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Australia's Magazine of Industrial & Narrow Gauge Railways

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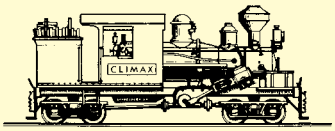

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Imperial to metric conversions:

1 inch (in)	25.4 millimetres
1 foot (ft)	0.30 metre
1 yard (yd)	0.91 metre
1 chain	20.11 metres
1 mile	1.61 kilometres
1 ton	1.01 tonnes
1 pound (lb)	0.454 kilogram
1 acre	0.4 hectare
1 horsepower (hp)	746 Watts
1 gallon	4.546 litres
1 cubic yard	0.765 cubic metres
1 super foot (sawn timber)	0.00236 cubic metre

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Editorial

I am delighted that from this issue, Chris Hart is taking over as the new editor of the *Industrial Railway News* section. Chris is a long-standing and most reliable contributor of news reports, and I am very confident that he will do a great job. He will be looking forward to receiving news contributions from you, the readers, while I will continue to assist the editorial team.

No doubt you have been impressed by the cover photo of this issue. It comes from a collection of slides from a deceased estate that came into the possession of one of our Sydney members. All efforts to discover the copyright holder have failed. We would be grateful if anyone out there who knows would contact us because there are several other images in this collection that we would like to use for covers in the future. This is a reminder to us all to make arrangements to ensure that our priceless collections are put in good hands when we are no longer in a position to care for them. *John Browning*

The Light Railway Research Society of Australia Inc. was formed in 1961 and caters for those interested in all facets of industrial, private, tourist and narrow gauge railways in this country and its offshore territories, past and present.

Members are actively involved in researching light railways in libraries and archives, interviewing knowledgeable first-hand participants and undertaking field work at industrial sites and in the forests.

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Articles, letters and photographs of historical and current interest are welcome. Contributions should be double spaced if typed or written. Electronic formats accepted in the common standards.

Material is accepted for publication in *Light Railways* on the proviso that the Society has the right to reprint, with acknowledgement, any material published in *Light Railways*, or include this material in other Society publications.

Front Cover: *North Eton Mill's 0-6-0ST Hudswell Clarke number 1 (496 of 1908) at the north end of the mill yard on 23 June 1958. Photographer unknown.*

The 80 metre long by 5 metre high Camber Bridge was built on a 2-chain curve up a 1 in 20 grade as a substitute for a second reversing station. It was lightly built and employed a handy tree stump as a pier support, nevertheless remnant bridge timbers, bed logs and iron straps were still in evidence a century later. *Photo: Bulahdelah Historical Society*

The Markwell Tramway revisited

by Ian McNeil and Mick Allison

Introduction

I researched the Markwell timber tramway back in the early 1990's and published a history in LR 132, the April 1996 issue of *Light Railways.* It included a map of the line, not a very good one, but it was the best I could do at the time. GPS technology was unaffordable so the field mapping for it was done by old-fashioned pace-and-compass method.

Comparing my field map to the 1:25,000 topographic map for the area cruelly highlighted the shortcomings of my efforts. It is one thing to pace out neat 25 metre intervals on a suburban street, quite another on rough over-grown tramway formations with vine thickets, fallen tree trunks, deep gullies and missing bridges to contend with. I was never really happy with the results.

Fast forward to the winter of 2013 and an opportunity presented itself to make amends. With the able assistance of fellow researcher Mick Allison, I returned to remap the line and take a closer look at some of the surviving artefacts. Only this time we were equipped with 21st century technology – GPS, note-takers, digital cameras and computer mapping aids – hopefully to do a better job.

A thumbnail history.

New South Wales had very few timber tramways as compared to Victoria. Geography, geology, climate and soils generally were not as conducive to producing forests with enough quality timber to justify the high capital cost of timber tramways. Government policy also mitigated against expensive tramways as authorities were reluctant to grant exclusive cutting rights to sawmillers. An exception was on the NSW lower North Coast. The rich hardwood forests east of the Myall Lakes at one time had quite a cluster of lines including the large Wootton–Meyers Point and Simsville systems plus a handful of shorter tramways.

One of these shorter lines was the Markwell timber tramway, 10km northeast of Bulahdelah. It was built by Nabiac sawmiller Frederick Phillips to tap virgin hardwood stands in what is now the Myall River State Forest. He planned an ambitious network of logging tramways extending into the neighbouring Crawford River valley where he already held some 20 miles of tramway leases.

Phillips began construction in 1907 with financial backing from the Sydney-based timber firm of Allen Taylor & Company Ltd. He built a small sawmill on the Markwell Road and a wooden-railed standard gauge (1435mm) logging tramway. He installed one of the first steam log haulers in the district on the line. Logs were railed to the mill by horse team while sawn timber was road-hauled to a wharf on the Myall River at Bulahdelah by steam traction engine.

Frederick Phillips was granted a special lease, No. 1907.13 Taree, for 26 acres from the Lands Dept for his tramway.

He had a 7-mile route surveyed from his sawmill site on the Markwell Road up to the top of the ridge dividing the watersheds of the Deep Creek and the Crawford River.

The first two miles of his tramway closely followed Deep Creek upstream, criss-crossing it several times on gently rising grades. Then things got more interesting on the steep slopes leading up to the ridge summit high above the creek. The tramway climbed away from Deep Creek on grades as steep as 1:10. A half zig-zag consisting of a reversing station and a 180° 2-chain curve was put in near the 3-mile post. From there to the railhead the tramway continued to climb, snaking around hillside contours and crossing side creeks on short trestle bridges.

Only five miles of tramway were actually built. The final two miles of the survey, to the top of the dividing ridge, were tortuous and involved another half zig-zag, more tight 2-chain curves and some very steep grades.

Allen Taylor & Co bought Phillips out in 1910 but kept him on as superintendent for the next two years. However the Markwell operation proved unprofitable and the ambitious plans for its development were never realised. Allen Taylor's focus turned to its recently-purchased Wootton Tramway where extension and the conversion from a wooden-railed horse line to a steel-railed steam operation were proving costly.

World War I was the nail in the coffin for the Markwell operation. In 1915 the sawmill was removed to Bulahdelah, the log hauler was taken to Wootton and the village became all but deserted. The tramway lingered on for a short while to benefit Allen Taylor's sleeper cutters but had closed down by the end of the war. The tramway leases were formally surrendered in 1924.

Back to Markwell

Returning to Markwell after a lapse of some 20 years it was clear there had been some changes. One was getting access to the tramway. From the Markwell Road sawmill, on the eastern side, the first two miles mostly crossed private property, hobby farms and the like. Some lengthy detours on foot were now necessary, especially up the far end where a set of impressive fortress-like gates barred access.

Fortunately getting in from the west to the sections inside the Myall River State Forest – the best preserved and most interesting parts – had become a lot easier. Access via Cedars Road was just a rough trail back in 1990. It was too much for my old 2wd sedan so there were 3km hikes up and down steep hills to get to the tramway. This time round the Forestry Department had upgraded the road to log nearby compartments to the point where we were able to get a vehicle almost right down to the line. This was very welcome because, somehow, the hills seemed to have got a lot steeper and higher than I last remembered them.

Another big change was the forest itself – it looked very different to what it was 20 years ago. Some parts had matured out of all recognition. Other areas once choked with vines and scrub were now quite open. Some of the old log tracks I had used as reference points had gone back to nature. This made locating parts of the tramway quite a challenge, even though I had my old sketch maps along as a guide. My 20-year old memories didn't prove too reliable either, and on one occasion caused us to waste a whole morning searching in the wrong area. Very embarrassing.

Human activity and nature herself had also wrought changes. Regrettably some stretches of tramway along Deep Creek had succumbed to hobby farming and road works. Periodic floods down the creek had finally accounted for the last few remaining bridge timbers.

The news was more cheerful in the hill country inside the Myall River State Forest. Both tramway formation and artefacts were quite well preserved and appeared unchanged. It was gratifying to meet a logging crew on site and find they had the tramway corridor well marked on their maps as a logging exclusion zone. I asked the foreman how come they had the old line so accurately marked when I had had so much trouble relocating it. He told me that Forests NSW were using LiDAR, a remote sensing technology employing high speed laser pulses to create three dimensional images of terrain and landscape features, to survey their forest resources. It can pinpoint features to within one metre. Later I was able to inspect a LiDAR image of the area and sure enough, the formation of the Markwell Tramway was clearly visible. What an asset this would have been 20 years ago.

Remapping the line

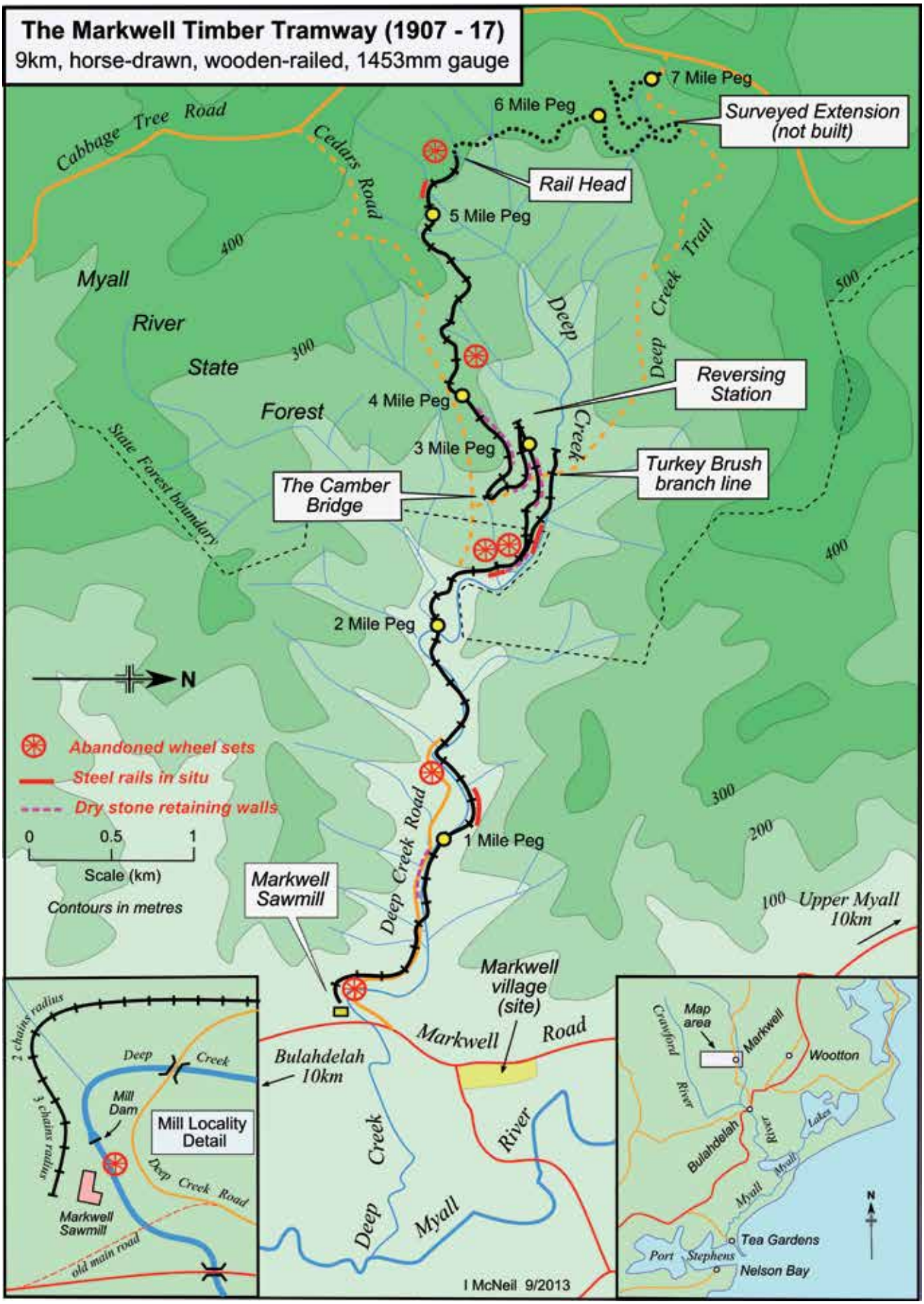
Remapping involved hiking along the formation with a hand-held Garmin etrex Vista H GPS unit set in background-tracking mode, and way-pointing key sites and artefact locations. This wasn't always possible on private property and some judicious interpolating was necessary. Under good conditions Garmin GPS accuracy is about +/- 6 metres but is dependent on how many satellites it can pick up. Heavy forest cover and deep valleys can degrade accuracy to +/- 20 metres or worse. But it is still a quantum improvement over pace-and-compass!

Although overgrowth on the formation wasn't too thick, some clearing work was still necessary. Having Mick Allison along was very much appreciated as it made the overall task so much easier. He did a lot of the navigation and machete work leaving me free to juggle GPS, note-taker, camera, pen and clip-board at dozens of waypoint stops each field trip.

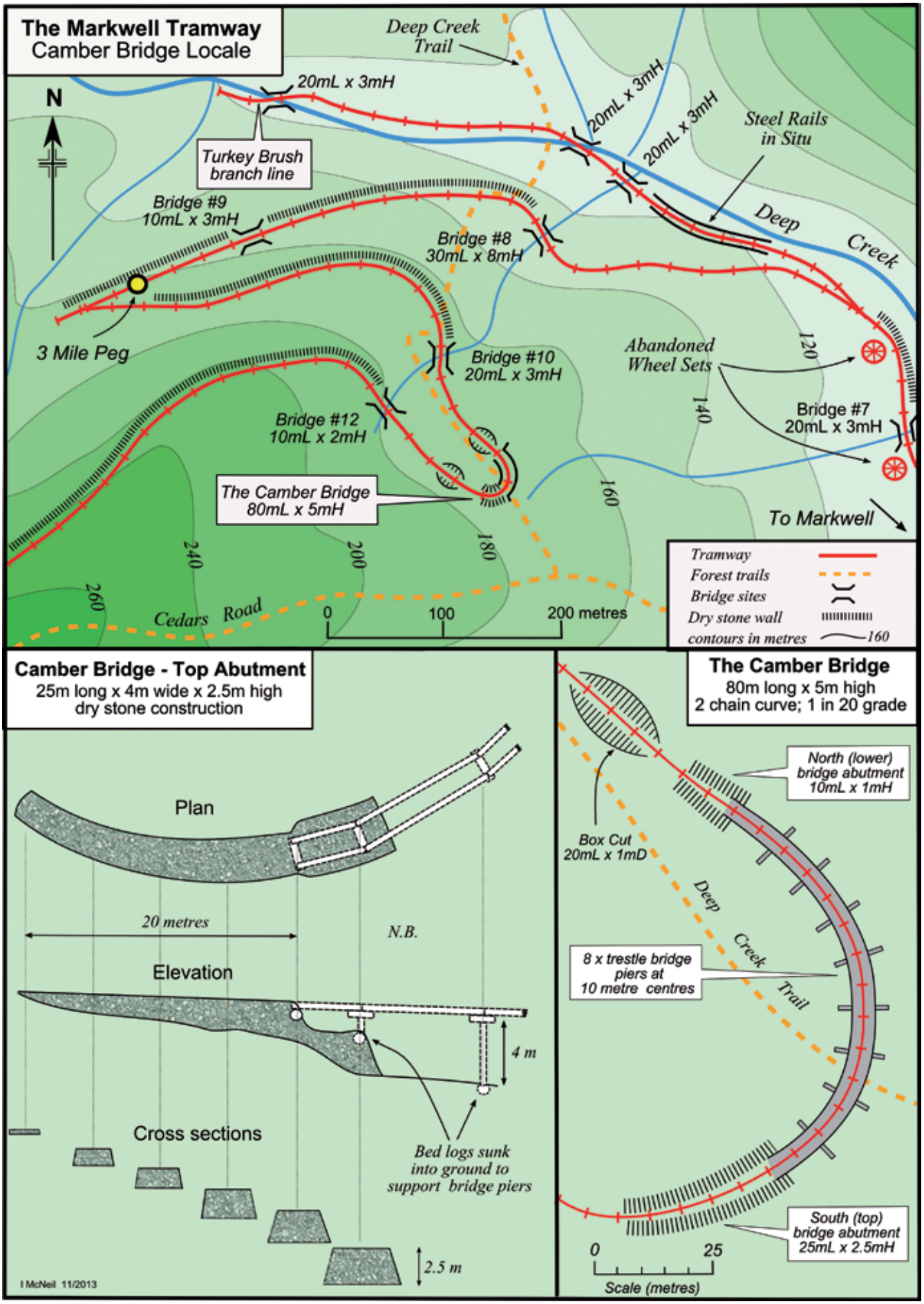
Back home GPS waypoints and track points were downloaded to computer and overlain onto a scanned image of a 1:25000 topographic base map using GPS Utility, a PC mapping program. Unlike Victoria, the NSW authorities have not made digital format topographic maps available to the general public. Therefore at least two recognisable calibration points need to be accurately way-pointed in the field to line up GPS data onto map scans. This is a challenge in some forest areas where fire trails and log roads are only approximately located on topographic maps.

Working out the gradient profile was a bit more involved. We made five field trips over a period of 3 months to remap the tramway. GPS altitude readings rely on barometric pressure so the same locations returned different heights over time. To resolve these anomalies, altitude data was loaded into an Excel spread sheet and reconciled through line-of-best-fit charting techniques.

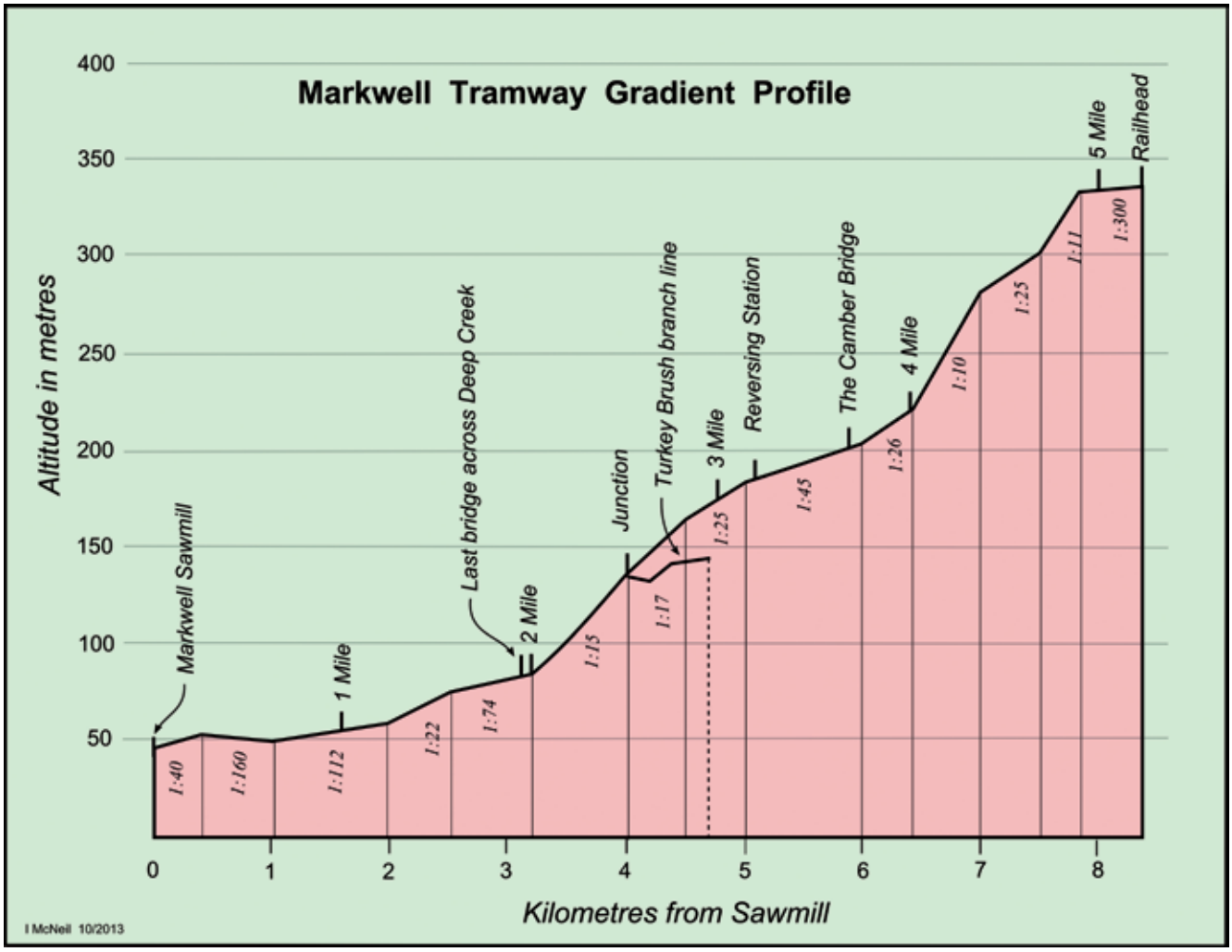
To produce the Markwell tramway map I used Inkscape, a freeware scaled vector drawing program that I find more user friendly than commercial packages such as Adobe Illustrator. Using NSW Lands Dept maps in publications involves copyright issues, so the topographic images from GPS Utility were exported to Inkscape to be used as templates. The process requires some time in front of the computer but is a great improvement on the tedious hours spent with pencil, ruler, protractor and A1-sized sheets of graph paper to produce the old pace-and-compass maps.



The Markwell Tramway was a short logging line a few kilometres north of Bulahdelah on the NSW lower North Coast. Sawn timber from its small sawmill was hauled by traction engine to the Myall River, then taken down river to Port Stephens by steam punt and finally shipped to Sydney in small coasting vessels.



Steep hills surround the headwaters of Deep Creek. To maintain reasonable tramway grades for the horse teams the line described a zig-zag on the climb away from the creek. The big Camber Bridge was built instead of a second reversing station.



The tramway ran beside Deep Creek on fairly even grades for the first two miles. The following 3-mile climb away from the creek up to the railhead involved grades as steep as 1 in 10.

The Markwell Tramway artefacts

The timber tramways I've field-mapped in NSW all have their different characteristics that set them apart from each other. For example, numerous box cuttings are a feature of the nearby Simsville system, while earthworks on the Wootton-Meyers Point line are minimal in the extreme. Langley Vale was noted for its multiplicity of trestle bridges, some very long and high. The Rhodes Timber Company's line at Mt George featured wide tramway benches and very steep grades.

The Markwell Tramway is no exception and well establishes its own identity over its short length. It had its quota of timber bridges, 21 in all, but the features that set it apart from its neighbours are its dry-stone walls, its monumental Camber Bridge abutment, and the large number of standard-gauge wheelsets abandoned along the line.

Dry stone artefacts

The most visible artefacts on the line are the lengthy sections of rough dry stone walls supporting the formation. Significant lengths of the tramway formation consist of ledges, or benches, cut into the hillside on the climb up to the railhead. Many of their outer edges are supported by dry stone walls up to 2 metres high and over 50 metres long. They were made from bush rocks and small boulders, fitted together with some degree of skill, and have stood the test of time for over a century. A long section beside Deep Creek is also supported by a one metre high dry stone wall to protect it from stream flow damage.

One of the reasons behind this stonework is not hard to see. Some of the hillsides east of Markwell are littered with sandstone rocks, ranging in size from small pebbles to large boulders. This was obviously a handy source of building material and one the tramway navvies took full advantage of.

The culmination of this dry stone work can be seen at the Camber Bridge site. This is where one would have expected to find the half zig-zag's second reversing station on the climb up this steep hillside. Instead Frederick Phillips' surveyor elected to turn the line through a complete half-circle on a 2-chain curve incorporating an 80-metre long, 5-metre high trestle bridge. The upper end of the bridge was anchored by an impressive dry stone abutment, 25 metres long and increasing to 2.5 metres high by 5 metres wide at its stepped outer end. It is still a very striking sight. By contrast, the dry stone abutment at the lower end of the bridge is an insignificant little structure barely a metre high.

We spent a rewarding day recording the old bridge site, clearing undergrowth and taking measurements. Fragmentary bed logs and bed-log indentations show the bridge had 8 trestle piers set at approximately 10-metre intervals. Remnant girders can be seen on the ground where they fell many years ago as well as some of the iron bolts and clamps that held them together. The Camber Bridge climbed on a sharp curve across a dry shallow depression in the hillside and we estimate it would have been 5 metres high in the centre. The only known photograph shows it was wooden-railed and decked with rough-cut bush timber for horse teams.

Above: *Ian McNeil on the south side of the big dry-stone abutment that anchored the top end of the Camber Bridge. This impressive piece of work is 25 metres long and extends up to 2.5 metres high and 5 metres wide. Photo: Mick Allison*
Left: *The north side of the Camber Bridge abutment. Horizontal bed logs once reinforced the top of the stone work and supported the bridge take-off. The abutment stepped down and continued for another 5 metres (off camera) to a 3-metre high end face that supported the first bridge pier. Photo: Ian McNeil*

Wheelsets and rails

Another notable feature of the Markwell Tramway are the many abandoned standard-gauge log-bogie wheel-sets scattered along the line. These are presumed to have been inherited from the nearby short-lived Crawford River Tramway (LR 129), the leases of which Phillips took over in 1907. Some 16 sets were counted back in 1991/2 but a few are now missing and perhaps have been souvenired.

Two types of wheelsets have been identified. The most common consists of a pair of steel wheels, each with 7 curved spokes, fixed on a 4inch (100mm) diameter steel axle. Typical wheels measure 540mm OD with a flange height of 50mm and a tread width of 110mm. The words "CLYDE" and "NSW" are stamped on the backs of some of the better-preserved wheels.

A good example of this type of wheelset is found in the remains of a 4-wheel end-tipping truck standing beside the tramway near the 4-mile mark. The truck's wooden body succumbed to bush fires many years ago but much of the metal work survived. The iron frame, pivoting axle and half-height cast iron bearings sit in place on top of the truck's axles. A tangle of iron straps and bolts that once held the woodwork together was collected and placed alongside during the first investigation in 1992.

The second type of wheelset is found only at the railhead beyond the 5-mile post. It appears to be an older type with smaller wheels and wider flanges. Each wheel has 4 straight thick spokes and measures 510mm OD with a flange height of 40mm and a tread width of 120mm. The 75mm diameter axles have mostly corroded completely away, leading to speculation that the wheels originated from some narrow gauge line and were re-gauged to 1435mm with poor quality steel bar. There are eight wheels and cast iron bearing blocks at the railhead, probably all that remains of a pair of 4-wheel log bogies.

These standard gauge wheelsets would have been too wide for owner Allen Taylor's 3ft 6in (1067mm) gauge Wootton Tramway. Presumably they were judged unsuitable for regauging but it still begs the question as to why they were not collected and sold for scrap.

The Markwell line was a wooden-railed tramway, and indeed a fragment of wooden rail was found during the initial 1991-2 surveys. Lengths of steel rail strap, used to cap wooden rail to prevent wear, were present at two bridge sites. Straps we measured were 50mm wide by 12mm thick and had 85mm long x 12mm diameter metal pins set about 900mm apart protruding from the underside.

At three other locations however, steel rails were found indicating that the tramway was not exclusively wooden-railed. Heavily-corroded specimens appear to have been lightweight rails, probably in the order of 20lb/yd. At Bridge #7, half-way between the 2-mile and 3-mile posts, there is a tangle of rail as well as two damaged wheelsets. Rail lengths were also found in situ on a narrow ledge beside Deep Creek near the 1-mile post. Here the tramway formation is almost at water level and squeezes between the creek and a near vertical hillside. The best preserved section, however, is a 150 metre length on the short Turkey Brush branch line where parallel rails are still in situ on a wide ledge.

The mill dam

A small concrete dam on Deep Creek is all that remains of the grandiosely-named 'Skipton Sawing and Planing Mill' – aka the Markwell Sawmill – near the main road. The tramway formation can be identified on the mill approach, along with an abandoned wheelset.

Heritage Protection of the line

It is inevitable I suppose that abandoned railway lines gradually fade away. Timber tramways seem especially susceptible; bushfires, floods and decay take care of wooden structures, erosion crumbles embankments and cuttings, and vegetation invades the old formations.

But their biggest enemy is us. Land reuse, agriculture and timber getting can delete every last trace of a tramway. My pet hate is the ratbag element of the 4WD and trail bike fraternity who treat tramway formations as vehicle challenges, race tracks and obstacle courses. The damage they cause is devastating. I've seen erosion gullies two metres deep caused by such vandalism.

We would like to see sections of the Markwell Tramway preserved inside the Myall River State Forest. The dry stone walls and the Camber bridge abutment are high on the list. But a delicate balance seems advisable between developing official awareness and not publicising locations for the above-mentioned ratbags.

Fortunately Forests NSW have the main formation marked as a logging exclusion zone, and local foresters are sympathetic towards the heritage value of the remaining artefacts. The local Bulahdelah Historical Society is supportive of initiatives to preserve local heritage and is also on side.

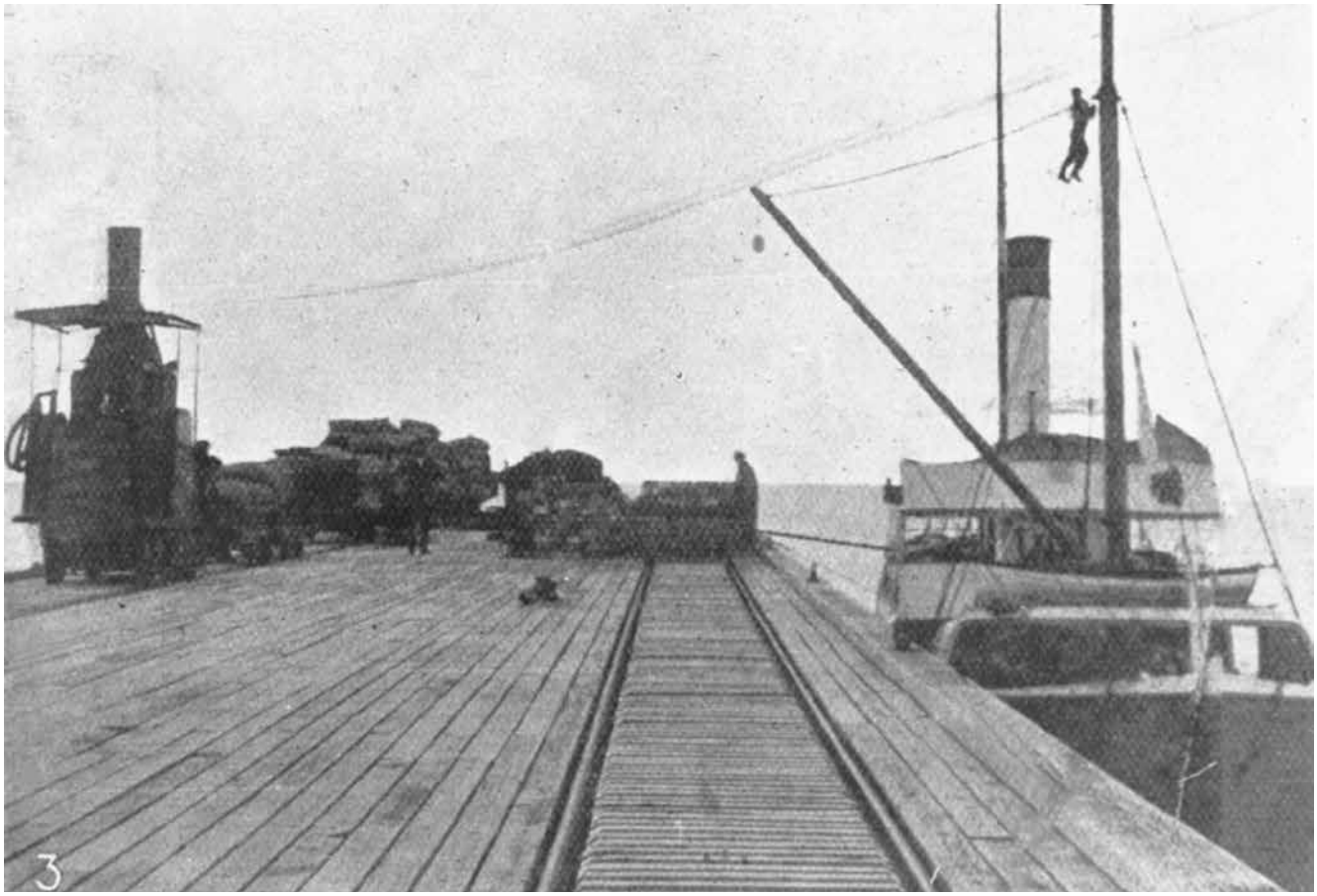
While it would be nice to block vehicle access to key areas, funding is not available for this sort of protection, so it is not going to happen anytime soon. For the time being perhaps the most practical course of action would be to keep Forests NSW, the land managers, on side but otherwise maintain a low public profile. Having said that, perhaps I should not have submitted this article to *Light Railways*?

Above: *Mick Allison and the remains of a standard-gauge 4-wheel end-tipping muck wagon abandoned beside the tramway near the 4-mile peg. Metal pieces nearby indicate it was a wooden bodied wagon held together by iron brackets and straps. The 7-spoked wheels have an overall diameter of 540mm, tread width 110mm, flange depth 50mm and are stamped "CLYDE NSW".*

Above right: *A length of 50mm wide x 12mm thick iron rail strap at a bridge site near the rail head. It has 10mm diameter x 85mm long iron pegs inset every 910mm. The tramway was initially constructed with wooden rails, It appears that some, if not all, track across bridges was capped with rail strap like this.*

Right: *At the rail head beyond the 5 mile peg lies the "elephants' graveyard" where the remains of four abandoned wheelsets are scattered around. Most of their 75mm diameter axles have completely corroded away. These 4-spoke wheels are smaller in diameter but have wider treads than other wheelsets found on the tramway.*

Photos: Ian McNeil



JS Lee's "Coffee Pot" locomotive on the newly constructed jetty at Pelican Point, with the steamer Orion *alongside.*
Image: Weekly Courier *23 July 1904. Tony Parnell collection*

The genesis of the Marrawah Tramway

by Jennifer Parnell

In the 1890s, the far north-west of Tasmania was epitomized by its immense potential for commercial enterprise in both agriculture and timber milling, and its total underutilization due to the inadequacy of road and port access to the region. The community members of Marrawah, fed up with the vague responses of government to their repeated requests to rectify this issue, took matters into their own hands. They formed the Marrawah Tramway Company and set about constructing their own tramway to overcome the constraints of distance and isolation. Although the ambitious project was an eventual success, its future was jeopardized by inadequate funding, inappropriate and expensive materials and the threat of alternate railway proposals. Regardless of the setbacks the tramway was completed, illustrating the tenacity of its proponents in striving for and achieving their objective.

The lay of the land: the potential of the far north-west

The settlements of the far north-west (Fig 1) were characterized by both their potential and remoteness. With the discovery of large tracts of first and second class land in the 1850s, agricultural development was the obvious choice. Yet the early farmers were unable to establish enterprising businesses as they were constrained by a number of fundamental factors, including the debilitating effect of an economic recession that negatively impacted upon the price of produce until the 1880s, and the grave difficulties in sourcing inexpensive labor to clear heavily forested land. This shortage of labor was compounded by the fact that farm equipment was also scarce due to the impoverished state of the region and the rough nature of the land.[1] The work was relentless, and as a result the majority of farmers were focused on achieving self-sufficiency.

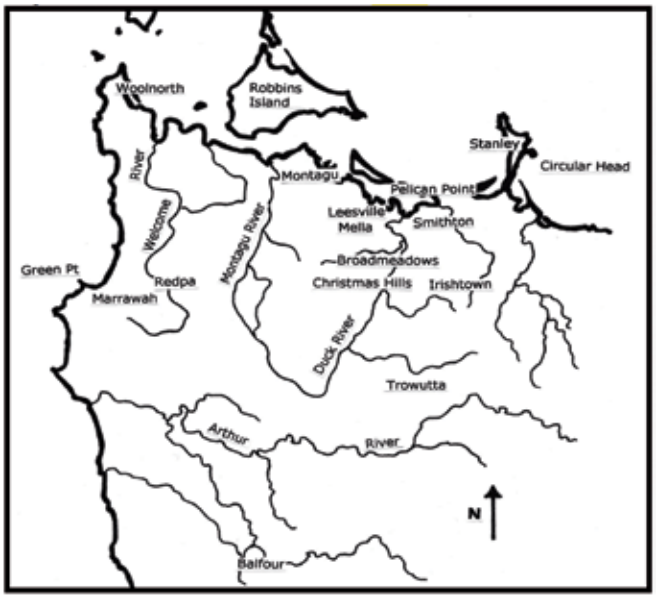


Fig 1: Settlements of the far north-west[6]

Whilst progress remained slow – only 2000 acres in the Circular Head region were under cultivation in 1900[2] – life was slowly improving for the farmers in the far north-west. Land was being settled in a continuous block, rather than in individual

clusters or stand alone selections, illustrating the superiority of the 'first-class chocolate soil'.[3] In addition, agricultural produce was progressively being recognized for its quality, exemplified by the highly prized cash crops of Redskin Potatoes in the markets of Sydney and Melbourne.[4] There was also a flourishing cheese and butter enterprise in the region that was well established by 1904.[5] However, the process of development was still hindered by the lack of available facilities to transport goods to market in an acceptable timeframe.

In contrast to the immediate recognition of the potential for agricultural development, the valuable hardwood timber resources of the area, including blackwood and myrtle, were not fully realized until the 1880s. The early farmers were intent on developing the land for crops, perennials and pasture, to which trees were considered their biggest obstacle. As a result millions of tons of virgin forest were ring-barked and burnt to make way for agriculture without any regard for its commercial value. In addition, the clearance, drainage and conversion of swampland to pasture destroyed much of the natural habitat of blackwood.[7] In 1886 the Tasmanian Conservator of Forests, G Perrin, warned that steps were necessary to protect the stands of blackwood and safeguard the future of the burgeoning industry.

If blackwood is destined to continue to be a staple product of the North-west Coast, it is quite evident that unless means be taken to propagate and conserve it …this tree must in the nature of things become scarce, and blackwood as an article of commerce practically extinct.[8]

Although a number of families established sawmills in the area, it was JS Lee who was considered the patriarch of the industry. Lee founded a sawmill operation in 1884 at the mouth of the Duck River to exploit the extensive blackwood stands of Mella, Christmas Hills and Broadmeadows.[9] The difficulties facing the farmers in regard to transport facilities also hampered timber getting and milling operations, whereby an appropriate outlet was a necessity to convey felled logs to the sawmill and the sawn timber to market. Lee's newly formed company, JS Lee & Sons, overcame this constraint by laying down steel rails between the sawmill at Leesville and wharf facility at Duck Bay in 1885, one and a quarter miles in distance.[10] Due to the success of this short tramway, the company extended the line further west, adding a series of branches to access various coupes as the company expanded its holdings. This tramway, which by 1906 extended approximately six miles south-west of Smithton (Fig 2), was to form the eastern end of the Marrawah Tramway.

Constraints of distance: inadequate road and port access

The common theme among the agricultural and timber milling industries in the early 1900s was the distinct lack of transportation to facilitate the movement of goods to market, thereby inhibiting the equitable growth of either industry. In addition, the process of settlement in the far north-west was severely hampered by the limited means of communication

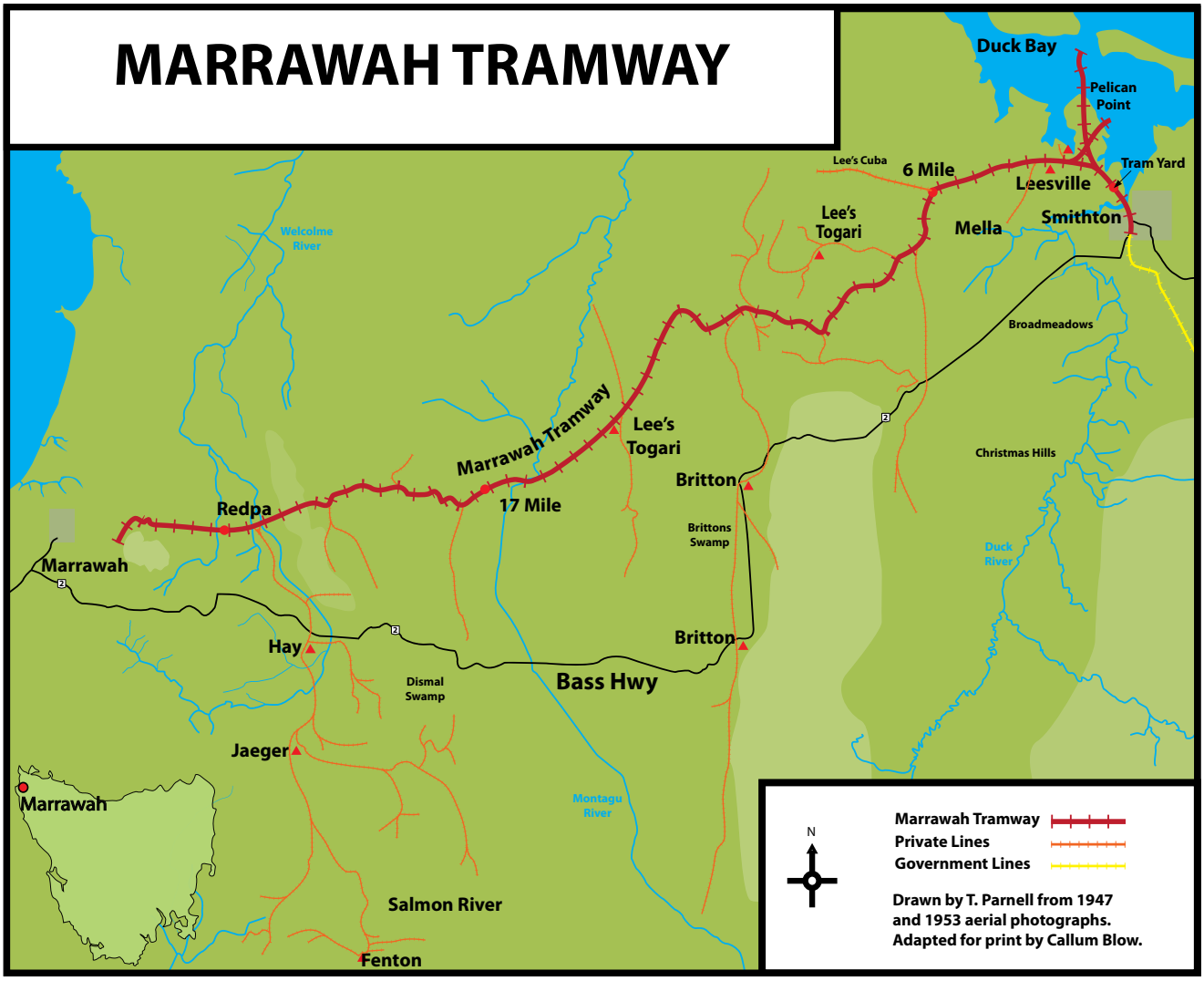


Fig 2: The Marrawah Tramway extended for 26 miles between the township of Smithton and the settlement of Marrawah. JS Lee & Sons constructed and maintained ownership of the tramway to the six mile peg.[11]

with the rest of the state and the mainland. During the early 1900s, district surveyor K.M. Harrisson became increasingly exasperated by the lack of adequate road access in the outlying areas of the Wellington District. In his annual report of 1904/05 Harrisson reported:

In no other district in Tasmania can you find a settlement consisting of between 30 000 and 40 000 acres of land, where selectors have lived for 50 years, and yet denied the privilege of a metalled road to connect them with the outside world'.[12]

The roads linking the settlements of the far north-west were vital in maintaining the survival of both industry and the settlements. The road between Smithton and Montagu was passable; however as it headed south-west towards Marrawah it degraded sharply into a sandy, boggy track suitable only for vehicles with skid chains or buggy and cart. This road, according to Cooley, was merely an overland track that became a quagmire during the winter months and after heavy rain, making it practically impassable under such conditions.[13] The district surveyor, F. Windsor, reported in his survey of the Wellington district for 1906,[14] that whilst settlement was progressing steadily and land values climbing, the question of road access in the far north-west was not fully understood, as legislators failed to recognize that success and failure for these settlers was directly dependent on the issue of access.

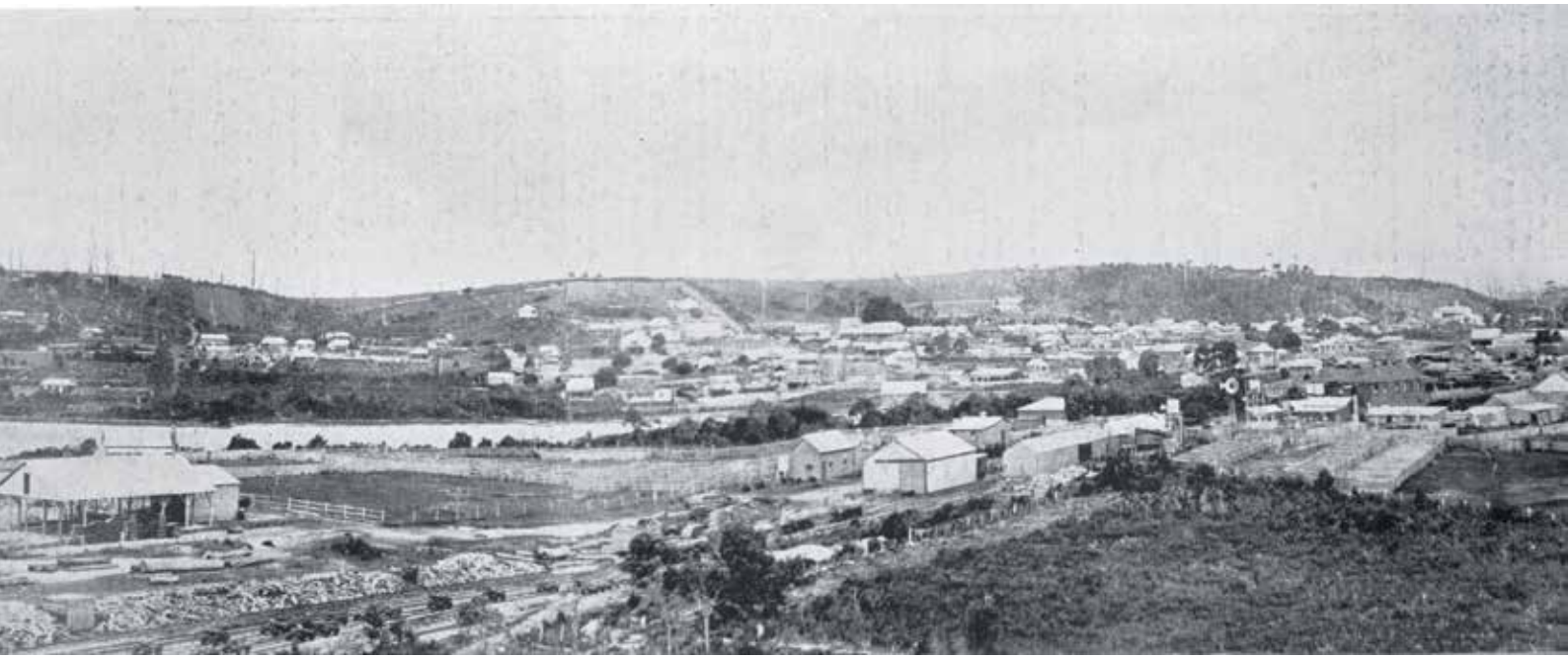
The isolated settlement of Marrawah in particular was constrained by the inadequacy of its road access. As a result, it utilized shipping networks to export produce from the farms in the district. A jetty was constructed at Green Point on the coast west of Marrawah in the late 1800s. Green Point Jetty was the subject of jurisdictional conflict between the Minister of Lands and the Marine Board of Circular Head[15] with neither party taking full responsibility for its upkeep. The jetty was unofficially named 'Port Risky' due to the inherent dangers associated with pulling alongside as it was exposed and continually battered by rough seas. Produce was transported to the jetty via a trolley and was often loaded into small boats to be ferried out to larger vessels waiting at anchor in less than ideal conditions. This process often inhibited the loading of produce in an acceptable timeframe and as a result 'Port Risky' was used infrequently, with the last recorded visit in January 1907.[16]

A large trainload of blackwood logs enroute for milling at Smithton. Image: Tasmanian Mail *3 December 1924. Tony Parnell collection*

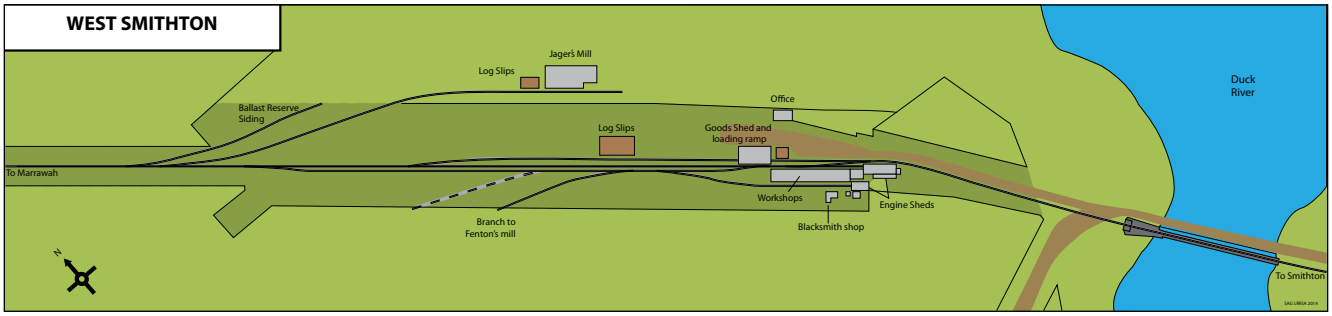
The situation of the inadequacy of the port facilities is best exemplified by A Ford, a local farmer, in the evidence he gave before the Select Committee in support of the Marrawah Tramway Bill 1906. When asked by the Chairman how long his produce had to wait lying on the beach for a boat, Ford replied, '*. . . on one occasion for fourteen weeks . . . several years ago some seventy tons went rotten while waiting on the beach for a boat*'.[17] Such instances would not have been rare, and as a result many farmers, seeing the futility of their efforts, did not develop their holdings to their full potential.

Overcoming adversity: the Marrawah Tramway

The detailed shortcomings of the existing road and port access were in dire need of rectification in order to promote industry development and encourage further land settlement in the far north-west. Repeated submissions requesting the State Government to construct a railway to service the region were met with indifference, the only outcome being the recognition of government inaction over such proposals.



Smithton, 1921 showing the Marrawah tramway yard at West Smithton, with Jagers mill on the left.
Image: Weekly Courier *23 June 1921. Tony Parnell collection*



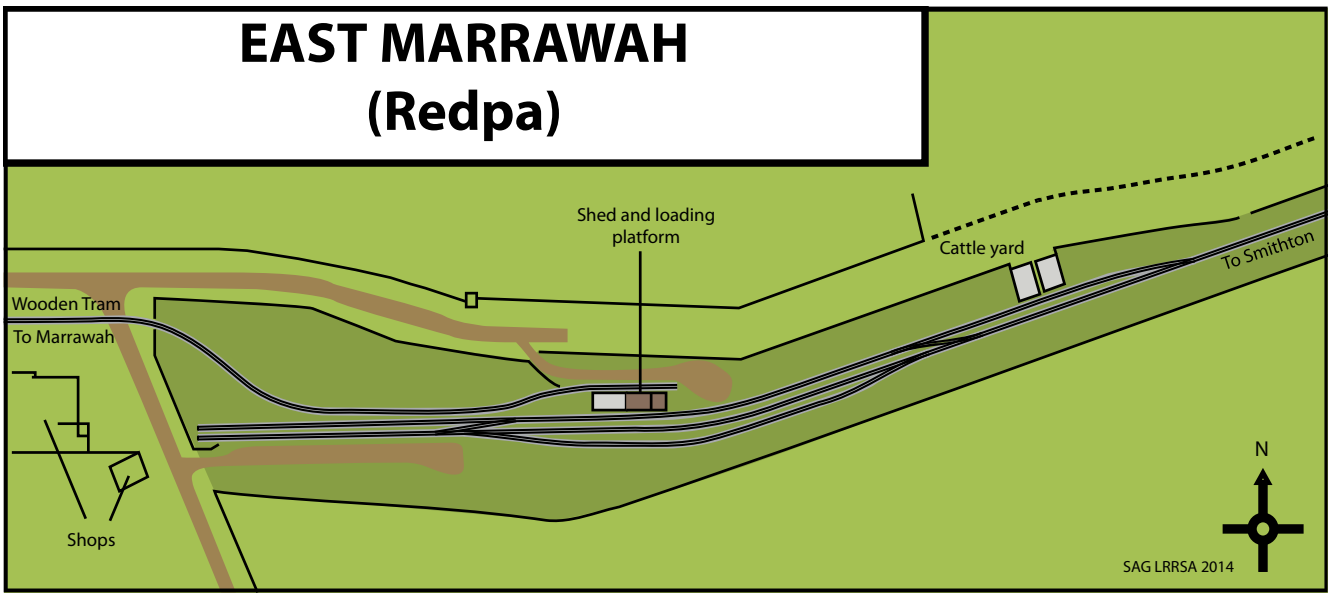
During this period there were a number of new localities opening up that requested similar facilities, and with the pluralistic State Government putting each locality on an equal footing, few proposed railways were ever completed. The community of Marrawah recognized it would be one of the last localities to secure a government built railway, and after seven years of petitions and receiving vague promises the community decided to act independently and construct its own tramway.[18]

A number of influential community members founded the Marrawah Tramway Company as a vehicle to construct the twenty-six mile tramway at a cost of £4000.[19] The driving force behind the scheme was Ford, during both the construction period and as the manager of the company until his death.[20] The major benefits of the tramway included the opening up of up to 50 000 acres of first and second class land for settlement, in addition to valuable hardwood coups; and considerable value adding to the land,[21] significantly improving the economic viability of the region. As a result the majority of settlers rallied behind the company, buying up stock options when it floated and volunteering their labor to clear, form and fill the track. Their enthusiasm for the scheme was no doubt due to a distinct lack of options.

The proposal put forward by the newly formed Marrawah Tramway Co was submitted to the House of Assembly in a Private Bill by the member for Wellington, CJ Mackenzie. The bill requested authorization to build the tramway and concessions for both a 5000 acre lease and the strip of land on the proposed route.[22] It received overwhelming support, with the leader of the opposition, J Earle, stating that whilst his party did not generally support private railways, they would make an exception in this case due to the collective nature of the scheme between the settlers that could be only beneficial to the district.[23] The Bill in its second reading in the Legislative Council was described by the Hon W Crosby as '*the best bill in connection with land which has been before the council for many years*'.[24] It was subsequently carried through both houses with only minor amendments, thereby securing the future of the tramway.

In the original proposal the tramway was to run between the settlements of Marrawah and Montagu providing access to shipping at the Montagu River Jetty. However, JS Lee & Sons petitioned to have the route changed to connect with Lee's existing tramway network leading into Smithton and the port facilities at Pelican Point in Duck Bay[25]. The Marrawah Tramway had the full support of JS Lee and Sons who no doubt saw the enormous potential benefit for their business interests.[26] The Marrawah Tramway Company formed a quasi partnership with JS Lee & Sons who agreed to provide the rails at the Smithton end for £450 per mile in return for 1000 shares and the contract to clear the leased land.[27] JS Lee & Sons was to remain an influential actor, offering financial assistance throughout the construction phase of the tramway in the absence of government involvement.

In addition to the financial assistance and partnership arrangements with JS Lee & Sons, a number of other key factors assisted in the eventual success of the tramway by keeping construction costs to a minimum. Firstly, the tramway received immense public support as many residents of Marrawah were shareholders in the company who readily volunteered their time and labor. So much so that had this not been arranged the company might have incurred serious losses.[28] Secondly, the relatively flat topography of the proposed route required little necessity for large constructions such as bridges, culverts and zigzags to carry a tram over difficult ground. Thirdly, the tramway did not demand the superior quality and strength of the typical government railways of the same era, as blackwood logs are light in comparison to other hardwood varieties.[29]



The threat to success: inadequate resources and intense competition

Although the tramway was an eventual success, it was not without its financial problems. In the annual meeting of the Marrawah Tramway Co for the year ending 1908,[30] Ford stated that progress was continuing at a steady rate with the line cleared throughout and metal rails laid to the eight mile peg. However, he stipulated that work was being retarded somewhat due to a number of shareholders who were in arrears with their financial contributions, necessitating the employment of fewer men than the directors had hoped for. This trend continued into the following year, where again Ford berated shareholders for not paying their due,[31] severely limiting their resources and capability to progress at a satisfactory rate. Subsequently construction on the tramway continued only as funds permitted.[32]

The issue of inadequate funding was compounded by the company's inability to secure adequate materials at an acceptable price, in particular the sourcing of iron and steel rails. The proposal submitted to Parliament in 1906 outlined that a significant portion of the tramway was to be constructed with wooden rails and serviced by horse drawn wagons, a direct result of the widespread shortage of iron rails across Australia at the time.[33]

Sourcing materials continued to plague the company during construction. For the year 1908/09, only one mile of track was laid which, according to Ford in his report at the Annual Meeting in 1909 was due to inadequate funding, the inability to secure iron or steel rails, and partnership difficulties with JS Lee & Sons[34] in what may have been a disagreement over the renewal of a contract but was settled prior to this meeting.

The precarious financial position of the Marrawah Tramway Company enhanced its vulnerability and placed it in direct competition for resources with numerous alternate railway proposals in the region. Many settlements in the far north-west forwarded petitions to the Circular Head Council for tramway services due to the inadequacy of existing road access. The tramway movement was considered by the council to be one of the greatest steps towards progress, by providing a means to encourage development to its fullest extent, culminating in Circular Head becoming one of the most important provinces of the state.[35] The Marrawah Tramway was seriously threatened by two alternate proposals for lines, Stanley-Trowutta and Stanley-Balfour.

During the early phase of construction on the Marrawah Tramway, opponents to the scheme, believing it to be a reckless waste of expenditure, lobbied intensely to have the funding diverted to building a railway between Stanley and Trowutta,[36] arousing a storm of controversy. The Stanley-Trowutta proposal was a popular scheme (Fig 3), a positive move towards developing the back country by providing access to first class agricultural land and valuable timber stands, and giving settlers in this area an avenue to get their produce to market.[37] Ford was commissioned by the Circular Head Progress League to survey a route for the proposed tramway. He reported that there would be no engineering difficulties in construction, and estimated the tramway would cost £31 000 to complete, an amount that could be secured under the Tramways Act.[38]

The Marrawah Tramway Company was considered the most appropriate vessel to carry the Stanley-Trowutta scheme to completion. However, the Board of Directors was reluctant, aware of the difficulties in securing funding from the government and of the inability of the company to independently fund two tramways. The ensuing debate over which scheme should proceed was severely polarized and resolved only through the intervention of the Circular Head Council. A motion was put to the council to separate the Marrawah Tramway from the overall railway scheme of Circular Head.

Fig 3: The proposed Stanley–Trowutta Tramway[39]
ARHSnsw Railway Resource Centre

The first consignment of freight to traverse the newly finished tramway in 1913.[50]

It was carried with only the Warden voting against it, claiming the people of Marrawah did not have the right to interfere with the whole municipality through an act of favoritism that might jeopardize a larger scheme. The other councillors disagreed, stipulating that there was no other outlet for the people of Marrawah and the council was obligated to give them that outlet and an opportunity for progress.[40] This outcome may have been unduly influenced by the number of Marrawah Tramway Company shareholders and directors who also served on the Circular Head Council.

The success of this motion did not, however, ensure the protection of the Marrawah Tramway from the Stanley-Balfour Tramway. The remote settlement of Mount Balfour experienced a copper mining boom which had the potential to turn Stanley into a strategic deepwater port and benefit the entire region, if adequate means of access could be assured. An electric tramway was touted as the most effective way to transport copper from the mines at Mount Balfour to Stanley and as such gained immense public support. The Circular Head Council recognized the potential of a booming mining town at Balfour and worked quickly to stake its claim, borrowing £10 000 from the State Government under the Tramways Act to lend to the newly formed Mount Balfour Copper Mining Co NL to commence work on the railway.[41]

It soon became apparent that the development of the ambitious project was being somewhat constrained by the blatant mismanagement of the company. Exorbitant director and administration fees were withheld by the Mount Balfour Copper Mining Co No Liability,[42] resulting in insufficient funding for construction of the electric tramway. The people of the far north-west became skeptical in the face of this mismanagement, yet the Circular Head Council continued to support the project, causing much speculation over the number of councillors who were shareholders. In reply the council vehemently asserted that only one councillor was in fact a shareholder.[43] The Council's ongoing support may have been a product of the numerous benefits to the region if the project succeeded, but was quite probably due to the fact it was guarantor on the loan granted by the State Government.

The Circular Head Council was in a bind; it needed to raise funds to support the Stanley-Balfour Tramway or suffer the financial loss and extreme embarrassment of its failure. Cooley makes the claim that the council contemplated a proposal to rate Marrawah to further fund the development of the Stanley-Balfour line.[44] It was soon recognized, however, that if this occurred the people of Marrawah would not be able to continue funding the Marrawah Tramway. Szajna *et al* reiterate this, stating that once the people of Marrawah learnt they were to be rated for the Stanley-Balfour line, their support for the idea was quickly abandoned.[45] The electric tramway did not succeed and the Mount Balfour Copper Mine Co NL collapsed soon after, as it became apparent the mines were not a profitable venture in the long term.[46]

The push to the end: a sense of accomplishment

In overcoming these obstacles the Marrawah Tramway began to take shape and its future seemed assured. In the summer of 1910-11 construction began on the Marrawah end of the tramway, with wooden rails leading eastward to meet the steel railed section at the 17 mile mark.[47] The two ends finally met in 1913 and the first consignment of freight was delivered. On completion the Marrawah Tramway boasted miles of earthworks, bridges, a telegraph system, steam locomotives, and rolling stock carrying passengers and goods.[48] The government successfully negotiated and acquired the assets of the Marrawah Tramway Co in 1914 for the sum of £26 000. Further negotiations were conducted in 1915 with JS Lee & Sons to purchase the remainder of the line from the 6 mile peg to Smithton. On completion of this, the Marrawah Tramway in its entirety was incorporated it into the state's public transport network.[49]

The Marrawah Tramway was an ambitious project initiated by a collective of community members who pooled their resources to overcome the constraints of distance and isolation, thereby capitalizing on the potential in the far north-west for commercial enterprise in both agriculture and timber milling. The formation of the Marrawah Tramway Company and the overwhelming support for the Marrawah Tramway Bill 1906 in the Parliament of Tasmania illustrated the willingness of the proponents to overcome government inaction, and that of government to ascribe responsibility elsewhere. The tenacity of the Marrawah Tramway Company and a significant amount of political manoeuvering facilitated its success in overcoming adversity in the form of inadequate funding, inappropriate materials and alternate tramway proposals. The tramway was an eventual success, giving its supporters exactly what they wanted; a government run railway to service their region.

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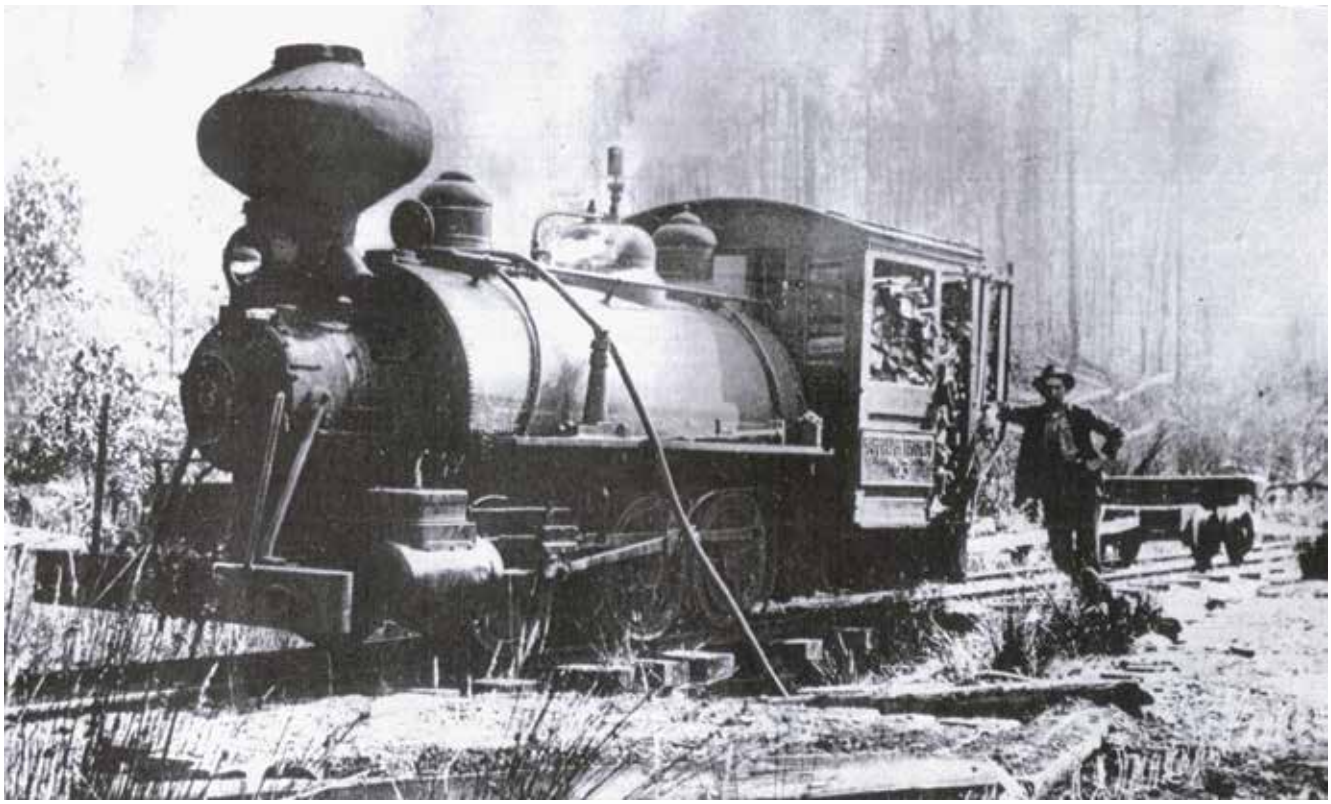

Wood-burning Baldwin 0-6-0ST 'Big Ben' (52512 of 1919) takes water while working on the Marrawah Tramway.
ARHSnsw Railway Resource Centre 032496

A 25-ton double ended flameproofed battery locomotive, numbered 2, for underground coal mine use in NSW. A number of these were supplied to Newcom, Elcom and Kandos in the early 1980s and one could have been displayed at the AIMEX 83 mining exhibition in Sydney in 1983. NSW State Mines such as Cooranbong, Myuna and Newvale are among those who may have operated this large and sophisticated type of locomotive, but this is an area in need of much further research, particularly in view of the enormous changes that have occurred in the industry since that time.

The George Moss story – an introduction

by John Browning

George Moss Pty Ltd began as a small agency and contracting business servicing the mining industry in Cue, Western Australia in 1935, supplying compressed air equipment and other supplies. The company commenced manufacturing in 1946. A wide range of products was developed over the years, including railway locomotives, personnel carriers and rolling stock, and equipment for power generation, pumping, drilling, excavation, ventilation, and railway maintenance using the trade name *Gemco*.

The first locomotive was a 1½ ton 4hp battery locomotive built in 1956, and by 1985 more than 1000 locomotives had been constructed, at two manufacturing plants in Perth. Most of these were narrow gauge battery-electric and wire-electric locomotives for industrial use, although some diesels were also built. A significant proportion of the locomotive production was exported, with mining companies in the Philippines, Indonesia and South America being among the major customers. Some of the other countries that saw the use of Gemco locomotives were Zambia, Peru, New Zealand, Mexico, Bolivia, Ecuador, India, Papua New Guinea, Fiji, Portugal, Burma, and Canada. Gemco also supplied many locomotives to Australia for mining and construction use.[1] The initial locomotive manufacturing facility was at Leederville. It moved to new premises at Osborne Park in about 1978.

Electric locomotive designs seem originally to have been derived from English prototypes. It appears that some designs were based on originals produced by Wingrove & Rogers Ltd, Liverpool, and a design staff member was recruited from Greenwood & Batley Ltd, Leeds. Flameproofed battery locomotives were produced for coal mining. Trolley wire locomotives ranged from 3 tons to a 30-ton 400hp model, including tandem units. In 1973, three 20 ton wire-electric/battery electric locomotives for Mt Isa Mines were built under licence from Greenwood & Batley.

For a few years from 1964, diesel locomotives were supplied under licence from CH Funkey & Co (Pty) Ltd, Johannesburg, Transvaal, South Africa, under the "Gemco-Funkey" name, but Gemco later graduated to their own diesel designs.[2] The company also had a licensing agreement with the French company Société des Anciens Etablissements L Geismar for the supply of rail maintenance equipment. Equipment supplied included a number of track jacks and sleeper renewer machines for Queensland sugar mills.

Rolling stock for mining and construction purposes was also manufactured including Granby cars and bottom dump cars.

Like Sydney manufacturer EM Baldwin & Sons, Gemco were prepared to build locomotives to individual customer requirements, assisted by the fact that they manufactured their own traction motors. As a result of this policy, any range of locomotive types is representative only. The following ranges of battery locomotives have been obtained from catalogue information. It appears that the smaller wire electric locomotives were closely based on the battery types.

Battery locomotive standard range around 1980[3]

Weight	Type	Motor(s)	Gauge	Length
1½ tonne	0-4-0BE "Trammer"	1 x 5hp	500mm - 600mm	1650mm
1½ tonne	4wBE "Trammer"	1 x 5hp	500mm - 600mm	1765mm
3 tonne	4wBE "Hauler"	2 x 5hp	500mm - 600mm	2415mm
5 tonne	4wBE	2 x 10hp	500mm - 750mm	3050mm
8 tonne	4wBE	2 x 20hp	600mm - 900mm	3200mm
10 tonne	4wBE	2 x 25hp	600mm - 900mm	3250mm
20 tonne	4wBE + 4wBE tandem	4 x 25hp	600mm - 900mm	7140mm

Battery locomotive standard range around 1985[4]

Weight	Type	Motor(s)	Gauge	Length
1½ tonne	4wBE "Trammer"	1 x 6hp	475mm - 600mm	1765mm
3½ tonne	4wBE "Hauler"	1 x 14hp	457mm to 762mm	2250mm
5½ tonne	4wBE	1 x 25hp	610mm minimum	2485mm
8 tonne	4wBE	2 x 20hp	610mm minimum	3200mm
10 tonne	4wBE	2 x 25hp	610mm minimum	3250mm
15 tonne	4wBE Flameproofed	2 x 41hp	914mm minimum	4300mm

It appears that the larger single motor battery locomotives were redesigned during the 1980s to allow the motor to be mounted in an inclined configuration in front of or besides the driving position. This enabled the use of larger motors that would not have fitted between the wheelsets.

In 1986, George Moss Pty Ltd became George Moss Ltd as the result of a public share float designed to raise $2m to fund expansion, including into the airport push tractor market. An increase of turnover of over 50% over the next three years was predicted by the Chairman Frank E Quilty and Managing Director Frank A Quilty. By this stage Gemco claimed to be Australia's only manufacturer of underground battery locomotives.[5] Unfortunately, this move was not totally successful and in late 1989 trading losses and a lack of capital for expansion led to a "cash starved" Gemco having to submit to a takeover offer from Futuris Corporation, a diversified Australian company.[6]

As part of the Futuris organisation, Gemco enjoyed some success during the early 1990s but the decision was taken to cease its operations. Locomotive production at Gemco continued to at least 1995 but in June 1997, a major auction of equipment took place at Osborne Park.[7] A management buyout of the railway maintenance equipment part of the business in September 1997 ensured that the Gemco name survives in the form of Gemco Rail Pty Ltd of Forrestfield.[8]

It appears that Gemco did not keep a single builder's list in serial form. The serial numbers on the builder's plates used appear to be made up of three components. The first was the motor number(s) (or in the case of diesels the engine number). The second component appears to be a serial number of the particular type involved. The third indicated the year of construction. Thus the locomotive with Gemco serial number 12440/145/67 was fitted with motor number 12440, was number 145 of its type (1½ tonne trammer as it happens) and was built in 1967. Often the number has been noted from the builder's plate by enthusiasts, but not the horsepower of the motor, which makes correctly identifying the type difficult in some cases.

The nearest thing to an official listing of Gemco locomotives known to the writer is a 5-page document headed "Index Sheets" that gives very abbreviated details of locomotive types, customers and some dates. There are about 175 entries with no indication of the quantities supplied or any locomotive identifying details. Perhaps one of our West Australian members might like to investigate if anything more comprehensive survives.

All locomotive photographs featured are taken from the Gemco 50th Anniversary brochure, published in 1985.

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Left: *A tandem pair of 10-ton battery locomotives for The New Broken Hill Consolidated Ltd, Broken Hill, NSW.*
Below left: *Gemco builder's plates as fitted to (left) a Gemco 'Hauler' and (right) a Gemco 'Trammer'..*
Bottom left: *6 ton battery locomotive for India, almost certainly a 600mm gauge locomotive built in 1981 for Hindu Zinc's Zawar mines in Rajastan.*
Below: *3.5 cubic metre Granby car in the tipping position. Note the dump wheel, which activates tipping when it encounters a lineside ramp at the dumping point.*

Above: *1½ ton "Trammer" 0-4-0 battery locomotive and trucks for Kalgoorlie, possibly for Western Mining. The fold up driving position on these locomotives meant that they could be lowered down small mineshafts.*
Right: *An 18-ton flameproofed battery locomotive for underground coal mine use in NSW, probably for Elcom or Newcom. One of this type was exhibited at the AIMEX 83 mining exhibition in Sydney in 1983.*
Below left: *3 ton "Hauler" battery locomotive in use underground.*
Below right: *4 ton trolley wire electric locomotive for Peru, probably built in 1980 for Minas Ocona SA. Note the large motor intruding into the driver's position.*

Stars of Sandstone 2013: From a driver's perspective

Driving steam at Sandstone is not like any other preserved railway I have driven on, and I have driven steam in many countries around the world.

We start off with a roster for each day together with a consist and timetable that is agreed with ALL of those involved.

Usually the driver and fireman collect the loco at the depot, where it is generally fully prepared, but if for any reason it is not, we get in and give the paid staff a hand. There are four staff members to raise steam, check for defects and prepare the locos. There is also a team of all female cleaners who do a good job on the engines.

The depot is on a lower level to the main station, so after obtaining water, and if required, coal, the loco is worked up hill to the main station at Hoekfontein. There is a turning triangle suitably located so that the loco can be turned to face the right direction of travel. The station has been built with two platforms, one for the main line, while the other is for loop line services.

After attaching to the consist, the Guard will check the brakes, and discuss any run pasts for the photographers or other essential details regarding the trip. We run on the good old vacuum system, and try to run with 21in of vacuum throughout the train, and have a minimum of 6 vehicles for braking purposes on the 1 in 20.

The usual direction of departure is towards Grootdraai. The first part is downhill for about 1 mile with a ruling grade of 1 in 44. There follows an approximately 1 mile uphill section to the summit alongside Sandstone's own grass air strip. It is down again into the turning loop at Grootdraai which we usually traverse clockwise.

We then retrace out steps to Hoekfontein. Departing Hoekfontein in the opposite direction it is level through the sidings/yard until the perimeter fence is reached. The line then drops down for around 1 mile on a ruling grade of 1 in 38 before climbing and levelling out at Mooihoek. At Mooihoek there is a shunt neck with run round facilities if required to run short workings.

After Mooihoek the fun part starts. The line commences downhill before crossing the entrance road at a level crossing. From here the ruling grade is 1 in 22 and the climb is just under 2 miles before a gentle decent in to Vailma siding, which is also equipped with a run round loop. On arrival at Vailima siding, adjacent to the SAR 3ft 6in line, it is usual to take on water.

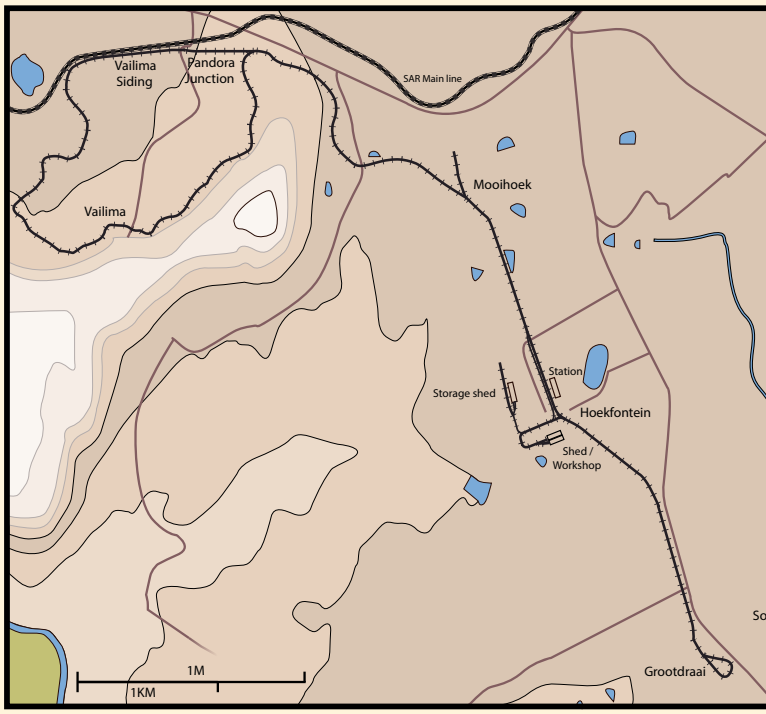
Departing Vailima there is a succession of sharp curves with short uphill and downhill sections for about two miles before reaching the steepest part of the line, which is a downhill section of 1 in 20. Good brakes are the order of the day! From the bottom of the 1 in 20 we retrace our steps to Hoekfontein.

As you may have seen in various photographs we often have more than one locomotive on a train. This brings other details into play. All crews have to work in unison. Not always easy with five locos and 37 vehicles!

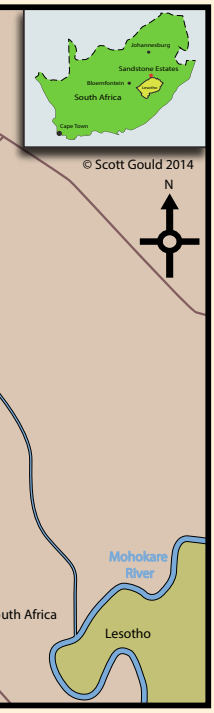
The choice at Hoekfontein is either to continue or take the loco to shed. If going to the shed, the shed staff will inform us as to how they require the loco to be left.

Incidentally, unlike most years, in 2013 ALL of the steam crews and guards resided in various states in Australia – NSW, SA, Qld and WA!

David Rollins



Clockwise from top left: *A pair of Kerr Stuarts on the Grootdraai balloon loop: 4-6-2T 16 (1344 of 1913) ex South African Railways, with bogie wagons and brakevan, follows 0-4-2ST cane loco 4* TAMARA *(4063 of 1924) hauling a single car, 26 March 2012.* ❑ *Ex South African Railways 2-6-2+2-6-2 Beyer-Garratts 49 (Hanomag 10599 of 1928) and 88 (Cockerill 3268 of 1936) storm up to the Vailima summit with a freight train on 25 May 2010.* ❑ *Two 4-4-0 tender locomotives built by Falcon of Loughborough for the Beira Railway wait to enter Hoekfontein with a train from Grootdraai. In the lead is green BR7 (232 of 1895) while behind it is black 97* JIMMIE *(263 of 1897), 26 May 2010.* ❑ *German volunteers help the staff to prepare a trio of Orenstein & Koppel 0-4-0WT locomotives on the morning of 25 March 2012. (L-R) No.11* HAYLEY *(2510 of 1907), No.2 (4102 of 1910), and 10311 of 1922.* ❑ *On 31 March 2012, ex South African Railways 2-6-2+2-6-2 Beyer Garratt 153 (Hunslet Taylor 3898 of 1968) hauled 6 cars around the Vailima Loop with an Australian loco crew. At Vailima Siding, John Mere attends to the watering in readiness for the climb while John Lyas takes time out of his visual inspection to speak to an onlooker. Photos: John Browning*



Industrial Railway NEWS

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Special thanks to contributors to the Sugar Cane Trains/Navvy Pics 2ft Facebook page.

NEW SOUTH WALES

THIESS PTY LTD, City East Cable Tunnel, Riley Street, Surry Hills
(see LR 229 p.20)
750mm gauge
After launching the TBM at the Riley Street, Surry Hills Substation in January 2013, the team achieved breakthrough at the City North Substation on 29 October, 40 calendar days ahead of schedule. In use on this site have been two Schoma CFL 180 DCL 4wDH locomotives and possibly a Schoma CHL 20G 4wDH locomotive. http://www.thiess.com.au/news/2013/city-east-cable-tunnel-milestone

QUEENSLAND

BUNDABERG SUGAR LTD, Bingera Mill
(see LR234 p.22)
(610mm gauge)
EM Baldwin 4w-2DH "Beetle" (4529.4 12.72 of 1972 rebuilt EM Baldwin 1979 rebuilt Millaquin Mill 1980) has been for sale since at least November 2013 and had disappeared from the Sandy Creek Depot by early February 2014. Possibly, it has been scrapped.
A new branch of about 2 kilometres in length is to be built in the Rosedale Road area. There will be two 80-bin loops at the end and work is expected to commence in March. This new branch will shorten the distance travelled by haulouts in the area and is expected to be ready for the start of the crushing.
Mitch Zunker 11/13 & 2/14; *Newsmail Rural Weekly* 28/2/2014

MACKAY SUGAR CO-OPERATIVE ASSOCIATION, Mackay mills
(see LR 235 p.22)
610mm gauge
EM Baldwin B-B DH *MIA MIA* (9815.1 10.81 of 1981) was seen with a ballast train stabled at Miles Loop on the Racecourse Mill system on 22/2/2014.
Steven Jesser 2/14

Top: *Mackay Sugar's EM Baldwin B-B DH* MIA MIA *(9815.1 10.81 of 1981) stabled at Miles Loop on the Racecourse Mill system on 22 February. Photo: Steven Jesser* ***Above:*** *South Johnstone Mill's Clyde 0-6-0DH 11 (55-64 of 1955) at the mill on 23 February. Photo: Luke Horniblow*

Top: *Tully Mill's 6 wheel brakewagon (built in 1989 on frame of Clyde DHI-4 of 1954) in the locoshed on 24 February. Photo: Luke Horniblow* ***Centre:*** *Up on shop bogies in the Tully Mill locoshed is Com-Eng 0-6-0DH* TULLY-16 *(AH4484 of 1964) on 24 February. Photo: Luke Horniblow* ***Above:*** *In the yard at Invicta Mill with their bogies out for slack season maintenance on 5 January are Walkers B-B DH* SCOTT *(669 of 1971 rebuilt Bundaberg Foundry 1995),* GIRU *(593 of 1968 rebuilt Tulk Goninan 1994),* KILRIE *(632 of 1969 rebuilt Bundaberg Foundry 1992),* CROMARTY *(708 of 1973 rebuilt Bundaberg Foundry 1996) and* RITA ISLAND *(625 of 1969 rebuilt Goninan Mackay 1996). Photo: Luke Horniblow*

MSF SUGAR LTD, Mulgrave Mill

(see LR 235 p.23)

610mm gauge

Seen at the mill late in February were the following locos. Stored in the navvy yard were 1955 built Com-Eng 0-6-0DM 2 (A1001), 3 (A1003), 5 (A1005), EM Baldwin 4wDM 10 (6/881.1 6.64 of 1964) and Clyde 0-6-0DH 14 (56-86 of 1956) and 15 (58-190 of 1958). Outside the locoshed were Com-Eng 0-6-0DH 6 (A1006 of 1955) and 9 *MEERAWA* (FC3473 of 1964), Clyde 0-6-0DH 16 *KAMMA* (56-96 of 1956), Walkers B-B DH 20 *MULGRAVE* (612 of 1969 rebuilt Bundaberg Foundry 1995) and 21 *GORDONVALE* (595 of 1968 rebuilt Bundaberg Foundry 1995) and Prof B-B DH 22 *ALOOMBA* (P.S.L.25.01 of 1990 rebuilt South Johnstone 1993). There were other locos in the shed itself. Com-Eng 0-6-0DH 8 *CHARINGA* (A1926 of 1958) was the truckshop shunter. Com-Eng 0-6-0DH 7 (B1010 of 1956) was parked at the Bump Line junction. 7 has been in use on navvy duties this slack. 6-wheeled brakewagons 11 (built by Hambledon Mill in 1990 using frame of Baguley/Drewry 2514 of 1954), and Clyde Engineering Queensland 18 (CQ132 of 1965) and 19 (CQ1319 of 1969) were outside the locoshed.

Andrew Sues 2/14, Carl Millington 2/14

MSF SUGAR LTD, South Johnstone Mill

(see LR 235 p.23)

610mm gauge

Clyde 0-6-0DH 11 (55-64 of 1955) was seen at the mill on a train of flat wagons loaded with track panels on 23/2/2014. Also seen there was a resleepering machine, presumably George Moss 521684004739-R841-85 of 1985.

Luke Horniblow 2/14

NORTH QUEENSLAND BIO-ENERGY CORPORATION LTD,
Como Road via Ingham

Owing to the current lack of financial closure from equity partners, the start date for this proposed mill had been set back one year to 2017.

Herbert River Express 26/2/2014

TULLY SUGAR LTD

(see LR 235 p.23)

610mm gauge

It is intended to replace 585 x 8 tonne units with 625 x 10 tonne bins by 2018 at a cost of $10.6 million. 125 of the new 10 tonne bins were placed in service during 2013.

Locos seen at the locoshed on 24/2/2014 included Walkers B-B DH *TULLY-6* (653 of 1970 rebuilt Walkers 1993) and *TULLY-8* (606 of 1969 rebuilt Bundaberg Foundry 2004) plus Com-Eng 0-6-0DH *TULLY-16* (AH4484 of 1964).

This slack, *TULLY-6* is being fitted with a new Cummins motor of 650hp, derated to 625hp.

Also seen at the shed was the Tully Sugar brakewagon built in 1989 using the frame of Clyde 0-6-0DH DHI-4 of 1954, which now has a new motor and air compressor. The rods have been removed from this unit at some stage too.

Tully Times 23/1/2014, Luke Horniblow 2/14

Industrial Railway NEWS

SUGAR TERMINALS LTD, Lucinda
(see LR 215 p.30)
610mm gauge
According to a Lucinda terminal employee, the 4 ton Simplex 4wDM (Motor Rail 4159 of 1926) still recieves use moving the tare weight wagons around.
Editor 1/14

THIESS PTY LTD,
The Narrows LNG Tunnel, Gladstone
(see LR 234 p.24)
762mm gauge
Tunnelling on this project commenced in April 2013 and broke through into the tunnel reception shaft on Curtis Island in early February 2014. In use on this site have been four Schöma 4wDH Model CFL 150 DCL 20-tonne locomotives.
The Maritime Executive website 18/2/2014; http://www.gladstoneobserver.com.au/news/santos-glng-tunnel-almost-there/2153370/ http://www.businessspectator.com.au/news/2014/2/18/energy-markets/gladstone-lng-now-75-complete

WILMAR SUGAR (HERBERT) PTY LTD,
Herbert River Mills
(see LR 235 p.24)
610mm gauge
By the end of February, most parts of Walkers B-B DH *HERBERT II* (612 of 1969 rebuilt Walkers 1993) had returned to Victoria Mill from abrasive blasting and painting. Still to come are part of the cowling, engine compartment doors, steps and some railings.
Approximately 140 new bins are being manufactured in China this year for the Herbert with assembly expected to commence at the ex Corradini's Engineering site in Ingham during March and using mill labour. As a trial, ten of these bins will be built to the same length as the Herbert's 11 ton bins and fitted with bogies salvaged from wrecked existing 11 tonners.
Previously unreported for the Herbert has been the use of a truck straddling the track to spray herbicide. This has been going on for approximately the past couple of years and is done in places where the top of the track is more is less level with the ground. Areas sprayed this way include sidings and some parts of the mill yards.
During February, the herbicide spraying of the bin storage yards at both Victoria and Macknade was done from the air using a helicopter. It is believed that this has been found to be cheaper and more convenient than ground spraying which involves moving the bins in and out of the lines in the yards.
Editor 1/14, 2/14; John Macarone 2/14

WILMAR SUGAR (INVICTA) PTY LTD,
Invicta Mill, Giru
WILMAR SUGAR (KALAMIA) PTY LTD,
Kalamia Mill
(see LR 235 p.24 & LR 233 p.24)
610mm gauge
There has been a swap of locos between Invicta and Kalamia Mills. Seen at Invicta on 5/1/2014 were ex Kalamia Walkers B-B DH locos *RITA ISLAND* (625 of 1969 rebuilt Walkers 1996), *KILRIE* (Walkers 632 of 1969 rebuilt Bundaberg Foundry 1992) and *JARVISFIELD* (Walkers 601 of 1969 rebuilt Tulk Goninan 1994). *RITA ISLAND* and *KILRIE* were obviously having maintenance done as both have their bogies were out while *JARVISFIELD* has been fitted with brakewagon controls.
Ex Invicta locos EM Baldwin B-B DH *SELKIRK* (6750.1 8.76 of 1976) and *BURDEKIN* (10215.1 7.82 of 1982) plus Westfalia B-B DH *STRATHALBYN* (13863.1 8.91 of 1991) were seen at the Kalamia Mill locoshed on 12/1/2014.
Seen at Kalamia for RSU training on 5/1/2014 were Invicta Walkers B-B DH locos *HODEL* (687 of 1972 rebuilt Bundaberg Foundry 1995) and *MINKOM* (710 of 1973 rebuilt Bundaberg Foundry 1996) plus their brakewagons.
Kalamia loco Com-Eng 0-6-0DH *DELTA* (FD5094 of 1965) was seen at the locoshed on 12/1/2014 with the engine bay gutted. Possibly this loco will be fitted with a new Mercedes motor.
Previously unreported has been the use of tractors for herbicide spraying of the track on the Invicta system. These straddle the track and have been doing this job since at least 2012.
Luke Horniblow 7/12, 1/14; Michael Mullins 1/14

WILMAR SUGAR PLANE CREEK PTY LTD,
Plane Creek Mill, Sarina
(see LR 235 p.24)
610mm gauge
Com-Eng 0-6-0DH D7 (FC3776 of 1964) and EM Baldwin B-B DH D12 (6890.1 10.76 of 1976) are being fitted with Allison automatic transmissions this slack season.
Brian Miller 2/14

TASMANIA

DE BRUYN'S TRANSPORT PTY LTD,
Wivenhoe
(see LR 159 p.21)
900mm gauge
Three battery/trolleywire electric locomotives and a quantity of Hudson Rockflo ore cars, stacked like firewood, are still in storage at this transport yard in Burnie (formerly West Coast Transport Pty Ltd). The equipment was purchased new for the Mt Lyell mine in 1975 but never put into use. It is understood that it was acquired by a dealer in the 1990s and has been in storage at the present site ever since.
The locomotives were built in Germany for Siemens by Schalke Eisenhutte. They carried

Thiess Pty Ltd Schöma 4wDH locomotive in use at The Narrows LNG Tunnel, Gladstone on 11 February. *Photo: Toby Goodman*

Top: *Invicta Mill's Walkers B-B DH* MINKOM *(710 of 1973 rebuilt Bundaberg Foundry 1996) and* HODEL *(687 of 1972 rebuilt Bundaberg Foundry 1995) plus their brakewagons at Kalamia Mill for RSU training on 5 January. Photo: Luke Horniblow* ***Centre:*** *Kalamia Mill's EM Baldwin B-B DH* BURDEKIN *(10215.1 7.82 of 1982),* SELKIRK *(6750.1 8.76 of 1976) and* NORHAM *(5383.1 7.74 of 1974) in the locoshed on 12 January. Photo: Luke Horniblow* ***Above:*** *Siemens 6392 of 1975 in storage at De Bruyn's Transport Pty Ltd, Burnie on 23 February. Photo: Scott Jesser*

Siemens plates 6392 to 6394 of 1975. The most accessible locomotive in the transport yard has a Schalke builder's plate and Siemens plate 6392. The Rockflo cars were built to a Hudson design in Australia by Fox.
Scott Jesser 2/14

VICTORIA

JOHN HOLLAND PTY LTD, Melbourne

(see LR 215 p.30 & 228 p.22)
762mm gauge
Late in 2013, Schoema 4wDH 6247 of 2008, Model CHL 60G, purchased for use on Melbourne's Northern Sewerage project, was noted back at the Schoema works at Diepholz in Germany. It was being reconditioned for a customer in Italy, and had been repainted in orange livery.
It is common for locomotives from this manufacturer to be recycled in this way, and it would be of great interest to know what has happened to the others that were used by John Holland in Melbourne.
Ulrich Völz via Philip Graham 2/14

OVERSEAS

FIJI SUGAR CORPORATION

(see LR 235 p.24)
610mm gauge
FSC intends to increase the number of rail trucks in its fleet for the 2014 crushing season and also wants to improve the locomotives that haul cane to the mills.
As a means of reducing road congestion, FSC is exploring the possibility of establishing a passenger train service between Lautoka and Nadi in the near future.
FSC is looking at either completely overhauling the Penang Mill or constructing a new mill in its place. Penang is the smallest in the Fijian sugar industry and the Prime Minister and Minister for Sugar said last year that smaller mills were likely the way forward and a feasibility study was being carried out. Other likely areas being looked at for smaller mills are Tavua and Ba.
Cane lorry transport charges are being restructured for this coming crushing season. It is unknown if this will have any effect on the rail haulage of cane.
Fiji Broadcasting Corporation 15/1/2014;
http://www.fijivillage.com/iforum/?mod=read&id=050214ff6d89e4d6c53fcd20952aefdffb8eb11c;
Fiji Times Online 8/1/2014, 6/2/2014

PT FREEPORT, Grasberg Mine, Irian Jaya

(see LR232 p.22)
1435mm gauge
This copper and gold mine is expanding from open cut to underground operations and signed a contract with Schalker Eisenhütte Maschinenfabrik GmbH of Bochum, Germany in 2012 to purchase ten 40 tonne 4w electric mining locomotives, the first of which is expected to be delivered in 2014. These overhead wire, electric locos will also have a battery or diesel power pack.
http://www.schalker-eisenhuette.de/index.php?tp=391&lang=2&origin=391

LETTERS

Please send letters to: editor @lrrsa.org.au
or to PO Box 21 Williamstown, Vic. 3016

Dear Sir,

Langley Brothers/Rock Davis Shipyard, Nambucca (LR 229, 228)

The photo on page 31 of LR 232 of Rock Davis' shipyard at Nambucca Heads triggered a memory, and after a brief search *ARHS Bulletin* 335, September 1965 containing an article and map by C.C. Singleton on the NSWGR 'Short North' was located. The map shows the notation "site of Rock Davis siding" on the causeway just north of Woy Woy station, and just before the bridge over the channel to Woy Woy Bay.

Turning to page 171 I found;"Rock Davis of Woy Woy built the steamer Alert, having a capacity of 300 men, to run from Gosford three times a day. The timbers of the brick wharf at Woy Woy still exist." (As this was 1965, I believe they are long gone). Also "Built by Rock Davis was the American river type stern wheeler the General Gordon at Terrigal in 1886."

A Google search shows Rock Davis was born at sea on 2 June 1833 aboard the Rock Jones on the voyage out to Australia, and was named after the ship. His death is recorded as 27 August 1913. There were three brothers from eleven children, Thomas, Rock and Edward, and they built in excess of 200 vessels in several locations, including Blackwall and Davistown, which is named after the family.

He arranged for the transport and delivery of over 19 million bricks for the Woy Woy tunnel, which brings us back to his private siding on the causeway.

According to *Sydney's Forgotten Quarry Tramways*, page 72, "George Blunt leased land at Gore Hill St Leonards, and supplied the railways with bricks for the Woy Woy tunnel and culverts between Woy Woy and Gosford from 1885. The bricks were delivered to the tunnel site by standard gauge tramway from the brick wharf at East Woy Woy to the tunnel at South Woy Woy.

Another publication in my collection, a 72 page tourist booklet, *Scenic Central Coast 2005-2006* had two mentions on page 56 – "Tom Davis leased the whole of Avoca in order to exploit the timber. He transported the logs via tram to the mill at Terrigal. Tramway Road in North Avoca follows parts of the old route." In the next column "There was a sawmill established by Tom Davis in the 1870s. It produced about 150km (sic.) of wood a week and employed 120 men (including 70 teamsters for carting logs) and a tramway ran the timber to a jetty for shipment."

Terrigal (the first European settler was John Gray, who named his property Tarrygal, aboriginal for "place of the birds") must have been a busy location in the 1870s with timber milling and ship building, as well as providing a protected anchorage.

So while Rock Davis was delivering bricks to the Brick Wharf at Woy Woy, why did he need his own siding? As a major subcontractor to George Blunt, was he also involved in providing sleepers, bridge pilings and timbers for the Gosford contract? There are two bridges/trestles between Woy Woy and Gosford, a short one over the Woy Woy channel, and a much longer one over the mudflats just south of Gosford station.

Garry K Allen
Doonan, Qld

Dear Sir

SEC Victoria (LR 82, 84, 235)

I have just been reading LR235 and noted the letter from Colin Thompson about Victoria's brown coal rail operations.. These have previously been researched and published as *Train Systems, Yallourn and Morwell Open Cuts*, written by J A Vines and published by Generation Victoria in 1994. It covers the operations very well, but the locomotives are not as well covered. Certainly a good start for anyone interested in these operations.

Copies may be difficult to find these days, but if anyone is in Sale, I am more than happy to let them look at my copy.

Stuart Lawson
Sale, Vic.

These operations were also covered by John Buckland in 1984.
Thanks also to Ian Cutter for his similar email.

Weston Langford

12 February 1941 – 29 January 2014

Weston Langford, who passed away in January after a long battle with ill-health, will be sadly missed by his numerous friends.

Born and educated in Melbourne, he developed an early love for railways, which strengthened in his teenage years at Melbourne High School, in the company of a dedicated band of like-minded enthusiasts, who used to dodge sport afternoons and gather instead at the South Yarra signal box. During this period he managed to travel extensively over the Victorian Railways network, painstakingly sketching out the track and signal layout of each station. This work was subsequently published in several books, to the benefit of rail historians and modellers alike. He was also an early member of the Puffing Billy Preservation Society and his love for 'the little railway' lasted his whole life.

Weston qualified as a civil engineer and specialised in railway construction. His career took him to Western Australia, initially for the WAGR part of the national standard gauge project and subsequently to the railways of the Pilbara. He actively participated in the activities of the WA division of the Australian Railway Historical Society and gained many friends who maintained contact with him to the end.

While in WA he met and married Wendy and his career took them both to Canada, where he constructed new railway lines in some of the more remote areas of that country. They subsequently were blessed with three daughters.

On his return to Australia, Weston worked for the Melbourne Underground Rail Loop Authority in the early 1980s and then joined V/Line. His enthusiasm for railway photographic excursions continued unabated. On a visit to Tasmania and the newly reconstructed ABT railway from Strahan to Queenstown, he was appalled to observe numerous irregularities in the construction standards, some of them outright dangerous. His thorough investigations went all the way to the Tasmanian Parliament and resulted in much reconstruction to reach an acceptable standard.

Weston also carried out the survey work for the Puffing Billy extension from Lakeside to Gembrook, which included the reconstruction of several bridges, and was a key factor in its completion to a high standard.

In recent years Weston felt the need to share his extensive photographic collection, which he did with the help of his son-in-law in establishing his web site, westonlangford.com This has proved to be enormously popular and I understand his son-in-law will continue to maintain it. He also saw some of his photographs in print recently when the Victorian Division of the ARHS published his book "Times Past…Places Distant".

Weston suffered over the last decade or so with an increasingly debilitating form of arthritis and moved into a retirement village two years ago. His commitment to his Church helped him through these difficult times and he was recognised within his community for his pastoral care work. His rapidly declining state of health finally claimed him in January. A talented engineer, a dedicated father to his children and firm friend to many, an enthusiastic and gifted photographer and railway enthusiast. He leaves an enormous legacy behind.

Adrian Gunzburg, 4 March 2014

Dear Sir

The 2ft gauge Krauss locomotives of the Mt Lyell Mining and Railway Co. (LR 232)

The Mount Lyell Railway's Baldwin 0-6-0 tank locomotives (LR 228, 229)

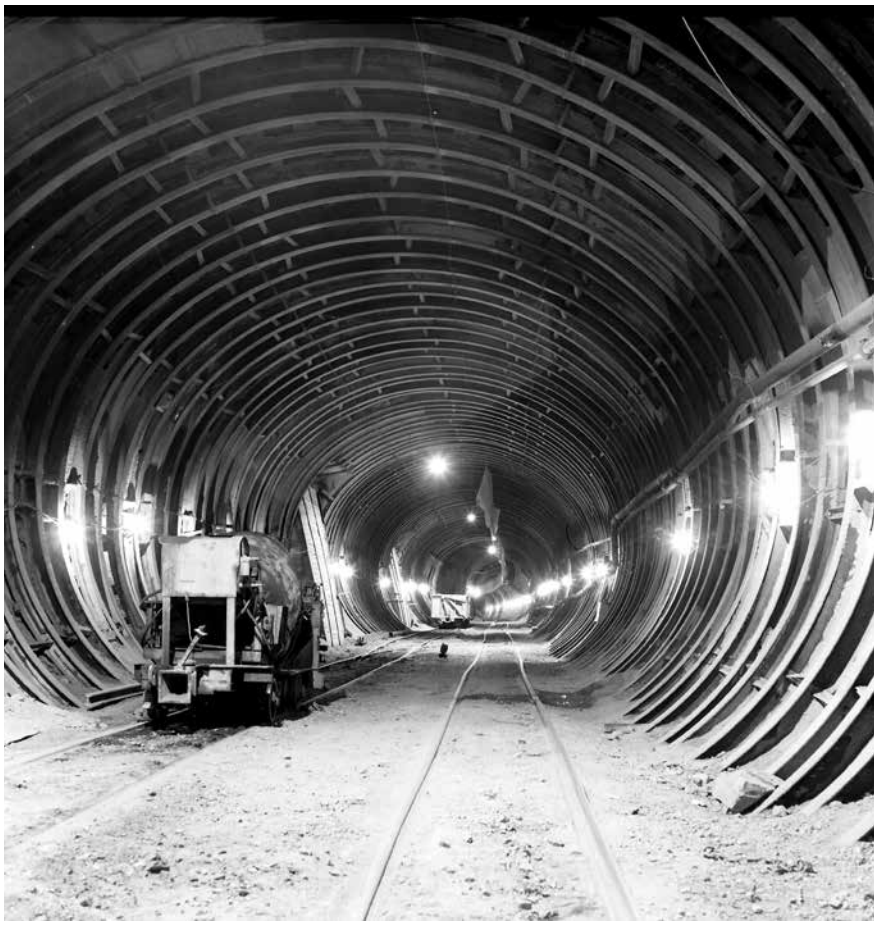
I am grateful to Michael Gourlay for his kind words about my Mt Lyell Krauss article in LR 232, although there are some significant gaps in the story still to be filled. It was particularly nice to see his photo of Krauss number 7, pictures of which are surprisingly rare. As Michael suggests, the photo was taken at Lyell Comstock and the position of the sun suggests that the train was about to take the day shift workers back to Queenstown.

Michael's third photo was taken on the line up to the reduction works, just north of Queenstown station. The photographer is standing in Batchelor Street (which becomes the Lyell Highway to Hobart) and the houses behind the Krauss are in Mary Street. Michael's photo is taken at a location immediately above my photo of number 10 Krauss on p.15 of LR 232. They were probably gravity shunting the wagon into the dead-end transfer siding in the angle between the valley and reduction works lines. Krauss number 10 retained the lining on the upper cab side sheets and cab back until the end, but had lost the lining on the side tanks. Krauss number 8 still had lining on the tanks and the cab front, side sheets and upper back in 1963.

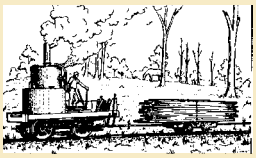
I agree that it would be nice to have a detailed layout plan of the whole Mt Lyell works area, but it would be a formidable undertaking because it was such a large and complex site and there were so many track and building alterations. I have collected a lot of information over the years, starting with my own explorations on site in the early 1960s, but putting it all together would require far greater cartographic skills than I possess!

Could I also take this opportunity to belatedly thank Michael for his letter in LR 229 re my article on the Mt Lyell Baldwin locomotives in LR 228. His sighting of Baldwin number 4 at Regatta Point in January 1948 is very useful, as it confirms that it had a considerable period of service, or of at least being available for service, at Regatta Point after the Second World War.

Jim Stokes
Curtin, ACT



Tunnel construction projects are still one use where narrow gauge railways earn their keep in an industrial environment, and the use of rail mounted tunnel boaring machines looks set to see that continue for the foreseeable future.
Construction of the Melbourne Underground Rail Loop commenced in 1971, and eventually saw 12 km of tunnel, in four separate bores completed in 1981, along with additional track capacity between Flinders and Spencer St stations with a dual track viaduct.
Chris Wurr managed a visit to the loop one quiet Sunday morning in 1978 to photograph the progress of one of the tunnels, while working at Flinders St.



LRRSA NEWS

MEETINGS

ADELAIDE: "Smithfield magazine light railway"
We will be continuing to discuss the Smithfield magazine light railway, and as usual we welcome any news of light rail matters.
Location: 150 First Avenue, Royston Park
Date: Thursday 3 April at 8:00pm

BRISBANE: "Nambour Mill featuring Bundy No.5"
Bob Gough will entertain with a DVD compiled of movie film transferred by himself and son Mark, featuring Nambour Mill with a lot of Bundaberg Fowler 5 of 1952 hard at work.
Location: BCC Library, Garden City Shopping Centre, Mount Gravatt. After hours entrance (rear of library) opposite Mega Theatre complex, next to Toys'R'Us.
Date: Friday 4 April at 7:30pm

MELBOURNE: "McIvor Timber and Firewood Company"
Frank Stamford will be presenting on the McIvor Timber & Firewood Company's 5ft 3in gauge tramway, which ran north-east of Tooborac, Victoria. A book about the tramway is in the final stages of preparation.
Location: Ashburton Uniting Church Hall, Ashburn Grove, Ashburton.
Date: Thursday 10 April at 8:00pm

SYDNEY: "Tramways and inclines of the Blue Mountains"
Jeff Moonie will share his research into some of the varied railways, tramways, inclines, aerial ropeways and industries that were once to be found between the Nepean River and Lithgow. The presentation was originally planned for October last year, but was cancelled due to the bushfires in the Blue Mountains.
Location: Woodstock Community Centre, Church Street, Burwood, (five minutes walk from Burwood railway station).
Date: Wednesday, 23 April at 7:30pm

Field Reports

Please send any contributions, large or small, to fieldreports@lrrsa.org.au or to P.O. Box 21, Surrey Hills, Vic 3127.

Angourie and Ilarwill Quarries, Clarence River, NSW.

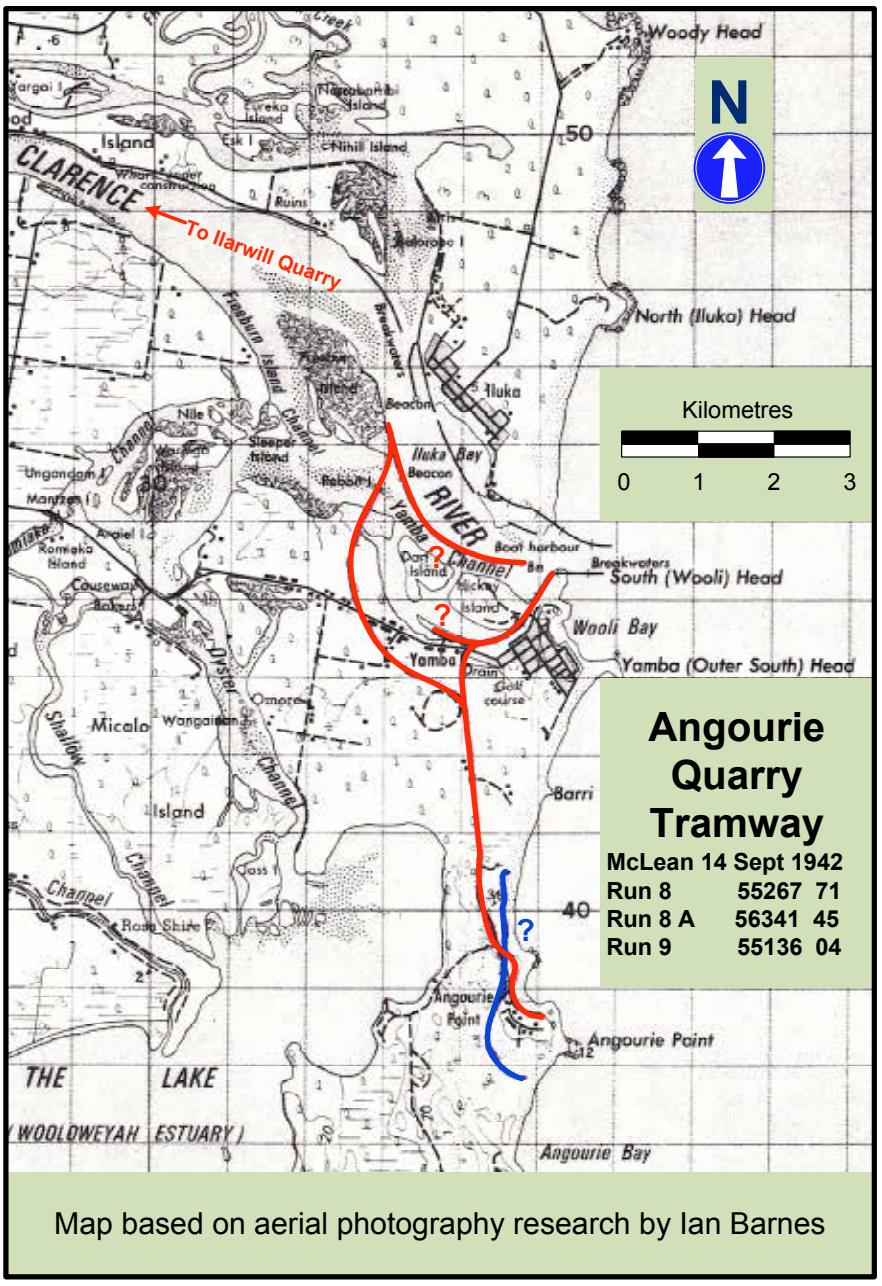
Unknown and 1435mm gauge

The Clarence River mouth is situated on the mid-north coast of NSW. The river eventually proved navigable for about 100km from its mouth, well beyond the present town of Grafton. The first ship to cross the Clarence bar, the *Susan*, in 1838, penetrated 12km upstream as far as Woodford Island to cut the valuable cedar growing there. The land also had immense agricultural potential once the cedar was cut out, and was eventually farmed for a number of crops (including sugar cane). This created a great deal of shipping traffic and, in 1862, the first steps were taken to improve the river mouth with the construction of a southern training wall. This proved to be somewhat of a disaster and, in the early 1890s, a new scheme was proposed by visiting British harbour engineer Sir John Coode. Stone was initially obtained from a quarry close to the southern training wall. When this source was exhausted, a new quarry was opened at Angourie Point and connected to the harbour works by tramway.[1]

Following the Second World War, further steps were undertaken to improve the river entrance to create a deep-water port at Iluka involving expenditure totalling some £3 million. An existing quarry originally used for the Iluka training wall was re-opened at Ilarwill on Woodford Island to provide stone for the entrance works, and aggregate for the manufacture of 40-ton pre-cast concrete blocks. By 1951 this work was well underway. The quarry was close to the Clarence River, and a standard-gauge tramway was built to connect the quarry with a newly-built wharf. The line was initially to be worked to by a tractor until a new diesel locomotive could be procured. From the wharf the stone would be transhipped to barges for its journey to the river entrance. Here it would be conveyed to the tip-head by tractor until a second diesel locomotive had arrived. A total of 850,000 tons of material would have to be transported by barge and the two isolated tramway systems. It was hoped that this massive amount of work would create a deeper and safer entrance to the mouth of the Clarence River.[2]

From information gleaned at the Clarence River Historical Society Museum, it appears that one of the two standard gauge Ruston & Hornsby diesels used on the Clarence River works, 310085 and 313393 of 1952 (PWD 82 and 83) was initially used at the Ilarwill quarry. The other was used at Iluka. Later, a blue Ruston was photographed at Iluka in 1965, and a maroon one was photographed at Yamba in 1969. A recent article in the local newspaper indicates that there may be a need to re-open the Ilarwill Quarry to supply new material to repair damage due to recent storms to the "seaward walls".

Little seems to have been written about the operation of either of these quarry tramways, but there has recently been some interest raised though posts to the LRRSA Yahoo Group. The accompanying map of what is potentially the Angourie Quarry tramway was produced by Ian Barnes from aerial photography carried out in 1942, and therefore reflects what was there at that time. Ian is confident that the red line is a railway formation (except where the two question marks are indicated). The blue line is another formation, which may or may not be a railway. Further fieldwork is required to ground-truth this research.



Map based on aerial photography research by Ian Barnes

The Ilarwill Quarry is now overgrown, but there are a few lengths of rail and joiners scattered in one area. A couple of the in situ lengths are joined, so it is assumed that these were not simply materials stored there by the Public Works Department from an earlier training wall railway. The Yamba Hotel has a number of historic pictures on display, including some railway pictures of the quarry under the Yamba Lighthouse. It is not known if any of the pictures include the Ilarwill Quarry.

Background summary by Peter Evans.

Site and locomotive information from Bruce Wood, Chris Tait, John Browning and Ian Barnes (LRRSA Yahoo Group), 02/2014

References

1. Toghill, J. (1984). *Ghost Ports of Australia*. The MacMillan Company of Australia, South Melbourne. Pages 14-21. Page 15 of this publication has a photograph, which includes railway tracks along a reclaimed area with a square-rigged ship in the background, and this may be the earlier Angourie Quarry tramway.
2. *Northern Star* (Lismore), Wednesday 13 June 1951, page 4. Reference kindly supplied by John Browning.

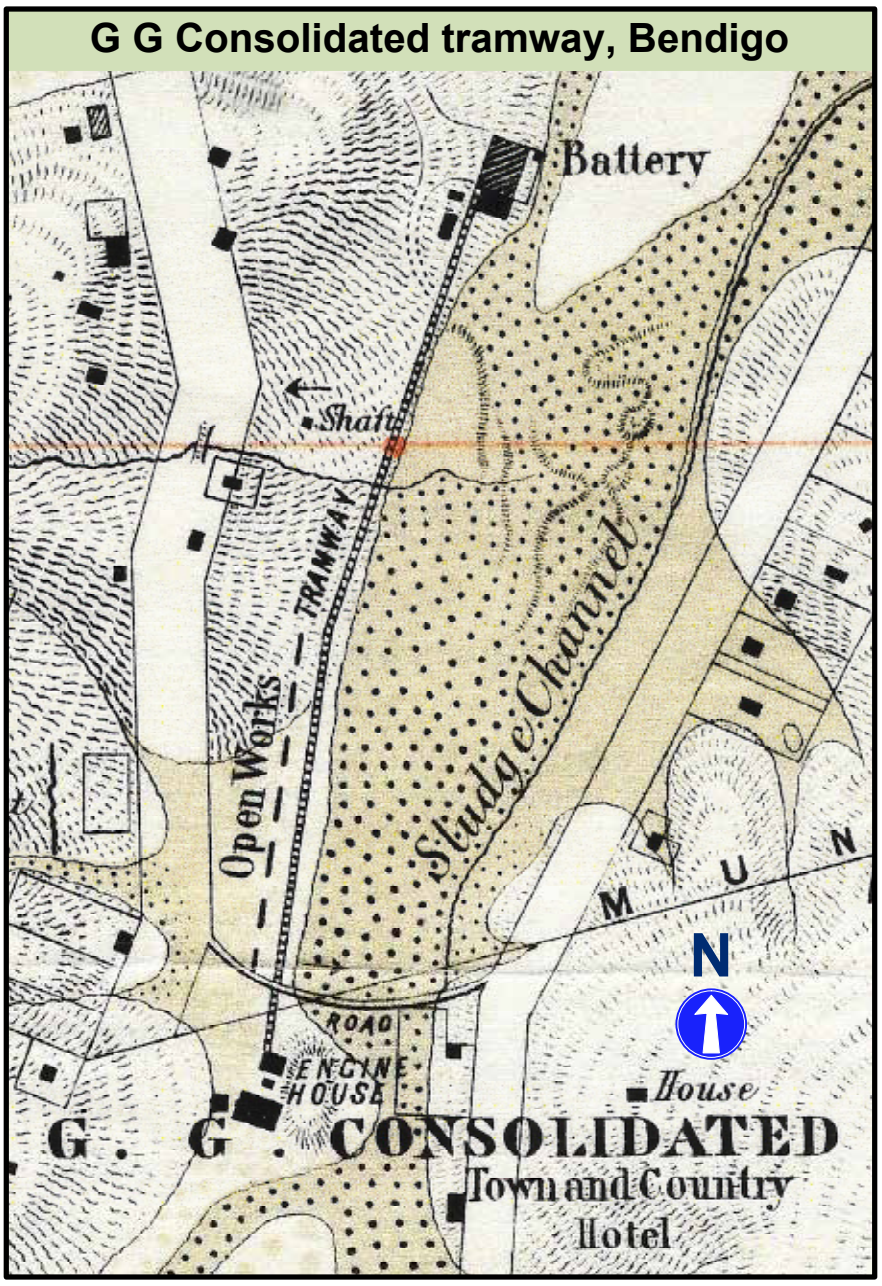
G. G. Consolidated tramway
Bendigo, Victoria.

Gauge unknown

A tramway formation in Golden Gully, Bendigo, links the Glasgow & Golconda mine (shown near the bottom of the accompanying map as the "G. G. Consolidated") with the Golconda mine (shown only as "Battery" near the top of the map – the mine itself was originally just to the east of the battery site). Scaling from this 1886 map indicates that the tramway was 17 chains 80 links long (approximately 352m) and must pre-date 1886. Local information indicates that the battery crushed for both mines, and the tramway transported the stone from the G. G. Consolidated north for crushing. The line falls in gradient from south to north and is built on an embankment nearly all the way, in parts three metres high. It is presumed that the stone was delivered to the battery using gravitation, and the empty trucks returned to the mine using hand or horse power.

The Glasgow Reef at Bendigo appears to have been discovered prior to 1859,[1] with the Glasgow Reef United Mining Gold Company and the Glasgow Reef Pumping and Quartz Crushing Company being formed in January 1860, the latter having a single 25nhp engine driving sixteen head of stamps and pumping equipment. The engine and two boilers were by Rankin of Liverpool.[2] By April 1865 the reef was yielding an ounce of gold to the ton, and prospects were good.[3] However, there was considerable pressure for quartz mining companies to amalgamate in the cause of efficiency, so that even poor stone could be made to pay.[4] In August 1865 the Glasgow Reef Company was formed under the management of Alexander Ferguson, perhaps being an amalgamation of the two companies already named, encompassing 700 yards along the line of reef, and having pumping and crushing machinery to the value of £6500.[5] A suitor for a further such amalgamation would eventually be found in the Golconda Mining Company (itself an amalgamation) working on the same reef to the north.

There were a number of Golconda Mining Companies in Victoria, all probably named for the ruined medieval city in India which was famed for its diamond mining riches. The one we are interested in was incorporated in June 1865 under the management of George Napier Craig to work the Glasgow Reef, north of the Glasgow Reef Company.[6] By October 1865 the mine was ready for crushing, and arrangements were in place to install a 40nhp engine and thirty head of stamps under the superintendence of Engineer James F. Dow. The plant was started on 28 May 1866, but the results were not as good as had been expected.[7] By late 1869 both the Golconda and Glasgow companies had been liquidated[8] and a new company was formed[9] as the Glasgow & Golconda Consolidated (G. G. Consolidated), again under the management of George Napier Craig, with a total lease of 7 acres 2 roods 36 perches, and including 1,100 yards of the Glasgow Reef.[10] At that time the plant owned by the combined companies was considered 'one of the best in the district'.[11]



The G.G. Consolidated tramway embankment looking north towards the battery site. Photo: Chris Wurr

Operations seem to have been primarily concentrated at the Glasgow shaft at the southern end of the lease, for which a new winding engine was purchased.[12] While the Glasgow shaft was further developed, both the Glasgow and Golconda batteries were engaged in crushing for the public.[13] By late 1871 the mine had finally struck rich stone and the share price eventually rose eightfold.[14] In September 1871 the first dividends were declared, and operations were distributed to a number of subsidiary tribute companies for intensive working.[15] However, the success was short-lived, and the share price had declined to more realistic levels by the end of 1872.[16] Luckily the mine still had substantial income from crushing for the public to keep it going, in addition to the lesser quantities of stone still coming from its tribute companies.[17] For a time, the mine stagnated.

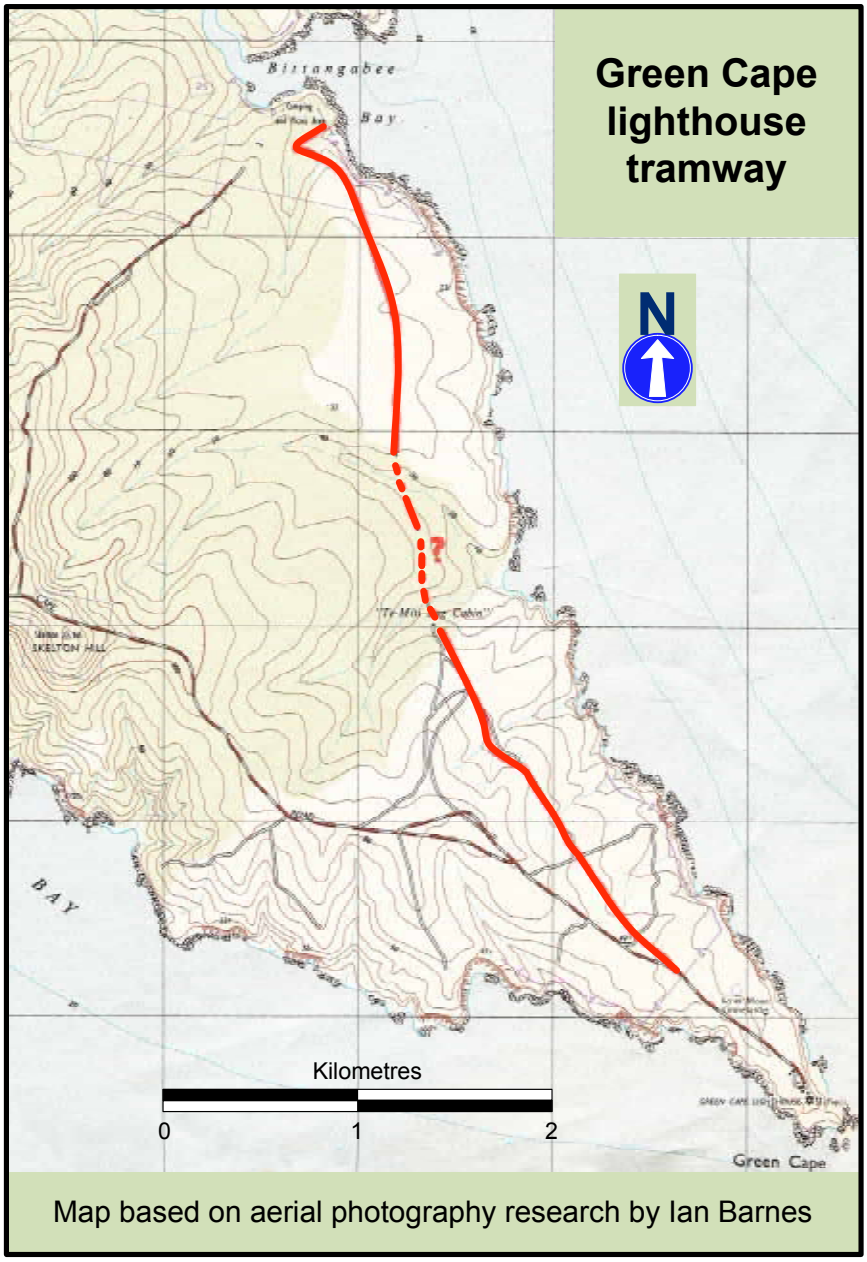
In May 1879 diamond drilling commenced in an attempt to find payable stone.[18] This struck gold at four separate levels down to 706ft and, in July 1880, machinery was erected over the bore hole to sink a new shaft.[19] A rich patch of gold was struck in September 1881 and again in November 1883, but the narrowness of the seams did not auger well for the future.[20] By the end of 1885 the G. G. Consolidated Company had spent £30,000 on the mine and its machinery and the main shaft had been sunk to the 800ft level; but the mine was now struggling and, unless support was forthcoming from the Prospecting Vote, would have to close. The Minister for Mines promised that assistance totalling £2000 would be given.[21] The mine struggled on, but its share price languished.

A report of an accident in November 1890[22] indicates that only a single crushing plant was in use at that time, confirming the pre-1886 date for the tramway. In September 1892 an attempt was made to revitalise the G. G. Consolidated with capital from Bendigo mining magnate Mr. George Lansell, by which time the main shaft was 1,153ft deep. Lansell purchased all 40,000 of the Company's forfeited shares for one shilling each.[23] However, there was little new stone found for the mine to crush, and business from private crushings had fallen away.[24] Despite sinking a new shaft, returns continued to be meagre.[25]

In 1910 the Company was re-formed as the new G. G. Consolidated Gold Mining Company.[26] This Company made several calls on its shareholders but seems to have met with little success, and its leases were declared void in November 1912.[27]

Field report by Chris Wurr, January 2014.

Historical research by Peter Evans, February 2014.



References

1. *Bendigo Advertiser*, Saturday 25 November 1865, page 3. The Glasgow line of reef was later realised to be part of the Napoleon line of reef, and is called such today.
2. *Bendigo Advertiser*, Friday 20 January 1860, page 2, Wednesday 25 January 1860, page 2 Thursday 5 July 1860, page 2.
3. *Bendigo Advertiser*, Wednesday 19 April 1865, page 2.
4. *Bendigo Advertiser*, Wednesday 10 May 1865, page 2.
5. *Bendigo Advertiser*, Saturday 27 January 1866, page 3.
6. *Victorian Government Gazette* 76: Friday 30 June 1865, page 1450.
7. *Bendigo Advertiser*, Tuesday 10 October 1865, page 3; Thursday 31 May 1866, page 2; Friday 13 July 1866, page 2.
8. *Victorian Government Gazette* 42, Friday, 27 August 1869, page 1306.
9. *Bendigo Advertiser*, Wednesday 26 May 1869, page 2, Friday 2 July 1869, page 2; Thursday 15 July 1869, page 2.
10. *Bendigo Advertiser*, Monday 9 August 1869, page 3; Monday 13 June 1870, page 3; Saturday 5 August 1871, page 3.
11. *Bendigo Advertiser*, Monday 10 January 1870, page 3.
12. *Bendigo Advertiser*, Wednesday 2 March 1870, page 2; Wednesday 22 June 1870, page 2.
13. *Bendigo Advertiser*, Wednesday 3 August 1870, page 3; Wednesday 28 September 1870, page 2.
14. *Bendigo Advertiser*, Saturday 5 August 1871, page 3.
15. *Bendigo Advertiser*, Saturday 2 September 1871, page 2; Wednesday 13 September 1871, page 2.
16. *Bendigo Advertiser*, Monday 2 December 1872, page 1S.
17. *Bendigo Advertiser*, Wednesday 4 November 1874, page 2.
18. *Bendigo Advertiser*, Thursday 17 April 1879, page 2; Monday 26 May 1879, page 2.
19. *Bendigo Advertiser*, Saturday 17 July 1880, page 2.
20. *Bendigo Advertiser*, Saturday 24 September 1881, page 1S; Saturday 3 November 1883, page 2S.
21. *Bendigo Advertiser*, Thursday 3 December 1885, page 4; Tuesday 11 January 1887, page 4.
22. *Bendigo Advertiser*, Saturday 29 November 1890, page 4.
23. *Bendigo Advertiser*, Monday 5 September 1892, page 2.
24. *Bendigo Advertiser*, Saturday 31 December 1892, page 6; Wednesday 18 July 1894, page 4.
25. *Bendigo Advertiser*, Saturday 31 July 1897, page 3.
26. *Victorian Government Gazette* No.152, Wednesday, November 30th 1910, page 5339.
27. *Bendigo Advertiser*, Friday 1 November 1912, page 2.

Green Cape lighthouse tramway, Eden, NSW

Gauge presently unknown

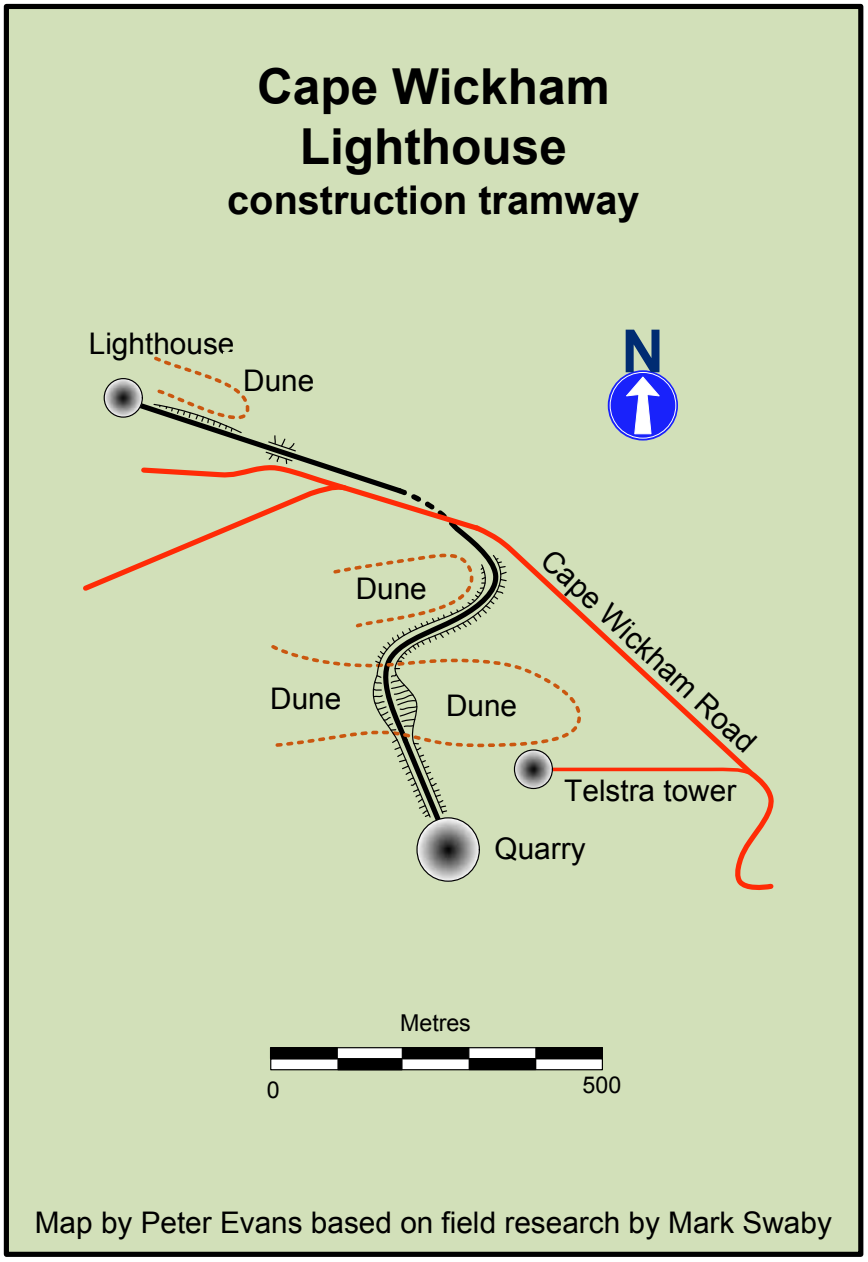
In 1880 a contract was let for the construction of a lighthouse on Green Cape, south of Eden, New South Wales. During construction, supplies were off-loaded from ships to a storeroom at the nearest safe anchorage at Bittangabee Bay. The supplies were moved southward 7 kilometres to the construction site using a wooden-railed horse-drawn tramway. The lighthouse was commissioned in 1883 and the tramway was then abandoned.

To pin-point the location of any remains of the tramway, the oldest available high-quality vertical aerial photos were consulted. The photos selected were from the Braidwood-Eden Interpretation Block C, taken on 8 September 1964 at a scale of 1:15,840 (20 chains to the inch), and are held in the forestry office at Batemans Bay, NSW. Relevant photo runs and centre number are: Run 44 photo 5095, Run 45 photo 5089, and Run 46 photo 5163 (neighbouring photos are needed for stereovision). Using stereoscopy, the location of

a possible tramway formation was marked, and the results are shown in the accompanying map where the formation is indicated in red. Lack of red marking indicates that no formation was evident on the photo, usually in areas of tree cover or subsequent road construction.
Field investigation is now warranted to confirm the mapping taken from the aerial photos, and also to fill in the missing portions of the line.
Ian Barnes, February 2014

King Island tramways, Bass Strait, Tasmania
Gauges uncertain
On a recent trip to King Island, I discovered the Cape Wickham Lighthouse construction tramway and, further, was made aware of a number of other tramways on the island. Unfortunately I arrived unprepared without sufficient time to fully explore and, with the Roaring Forties living up to their name; I had two days of over 60 knot winds battering the island, making field exploration difficult. There is certainly a lot of room for further research and a more thorough field visit when time permits. I have the logistics on hand for accessing the island (light plane only), contacts on the island, accommodation, car hire etc. if anyone is interested.

Cape Wickham Lighthouse construction tramway.
The tramway was constructed in 1860 as a result of the discovery of a local source of suitable granite approximately one mile (1.6 km) from the lighthouse site. This saved considerable expense for the builders, Kirkland and Co. of Melbourne, as construction stone was originally to be imported to the island. With the lighthouse walls being 15ft (4.5m) thick at the base tapering to 4ft (1.2m) thick at a height of 160ft (48m), considerable stone was needed. According to the King Island Historical Society (based at Currie), the tramway was horse-drawn to the quarry and gravity-fed on the load down to the lighthouse site.
To my surprise a lot of the formation is traceable, considering it runs through what appears to be ancient sand dunes. The book on King Island Lighthouses *Beacons of Hope* (Don Walker, 1981, page 106) reads '*The changing dunes have rolled over much of the route, but in places traces of cuttings are betrayed by the maker's love of straight lines*' This certainly is not the case on site both with reference to straight lines and most of the formation covered in dunes. I imagine the isolation of King Island up to the present day has helped preserve the formation but, with that said, a modern golf resort is under construction at Cape Wickham and, no doubt, the area will be spoilt forever with the 21st Century finally catching up.
Starting at the quarry end, the quarry is easily accessed via the Telstra Tower road. The quarry is then an easy walk about 300 m south/west downhill from the actual tower itself, with an embankment clearly visible running across the valley floor below. Some rail and a 610mm gauge mining skip have been set up as a display at the quarry site, but I doubt these are from the original tramway and, at the time of writing, I don't know from where they were sourced.




Cape Wickham lighthouse tramway formation cut into the edge of an ancient sand dune. Photo: Mark Swaby.

Naracoopa wharf, with the quarry in the background. *Photo: Mark Swaby*

The tramway from the quarry crosses the valley floor on the embankment mentioned above, and then cuts deeply through a large ancient sand dune on approximately a 75+ degree right-hand curve. According to the King Island Historical Society, the current belief is that this was a tunnel. It certainly is well filled in if it was a cutting, but a tunnel through a sand dune on a tight curve does leave some doubt in my mind, and there is some side collapse visible. Some further expert research is required.

On the other side of the big dune, the line crossed the next small valley continuing the right curve with some of the embankment washed away immediately past the big dune cut. It then curves tightly left around the end of another ancient dune before making its way down to the lighthouse site over gentle undulating land with a couple of small embankments and cuttings clearly visible from the Cape Wickham Road along the way. The embankment heading around the last dune mentioned is clearly visible from the Cape Wickham road as you drive into the lighthouse area, and it is how I came to spot the tramway in the first place. The final leg of the tramway is cut into the side of another dune adjacent to the lighthouse and, although some erosion is present, its path is still clearly visible. I only had a couple of hours one afternoon with my partner in tow, and would have liked to have walked the formation in its entirety. Due to time constraints, I was unable to establish the exact position where the tramway crossed the Cape Wickham Road heading towards the lighthouse, so I have used Google Earth as a reference for this, but it needs to be verified on the ground.

Naracoopa Wharf Construction Tramway

This appears to have been a temporary tramway to supply fill for the embankment between the wharf and foreshore. The quarry site, a cut from the side of cliff, is a few hundred metres from the wharf and still quite visible today. The tramway is pictured in the *The King Island Story* (R. H. Hooper, 1973,) and this picture is also displayed at the wharf interpretation signage. The wharf itself had a tramway in later years for cattle loading and, again, further research is required.

Currie to Fraser River (Pegarah) Timber Tramway

The tramway was approximately 6 miles long (9.6km) and ran from Currie Harbor to the Fraser River in the present day Pegarah area. A mill site existed at Pegarah but, according to local information, it has been completely bulldozed in recent times and access to the area is not permitted due to the land owner's wishes. The tramway apparently ran along the side of the road between Currie and Pegarah, but I had no luck picking it up. Some research since I returned indicates I was looking on the wrong side of Currie Harbour for starters. Again, further research is required.

Scheelite Mine Tramway at Grassy

A wooden tramway was proposed in 1919 to run from the mine to a jetty.

Shipwreck Tramway.

It was also mooted that a temporary tramway was to run along the foreshore from Currie down to a major shipwreck. I have no other information at this time.

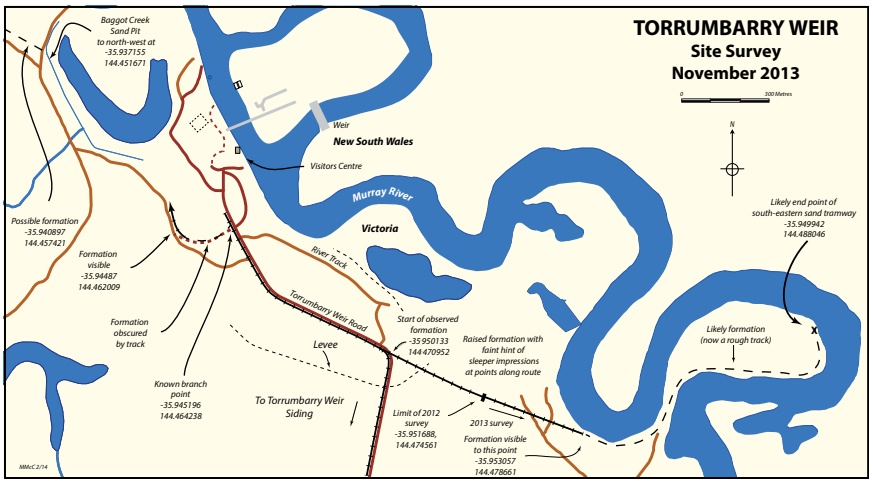
Mark Swaby, January 2014

Old Fogeys' (and one apprentice) Torrumbarry gallivant 2013 Victoria, 610mm gauge

After successful visits in 2011 and 2012 aimed at mapping the tramways used in the construction of Torrumbarry Weir on the Murray River, another two-day expedition took place on 26/27 November 2013 to focus on the sand tramways that serviced the construction project. Participants were John Dennis, Peter Evans, Colin Harvey, Bruce McLean, Phil Rickard, Stuart Thyer, Chris Wurr and Mike McCarthy. We arrived at the weir in 38 degree heat (as seems to be the custom) at lunch time on the 26th and, after a bite to eat, set about continuing our exploration of the south-east tramway which we had traced as far as 1.6 km from the weir during our 2012 visit. Our hope was that the formation would lead us to the site of the sand excavation. It was known that one of the tramways lead to a river bank excavation while the other served a sand pit, presumably away from the Murray. What wasn't known was the direction each tramway took.

It was with some disappointment that the south-eastern tramway formation became indiscernible 350 metres from the start of our efforts this year. It could be followed to a point where a levy bank had been constructed along the river bank but, beyond that, the work associated with building the bank and camping activity had removed any obvious remains. This location however was unlikely to have been the terminus of the tramway because it was on the deeper, outside curve of the river, and the distance from the weir was materially shorter than quoted distances in researched documents. Because of the various loops in the Murray at this point the tramway could really only have continued in one of two directions from where we could last trace it. The group split into two with one exploring the possibility of the tramway continuing further downstream to the south-east while the other explored the strong possibility the tramway may have followed the river to the north-east into one of its loops to carry sand from the inside curve of the river.

The group searching downstream were able to confirm that no evidence could be found of tramway formations in that direction. The group which explored the area within the river loop



could not find hard evidence, but a vehicle track followed the likely alignment and a manmade pile of earth and sand at the point of the loop suggested this to be a likely endpoint for the tramway. Photographs of the line supported the conclusion that the tramway had indeed followed this alignment, but physical evidence had been disturbed by the vehicle track.

After an enjoyable evening involving much needed rehydration, and a hearty breakfast the following morning, we returned to the weir to look for evidence of the tramway now known to service a pit, and likely to have travelled to the north. The area was found to be crisscrossed with vehicle and motor bike tracks which made our work quite difficult. However, mid-morning a formation was found which appeared to consist of two near parallel alignments. The issue was confused by the existence of several earth markings all running parallel with what we thought were tramway formations. Further work will be needed to confirm findings in this area.

An interesting find was a pit close to the River Murray in the vicinity of Baggot Creek. What appeared to be a tramway formation linked the pit with the river. This could possibly be associated with the weir works, but it is unlikely this is the pit we are seeking. Our expectation is that the pit needed for the construction project would have been much larger and at about double the distance from the weir.

On our return to the Torrumbarry works area a curved alignment that followed the likely route the tramway would have taken was investigated. Contemporary aerial photography provided evidence of a junction point for the tramway with the main line a short distance away. The track had been used as a vehicle access at some stage, but the curve of its alignment and evidence of what appeared to be tramway formation where the vehicle track straightened close to River Track, suggests very strongly that this was another case of a tramway alignment being later used for road vehicles.

It was an interesting couple of days with great company. A further visit is planned for late 2014 to explore further to the north in search of the sand pit.

Mike McCarthy, 11/2013

South-Eastern jetty tramways of South Australia (see LR 177, pages 20-21)

1067 and 762mm gauge

A recent quick trip through the South East of S.A. included some visits to various ports. Since the last report in LR (2004) a number of jetties have lost their tramway.

Port Macdonnell – 1067mm gauge. Still has its tramway in place. No change in length but no trucks seen. Many rails appear are corroded and in poor condition.

Southend – 762mm gauge. The SA Department of Planning, Transport and Infrastructure announced in May 2012 that this jetty, at the south end of Rivoli Bay, would (among other works) have its rails removed. To quote a spokesman ". . . *will be safer for pedestrians with the rails moved off the deck* . . ". Today, only a short section of tramline is visible on shore. Still a working jetty, small rubber-tyred trolleys now suffice for transport, and the jetty has lost much of its character.

Beachport – Foreshore landscaping and paving works seem to have removed all traces of this 1067mm gauge jetty tramway, at the north end of Rivoli Bay. However, a number of local groups (notably the Lions) in conjuction with the Wattle Range District Council, have set up two picnic tables adjacent to the base of the jetty. These tables are former jetty tramway trucks, on rails. The South Eastern Times (Millicent, 16 Oct 2013) states "*Unique tables have also been created out of discarded jetty trolleys that, for many years, transferred crayfish from the fishing boats along the jetty to the processing factory on shore*" – a claim that is only partially true. The trucks, of 762mm gauge, cannot be from Beachport's jetty and most likely originate from Southend, the proximity in time and distance being key indicators. The fate of the six Beachport trucks, of similar type but wider gauge, is unknown.

Cape Jaffa – 762mm gauge. Not visited. The Department of Planning, Transport and Infrastructure does not seem to have announced any "upgrading" of this working jetty – yet. If any reader is travelling the Southern Ports Highway, would they mind doing a short detour and checking the current status please? As Colin Harvey suspected (LR177), the length is more than the 369ft recorded by Arnold Lockyer (LR142) – Neville Collins (*The Jetties of South Australia*, 2005) has it as being extended in 1969 to a length of 843 feet.

Robe – 762mm gauge. The most recent and farthest distant jetty from the main town, this structure was built in 1950 and was 465ft long (Lockyer's list – LR142). It seems to have suffered the same fate as Southend, though several years ago. The only remains are two rows of sleepers onshore. Also at Robe are the remains of two slipways – one virtually all gone, but the other more complete but very derelict. It is of 1600mm gauge, and may be the remains of the slipway system that used to convey fishing boats over the sand dunes to the tranquil waters of Lake Butler to ride out gales. This slipway was replaced by a short canal in 1964.

Phil Rickard 11/13

Clockwise from above: *The perfect place to eat fish and chips – one of two tram truck picnic tables recently installed at Beachport. Future researchers note – they are of 762mm gauge even though the rails have been placed 737mm apart! • Remains of a derelict slipway at Robe adjacent to Lake Butler and the marina. The gauge is 1600mm.• Southend jetty, with the remaining out-of-use tramline. The jetty was re-decked and rails removed in 2012. It was one of at least four jetties built post-WWII in the South-East and on Kangaroo Island to a gauge of 762mm; the reason for the change from the usual jetty gauge of 1067mm is unknown. • Port MacDonnell jetty on a wet and windy 28 October 2013. The low level of this jetty is apparent, a feature that has not changed since its broad-gauge days in the 1860s when it had double tracks and was one of the busier ports in colonial South Australia.*

RESEARCH

Please send contributions to research@lrrsa.org.au or to P.O. Box 21, Williamstown, Vic 3016.

The driver of the Russell Allport converted locomotive has stopped to pose for this photograph. It is understood the locomotive was all-wheel drive, in addition to the permanently attached leading log bogie, which was also driven. *Image courtesy Bill Russell*

Mystery photo, Tasmania

Bill Russell initially found this image in a 1960s calendar, but had no information as to the origin. After posting on the LRRSA yahoo group, further information has come to light. The source of the image is still unclear, but there are two possibilities. One possibility is that the image was taken for the Tasmanian Agent Generals' Office, and then used for promotional purposes at their London office. Alternatively, some believe the image was captured by Spurling in 1934 for Russell Allport Engineering, still in business today.

The image held by the State Library of Tasmania shows the original mounting board of the image, which has the title "HAULING EUC. GIGANTEA LOGS TO A SAWMILL, N.W. TAS." Eucalyptus Gigantea is more commonly known as Blue Gum, a widely harvested tree in Tasmania. Initial attempts to place the image from comments on the LRRSA yahoo group gave two different locations. Extra information provided via email, determined that the image was from the Huntsman Tramway. The Huntsman Tramway, south of Deloraine, Tas, was a 3ft 6in gauge operation. Stencilling on the locomotive's cab side indicates it was a Russell Allports of Hobart conversion, based on an International truck. Interestingly, the locomotive is sitting on track which transitions from log spar rails to sawn timber rails.

The identification of the image is a reminder of the perils of believing everything you read. While the Internet opens access to a world of images, the risk is that increased volume increases the potential for errors in captioning. Image databases, both 'amateur' and 'professional' can contain errors in labelling images or in attribution. Even various state libraries have errors in their image labelling and while many invite readers to advise of these, not all act upon the information given by our many sharp-eyed readers. Where *Light Railways* readers are building image collections and they are unsure of the provenance of the image, it is prudent to caption the image 'possibly..' or 'it is believed..'.

This recent article from the *Sydney Morning Herald* "Truth comes for Vietnam vet after department 'played God' with famous photograph" illustrates the problems that mis-captioned images can cause. http://tinyurl.com/LR236-vietnam [1]

[1] http://www.smh.com.au/national/truth-comes-for-vietnam-vet-after-department-played-god-with-famous-photograph-20140301-33soo.html#ixzz2umBQGaUJ Accessed 01/03/2014.

Bill Russell, Mark Kendrick, Anthony Coen, John Dimitrievich, Phil Rickard, Stuart Thyer

Research subjects

One lucky new researcher has taken on the Lauriston Reservoir construction tramway project. Richard Warwick, better known as the Associate Editor of Light Railways, has decided to tackle the subject. There are a number of pieces of information that have come to light in recent months, giving Richard an excellent start to his work.

As is often the case, researching one area turns up information on others; the Lauriston research material has unearthed evidence on Rocklands Reservoir, in western Victoria. It appears that 2ft gauge Malcolm Moore locomotives were used on the first phase of construction in 1938. Construction was suspended during the war and did not recommence until 1950. During these works, 3ft 6in gauge Malcolm Moores, purchased new, were utilised. Any reader interested in furthering Rocklands as a research subject can contact the Research editor.

While the first two research subjects identified have been Victorian, I would love to hear from readers from other states who may have subjects suitable to be taken on by new researchers.

Stuart Thyer

Aerial imaging, Victoria

Those researchers seeking good quality mapping and aerial imaging of Victoria will be interested in this mapping site, http://116.240.195.134/vicmapapi/. While it is not a well-promoted resource, is a publically available State Government website. The images are up-to-date and very clear, although some of wider zooms do not display the newest imaging, so always zoom in to check the content. It is a step up from Google although not as good as Nearmap was before it vanished behind a paywall*. To view the aerial images, click on the blue cross on the right hand side of the window.

*A paywall is a system that prevents Internet users from accessing webpage content without a paid subscription

Colin Harvey

Updates to *Light Railways* Index

Ian McNeill continues his good work in updating his index of all *Light Railways* magazine articles, letters, research items and news. The updated file now goes up to *Light Railways* 235, an excellent resource for searching back issues of the magazine.

http://lrrsa.org.au/Lrr_downloads.html

Stuart Thyer

Odd Spot, WA

From the *Western Mail*, WA, Thursday 16 April, 1931

How to harvest your cabbages

When harvesting cabbages in low-lying or swampy land, the following method of dealing with the crop will be found useful:—A wooden tram track is laid; this is constructed out of 3in. by 2in. jarrah, made up in sections of 10 feet to 12 feet, nailed to three sleepers of 9in. by 1in. timber. Each section is allowed to overlap the previous one. The rails should be 20 inches apart. A truck with an ordinary flat top, on to which fits a four-sided detachable crate and fitted with four-flanged wheels, is used to cart the cabbages off the swamp to a place more suitable for packing. This method, practised by a grower in the Narrikup area, is very satisfactory, and is much more economical than carrying the cabbages out in a horse and cart.

CABBAGES. (1931, April 16). Western Mail *(Perth, WA : 1885 - 1954), p. 42. Retrieved March 4, 2014, from http://nla.gov.au/nla.news-article38898569*

Narrikup is on the Great Southern Railway, near Albany.

Phil Rickard

Heritage & Tourist NEWS

News items should be sent to heritagetourist@lrrsa.org.au Digital photographs for possible inclusion should be sent direct to Scott Gould at editor@lrrsa.org.au including the name of the location, the name of the photographer and the date of the photograph.

QUEENSLAND

FRIENDS OF ARCHER PARK STATION AND STEAM TRAM MUSEUM INC., Rockhampton

1067mm gauge

During the Christmas period, the future operation of the Museum has been the main issue for Archer Park Friends and Council Managers. One thing everyone wants is that the Museum remains open. The main option for future operation which will satisfy Council's "Community Management" policy is for the Friends Association to manage the Museum. This is a whole "new world" for the Friends, so the Executive Committee has been meeting with Council Officers to define a proposal which is within the limited capacity of the Friends and satisfies Council management. Any such proposal will still need the final approval of the Regional Council.

While the future is being resolved – hopefully by the end of March – the Council will continue to pay the salary of a part-time manager and limited expenses.

The Purrey Tram (built Bordeaux, France 1909-1937; rebuilt Rockhampton, 1982-87) passed all its inspections and is to start normal Sunday operations from February 2. Operating every Sunday may be subject to review after observing how the operations proceed.

Report taken from *Tram Tracks*, Volume 8, number 1, 1 February 2014

BRAMPTON ISLAND, off Bowen

762mm gauge

The original Brampton Island resort had a 2ft 6in (762mm) gauge railway from the jetty to the resort designed to bring vacationers and their luggage from the ferry to the resort. The railway went for about a mile along the foreshore and was a favoured walking track to view sunsets and wildlife as well as for getting to fishing spots. When the resort closed on January 24, 2011, so too did the railway. Recent photographs show that it is overgrown and is described in some photographs as a 'derelict railway'.

A recent report in the *Daily Mercury,* on 20 February 2014 states that there are reports of a possible new development of the resort.

It is hoped by railway fans that the railway will feature in the redevelopment.

John Browning 20/2/2014 Andrew Webster 3/3/2014

DURUNDUR RAILWAY, Woodford

610mm gauge

In recent months the railway has undertaken several tasks to improve its presentation and image. Volunteers have:

- operated regularly using the recently repainted loco *Netherdale* (6wDM, built Bundaberg Foundry, 1954 under licence from Jenbacher Werke of Austria) on passenger trains, resulting in positive comments
- continued to improve the Facebook page, thus boosting the public image
- cleaned down and repainted the Wamuran Station building over the very hot Christmas break
- repainted the platform coping and yellow safety line at Woodford station
- purchased a new sign for the front fence, new signs directing passengers to the platform, a new sign promoting the Facebook page, and new signs for directing passengers to the site.

Part of the strategy to minimise long term maintenance requirements is to undertake the new works at Peterson Road using prestressed concrete sleepers in the trackwork and steel sleepers in the pointwork. So far, replacing point timbers (sleepers) with steel sleepers on one set of points to be reused in this location is well advanced. The ex-QR steel sleepers are 2.15 metres long so need to be cut and welded to required lengths. To make the two new sets of points required, the railway needs around 40 steel sleepers with lengths between 1.65 metres and 3.6 metres. These have been cut to length and welding is progressing.

Work also continues on sorting, processing and stacking the Ingham concrete sleepers for future use. At Peterson Road, the passing loop alone will require around 120 sleepers. This also means that the railway will need 480 bolts and 480 rail clips of the right size to reassemble the track panels. So workers also need to recover these fittings and clean them for re-use – a time consuming process, but, being well prepared should minimise delays when commencing track laying using these materials at Peterson Road.

Report taken from *Durundur Railway Bulletin,* Volume 35, number 326, March/April 2014

NAMBOUR TRAMWAY, Nambour

610mm gauge

A proposal about the potential development of the Nambour Tramway utilising the existing heritage-listed sugar cane locomotive line was presented to Nambour Council recently.

The proposed project could provide a combination of benefits to Nambour, including the ability to celebrate its Sugar Cane Heritage, to provide a focus for community events, to provide an attraction for visitors, tourists and locals, and possibly providing a positive economic outcome. The project could potentially provide a 'commuter' benefit if the costs, risks, revenue and benefits all aligned appropriately.

The proposal referred to the utilisation of the existing heritage listed sugar cane locomotive line, but additional land, track and other infrastructure will need to be provided beyond the ends of the existing track to enable its functional use. These land and track extensions are required at both ends to provide a passenger station and passing loop and additionally, at the eastern end to provide management, storage and maintenance facilities.

Council is the owner of several ex-Moreton Mill locomotives, including a diesel locomotive recently gifted by Bundaberg Sugar, and these locomotives feature in two of the operational scenarios considered in the proposal. They would need refurbishment before they could be run on the tracks. Otherwise they need to be at least satisfactorily stored and maintained even if only for static display.

This project, if it proceeds, could be premised on a community based, not-for-profit group undertaking the roles of the Rail Infrastructure Manager, and Rolling Stock Operator in accordance with the Transport (Rail Safety) Act 2010, Council will retain ownership of the track and the additional necessary land. Council needs to be assured the group has the necessary skill sets for the on-going management and operation of this arrangement.

Council held a meeting on Thursday 27 February to decide for or against the tramway proposal. According to the Nambour Tramway Facebook group, the council voted unanimously in favour of the tramway idea.

Brad Peadon 27/2/2014

NEW SOUTH WALES

TIMBERTOWN, Wauchope

590mm gauge

Chris Stratton reports about a recent visit to Timbertown on Tuesday, 14 January, 2014 . The adult entry fee of $22 includes one miniature train ride, one horse-drawn wagon ride, and one ride on the Heritage Railway.

The first service of the day departed with the train full and would-be passengers left on the station. After leaving the station the line passes the entry to the park, and shortly after crosses a small bridge and then begins the climb to Broken Bago station, located at the rear of the park near the loco shed. Broken Bago station is no longer in use and is very run down. Then line then heads north, before turning back south and crossing a large S-shaped timber trestle bridge. After a short climb the line arrives back at the station, the circuit taking approximately ten minutes.

The Heritage Railway now has only two locomotives –

Fowler 0-4-2T B/No 17881 of 1928, ex South Johnstone Mill No.10. This locomotive is used for all passenger services and runs at a boiler pressure of 80psi. This loco is fired using wood offcuts.

Motor Rail Simplex 4wDM B/No 4214 of 1929, ex Harwood Mill No.2. This locomotive is used for maintenance trains and in place of its radiator is a 200 litre steel drum full of water. I was informed that the original radiator is still on site but leaks badly.

The Hudswell Clarke 0-6-0 B/No 1862 of 1952, ex Macknade Mill number 6, which was previously on site, has been sold to the owner of Denmark Engineering at Morisset NSW.

There was an unconfirmed report that Fowler 0-6-0T B/No 12271 of 1910 "Green Hornet", ex Macknade Mill number 8, which previously worked at Timbertown, has been moved from its resting place outside the Railway Lodge Motel in Taree NSW.

Chris Stratton via John Browning, 25/1/2014

RICHMOND VALE PRESERVATION CO-OPERATIVE SOCIETY, Kurri Kurri

1435mm gauge

In 2013 the Richmond Vale railway was given a substantial collection of mining and railway equipment by the Geoscience Department at Londonderry. This year the transportation of the equipment to Richmond Vale was organised. Among the items of railway interest are a Jeffrey L600 coal loader (which was donated to the Geoscience Department by Muswellbrook Colliery) which is rare as it is mounted on railway wheels instead of the usual caterpillar tracks, and a pair of weighbridge scales bolted to concrete slabs (donated to the Geoscience department by RW Miller and Co from their Werris Creek Colliery where they were used for weighing coal skips). The scales will be restored and located at the entry building at Richmond Main. The L600 will be restored and go on display at Pelaw Main.

In 1914 the first trainload of coal left Richmond Main Colliery and travelled over the Richmond Vale Railway to Hexham where it was loaded into ships for export. To celebrate the centenary of this event, the Board of Richmond Vale is organising an event to be held over two days in August 2014. Activities planned include a coal train demonstration and passenger train trips to Pelaw Main. Also planned are displays with organisations and companies associated with the coal industry, the theme being "The movement of coal".

The Richmond Vale railway is also playing a part in the Kurri Kurri Nostalgia Festival. It will be providing rail services on the Saturday evening and throughout the day on Sunday from Pelaw Main to Richmond Main.

Report taken from *The Link Line*, number 169, Summer 2014

Sporting a 200 litre steel drum full of water in leiu of a radiator, Motor Rail Simplex 4wDM B/No 4214 of 1929, ex Harwood Mill No.2. sits under cover as No.10 waits to depart with its next train. Photo: Chris Stratton

Fowler 0-4-2T B/No 17881 of 1928, ex South Johnstone Mill No.10 with a full load of passengers at Timbertown, Wauchope. Photo: Chris Stratton

AUSTRALIANA PIONEER VILLAGE, Wilberforce, NSW

610mm and 457mm gauges

After fifteen years, the railway at the Australiana Pioneer Village returned to service on Sunday 26 January, with Coleman and Son Amusements as operators. Due to accreditation issues, the railway has been regauged from 2ft (610mm) to 18in. (457mm) by welding a third rail to the steel sleepers.

The locomotive in use was Coleman's steam outline 0-4-0 No.8 with three passenger carriages in operation, one from Coleman's and two of the Village's own. All are closed side door cars.

Despite the cool and wet weather there was a reasonable crowd with the queue for the train ride growing all morning. Each trip was for two laps of the track for $5.

Amongst other rides provided on site, Coleman's also had their blue C 38 class, 3807, leading a couple of open cars on a portable track laid on the village green.

Apart from the heritage buildings in the village, displays included classic cars and trucks, horse drawn carriage rides and military re-enactment displays. The village is open every Sunday and the train will be running each open day.

http://theaustralianapioneervillage.com.au/

Jim Dean, Ian Heather, both via e mail.

VICTORIA

WALHALLA GOLDFIELDS RAILWAY, Walhalla

762 mm gauge

Passenger numbers for January were on par or above last year's total for the same period despite the total fire ban days putting a dent in the figures, including a four consecutive day non operating period.

This year the railway will commence fund raising to have the two DH locos re-gauged (Walkers Ltd, Maryborough, Qld., Bo-Bo DH, DH 37 (MMY 37) and DH 72, of 1969 and 1972). DH 37 has been fitted with replacement batteries and can now be started without external assistance which enables it to run up and down the short 3ft 6in section of track in Walhalla yard.

A Planning Permit was issued for construction of the verandah (identical to the original VR plans) in January 2013 but has not progressed due to lack of available funds. Following advice late last year that WGR was to receive a bequest from the estate of former Guard Peter Brumm, the Board decided to seek grant funding of $60000 for the project, which has been costed at $80000. This includes replacement of the timber platform with an asphalt surface.

Report taken from *Dogspikes and Diesel,* January 2014

PUFFING BILLY RAILWAY, Belgrave

762mm gauge

Considerable progress is being made with the first volume of a new book covering the history of the PBPS, which will cover the Society's history up to the return of the train to Emerald in 1965.

Colman and Son's 3807 heads a sparsely occupied train on the village green at Australiana Pioneer Village, 26 January. *Photo: Ian Heather*

Hauling a train of mixed origin passenger cars, Coleman's steam outline No.8 departs Australiana Village station. *Photo: Jim Dean*

Don Horsburgh and his team, Brenda Saunders and Deborah Langley have been busy working with the author, David Burke, and a draft version is coming together. The book is based on the very considerable research work undertaken by Bill Russell, interspersed with information gleaned from interviews undertaken with Society members who were present at the time.

Work continues on the restoration of Beyer-Garratt NGG16 129 (Beyer Peacock 7430 of 1950). Engine frames continue to be supplied with fitted bolts. Boiler pressed tooling is being prepared and boiler construction has commenced while the stripping of parts from the old boiler continues. The outer pony trucks are being prepared so riveting can start. Three coupled wheel sets have been sent out for quartering of the crank pins. Equalising beams overhaul is underway.

Reports taken from *Monthly News* January 2014

SOUTH AUSTRALIA

COBDOGLA IRRIGATION AND STEAM MUSEUM, Cobdogla

610mm gauge

The Cobdogla steam museum, home of the *Loveday Flier* and Humphrey pump has recently launched a new web page. it can be found at:

www.cobdoglasteammuseum.com.au

Denis Wasley, from LRRSA Yahoo Group

Victor Harbour Granite island tramway

1600mm gauge

Passenger services were first introduced across the causeway from Victor Harbour to Granite Island by the South Australian Railways in 1894. Rails were removed in 1954 and not re-instated until 1986, when the tourist service was introduced using replica trams. Phil Rickard visited Victor Harbour between 30 October and 1November 2013 and took these photographs.

Above: *Reconstructed tramcar No.3 departs from the harbour esplanade tram stop, bound for Granite Island. This iconic tramway is a must-do for the tourists in Victor Harbor and despite the steep narrow stairs, if the day is fine, most patrons take the top deck.*

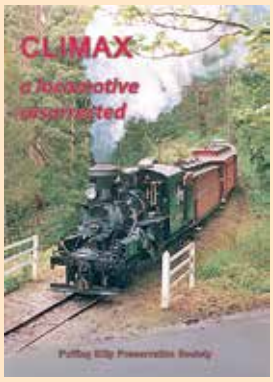
Below: *Running a special service, VHT car No.2 returns from Granite Island with a full load of Chinese tourists. In 2009, Car No. 2 was returned to service following two years' refurbishment. The causeway is an interesting example of the art of timber jetty building with repairs of different ages being apparent.*

Above: *Passengers disembark at the Breakwater terminus on Granite Island as the motive power gets careful examination by one little girl. The journey takes about 20 minutes for the 1.2km journey and, yes, some horses are faster than others!*
Below: *Another few metres and tram No.2 will be on Granite Island. The causeway linking the island with the mainland is about 600 metres in length. Just visible is the thick rubberised walking strip between the rails for the horses. Many passengers seem to be ignoring the warning to stay seated when on the upper deck. The four trams available nowadays are composite replicas, built in Port Adelaide in 1986.*

New from LRRSA Sales ...

Climax a locomotive resurrected

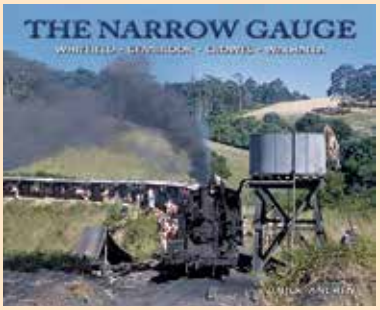
Compiled by Peter Charrett
Published by Puffing Billy Preservation Society



Soft cover, 32 pages, A4 size
Includes a potted history of Climax locomotive No.1694, the Tyers Valley Tramway, the locomotive in service on the Tyers Valley Tramway and Puffing Billy Railway, and photographs of the Tyers Valley Harman and TACL locomotives.
39 photographs - 24 in colour, four-colour map of Tyers Valley Tramway
Price $10.00 plus postage
($9.00 to LRRSA members)
Weight: 160 gm

The Narrow Gauge

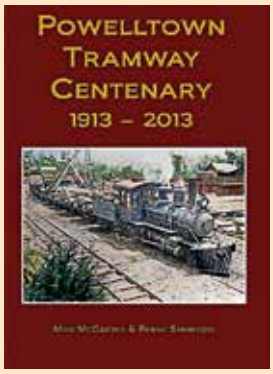
Whitfield – Gembrook – Crowes – Walhalla
By Nick Anchen
Published by Sierra Publishing
216 pages, 300mm 240mm landscape, hard cover, about 300 photographs



Includes details of locomotives and rolling stock, recollections of railwaymen and residents, and a guide to remains.
Price $75.00 plus postage
($67.50 to LRRSA members)
Weight 1,800 gm

Powelltown Tramway Centenary

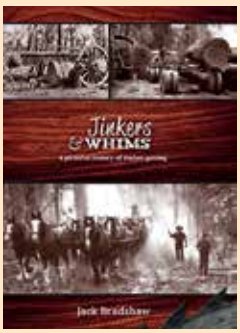
1913 – 2013



By Mike McCarthy & Frank Stamford
Published by the LRRSA.
Soft cover, 32 pages, A4 size
This booklet presents much new information in a highly graphical form, including the most detailed maps ever published on this tramway.
43 photographs, 10 maps, 10 gradient profiles.
Price $10.00 plus postage
($7.50 to LRRSA members)
Weight: 160 gm

Jinkers & Whims

A pictorial history of timber-getting in Western Australia
By Jack Bradshaw
Published 2012 by Vivid Publishing



110 pages 270 x 200 mm, hard cover, over 100 B&W photographs
Traces the methods used to harvest the forests of Western Australia over the last 150 years, from first settlement to the present day, from horse and steam power to modern mechanical harvesters.
Price $34.90 plus postage
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Weight 800 gm

Postage and packing: Within Australia, up to 250gm $2.00, 251 to 500gm $3.00, 501 gm to 3 kg $10.90, over 3 kg $15.00
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www.lrrsa.org.au

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