miles from the western side of the Pioneer River at Mirani to McGregor's Creek. The line opened for traffic on the 7 July 1902. The Board's Railway Committee then set about giving consideration to feeder lines for the McGregor Creek Extension.

The Pioneer Divisional Board was renamed Pioneer Shire Council as from 1 April 1903.

The tramway used Government locomotives and rolling stock.

W T Paget became Minister for Railways & Agriculture in October 1908. He introduced a bill into parliament to take over the Pioneer Shire Council's tramlines as they were a lucrative source of traffic and had made the Mackay Railway profitable. The Council was still responsible for a guarantee under the provisions of the *North Coast Railway Act* but the guarantee was finally abolished in 1915.

The tramline extensions had enabled the opening up of the western end of the Pioneer Valley and the formation of the Mirani Shire was gazetted on the 4 September 1913.

#### 5. Aramac Tramway

The country through which the Aramac Tramway passes is in contrast to the other tramways we have discussed. This is the only Shire Tramway to be built in outback Queensland. It was also the last Shire Tramway to operate in the State and finally closed on the 31 December 1975.

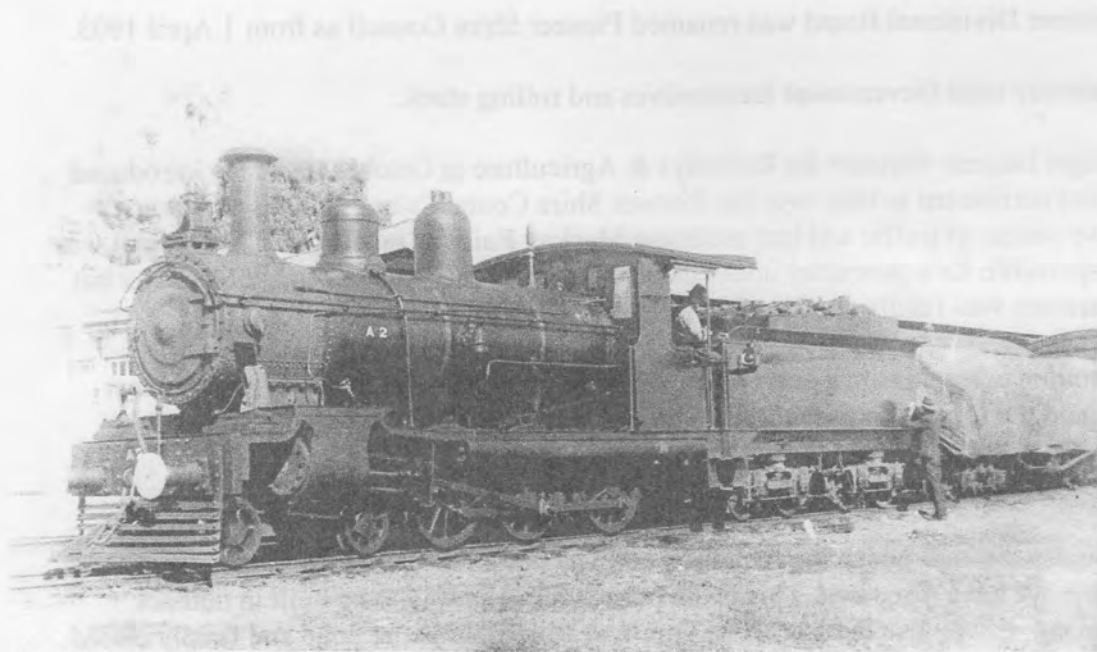
Aramac was the only inland town to follow the lead of the Cairns Divisional Board and build their own tramway while many other communities lacking rail connection just hoped it would happen – one day.

Aramac had sought a railway connection as early as 1896 as the Queensland Railways Central Line was extended westwards. The Queensland Government passed the *Railways (Guarantee) Act of 1895*. This Act required local ratepayers undertake to pay an amount to cover for certain losses in working expenses that the railway might incur as well as other guarantees. The Aramac Shire Council took heart from this bill and engaged the services of George Phillips, a consulting engineer, to prepare a report on the proposed line.

Phillips recommended the standard 3 ft 6 ins gauge be used as there was little to be gained in having a narrower gauge than the gauge of the State railway system due to the easy nature of the country.

The Aramac Tramway opened between Barcaldine on Queensland Railways' Central Line and Aramac on the 2 July 1913.

A number of steam locomotives were purchased or hired from Queensland Railways over the years. However, the only new steam locomotive the tramway purchased is quite interesting. It was a standard Stephenson's PB15 Class locomotive but it was built by Ipswich Railway Workshops in 1924. It was the only PB15 to be built at Ipswich Workshops and the only locomotive built by Ipswich for a customer other than Queensland Railways.



*No. A2 formerly No. 308 a B15 Con purchased in 1915*

The railway also purchased an ex-Queensland Railways' rail motor. Affectionately known as *Aust Emma* it was formerly RM28. It still exists having been preserved in Aramac.

Traffic on the line consisted mainly of wool and livestock as well as local passengers.

The Aramac Tramway lasted long enough to see dieselisation. The first diesel locomotive was a standard Commonwealth Engineering canefields diesel with the wheels outside the frames and named *R R Mac*. The second was an 0-6-0DH built specially by Walkers Ltd, Maryborough. It became known as *Mango*.

The Aramac Tramway closed on the 31 December 1975.

#### 6. Woongarra Tramway

The Woongarra Shire Council built a tramway under the supervision of Queensland Railways. It ran from near Millaquin Mill past Qunaba, Bargara and Windermere to terminate at Pemberton. It served lush sugar cane growing areas and the local sugar mills. The line opened in 1911.

The Woongarra Tramway was taken over by Queensland Railways on the 1 January 1918.

#### 7. Beaudesert Shire Tramway

The Tabragalba Divisional Board contracted civil engineer, George Phillips, to undertake a survey for a tramway in 1901. The line was to be built to 3 ft 6 ins gauge 16 miles 20 chains in length servicing the Upper Logan district with a branch line 4 miles 43 chains along Christmas Creek.

Following Government approval Phillips was appointed consulting engineer and work started almost immediately.

The tramway was opened in 1903.

A number of former Queensland Railways locomotives were purchased or hired by the Shire. B13 Class No.185 ran until the end of the tramway and was eventually sold to the Isis Central Mill at Childers.

The Beaudesert Shire Tramway closed 30 August 1944.



B13 No.185 on the Beaudesert Tramway

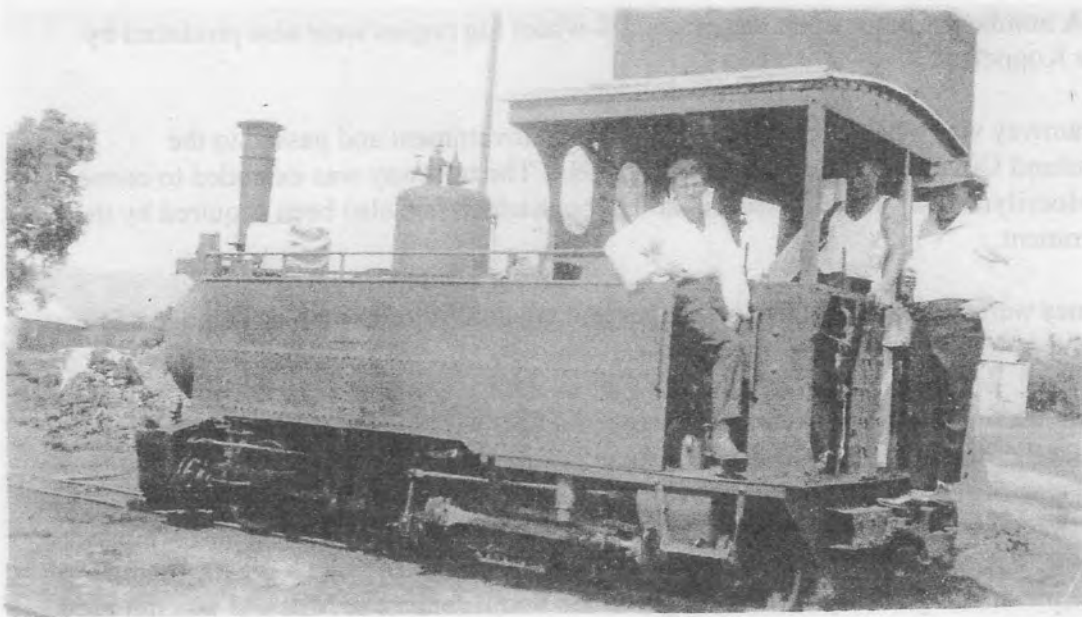
## 8. Douglas Shire Tramway

On the 1<sup>st</sup> November, 1897, the Douglas Divisional Board decided to petition the Government for a loan under *The Tramways Act* to build a two feet gauge line from Port Douglas to Mossman with a branch line to the Mowbray River. The Chairman of the Divisional Board, Mr Andrew Jack opened the tramway, on the 1<sup>st</sup> August, 1900. Construction of a branch line along Cassowary Creek was commenced in 1909 but not completed until 1916. This branch was intended for the haulage of sugar cane only.

The Board's first locomotive was a typical John Fowler 0-6-0T built in 1901 and named FAUGH-A-BALLAGH, which is Welsh and literally means "Clear the way". The second locomotive to be purchased was one of only three of its type to come to Australia and was unique in Queensland. Named DOUGLAS, it was a Mallet compound locomotive built by Orenstein & Koppel. It was a powerful machine, yet weighed little more than the Fowler loco. It could haul 124 tons of bagged sugar from Mossman to Port Douglas compared with the 104 tons hauled by FAUGH-A-BALLAGH. The DOUGLAS was scrapped in 1948 and replaced by an 0-4-2T named R. D. REX, built by Perry Engineering.

*Port Douglas Station photo w. short passenger cars in train  
(first of photos in presentation).  
Also postcard photo w. ration van.*





*The Mallet 0-4-4-0T locomotive Douglas at Port Douglas.*

*Source: Not Known*

There were at least two passenger cars on the Douglas Shire Tramway. One was a cross bench toastrack style vehicle with doorways fitted with canvas blinds and a combined baggage/ toastrack coach. This latter vehicle still exists today, preserved at Port Douglas along with the Fowler, FAUGH-A-BALLAGH.

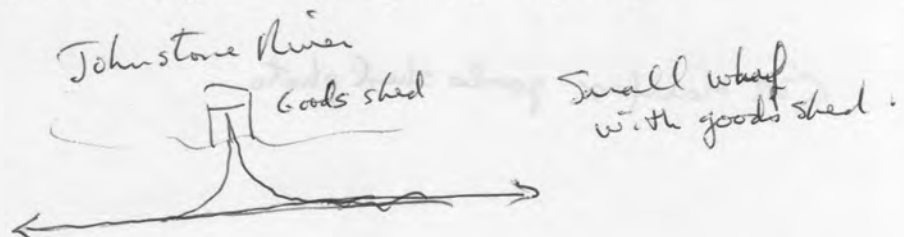
The Douglas Shire Council tramway workshops converted an International bus into a rail motor in the 1930s for use in the slack season. The rail motor did not last long. The completion of the Cook Highway in 1933 ended Mossman's isolation and doomed the passenger train service.

The Shire tramway then became a sugar cane tramway for hauling cane to the mill and bagged raw sugar from the mill to the wharf. The changeover in the late 1950s to palletising the bagged sugar saw a change to road transport as well and the Douglas Shire Tramway was sold to the Mossman Mill in 1959. The section from Ferndale Junction, on the line to Mowbray, and Port Douglas was pulled up. The line now hauled harvested sugar cane only.

#### 8. Geraldton Tramway

The Johnstone Divisional Board was another local authority to take advantage of the State Government's *Tramways Act of 1882*.

The Board commenced building a 2 ft gauge tramway from Geraldton in 1899 with the consulting engineer, George Phillips, supervising. The line was built to Nerada with a branch towards South Johnstone. Two John Fowler 0-6-0Ts were purchased along with two bogie passenger cars built by Orenstein & Koppel having a capacity of 20 passengers



each. A number of bogie open wagons and 4-wheel log bogies were also produced by Arthur Koppel.

The tramway was taken over by the Queensland Government and passed to the Queensland Government Railways in July, 1914. The tramway was extended to connect with Mourilyan Mill's line to Mourilyan Harbour which had also been acquired by the Government.

The lines were used to provide a passenger and goods service as well as haulage of sugar cane and raw sugar in the season.

While occurring during the years of Queensland Railways ownership it is interesting to note that the railway yard at South Johnstone is very rare if not unique in Australia. Where else could you find railways owned by the one operator (Queensland Railways) of two different gauges (3 ft 6 ins and 2 ft) serving the one site that also had its own private 2 ft gauge network. The Queensland Railways 3 ft 6 ins gauge branch off the main North Coast Line at Boogan only carried freight to the South Johnstone Mill and was not used to carry raw sugar from the mill. The Queensland Railways 2 ft gauge line carried passengers, general freight and parcels as well as sugar cane and raw sugar while the mill tramway carried sugar cane.

#### 9. Hinchinbrook Shire Council Tramway

The Hinchinbrook Divisional Board, based on the township of Ingham, was formed in 1879. Several sugar plantations existed in the district as early as 1873. The Colonial Sugar Refining Company's giant Victoria Mill entered the local scene when it first crushed in 1883. The Company introduced two foot gauge tramways for the haulage of sugar cane right from the start. The tramway was also used to remove bagged sugar to a wharf at Halifax where it was collected by lighter and forwarded to Dungeness. It would then be transferred to larger coastal vessels for shipment.

Transport was becoming a serious problem by 1895, as the Herbert River began to silt up reducing the accessibility of lighters even as far as Halifax. In that year the Colonial Sugar Refining Company and the Hinchinbrook Divisional Board reached an agreement where the Company would construct a tramline from Halifax to Lucinda Point and extend its line from the Victoria Mill to the township of Ingham. The Divisional Board obtained a loan from the Government to build a jetty at Lucinda Point and erect sheds. The Board also agreed to provide the right-of-way for the tramline. The line and jetty were ready for operation by September, 1896.

In 1898, the Hinchinbrook Divisional Board and the Colonial Sugar Refining Company again reached agreement regarding the construction of a further tramway. Tin was being mined in the hills west of Ingham and farms were being developed along the Stone River, also to the west of the town. The Company agreed to purchase the firewood from land clearing and also purchase sugar cane grown by the Stone River farmers. The State

CSR Halifax goods shed photo

Government approved a further loan to the Board, and construction of this 17 ½ mile long tramway was begun immediately and the line was completed in July, 1900.

The tramway was the only reliable means of transport in the district for many years. As well as passengers, it carried commodities such as tin, wolfram, hides and tallow to Lucinda and timber for the local sawmills in Ingham. Locomotives used on the Shire tramways were supplied by the Company from its Victoria Mill. There were three bogie coaches available for passengers on the Lucinda Point Tramway. One was an open vehicle and the other two were roofed. These were the days of segregation and the roofed vehicles were available for whites only whilst the open carriage was known as the "nigger" carriage. A 4-wheel coach fitted with cross seating was generally used on the Stone River Tramway. The locomotive crews were supplied by the Company as were staff at the various depots (goods sheds) but the train guard was supplied by the Hinchinbrook Divisional Board.

A 4-wheeled insulated box wagon was used for transporting perishable foodstuffs to farmers. This vehicle, known as the "bread and meat van" and one covered coach still exist to day. The former is preserved at the Illawarra Light Railway Museum Society's site at Albion Park in New South Wales and the latter is preserved along with the Hudswell Clarke locomotive "HOMEBUSH" at Victoria Mill. This coach is purported to have been built by Decauville.

The opening of the Government Railway line between Townsville and Ingham on the 1<sup>st</sup> December, 1919 meant the end of much of the passenger traffic to Lucinda Point, as it was more convenient to travel by train direct to Townsville rather than by tram to Lucinda Point and then coastal steamer.

The Hinchinbrook Shire Council's tramways were sold to the Colonial Sugar Refining Company in 1929.

The Maroochy Shire Council was responsible for the construction and operation of two separate Shire Tramways within the Maroochy Shire. Strangely, they could not even agree about standardising on one gauge for their two tramways with one built to 2 ft gauge being an extension of a pre-existing sugar mill tramway and the other a new tramline built by the Council to a gauge of 2 ft 6 ins.

#### 10. Mapleton Tramway

In 1914, the Maroochy Shire Council purchased from the Moreton Mill all the tramlines to the west of the mill, a Shay locomotive, two passenger cars and a number of other wagons. The mill line already climbed one escarpment to the Dulong district, was now extended up a second range to link with the township of Mapleton.

The line was worked with two small 12 ton Shay geared locomotives. The first was built in 1908 for the Moreton Central Mill and named "DULONG". It was taken over in 1914,

with the tramways west of the mill. The Maroochy Shire Council who also purchased a second Shay in that year, named "MAPLETON".

In 1921, it is recorded that the Mapleton Tramway had two passenger carriages and 11 goods and livestock wagons. The passenger carriages were similar to those used on the Moreton Mill tramway system. One passenger carriage was enclosed at one end with cross bench seating for passengers and the other half was open for the carriage of cream cans and other commodities.

photo:  
Beneck south  
on cane trucks



*A Shay locomotive on a Mapleton tram*

*Source: Not known*

The Mapleton Tramway closed on the 31<sup>st</sup> December, 1944.

## 11. Buderim Tramway

The Maroochy Shire Council undertook another tramway project at the same time it was developing the Mapleton Tramway. This line started at Palmwoods, on the main Government railway line, about xx miles south of Nambour. The line ran eastwards up the mountain to Buderim. Strangely, this line was built to 2'6" gauge on the recommendation of the distinguished engineer, George Phillips, who oversaw the project.

Two locomotives were used on this line being a 2-cylinder Shay geared engine and a Krauss 0-6-2T. The Krauss was by far the most popular locomotive on the line with the Shay suffering technical difficulties. Both engines were fitted with Westinghouse brakes.

When the line opened in 1915, rolling stock consisted of one bogie passenger carriage and a bogie guard's van each 20 feet long. These were also fitted with Westinghouse brakes. There were also seven 4-wheel open wagons with a 5'0" wheelbase. They were

Cream  
Fruit  
Cane



fitted with the piping necessary to carry the air through the train for the Westinghouse brakes but were only fitted with handbrakes themselves. Shillito and Sons of Ipswich built all nine vehicles.

The Buderim Tramway was closed in 1935.

#### **Conclusion:**

This has been a very brief overview of Shire Tramways in Queensland. It is an attempt to give you some ideas for modelling a small railway with a diversity of operations and interesting rolling stock. A layout based around one of these tramways would be ideal for a modeller with a lack of room for a larger layout.

#### **Information Sources:**

Books, articles and historical notes by researchers and historians such as George Bond, John Armstrong, Keith McDonald and John Kerr have assisted in putting this paper together.

Research can also be undertaken at the Queensland State Archives and John Oxley Library. The Workshops Rail Museum is another source that encourages research. The Workshops holds an extensive collection of station yard plans, working plan & section drawings and both public and working timetables which can help in developing your model railway.

I strongly recommend that you purchase the books that tell the story of your favourite railway. They can give you details of the railway's history, operation and rolling stock as well as track diagrams. There are several listed at the end of this paper.

Depending on your particular interests when modelling railways you can delve into a past era to build an authentic replica of your particular prototype or use the information to mix and generate your own model railway ideas.

#### **Reference Books Recommended:**

1. Bell, Peter & Kerr, John. 2002. *The Aramac Tramway Light Railway Research Society of Australia*, Melbourne
2. Ellis, R & McDonald, K, 1980 *The Beaudesert Shire Tramway Light Railway Research Society of Australia*
3. Knowles, John. 2004. *The Mapleton Tramway* Published by the author
4. Armstrong, John & Verhoeven, G H. 2000 *The Innisfail Tramway Light Railway Research Society of Australia*, Melbourne

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