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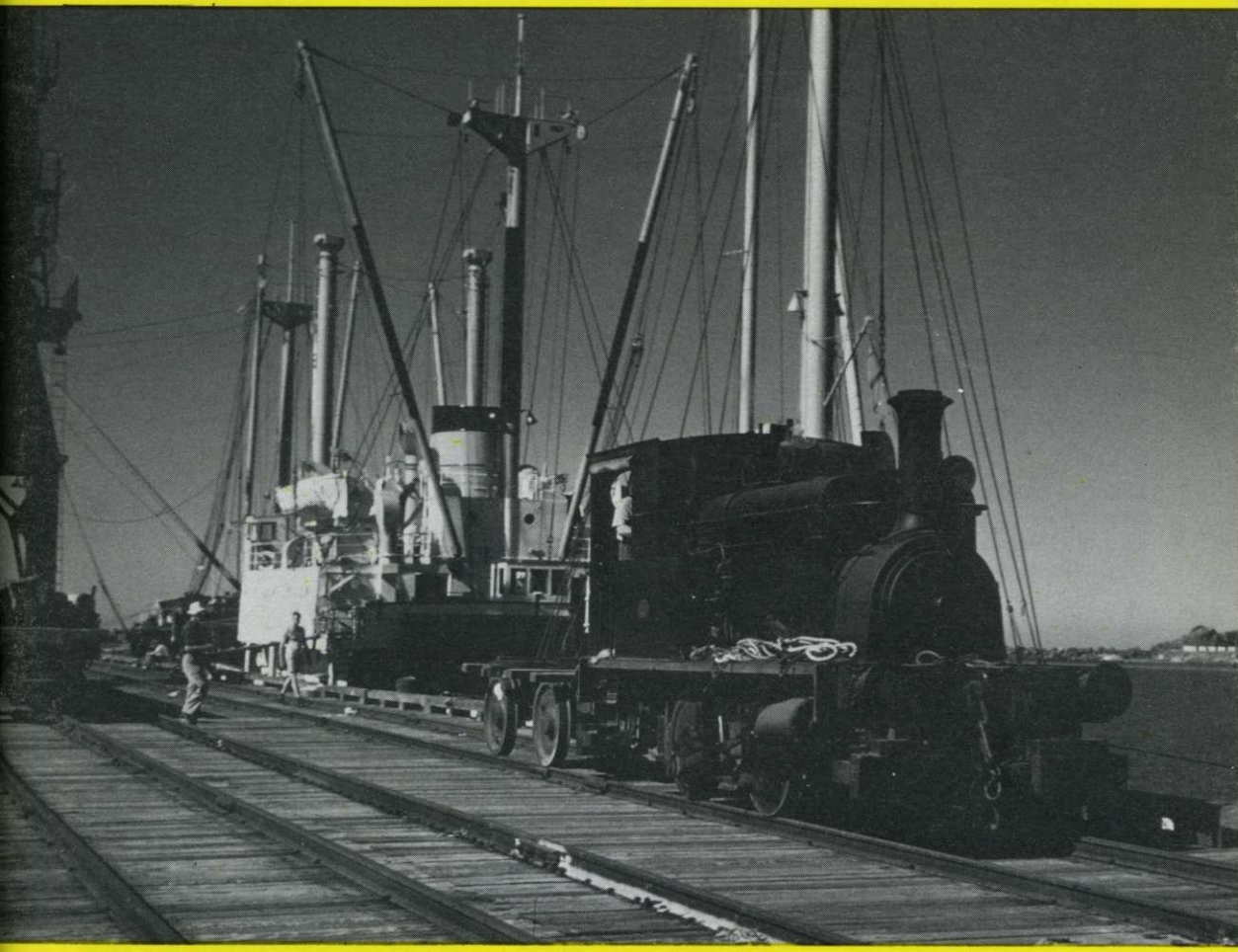
SHIPS AND TIMBER: a short history of Coffs Harbour port and associated railways

by John Kramer



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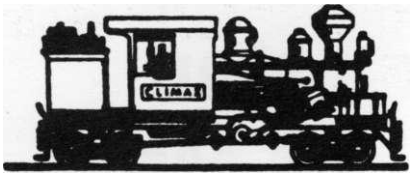

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P.O. Box 21, Surry Hills. Vic. 3127

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Secretary, Geof Maynard (03 690-2946)

New South Wales Division
Address: PO Box 290, Burwood NSW 2134
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Light Railways Editor, Bob McKillop, 10A The Bulwark, Castlecrag, NSW 2068 (Phone 02 95-4516)

Light Railways News Editor, John Browning, 36 Tait Street, Mackay, Qld. 4740 (Phone 079 51-1337)

CONTENTS

Light Railways is the journal of the Light Railway Research Society of Australia. The Society's members are undertaking research into the history of light railways in Australia and her territories. These include railways and tramways serving the timber industry, sugar mills and mines, construction tramways, industrial railways and narrow gauge passenger-carrying railways.

Articles, letters, book reviews, maps, photographs and drawings on topics of relevance to *Light Railways* are required for future issues. Comments on previous articles offering corrections or additional information are welcome for inclusion in our "Letters" columns. Written material should be typed with double spacing. Material should be sent direct to the editor.

Cover: a MSB Manning Wardle locomotive shunts trucks on Coffs Harbour jetty in a May, 1961, scene which symbolises post-War shipping operations.

Photo Phil Belpin

SHIPS AND TIMBER: A SHORT HISTORY OF COFFS HARBOUR PORT AND ASSOCIATED RAILWAYS

by John W. Kramer

Introduction

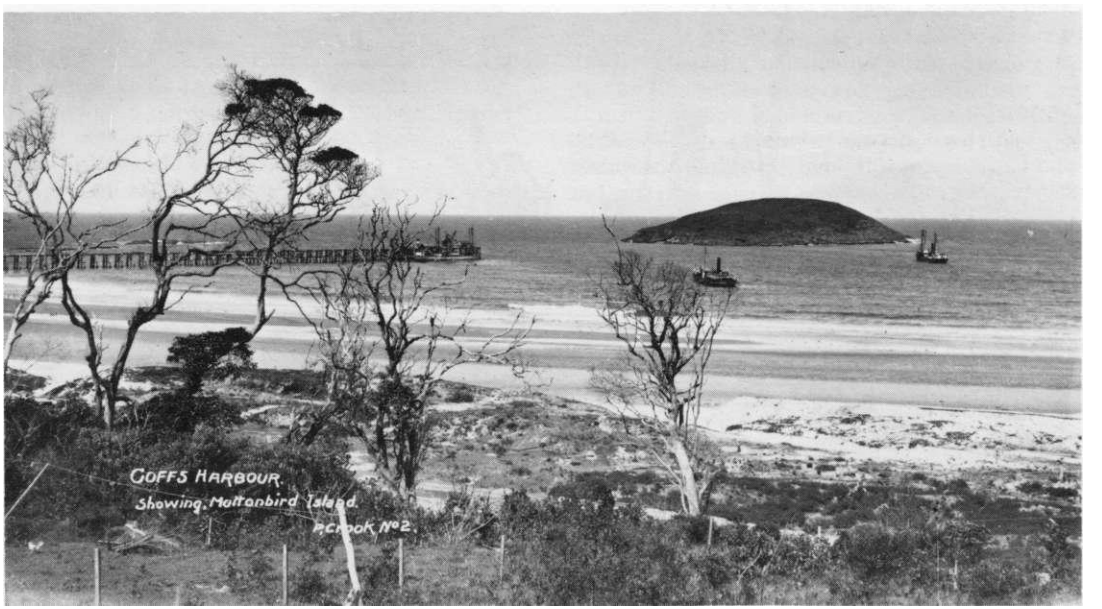
Situated on the North Coast of New South Wales, approximately midway between Sydney and Brisbane, Coffs Harbour is to-day a thriving township. A major stimulus for the town's development has come from the trade generated by its port.

Coffs Harbour's potential as a port was probably first recognised in 1847 by John Korff, who is said to have discovered the site whilst on a timber getting expedition to the Bellinger River. He reported to the authorities in Sydney that it gave safe shelter to sailing ships in southerly gales[1]. Shipping of timber began some time later, but did not gather pace until around 1880 with the continual arrival of new settlers in the district. Timber felling increased steadily and this, in turn, encouraged migration to the area.

Until 1892, the various sailing ships which came to Coffs Harbour anchored behind South Coffs and Muttonbird Islands. However, despite the deep anchorage and comparatively calm water, there was great inconvenience as far as the loading and unloading of timber was concerned. Logs were loaded onto the beach from wagons, either to be washed out to sea by the tide, or dragged out by bullocks and men in boats. Once beyond the breakers, the logs were towed by boats out to the waiting vessels, anchored in deep water. Here the ship's crew would manoevre the logs into position and the cranes would lift them aboard. Finally they would be securely stacked, either in the hold or on the deck.

The long delays caused by this method of loading, together with the fact that hardwoods could not be shipped out in this way, caused much local agitation for a jetty to be built[2]

1 George England *The Coffs Harbour story;* Coffs Harbour, Cent NC Newspaper Coy. 3rd print, March 1978, page 10.
2 "The development of the port". Unpublished article found in PWD files, Coffs Harbour. Author unknown. Probably written in later 1940s.



A Percy Crook photograph of Coffs Harbour in the period 1907-14 with two ships berthed at the outer end of the jetty and a further two awaiting their turn.

Source: Coffs Harbour Historical Society

THE JETTY 1892-1982

Construction

As a result of local pressure, the New South Wales Government approved the building of a jetty at Coffs Harbour. Construction began in 1890 under the control of Thomas Lawson. The first pile is said to have been driven by Alfred L Walsh, a contractor[3].

The construction work was not without incident. One particularly violent storm destroyed six complete bays, necessitating extra work before progress was resumed[4]. The jetty was completed in August, 1892 after total expenditure of £12,482.1s.8d.[5].

As built the jetty was 1641 feet in length. A single railway line of 3ft 6in gauge was laid along the centre. A 5-ton capacity steam derrick crane, built by Rogers of Newcastle, was erected near the end of the jetty for loading vessels. Adjacent to the shore end of the jetty were calf and sheep pens, a goods shed and the wharfinger's cottage. A number of small wooden trollies were provided for the conveyance of cargo along the jetty[6].

Early Shipping

The first vessel to use the new jetty is believed to have been the *Byron* under the command of Captain Hunter[7]. It called at the uncompleted jetty in 1892 to take on a cargo of sugar from Alexander Herman's mill at Korora. With completion of the jetty there was a boost to trade to and from Coffs Harbour based on the now readily available timber.

Shipping details from the 1890s are scarce. However, by 1897-8 a new 3-ton hand-powered crane was erected on the shore end of the jetty to facilitate the loading and unloading of drays[8]. By 1906-07 the 5-ton steam crane at the outer end of the jetty was considered inadequate for the traffic and it was replaced by a 10-ton capacity steam derrick crane which was transferred from the Iluka

3 *Ibid.*
4 *Ibid.*
5 PWD of NSW, *Annual statement of work, 1892.*
6 *Ibid.*
7 "The development of the port" *op. cit.*
8 PWD of NSW, *Annual report, 1897-98.*

An early photograph of the jetty (pre-1909-10) with a single 3ft 6in gauge railway line and 10-ton capacity steam derrick crane.

Photo: Percy Crook, courtesy Coffs Harbour Historical Society

This Percy Crook photograph, entitled "Arrivals by SS Orana" shows the jetty after duplication of the 3ft 6in gauge railway in 1909-10. The **Orana** was a 1,297 ton NCSNCo steel hulled vessel built in 1907. After War service as a minesweeper in 1939-45 it was sold to China in 1946.
Source: Coffs Harbour Historical Society.

Training Wall on the Clarence River. With a lengthened jib its capacity was reduced to 7.5 tons. The original 5-ton crane was re-erected at the shore end of the jetty in 1909.

Jetty Extension

By 1909 the port facilities at Coffs Harbour could no longer cope with the traffic and an upgrading program had commenced. A new 80ft x 30ft cargo shed was provided, together with a large waiting shed at the outer end of the jetty, and additional trollies[9]. In 1909-10 the outer end of the jetty was widened and a duplicate tram line laid[10].

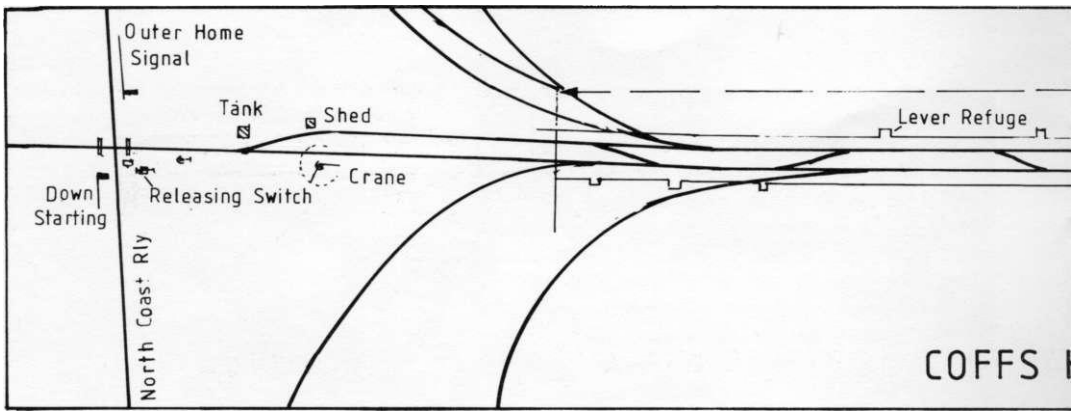
By this time the two leading shipping firms at the port, the North Coast Steam Navigation Coy and Langley Brothers, owned a small steam locomotive which they used to help with the loading and unloading of their vessels. In 1911 the Public Works Department (PWD) imported a new steam locomotive (Orenstein & Koppel No. 4365/1910) and the jetty was strengthened to accommodate it. A running shed was erected for the locomotive and a pit was subsequently added. In the following year acetylene gas lighting was installed on the jetty[11].

The 1911-12 PWD Annual Report reported that traffic on the jetty had greatly increased during the year and the widening and enlarging of the jetty was a "matter of considerable urgency" to cope with the traffic. Work on widening the jetty to 41 feet and constructing a 320 feet extension began in 1912-13 and was completed in 1914. An additional 10-ton capacity steam derrick crane was erected at the outer end. New stockyards were erected in 1914-15 and strengthening of the jetty was carried out in 1915[12].

Gauge Conversion

The Coffs Harbour-Raleigh section of the North Coast Railway was opened on 30 August 1915. Some time beforehand it had been decided to convert the gauge of the jetty railway from 3ft 6in to 4ft 8-1/**2** in in order for it to be compatible with the Government railway. Work commenced on this project in 1915[13]. A third rail was temporarily installed on the jetty and sidings. This was removed in 1917 on completion of the gauge conversion.

9 **PWD of NSW,** ***Annual report, 1907-08.***
10 **PWD of NSW,** ***Annual report, 1909-10.***
11. **PWD of NSW,** ***Annual report, 1910-11.***
12 **PWD of NSW,** ***Annual report, 1913-14*** **and** ***AR 1914-15***
13 **PWD of NSW,** ***Annual report, 1915-16.***



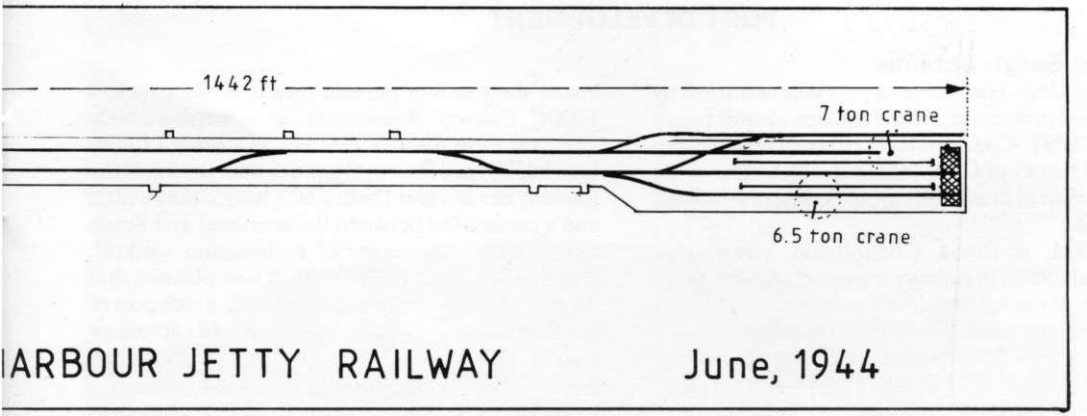
Subsequent Improvements

In 1925-26 the 801b/yard rails on the jetty were relaid and all points and crossings were renewed[14]. Two new steam cranes were purchased for use on the jetty in 1928-29. The first was a 5-1/2-ton capacity crane at the base of the jetty and the second a 7-1/2 *ton* capacity travelling crane. They cost £886.9s.8d and £1,148.2s.4d respectively.

A further 300ft extension of the jetty was approved in 1940, but work did not commence until 1943, probably due to wartime restrictions. It was completed in April 1946. About this time the jetty was widened at its base to accommodate a loop line to the new Northern Timber Depot[15]. In conjunction with this work, the track layout on the jetty was altered considerably.

In 1945 it was proposed that tenders be called for a new diesel-electric crane for use on the jetty extension. Subsequently a second-hand diesel-electric crane was obtained from England and erected on the new extension in 1947. Special

The Jetty railway in March 1980. John Kramer



1071b/yard rails were laid for the new crane to run on, whilst a timber floodlighting tower was erected to facilitate night work. Around this time the last two steam cranes on the jetty were removed: the South berth crane in 1947 and the North Berth crane in 1949[16].

Following removal of the jetty railway track, PWD employees replace defective decking timbers in February 1983. John Kramer

Further development of the jetty was proposed in 1949 when plans were drawn up to widen the north side of the jetty extension, strengthen the structure throughout and relocate the outer rail tracks. Considerable delay was experienced before this work was finally completed in August 1955[17]. This coincided with the introduction into service of a second diesel-electric crane. With completion of the new work, the maximum net load for bogie railway wagons on the jetty was lifted from 20 to 33 tons[18].

Decline

The improvements made to the jetty in the early 1950s were the last. By the 1960s there has been a significant decline in shipping through Coffs Harbour and maintenance work on the jetty was reduced. By the late 1970s it was no longer fit to be used by ships on a regular basis.

In 1982 most of the railway track was removed from the jetty to enable replacement of defective timber decking. Several sheds were demolished and two piles replaced. There was much talk of calling tenders for the demolition of the two jetty cranes and this was finally carried out in April 1984.

PWD summary of work at Coffs Harbour jetty and Harbour Works. Compiled c1948 and held in NSW State Archives.
Ibid.
PWD records, Coffs Harbour.
PWD of NSW, *Annual report, 1955-56.*
MSB records, Coffs Harbour.

PORT DEVELOPMENT

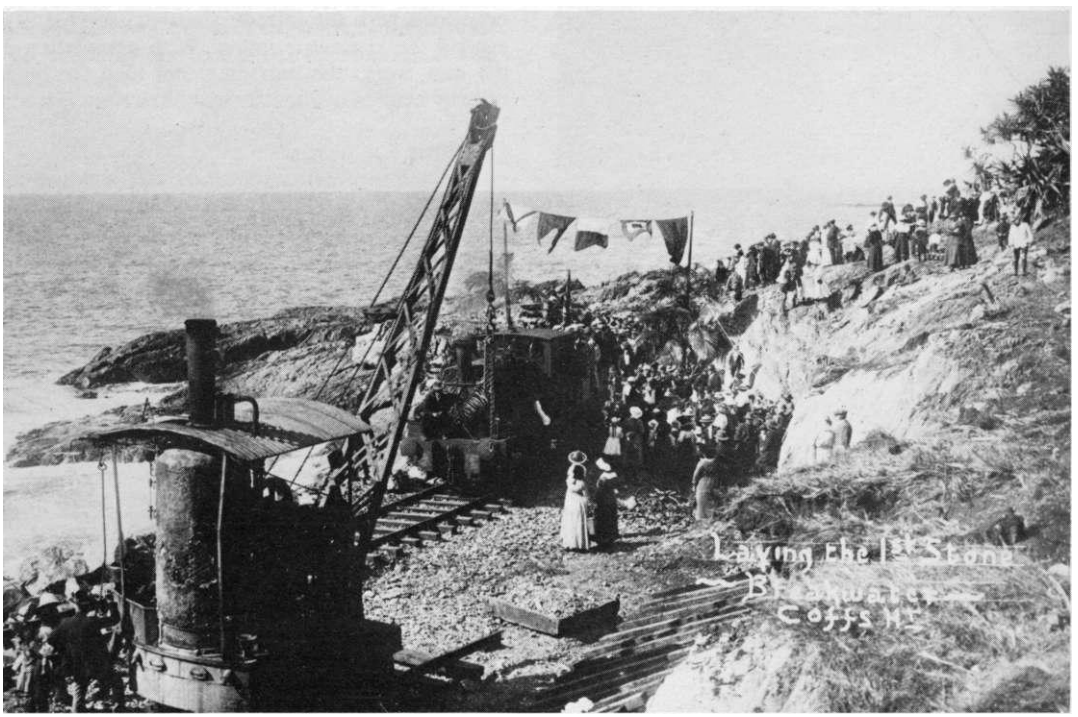
The de Burgh Scheme

Use of Coffs Harbour as a port was restricted by the limited protection offered to ships against heavy seas. In 1891, Commander F Howard conducted a detailed survey of Coffs Harbour with a view to the construction of breakwaters, but nothing eventuated from this.

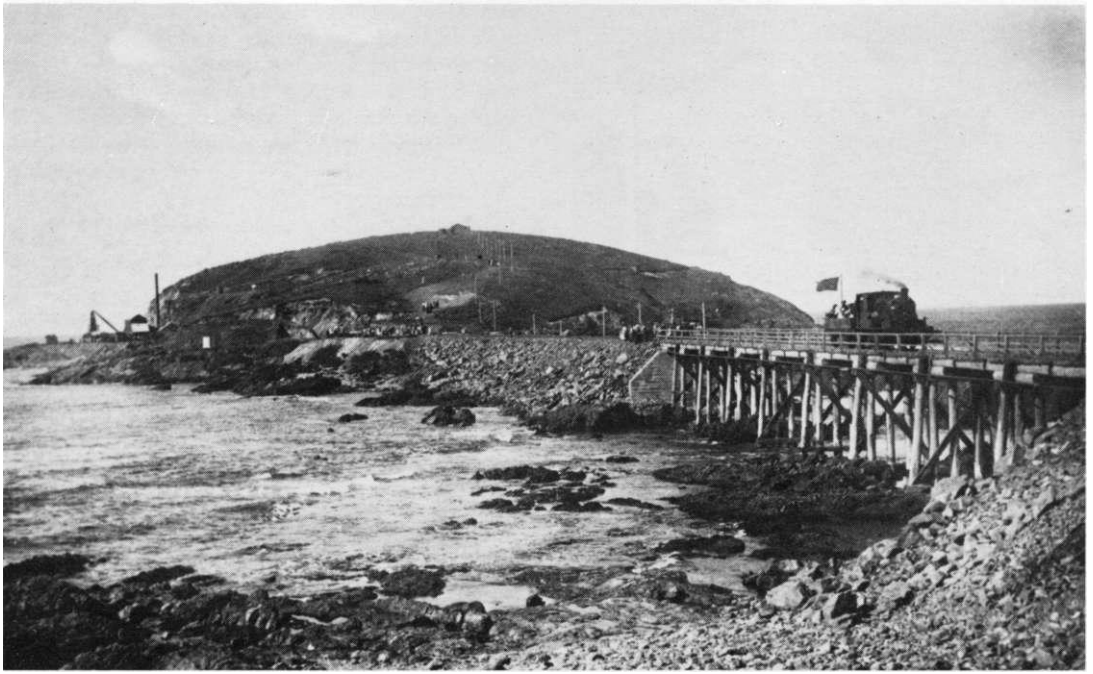
In 1911 a Royal Commission investigated decentralization in railway transport. A total of six different plans for the development of the port at Coffs Harbour were submitted to the Commission. However, the Commission decided against the development of Coffs Harbour as an overseas port in favour of Port Stephens.

In effect this decision was overruled by the Public Works Department of NSW which approved the re-development of Coffs Harbour according to plans submitted to the Royal Commission by Mr EM de Burgh, the Chief Engineer for Harbours and Water Supply. This proposal comprised the construction of a Northern Breakwater, 3200 feet in length, linking Mutton Bird Island with the shore just to the south of the entrance to Coffs Creek; a 1200ft Eastern Breakwater in a north-easterly direction from South Coffs Island toward Mutton Bird Island; two low level jetties under the lee of the Eastern Breakwater (both 650ft long x 80ft wide); and a connection between the mainland and South Coffs Island, by means of reclamation works[19]. Estimated cost was £439,000. It was planned that the completed harbour would provide a safe port of call for vessels drawing up to 24 feet and enclose an area of 237 acres at low water, of which 95 acres would carry 24 feet or more water.

Preliminary work began in 1912, but was suspended in October of that year after expenditure of some £5,000[20], probably due to lack of funds. After the appropriate Act was passed by Parliament (No. 10 of 1913), work resumed in the 1913-14 financial year. This comprised construction of the viaduct linking South Coffs Island with the mainland, together with the assembly of equipment for harbour construction.



The ceremony for the laying of the first stone on the Eastern Breakwater at Coffs Harbour in late 1918. Source: Coffs Harbour Historical Society



A Manning Wardle locomotive crosses the viaduct to South Coffs Island in the period 1915-20. The flag flying from the wagon suggests that this was a special occasion.

Source: Coffs Harbour Historical Society

Construction of the viaduct was completed in the following year and test borings were conducted for a quarry on South Coffs Island. Railway tracks were laid and equipment was moved into position to open up the quarry. Meanwhile, on the design side it was decided to locate the Eastern Breakwater some 600 feet further seaward, thus enclosing an additional harbour area of 30 acres.[21]

Breakwater Construction

In 1915 the NSW Government reached an agreement with the firm of Norton Griffiths and Company to delegate to that firm a large number of public works. Included were the Coffs Harbour port development, the Coffs Harbour-Glenreagh section of the North Coast Railway and the Glenreagh-Dorrigo railway line[22].

Things did not work out as planned. Despite modifications to the agreement, Norton Griffiths were not able to meet the requirements for the works and they were forced to cease in 1917. The Coffs Harbour improvement works were taken over by the Public Works Department (PWD) on 12 May 1917[23].

Work completed by Norton Griffiths comprised mainly the opening of the quarry and construction of 1,718 feet of the Northern Breakwater. The cost of this work was £71,996.3s. 1d.[24].

Work continued at a steady pace under the direction of the PWD. The Northern Breakwater was extended, whilst a reclamation wall was constructed on the southern side of the harbour. This wall, 2,565 feet in length and containing 155,855 tons of stone[25], was completed in 1928[26]. Spoil from the quarry on South Coffs Island was used to reclaim the area immediately to the south of this wall, thereby physically joining South Coffs Island with the mainland.

Eastern Breakwater construction began in late 1918. Storms and heavy seas proved to be a recurring problem, causing serious damage at times and considerably retarding construction work. In fact, early in its construction the Eastern Breakwater was completely washed away several times. This led to the use of 40-ton concrete blocks as it was extended. Some idea of the awesome power of

19 *Report of the Royal Commission as to decentralisation of railway transit, 1911.*
20 PWD of NSW, *Annual report, 1912-13.*
21 PWD of NSW, *Annual report, 1914-15.*
22 PWD of NSW, *Annual report, 1916-17.*
23 *Ibid.*
24 PWD of NSW, *Annual report, 1917-18.*
25 PWD summary of work, *op cit.*
26 PWD of NSW, *Annual report, 1928-29.*

Dumping a 40-ton concrete block on the Eastern Breakwater.
Source: Coffs Harbour Historical Society

the seas can be gauged from the fact that heavy seas have at times lifted these blocks from one side of the breakwater to the other[27].

The Northern Breakwater reached Mutton Bird Island on the 12 May 1924. After allowing several years for the breakwater to settle the work of constructing a concrete cap commenced. This proceded steadily in stages until its completion in July 1935.

The Eastern Breakwater was completed to a length of 1530 feet on 6 October 1939. Stocks of concrete blocks, large stones, spalls and crushed metal were then accumulated to facilitate maintenance. The total amount of stone tipped on the Eastern Breakwater was 262,942 tons, whilst 2247 of the 40-ton blocks were used[28].

Concreting of the core wall was completed in 1941-42[29] and Coffs Harbour works ceased at this stage. The two proposed jetties were never built, presumably due to wartime stringencies and increasing competition to shipping from the railways.

Maintenance

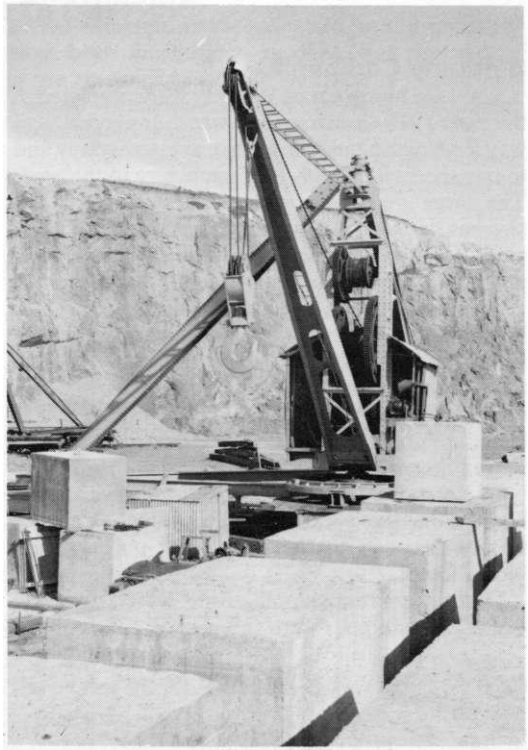
Regular maintenance was, of course, necessary for both breakwaters and the reclamation wall. Of these, the Eastern Breakwater tended to sustain the most damage due to its exposed position. Dumping of additional 40-ton concrete blocks has been the basis of maintenance here.

Until 1953 rail tracks were laid permanently along the Eastern Breakwater to facilitate the dumping of additional blocks. However, this led to their fairly rapid demise through rust. Therefore before maintenance could be carried out that year most of the rails on the Eastern Breakwater had to be replaced. The replacement track is thought to have come from the Woolgoolga jetty[30].

Once dumping operations were completed in 1953, the rails on the Eastern Breakwater were lifted, coated with bituminous paint for preservation, and stored in the adjacent quarry on South Coffs Island. This practice continued regularly until the last dumping of blocks on the Eastern

Breakwater in May 1970. Steam crane No. 9 was used to load the blocks onto the wagons which were towed out to the appropriate location on the breakwater by Landrover[31]. At that time 53 new 40-ton concrete blocks were cast near the base of the breakwater for future use. They were still there in December 1983.

27 Bert McCarthy, former PWD foreman, Coffs Harbour, personal comm. 6 June 1981.
28 PWD summary of work, *op cit.*
29 Ibid.
30 PWD records, Coffs Harbour.
31 Carmen Sellings, former PWD employee, personal comm. 17 Nov 1980.



Right: 40-ton concrete blocks and steam crane No. 9 in the quarry in the late 1950s.
John Kramer Collection

The Eastern Breakwater photographed in 1982.
John Kramer

SHIPPING AT COFFS HARBOUR

Shipping Companies

Until the North Coast Railway was completed in the early 1920s, sea transport was the only practical way for North Coast people to travel to Sydney and to transport vital goods and machinery to the area. The large number of broad coastal rivers and streams between Tweed Heads and Port Stephens made overland travel to Sydney a long, tedious procedure which was best avoided if possible.

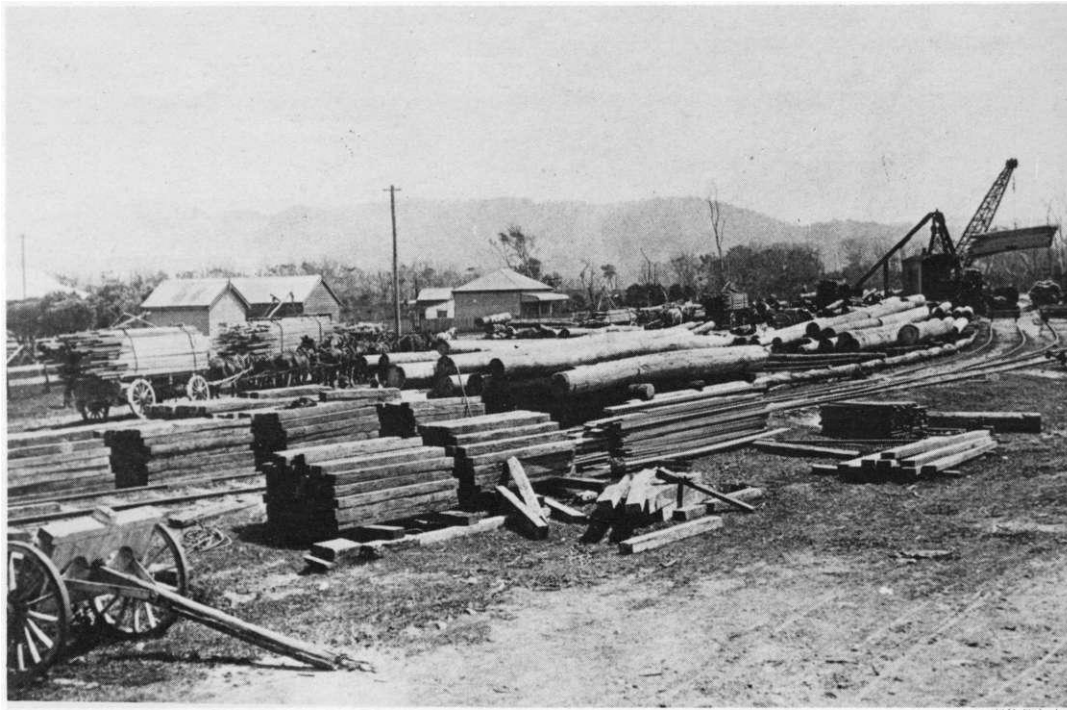
The mainstay of intrastate shipping to Coffs Harbour was the North Coast Steam Navigation Company (NCSN Co). This famous firm was founded in 1891 by the merger of two leading North Coast shipping firms of the day - John See and Company and the Clarence, Richmond and Macleay Rivers Steam Navigation Company[32]. From 1891 until February 1954, when it went into voluntary liquidation, the NCSN Coy provided a reliable service between Sydney and most ports on the North Coast.

Other important shipping firms which operated from Coffs Harbour were GW Nicoll and Langley Brothers. However, both these were eventually taken over by the NCSN Co, the former in 1905[33], the latter in the 1925[34].

Traffic

Timber for export was always an important commodity passing through the port of Coffs Harbour. Prior to World War I the British Australia Timber (BAT) Company sent large quantities of timber to Britain and Germany for use in railway carriage construction. The burning down of the Company's mill in 1914, as well as the outbreak of war, put a halt to this trade[35]. However, new markets were readily found and timber traffic continued to expand through into the twenties. In particular markets were found overseas for piles and cut timber and these commodities represented the last regular commodity to be shipped from the port in the early 1970s.

Traffic through the port expanded rapidly through the early decades of the century as a consequence of the rapid growth taking place in the district. Other factors were the increasing exploit-



An early view of the Northern Timber Depot at Coffs Harbour with horse teams much in evidence.
Source: Coffs Harbour Historical Society

ation of timber resources, the development of rural industries such as butter and cheese making, and the requirements of major engineering projects based at Coffs Harbour, particularly the North Coast Railway and the Coffs Harbour Improvement Works.

The North Coast Railway was constructed in isolated sections so that most materials were shipped to the nearest port. Construction of the Coffs Harbour-Macksville section began in 1911-12 and was opened to Raleigh on 30 August 1915. Work began on the Coffs Harbour-Glenreagh section in 1915, but was suspended on 1 January 1917 when the contractors, Norton Griffiths and Co were unable to fulfill the terms of the contract. Construction work was resumed about 18 months later and this section of the line was opened for traffic on the 17 July 1922[36].

The Coffs Harbour Improvement Works necessitated the assembly of a large amount and variety of machinery and equipment. This work commenced in 1912 and did not conclude until 1940. The period between 1918 and 1924 would probably have been the busiest, as work was proceeding apace on construction on both the Northern and Eastern Breakwaters as well as the Southern Reclamation wall.

Shipping traffic through the port of Coffs Harbour for the period 1906 to 1981-82 is summarised in Table 1. Table 2 provides a break-up of traffic through the port for selected years between 1907-08 and 1933-34. The effects of the opening of direct rail communication with Sydney in December, 1923 are readily apparent.

Shipwrecks

The wrecking of ships is an undesirable, but inevitable accompaniment of seafaring. The area of coastline around Coffs Harbour has claimed its share of victims over the years.

32 Richards, M *North Coast run* Turton and Armstrong, 2nd ed. 1980 p.32.
33 *Ibid.* p.36.
34. *Ibid.* p. 12.
35 G. England, *op cit.* p.19.
36 *NSWGR Annual Report, 1922-23.*

TABLE 1
Vessels Using Port of Coffs Harbour, 1906 to 1981-82

Year	Number of Ships	Net Tonnage	Year	Number of Ships	Net Tonnage	Year	Number of Ships	Net Tonnage
1906	417	97,072	1946-47	66	33,483	1964-65	15	18,582
1915	412	n/a	1947-48	83	37,421	1965-66	16	17,619
1916	412	124,962	1948-49	99	50,958	1966-67	9	13,340
1919	321	n/a	1949-50	126	67,419	1967-68	10	13,202
1932-33	228	90,441	1950-51	89	46,943	1968-69	8	9,912
1933-34	230	80,264	1951-52	107	59,799	1969-70	7	8,673
1934-35	275	84,527	1952-53	99	63,064	1970-71	8	19,066
1935-36	229	92,783	1953-54	72	43,839	1971-72	11	28,289
1936-37	224	95,062	1954-55	35	25,331	1972-73	9	25,712
1937-38	211	84,477	1955-56	28	19,329	1973-74	6	4,675
1938-39	186	81,187	1956-57	33	21,646	1974-75	–	–
1939-40	192	86,521	1957-58	31	27,039	1975-76		–
1940-41	176	71,878	1958-59	26	27,534	1976-77	-	–
1941-42	157	70,859	1959-60	26	25,612	1977-78		–
1942-43	109	51,279	1960-61	25	21,573	1978-79		–
1943-44	92	42,528	1961-62	25	24,317	1979-80	1	n/a
1944-45	78	34,287	1962-63	20	19,840	1980-81	–	–
1944-45	88	n/a	1963-64	23	19,723	1981-82	-	-

Source: NSW Annual Shipping Register (location PWD Library, Sydney) and MSB of NSW Annual Reports (location MSB Library, Sydney)
North Coast Run p.79 for 1906.
T.W. Comyns, *The Guide to the Dorrigo Shire in 1917*, for 1915, 1916
Wharfinger correspondence, Coffs Harbour 1920 (State Archives) for 1919.

TABLE 2
Traffic Through Port Of Coffs Harbour
(for selected years 1907-08 to 1933-34)

Commodity	Unit	1907-08	1916	1919	1923-24	1924-25	1925-26	1932-33	1933-34
Inward Traffic									
General Cargo	tons	6,380	13,441	10,794	17,210	12,052	13,205	15,447	14,240
Coal	tons	n/a	2,613	1,943	1,795	1,412	1,628	1,340	1,161
Steel Rails	tons	-	1,375[a/]	1,667	430	80	-	-	-
Passengers	No.	4,100	8,619	n/a	n/a	n/a	n/a	n/a	n/a
Cattle	No.	1,140	19	n/a	n/a	n/a	n/a	n/a	n/a
Outward Traffic									
Timber	'000 su. ft.	2,751	7,535	7,547	12,769	10,829	11,266	9,722	6,293
Butter	Boxes	8,387	36,928	38,169	48,062	22,826	2,656	2,184	2,930
Fish	Cases	113	76	65	n/a	n/a	n/a	n/a	n/a
Cheese	Crates	216	1,422[b/]	n/a	n/a	n/a	n/a	n/a	n/a
Bananas	Cases	-	-	-	n/a	n/a	n/a	57,708	35,841
Sundries	tons	n/a	1,584	1,427[c/]	657	796	1,069	4,624	3,296
Pigs	No.	2,132	4,395	3,559	4,853	1,787	599	57	103
Cattle	No.	n/a	1,613	537	257	30	21	n/a	n/a

Notes: a/ Plus machinery
b/ Tons
c/ 61 tons copper ore included.
d/ Subsequent timber exports were 1943-44 7.75 million su. ft; 1944-45 4.33 million su. ft; 1945-46 7,902,188 su. ft; 1947-48 8,329,000 su. ft.

Source: 1907-8 Coffs Harbour *Advocate,* 10/10/1908; Maritime Service Board *Annual Report, 1944-45, 1945-46, 1947-48.*
Wharfinger correspondence, Coffs Harbour (State Archives)
TW Comyns *The Guide to the Dorrigo Shire in 1917.*

The first recorded shipping loss was that of the barque, *Deveron* of 243 tons, which foundered north of Coffs Harbour on 19 July 1833 after springing a leak in a gale. The crew left her in five boats, one of which reached Port Macquarie. Relief was sent overland from Port Macquarie and, fortunately, all the crew were saved[37].

On 23 September 1851, the schooner *Beaver,* on a voyage from Moreton Bay to Sydney, was becalmed near one of the Solitary Islands and drifted ashore. It became a total loss, but the crew survived and eventually made their way to Sydney[38]. The schooner *Carrywell* became the first vessel to be wrecked in Coffs Harbour itself in July 1866. Whilst lying there she was struck by a gale. Her anchors held for 24 hours, but then began to drag, so she was run ashore by the crew. Most of her gear was saved[39].

The worst shipping tragedy on the Mid-North coast of NSW occurred on the night of 7 December 1886, when the steamer *Helen Nicholl* ran down another steamer, the *Kielawarra,* near the Solitary Islands. Forty-eight lives were lost and a number of bodies were washed ashore at what is now Emerald Beach[40]. Even to-day, several graves of unidentified victims can be found here.

A further five vessels were lost in the period before World War I. On 4 April 1929 an auxiliary yawl, the *Wanderer of* 32 tons, went ashore during a storm at Coffs Harbour. It was soon dashed to pieces and one of the crew drowned[41].

Two freighters were torpedoed and sunk off Coffs Harbour in mid-1943 and a total of 14 lives were lost. They were the *Fingal* (5 May) and the *Portmar* (16 June). A number of other vessels were attacked by Japanese submarines around this time, but escaped with varying degrees of damage[42].

Since the War there have been a further three mishaps in the area. October 1947 saw the NCSN Co's *Ulmarra* hit the bottom about two miles north

Bananas were another important source of shipping traffic at Coffs Harbour. Here the Navigation Department locomotive shunts a load of fruit onto the jetty. Coffs Harbour Historical Society

of Woolgoola whilst coming down inside the Solitary Islands. She began to take water, but limped to Coffs Harbour where she was beached alongside the jetty. Fortunately damage was not as great as feared and the *Ulmarra* was refloated shortly afterwards. She then sailed to Sydney for repairs[43]. Cyclonic weather in June 1950 caused havoc in the Coffs Harbour area. On the 24th the NCSN Co vessel, *Bangalow,* was blown ashore inside the harbour. It was nearly a month before she could be refloated[44]. Three days later the motor vessel *Fairwind,* of 250 tons with a crew of 17, disappeared off Coffs Harbour. No survivors were found, although her remains were believed to have been discovered near the entrance to the Macleay River 12 years later[45].

The World War II Period

Shipping on the NSW North Coast was soon affected by the outbreak of World War II. Four NCSN Co vessels had been requisitioned for use as mine-sweepers by January 1940[46]. This placed greater strain on the remaining vessels as they attempted to maintain normal services. As the war progressed further vessles were requisitioned by the RAN and the problem worsened.

In addition, shipping had to contend with the problem of mines laid by German raiders. On the night of 28 October, 1940 the *Pinguin* laid four minefields between Newcastle and Sydney, before heading south towards Hobart, where she laid two more[47]. It was almost certainly one of the above mines which was responsible for the sinking of the NCSN Co's *Nimbin,* about eight miles off Norah Head. At 3.20 pm on the afternoon of 5 December 1940, whilst on a voyage from Coffs Harbour to Sydney, she was suddenly struck by a mighty explosion. She sank within several minutes, taking 7 of the ship's crew of 20 with her[48].

With Japan's entry into the War the risks to coastal shipping increased dramatically, with enemy submarines being particularly active during 1943. During that year six Allied ships were sunk off the coast between Port Stephens and the Solitary Islands, including the NCSN Co steamer *Wollongbar,* which was torpedoed off Crescent

37 JK Loney, *Wrecks on the NSW North Coast.* Marine History Publications, p. 22.
38 *Ibid.* p.28.
39 *Ibid.* p.42.
40 Richards, M. *op cit.* pp.30-32
41 Loney, JK *op cit.* p. 107.
42 *Ibid* p. 110.
43 Richards, M. *op cit.* p. 148.
44 *Ibid* p. 150.
45 Loney, JK *op cit.* p. 111.
46 Richards, M. *op cit* p. 130.
47 *Ibid* p. 133.
48. *Ibid.* p. 134
49 Plowman, Peter, *Passenger Ships of Australia and New Zealand: Volume II 1913-1980.* Doublday, Australia P/L, 1981, p.60.

Head on 29 April[49]. Many other ships were attacked, but fortunately no further losses occured.

Survivors of a number of these ships were taken to Coffs Harbour by RAN or local rescue vessels. At one time the Coffs Harbour Hospital was full with seriously injured sailors, so the "walking wounded" were sent to Sydney by train for further treatment[50].

During 1943 a strict blackout was enforced around the harbour and all waterfront installations were guarded by the Army. When the threat of Japanese invasion was high, steps were taken to enable speedy demolition of the jetty should such a measure be required. Supervised by Army explosion experts, PWD workmen drilled holes in jetty piles and girders for approximately 200 feet from low water mark to the shoreline. Explosives were to be placed in these holes and detonated at an appropriate time[51]. Fortunately there was never any need for this.

The port of Coffs Harbour was used as a base by Navy, Army and American small ships during the War. In particular the Australian Army had a number of small motor vessels, of up to 300 tons gross, running in convoy of perhaps 6 to 8 vessels, carrying food, oil and other cargoes to troops in New Guinea. The RAN had two small submarine chasers based in Coffs Harbour, each of which had a top speed of 20 knots. These were said to have sunk several enemy submarines near shipping routes[52]. The Americans shipped large quantities of timber for wharf building from Coffs Harbour to New Guinea on ships such as the *Matthew Flinders* and the *James Cook*[53]. With all these vessels using the port, it must have been a rather hectic place at times.

The coastal trade to Sydney was maintained by the NCSN Co with great difficulty. April 1943 saw their complement of vessels reduced to five with the sinking of the *Wollongbar*. This inevitably led to further delays and interference with the already delayed loadings. The 1944-45 *Annual Report* of the Maritime Services Board commented on the general situation at NSW coastal ports at this time in the following terms:

> Trade at these ports is still seriously affected by the scarcity of shipping, and, except for two ports, there were further decreases in both the number of vessels and the tonnage of cargo handled. In some instances, however, considerable quantities of timber are still assembled awaiting shipment when vessels become available. This applies particularly to Coffs Harbour, and, in the case of this port, it has been necessary owing to the urgent demand for timber, to dispatch large consignments to Sydney and Newcastle by rail, despite the additional freight involved.

In the year 1944-45, the amount of timber shipped was approximately 4.3 million super feet, compared with 7.75 million super feet the previous year.

1945-46 saw an end to the War, and a jump in the quantity of timber shipped to 7,902,188 super feet. However, large quantities of timber were still railed to Sydney and Newcastle, whilst much timber was also stored at Coffs Harbour pending shipment.

In 1946 and 1947 surviving NCSN Co vessels were returned to the Company. Trade picked up, but at no time did it approach pre-war levels. 1949-50 was the peak year in the post-war period when 126 vessels called at Coffs Harbour (see Table 1).

Decline

Shipping of the NSW North Coast began to decline in the 1930s. Competition with the railways was becoming fierce while the Depression reduced

The Stothert & Pitt cranes load a ship at Coffs Harbour jetty in the late 1950s.
John Kramer Collection

the quantity of traffic. World War II gave a temporary boost to traffic, but the disorganisation of coastal shipping by wartime ship requisitions and the subsequent loss of some of these vessels to enemy action contributed to an acceleration of the decline of coastal shipping in the post-war period.

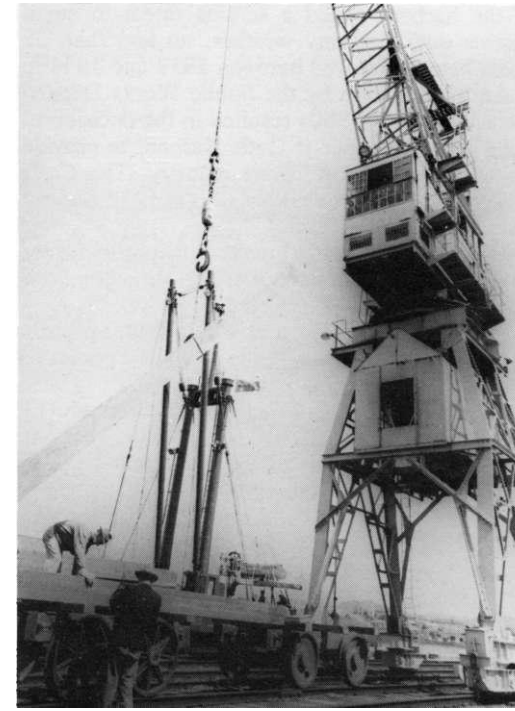
Intrastate shipping at Coffs Harbour virtually ceased in 1954 when the NCSN Co went into voluntary liquidation. An indication of the Company's contribution to shipping movements at Coffs Harbour in the early 1950s can be gained from an examination of the shipping list for the period 1 June to 27 October, 1952. Of the 32 ships which called at Coffs Harbour during this period, 21 were NCSN Co vessels. The *Bonalbo* made 7 trips while the *Ulmarra* called 8 times[54]. The last NCSN Co ship to sail from Coffs Harbour was the *Wyangarle* in March 1954.

Overseas vessels continued to call at Coffs Harbour through the 1950s and 1960s. The last ship to visit the port regularly was the Union Bulk Ships Pty Ltd's *Abel Tasman.* It crossed the Tasman Sea with loads of timber, plus some general cargo. The *Abel Tasman*'s last visit to Coffs Harbour was in June 1973. In the preceding 12 months commercial vessels visited the port nine times: *the Abel Tasman* accounted for eight visits, whilst the *Sankou Maru* loaded 1500 tons of timber for Sumatra[55].

The main reason for the cessation of this service was the high costs involved in berthing and loading ships at Coffs Harbour. Infrequent use of the port did not permit economies of scale and valuable machinery lay idle for lengthy periods. Another factor was said to be frequent rough conditions alongside the jetty, a problem which had become worse since construction of the Inner Harbour[56].

Other vessels continued to visit the port sporadically through the 1970s, but the irregular nature of this traffic did not arouse any great hopes of a shipping revival for Coffs Harbour. Among the shipping visitors were RAN submarines and patrol boats. RAN links with Coffs Harbour were strengthened in July 1979 with the visit of the Sydney based *Onslow* class submarine HMAS *Ovens.* In a special ceremony on 10 July 1979 the Freedom of Entry to the Shire of Coffs Harbour was conferred on the *Ovens.* The ship's company exercised their right to march through the town with "swords drawn, bayonets fixed, drums beating and colours flying."[57]

The last large commercial vessel to use the port of Coffs Harbour was the *Lorrana* which loaded on 22 July 1979. It left shortly afterwards with "general cargo" bound for Lord Howe Island. The *Lorrana* has been chartered by Oxley Airways and came to Coffs Harbour via Port Macquarie[58].



Loading timber aboard the **Abel Tasman** for New Zealand in March 1967. Bob McKillop

The Fishing Industry

It is not clear when commercial fishing began at Coffs Harbour, but it seems reasonable to postulate that men were making a living from the sea by the time the township of Coffs Harbour was gazetted in the 1880s. By the 1930s, a fishermens'co-operative had been formed, with a shed located near the base of the jetty.

The fishing industry remained a small concern until the 1970s. Prior to this there were no slipway facilities at Coffs Harbour, which meant that fishing boats had to be lifted onto the jetty for regular maintenance and repairs. Also wave action

50 B. McCarthy, former PWD Foreman, Coffs Harbour, personal comm. 6 June 1981.
51 *Ibid.*
52 Letter dated 21/6/58 from Mr WA Brodie (Officer-in-Charge of Port of Coffs Harbour during WWII) to Mr G England, Coffs Harbour Historical Society.
53 *Ibid*
54 PWD Records, Coffs Harbour.
55 *Ibid.*
56 *Ibid*
57 Barrie Smart (Navy Public Relations Officer), personal comm. 29 January 1981
58 MSB Records, Coffs Harbour

in the harbour posed a serious threat to small vessels duting stormy weather, no less than 25 boats being destroyed between 1952 and 1971[59].

An investigation by the Public Works Department in the late 1960s resulted in the decision to build a boat-harbour at Coffs Harbour to provide for the needs of the fishing industry. The *Coffs Harbour Boatharbour Works Act* of 1972 allowed for the following works:

- The construction of a breakwater approximately 1,230ft long in a north-westerly direction from Muttonbird Island.
- The construction of a retaining wall, approximately 1,550ft long, at the northwest corner of Coffs Harbour.
- The dredging of an area of approximately 13 acres from the northwest part of Coffs Harbour to form part of the new boat harbour.
- Reclamation of an area of approximately ***5-1/2*** acres at the northwest corner of Coffs Harbour with materials from the dredging works.
- Construction of a breakwater approximately 550ft long in a south-easterly direction from the reclaimed land.
- Construction of a concrete wharf approximately 120ft long and 30ft wide at the eastern extremity of the reclaimed land.
- Construction of mooring facilities for fishing vessels within the new boat harbour.

Estimated cost of the work was $800,000. Work began in 1972 with inner rock walls, harbour reclamation and 62 piled moorings being completed by the end of the year. A new fishermen's cooperative building with refrigeration facilities was constructed, along with a Water Police depot. During 1978-79 a slipway, additional wharfage and 13 extra moorings were completed. In 1982 a new marina catering for pleasure craft was constructed at the eastern end of the boat harbour to cope with increased demand for such moorings.

With completion of the boat harbour the fishing fleet at Coffs Harbour expanded from 23 trawlers in 1971 to 51 licensed fishing boats in 1979. This caused congestion within the boat harbour, resulting in the construction of the marina referred to above.

In addition to the fishing boats and pleasure craft based at Coffs Harbour a variety of ships still visit the port. These range from various RAN vessels to small commercial craft in transit along the NSW coast.

Abortive Proposals for Port Development

With the decline of coastal shipping in the 1950s, some North Coast people turned their minds toward schemes to rejuvenate the shipping industry. A common theme was the proposal to dredge the harbour to a depth sufficient to accommodate large ocean-going vessels (up to 40ft).

In 1961, the firm of Alexander Jamieson Pty Ltd proposed to export iron ore from the Fine Flower Creek deposits through the port of Coffs Harbour, which would have involved a 100 mile haul. This proposal was thoroughly investigated by officers of the PWD and MSB before lapsing. It is not clear why this happened, but almost certainly the investment needed to bring the port up to a suitable standard would have been prohibitive[60]

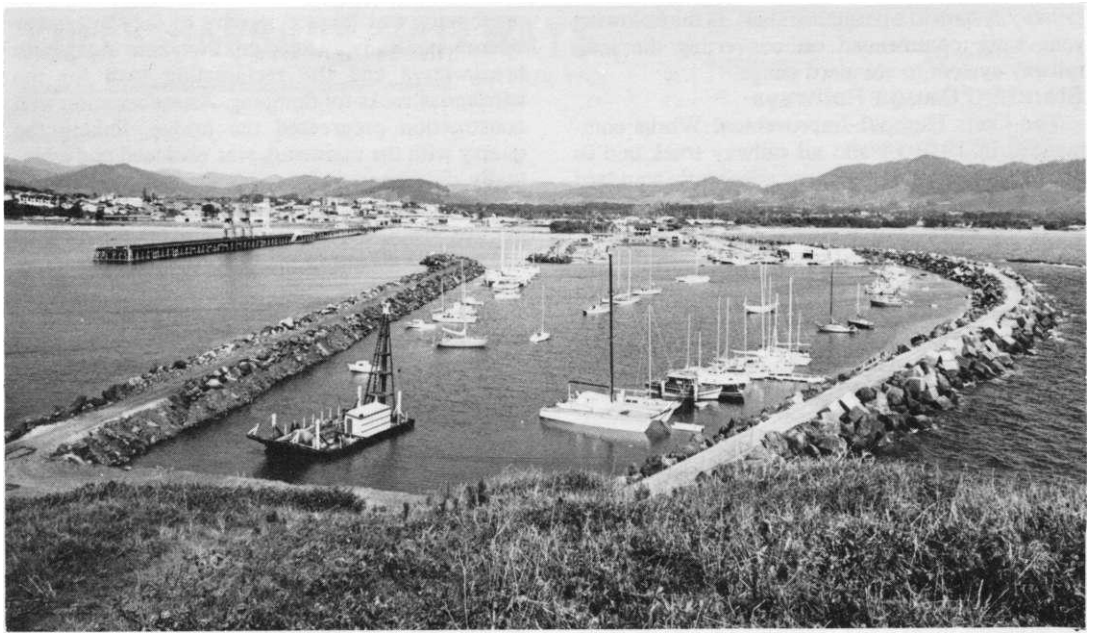
1962 saw a proposal to set up a processing plant for whale carcasses in the quarry on South Coffs Island, while in the late 1960s moves were made to establish a major oil terminal at Coffs Harbour. This attracted a lot of attention before being rejected on environmental grounds.

Representations to the Hon L Punch, NSW Minister for Public Works, by local MLA Mr M Singleton in 1973 regarding development of a deep sea port at Coffs Harbour met with a negative response. In part the Minister replied:

> . . . There is not the trade which can justify the large capital expenditure needed for the construction of a deep sea port at Coffs Harbour at the present time. Furthermore I am informed it is not expected that such trade will develop in the foreseeable future.

Proposals to export wood chip from Coffs Harbour came to light in the early 1970s. The well known timber company, Allen Taylor & Co, in conjunction with a Japanese partner, Itoh, came up with a detailed plan for Coffs Harbour. Other competing proposals were for woodchip export via a special port to be developed at Iluka on the Clarence River, Brisbane and/or Newcastle. Allen Taylor's plans for Coffs Harbour met with resistence from conservationists and the local tourist industry. Pressure on local and state government resulted in an informal inquiry which was conducted by the State Pollution Control Commission in 1974. This found in favour of woodchip export via Newcastle[61].

59 PWD Records, Coffs Harbour
60 *Ibid.*
61 Mr AC Hogarth, Development Manager, Allen Taylor and Co, personal comm. 3 March 1981.



Looking west across the boat harbour from Muttonbird Island in March 1980.

John Kramer

DEVELOPMENT OF THE RAILWAY SYSTEM

The Narrow Gauge Era

The first railway line at Coffs Harbour was the 3ft 6in gauge jetty tramway which was constructed in the early 1890s for the use of hand trollies. About 1904 the British Australia Timber Company (BAT Coy) built a 3ft 6in gauge line which connected with the jetty line and crossed it on the way towards Macauley's Head. In 1909 Langley Brothers opened a short line which ran in a north-westerly direction from near the base of the jetty. Its route was subsequently taken over by the North Coast Railway.

The BAT Coy probably introduced the first steam locomotive to the district about 1904 when they purchased a second hand 4-4-0 locomotive which had originally been built by Hunslet in Leeds as a 4-6-0T for the Tasmanian Main line Railway (ed. see photograph in LR. 74 p.37) When their line was extended through Bruxner Park toward Bucca Creek in 1908 this locomotive was found unsuitable for the steep grades and tight curves. Accordingly a new B-class Shay locomotive (B/N 2135 of 1909) was imported for use on the line. Langley Bros introduced a small 0-6-0 saddle tank locomotive for use on their line in 1909. It had been built in 1878 by Andrew Barclay (B/N 180) for the Australian Kerosene Oil and Mineral Company's operations at Joadja. In 1911 the Public Works Department introduced a new 0-4-0T locomotive (Orenstein and Koppel B/N 4365 of 1910) for operation of the jetty tramway and Langley's locomotive was withdrawn shortly afterward.

With the commencement of the North Coast Railway construction in 1911-12 railway operations at Coffs Harbour would have been busy and varied. The jetty railway crossed two separate railway systems in its passage from the jetty towards the Navigation Department cargo shed and Warfinger's Office. The BAT Company had their two locomotives and perhaps one or two of the PWD 2-6-0 Hunslet locomotives would have proceeded up and down the North Coast line on construction duties.

The narrow gauge railway era at Coffs Harbour was short lived. The destruction by fire of the BAT Company's mill in 1914 brought operations on that

railway system to a permanent halt. In the following year work commenced on converting the jetty railway system to standard gauge.

Standard Gauge Railways

The Coffs Harbour Improvement Works commenced in 1913-14 and all railway track laid in connection with this work was apparently standard gauge from the outset. After the gap between South Coffs Island and the mainland had been bridged, track was laid to link the Quarry on the island to the base of the Northern Breakwater. This line crossed the jetty tramway.

Conversion of the jetty railway to standard gauge in 1916, brought uniformity to railway operations at Coffs Harbour. It enabled the transfer of locomotives and wagons between all three railway systems - the NSWGR, the Navigation Department and the PWD - which greatly simplified operations. The layout of the railway systems at Coffs Harbour is shown in the map.

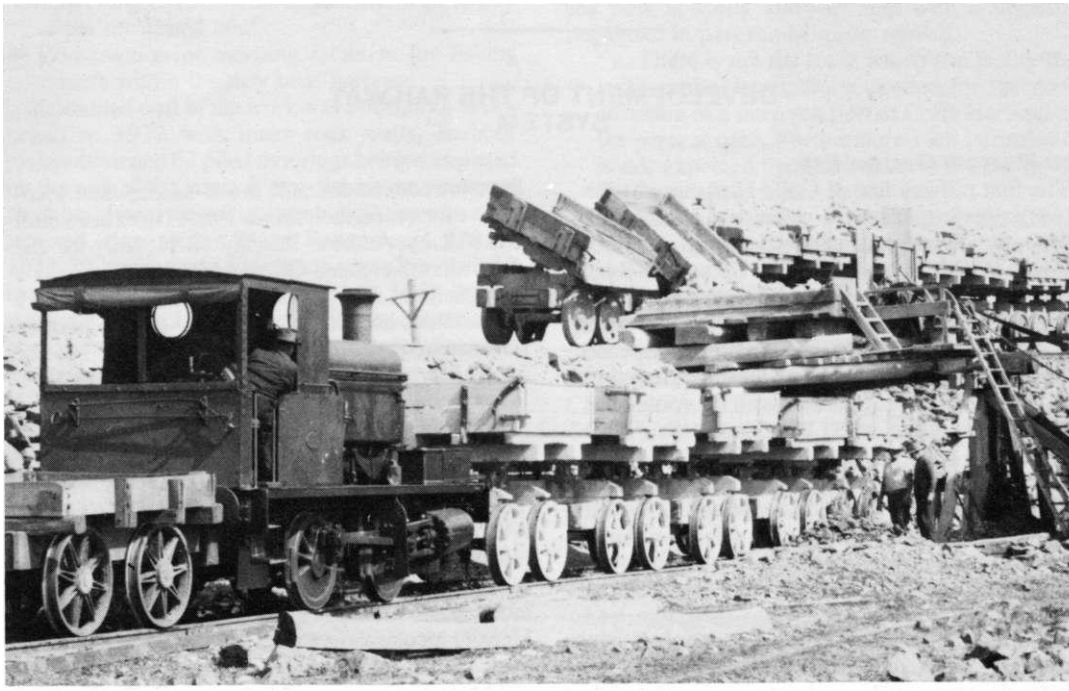
The Quarry

The quarry on South Coffs Island was the hub of harbour construction work between 1915 and 1940. All stone for breakwater construction and reclamation was won here, whilst much of the heavy machinery was located nearby to facilitate these operations. Railway lines ran from here along both breakwaters and the reclamation wall for the carriage of rocks for dumping. As reclamation wall construction progressed the bridge, linking the quarry with the mainland, was enclosed and eventually disappeared. It is still there today, mostly hidden beneath the rubble, although some sections are just visible.

Three 30-40 ton capacity steam cranes worked around the quarry until 1940. The last of these survived until 1979. Smaller capacity steam cranes were also used.

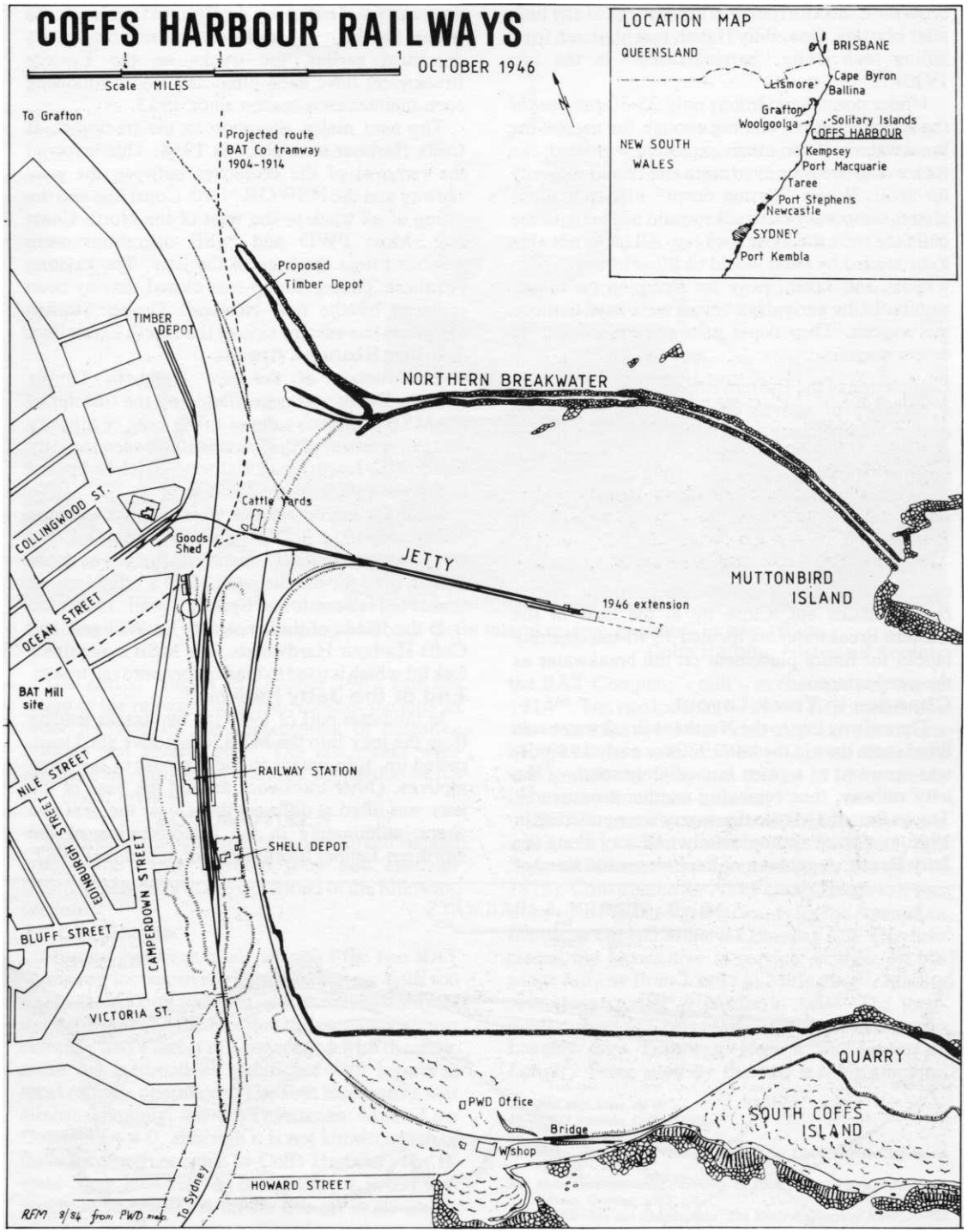
Former PWD District Foreman Bert McCarthy has described the normal blasting procedure at the quarry. Tungsten-tipped drills powered by compressed air were used to drill holes 3-4 inches in diameter. A typical operation was to drill 6 holes, 6 feet apart and 6ft back from the rock face to a depth of 70ft. When blasted this would yield approximately 1000 tons of rock.

After blasting a man would be lowered by rope to prise out loose rock which had not yet fallen down. An iron bar was used to this end and the process was known as "barring down". It was a hazardous



A breakwater construction train loading at the quarry stone crusher, 7 August 1936.

WAJ Maston



procedure as loose rock was liable to fall at any time after blasting. One, Billy Haber, met his death from falling rock while "barring down" in the late 1920s[62].

Under normal conditions only 25-30 per cent of the quarried stone was big enough for use on the breakwaters. If too much explosive was used, the rock would break up even more and be suitable only for spoil. When "barring down" had been completed, temporary rail tracks would be laid in to the cliff face were the loose rock lay. All rocks not able to be loaded by hand would be lifted by crane onto wagons and taken away for dumping on breakwaters. In the early days horses were used to move the wagons. They could haul one loaded or two empty wagons.

Completion of the Eastern Breakwater in 1939 saw a decrease in activity at the quarry. However, routine maintenance of harbour walls required its use from time to time. The last occasion on which blasting took place was in May 1978 when rock was needed for construction of a slipway in the new boat harbour. At this time loose spoil from previous blasting was also used.

The quarry is now worked out, but the site is still used by PWD as a storage area for rail tracks, buoys, chains etc. Close by at the base of the Eastern Breakwater are located 53 40-ton concrete blocks for future placement on the breakwater as the need arises.

Changes in Track Layout

The railway line to the Northern Breakwater was lifted some time in the late 1930s or early 1940s. It was removed to a point immediately south of the jetty railway, thus removing another crossover[63]. Tracks from the jetty to the quarry were pulled up in 1946 to a point approximately half way along the Jetty Beach. A network of lines was maintained at the quarry and out along the Eastern Breakwater to enable the dumping of 40-ton concrete blocks. As described earlier, the tracks on the Eastern Breakwater have been lifted and stored following each maintenance season since 1953.

The next major alteration to the trackwork at Coffs Harbour took place in 1958. This involved the removal of the crossover between the jetty railway and the NSWGR North Coast line and the lifting of all track to the west of the North Coast line. Most PWD and MSB operations were relocated near the base of the jetty. The existing Northern Timber Ramp was closed, having been replaced by the new Northern Timber Storage Depot on the eastern side of the North Coast line.

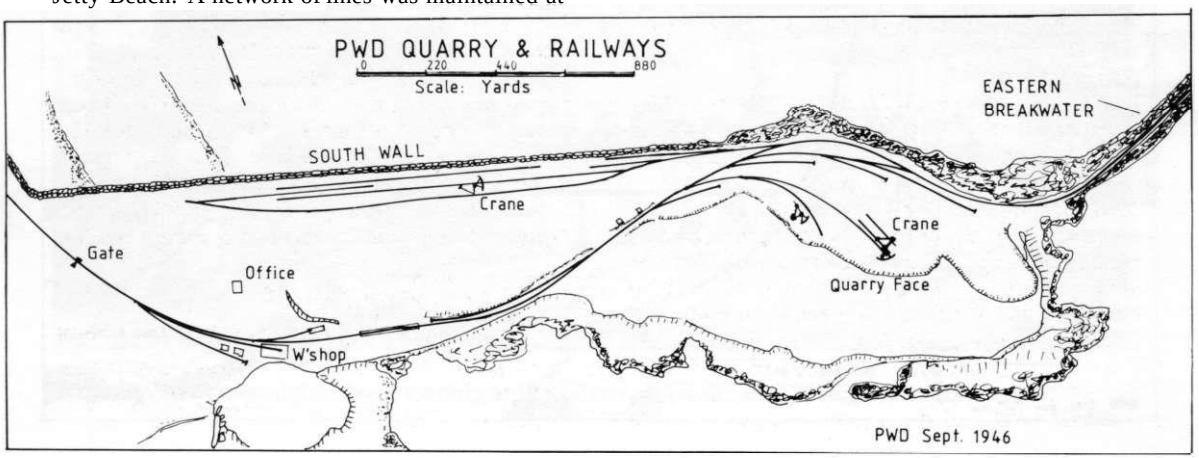
Timber Storage Areas.

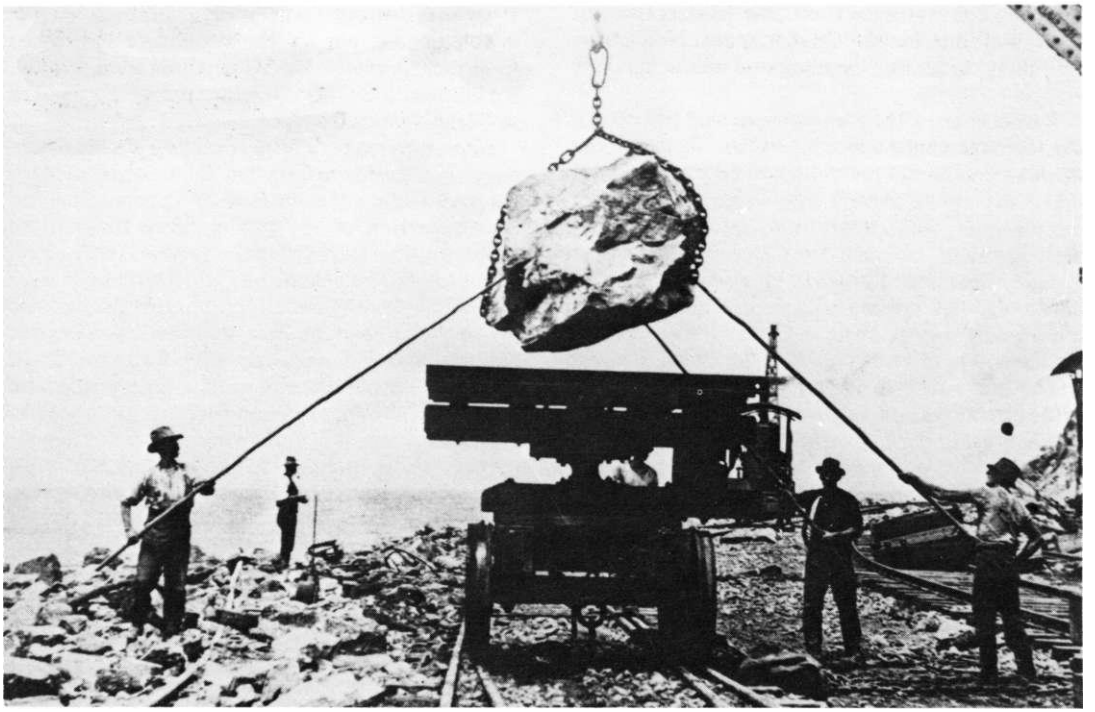
Construction of the new Northern Timber Storage Depot was necessitated by the transfer of the MSB locomotive depot to the base of the jetty and the removal of the crossover between the jetty line and the North Coast Railway, which had posed a difficult safe working problem.

Rails for the new depot were shipped to Coffs Harbour in 1954 from Moruya on the South Coast after cessation of PWD operations there. The depot is now used for the dispatch of all Coffs Harbour timber to Newcastle and Sydney by rail. The traffic is in the hands of timber agents LJ Williams and Coffs Harbour Hardwoods. The MSB maintains a fork lift which is used to load timber onto rail trucks.

End of the Jetty Railway

In the latter part of 1980 the two tracks leading from the jetty into the MSB locomotive shed were pulled up, subsequent to the disposal of the locomotives. Other trackwork around the base of the jetty was lifted at different times over the next two years, culminating in the disconnection of the Northern Timber Storage Depot in October 1982.





Loading blasted rock for dumping at South Coffs Island quarry, probably in late 1920s.
Coffs Harbour Historical Society

The period August to October 1982 saw the lifting of the railway track from most of the jetty in order to facilitate the replacement of defective decking and several piles. The last tracks were removed in April 1984 with the demolition of the two diesel cranes.

LOCOMOTIVES

The locomotives known to have worked on and around the Coffs Harbour jetty and Harbour Improvement Works are described in the following sections.

3ft 6in Gauge

Mention has been made above of the two BAT Company locomotives. While they were both too heavy to work on the jetty, the close proximity of the BAT mill and the fact that the company almost certainly had a direct rail connection with the jetty, make the locomotives significant with regard to local railway operations. The first locomotive was almost certainly the ex-Tasmanian Main Line Company 4-4-0, although it is not known which of these locomotives came to Coffs Harbour. The B-class Shay locomotive (B/N 2135 of 1909) was purchased new for use on the line **(Ed. see photograph on cover of LR.85).** The tramway ceased to operate when the BAT Company's mill was destroyed by fire in 1914[64]. The two locomotives were disposed of soon afterward: the 4-4-0 was broken up with some parts being sent to a mill at Woolgoolga for stationary use[65], while the Shay was sold in 1916 for use on the nearby Boambee tramway[66].

The first steam locomotive used on the jetty was a small tank locomotive built by Andrew Barclay and Sons of Kilmarnock, Scotland (their No.180 of 1878). Constructed for AM Fell of Glasgow, it was shipped to NSW soon afterwards for the Australian Kerosene Oil and Mineral Company Ltd. This firm placed the locomotive in service on their 3ft 6in gauge railway from Joadja to Mittagong[67]. Mining operations ceased at Joadja in 1904. The locomotive came to Coffs Harbour in 1909 for use on Langley Bros Tramway. Here it was known as *Langley* being used by the two leading shipping

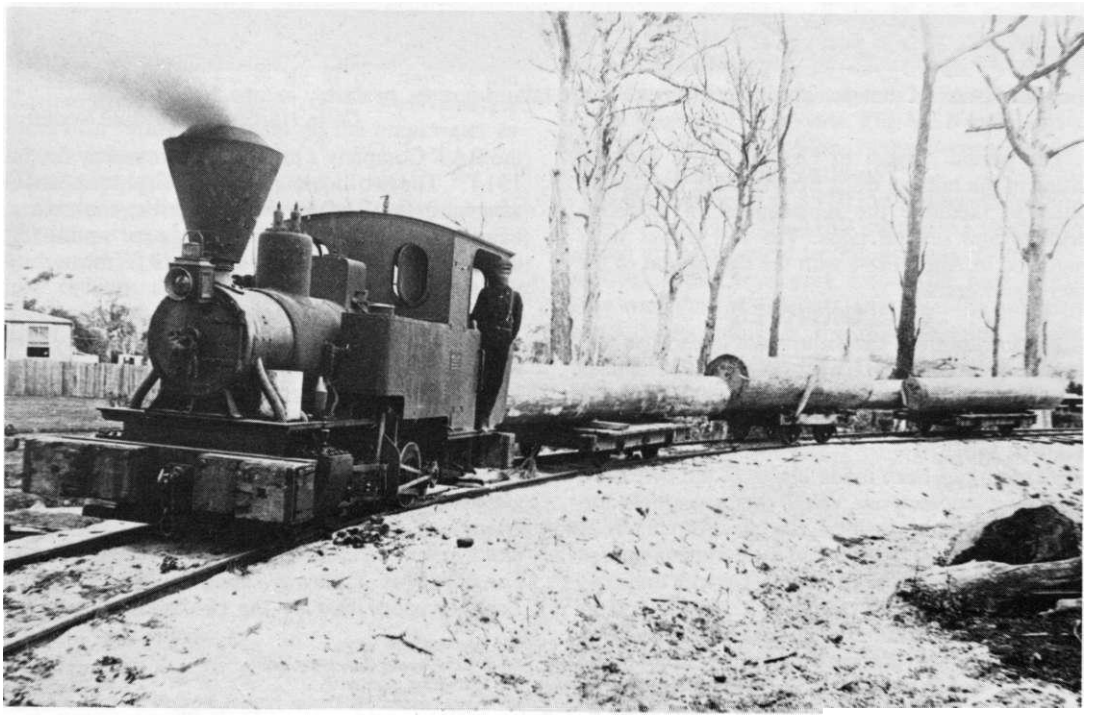
62 Bert McCarthy, *op cit.*
63 PWD Records, Coffs Harbour.
64 G England, *op cit.* p. 19.
65. Notes compiled by George England for Coffs Harbour Historical Society.
66. *Shay Locomotives in Australia.* LRRSA Research Report No.7; 1st Edition, October, 1982; p.6.
67 GH Eardley and EM Stephens, *The Shale Railways of NSW;* ARHS (NSW Divn) 1974, p.50.

firms in Coffs Harbour at that time, Messrs Langley Bros and the North Coast Steam Navigation Company, to assist in loading and unloading their vessels.

By February 1911 *Langley* was said to be worn out, a judgement supported by the fact that the working pressure at that time was 60 psi and that it failed in service shortly afterwards[68]. The locomotive was withdrawn from service at Coffs Harbour and shipped to Woolgoolga where Langley Bros hoped to use it. However, their agent in Woolgoolga refused to accept it and the locomotive was shipped back to Coffs Harbour on the *Cooloon,* where it was scrapped shortly afterwards.

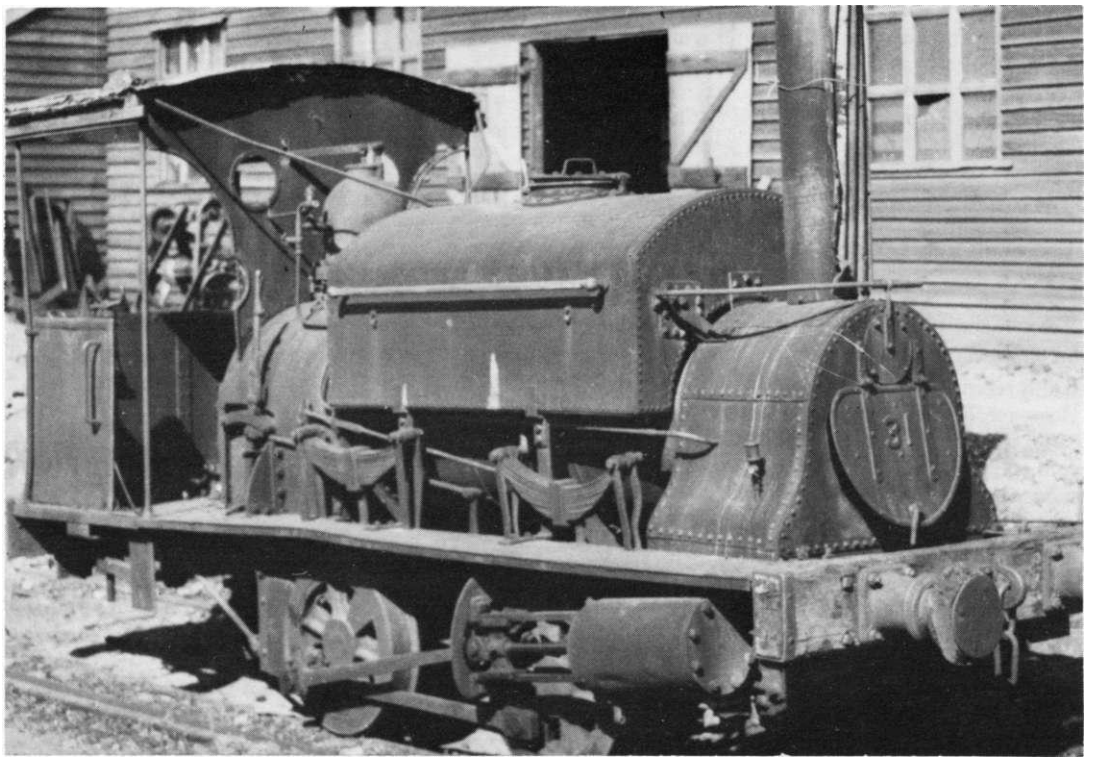
The first known Government steam locomotive in the district was a small 0-4-0T built by Orenstein and Koppel (B/N 4365 of 1910). It was imported new for the NSW Public Works Department by the Australian Metal Co. The locomotive was shipped from Hamburg on the SS *Worms* on 15 October 1910, arrived in Sydney in December of that year and cost the Department £877[69]. It was transhipped to Coffs Harbour, where it was erected and underwent trials in January 1911. Presumably due to its Teutonic ancestry, the locomotive was known locally as *Germany.* Later it acquired PWD No.66, but it is not clear if it ever operated with this number at Coffs Harbour.

Germany was mainly used on the jetty, but it may have, on occasion, run on the 3ft 6in gauge tracks of the BAT Company, whose mill was adjacent. With the conversion of the jetty railway to standard gauge, the little locomotive was rendered redundant. It was offered for sale to the Coffs Harbour Timber Company, the Great Northern Timber Co (Woolgoolga) and the Port Stephens Lime Co[70]. It did not find a buyer here, although the Great Northern Timber Co may well have purchased it if the jetty at Woolgoolga had been strong enough to support its weight[71]. Following uneventful negotiations with the Queensland Government Railways, the locomotive was eventually purchased by the State Rivers and Water Supply Commission of Victoria for use on the Hume Reservoir construction. It arrived there in 1921 and worked until 1935, after which it was probably scrapped.



PWD 3ft 6in gauge locomotive No. 66 (Orenstein & Koppel B/N 4365 of 1910) with a load of logs in the 1911-1915 period.

Coffs Harbour Historical Society



Clear photographs of PWD locomotive No. 31 (Parkinson & Monaghan/Henry Vale of 1895) are difficult to locate. This one, taken by WAJ Maston on 7 August 1936, shows the loco outside the PWD workshop where it was being used for steam generation.

Standard Gauge Locomotives

1. Manning Wardle 0-4-0ST: B/N 1780 of 1911

This locomotive was ordered for the NSW Public Works Department[72] and is believed to have come to Coffs Harbour in December 1913. It was probably used in the early stages of the Harbour Improvement Works, before being sold to Norton Griffiths & Co in 1915. The following year it was purchased by the Metropolitan Water Sewerage and Drainage Board (MWS&DB) (their No.3) for use on the Potts Hill Reservoir construction[73]. After use by Blue Metal Quarries Ltd at their Dunmore Quarry, Shellharbour, between 1921 and 1930 it was sold to the Mackay Harbour Board in 1936.

2. Manning Wardle 0-4-0ST: B/N 1781 of 1911

This locomotive, which was ordered at the same time as No. 1780, is believed to have come to Coffs Harbour in February 1914. Prior to this it may have worked on North Coast Railway construction. Norton Griffiths and Co purchased the locomotive in 1915 and resold it to the MWSDB the following year for use on the Potts Hill Reservoir construction (MWSDB No.4). In 1923 No.4 was transferred to the Board's pumping station at Ryde where it worked until replaced by *Planet* locomotive No.52 in late 1960. In 1961 it was donated to the Museum of Applied Arts and Sciences, Ultimo, in whose care it remains[74].

3. PWD No.31, 0-4-0ST

This small 0-4-0ST is believed to have been constructed by Messrs. Parkinson and Monaghan in 1895 from parts supplied by Henry Vale and Co

68 **Memo from Navigation Department Accountant to Secretary, Navigation Dept dated 27 August, 1915, after inspection at Coffs Harbour (found in Navigation Dept files, NSW State Archives).**

69 **Correspondence from the Wharfinger, Coffs Harbour to Navigation Dept, Sydney dated 29/10/15 (NSW State Archives).**

71 **Correspondence from the Great Northern Timber Co to Navigation Dept, Sydney dated 5/11/15 (NSW State Archives).**

72 **FW Mabbott, *Manning Wardle Company Ltd.: locomotive works list;* Thomas Alexander, 1982 (1st edition), p.216.**

73 **Andrew Grant, Curator of Transport and Engineering, Museum of Applied Arts and Sciences, personal comm. 29 April 1981.**

74 ***Ibid.***

of Sydney. It was apparently delivered new to Harrington for use on the Manning River Entrance Works. Here it subsequently acquired the name *Tarry.*

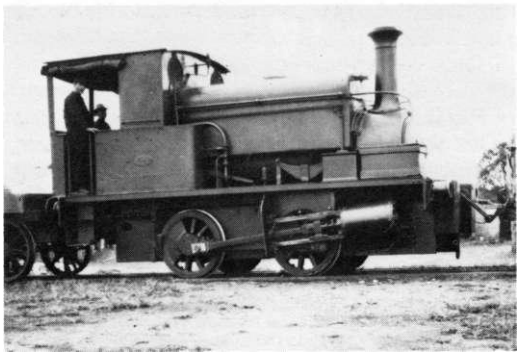
The locomotive was transferred to the PWD in 1900 when the Department took over the work at Harrington. It continued to work here until about 1914, when it was sold to the Navigation Department for £810. It was shipped to Coffs Harbour on the SS *Gunbar* on 25 October 1915[75].

The new owners did not have immediate use for the locomotive at Coffs Harbour on account of the gauge conversion work and Norton Griffiths requested use of the loco for several months. It finally commenced work on the jetty in 1916[76]. However, it was found to be unable to pull wagons from a standing start around the sharp curve connecting the jetty tramway with NSWGR sidings. Consequently an exchange was arranged with Norton Griffiths for one of the new Manning Wardle 0-4-OSTs (No.1899). Thus the tiny 0-4-0ST returned to harbour construction work, the duties for which it had been originally designed. It remained in service for many years, as photographs show it still working at Coffs Harbour in September 1935. It was written off in 1938 and possibly cut up in 1946.

4. PWD No.60 (Manning Wardle 0-4-0ST: B/N 1897 of 1916)

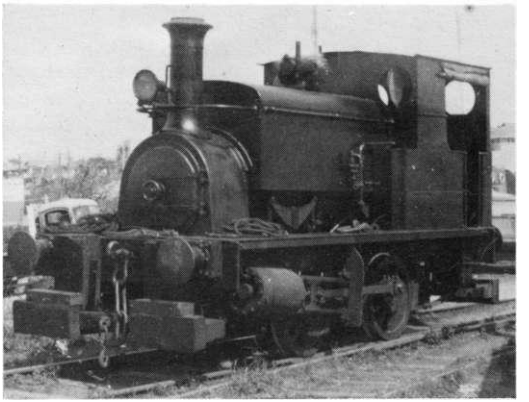
This locomotive was part of a batch of five identical Manning Wardle engines imported new by the NSW Government in 1916 for use by Norton Griffiths and Co on railway construction[77] (Nos 1896-1900). It was initially allocated to the Coffs Harbour-Glenreagh section of the North Coast Railway[78].

On 1 January 1917 authority for railway construction in NSW passed from the PWD to the NSWGR. Due to shortage of funds work on the Coffs Harbour-Glenreagh section of the line was suspended from that date. PWD No.60 was probably allocated to the Coffs Harbour Improvement Works soon afterwards. Subsequent movements are not well documented, but the locomotive is known to have been transferred from Coffs Harbour to Port Macquarie c.1936. In 1940 and again in September 1943, it is recorded as being at the PWD Depot in Leichardt, Sydney[79].



PWD locomotive No. 60 working at Coffs Harbour in 1930

WAJ Maston



MSB locomotive No. 2 at Coffs Harbour.

HJ Wright

On 25 November 1943 No.60's boiler was tested and inspected at Leichardt. It was passed with a safe working pressure of 160 psi and was sent to Coffs Harbour for installation in MSB No.2. The locomotive was probably scrapped around the end of World War II.

5. PWD No.61 MSB No.2 (Manning Wardle 0-4-0ST: B/N 1900 of 1916)

This locomotive was another of the five Manning Wardle engines imported new by the NSW Government. It was originally allocated to construction work on the Glenreagh-Dorrigo line[80] and after suspension of this work on 1 January 1917 it was re-allocated to the Coffs Harbour Improvement Works. Following completion of these works, No.61 was transferred from the PWD to the Maritime Services Board of NSW on 10 June 1942. It received the number "2" on the MSB

75 Letter from PWD, Sydney to Navigation Dept, Sydney dated 28/10/15 (NSW State Archives).
76 Several items of correspondence between PWD and Navigation Dept, 1916 (NSW State Archives)
77 Aust. Railways Historical Society, *A century plus of locomotives: New South Wales Railways, 1855-1965;* Sydney, ARHS, 1965. p.90.
78 Peter Neve, personal comm. 12 May 1981.
79 PWD Records, Coffs Harbour.
80 Peter Neve *op cit.*
81 PWD Records, Coffs Harbour.

locomotive roster at Coffs Harbour.

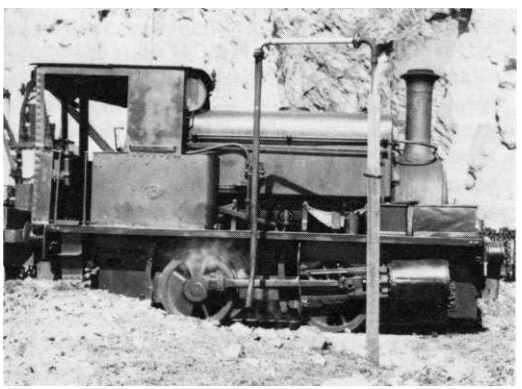
Early 1944 saw MSB No.2's boiler being replaced with that from PWD No.60[81]. This change cannot have been too satisfactory as a new boiler was constructed for the locomotive by Morts Dock in 1949. It seems likely that MW1900 remained in Coffs Harbour throughout the period 1917 to 1963. Certainly photographic evidence confirms its presence in Coffs Harbour in June 1947, October 1954 and October 1957.

Following the arrival of the *Planet* diesel locomotive in Coffs Harbour on 24 January 1962, MSB No.2 was withdrawn from service and offered for sale in working order. It was purchased by Mr R Pearce of Coffs Harbour for scrap purposes. Cutting-up commenced on 25 April 1963 and was completed on 21 May[82].

6. PWD No.63/MSB No.1 (Manning Wardle 0-4-0ST: B/N 1899 of 1916)

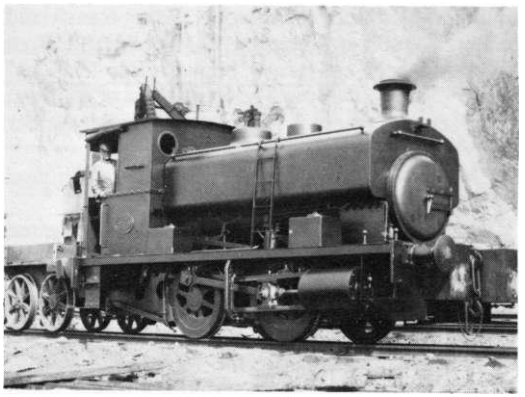
This was the third engine of its type to work at Coffs Harbour. It was originally used on the construction of the Coffs Harbour-Glenreagh section of the North Coast Railway[83] With suspension of this work in January 1917, the locomotive was probably transferred to the Coffs Harbour Improvement Works. Soon afterwards the Navigation Department assumed ownership in an exchange for PWD No. 31 and MW1899 became No. 1 on their locomotive roster at Coffs Harbour.

Details of No.l's operations on the jetty are scarce. However, it is known that it was sent to Walsh Island for repairs on the NCSN Co's steamer *Uki* in December 1929. One of the PWD locomotives engaged in harbour works probably served as a replacement during its absence. In May 1941 the boiler and tank from MW1899 were sent to Newcastle for repairs and they were returned on a NCSN Co steamer on 4 October 1941. During this period MSB No.1's duties were carried out by PWD No.61. This "favour" was returned between 21 May and 3 October 1944 when MW1899 was loaned to the PWD for breakwater repair work under the conditions of agreement for the transfer of MW1900 to the MSB in 1942[84].



MSB locomotive No. 1 photographed at the quarry on 5 August 1936, probably during a period when it was on loan to PWD.

WAJ Maston



PWD locomotive No. 78 still appeared to be in new condition when photographed at the quarry on 27 August 1936.

WAJ Maston

MSB No.1 was noted stored at Coffs Harbour in October 1954. By 1957 it was derelict[85] and was cut up by Mr R Pearce shortly afterwards.

7. PWD No.34 (Andrew Barclay & Sons 0-6-0T: B/N 1312 of 1913)

This side tank locomotive was acquired new by the Metropolitan Water Sewage and Drainage Board for construction work on the Potts Hill Reservoir. It proved unsuitable due to its long wheelbase and was sold to the PWD in 1916 where it received the number 34[86].

PWD No.34 apparently came to Coffs Harbour cl916 and worked on harbour construction work until about 1918. It was subsequently used on construction of the Homebush Abbatoirs complex before being transferred to Port Kembla where it remained until scrapped about 1961.

8. PWD No.78 (Andrew Barclay & Sons 0-4-0ST: B/N 1973 of 1929)

This locomotive was imported new by the PWD and was apparently sent direct to Coffs Harbour in 1930. It worked on harbour construction almost

82 MSB Records, Coffs Harbour
83 P. Neve *op cit.*
84 PWD Records, Coffs Harbour.
85 Harry Wright, personal comm. 39 June 1981.
86 Secretary, MWSDB, personal comm. 6 January 1982

until completion of these works, being transferred to Port Kembla in February 1940[87]. Apart from a seven year spell at Moruya, between July 1947 and July 1954, PWD No. 78 spent the rest of its life at Port Kembla, where it was scrapped in September 1955[88].

9. MSB No.1 (2nd) (Motorail Ltd. *Simplex:* B/N 9021 of 1952)

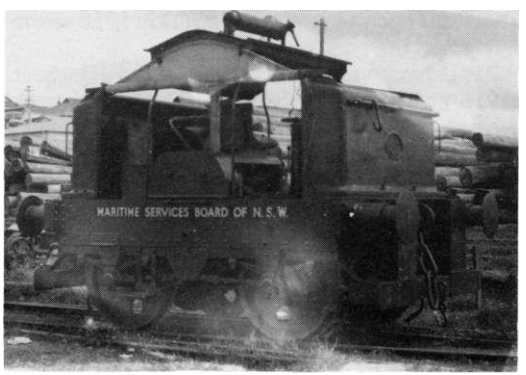
When replacement of MSB No.l became necessary the MSB instructed the Marine and Industrial Co of Sydney to order a *Simplex* locomotive from Motorail Ltd of Bedford England. The new locomotive was ordered on 26 June 1951 and was dispatched from the works on 20 April 1952. It was an 8-ton engine rated at 40/56 bhp and cost £2,315, complete with accessories, instruction books and spare parts. It was shipped to Australia on the SS *Largs Bay.* It was one of three standard gauge *Simplex* locomotives to come to Australia[89].

After arrival at Coffs Harbour the *Simplex* became No.l on the MSB locomotive roster. It spent all its working life on the jetty, but saw little service after about 1970. In 1980 the MSB donated the locomotive to the Dorrigo Steam Railway and Museum. It was transferred to Dorrigo on 13 July 1980.

10. MSB No.2 (2nd) (FC Hibberd & Co, *Planet* locomotive: B/N 3715 of 1954)

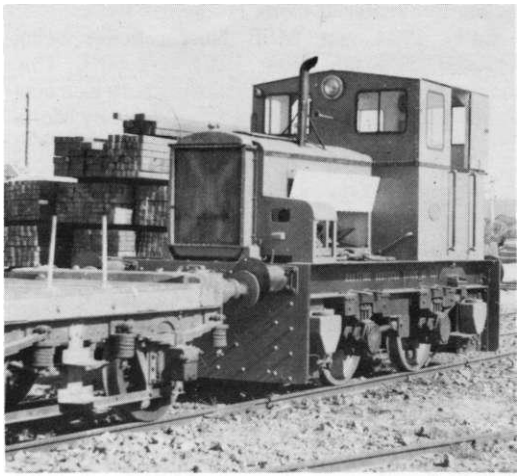
This 4-wheel 75hp diesel mechanical locomotive was one of three *Planet* type locomotives purchased new by the MWS&DB for use on Warragamba Dam construction. They were built by FC Hibberd & Co of Royal Park, London. This unit(B/N3715) was given MWS&DB No.53[90].

Upon completion of the Warragamba Dam No.53 was sold to the MSB in 1961 for use at Coffs Harbour. It arrived at Coffs Harbour by rail on 24 January 1962 and was shunted by the *Simplex* to the MSB locomotive shed where it was unloaded[91]. The *Planet* replaced MW1900 and was numbered 2 on the MSB locomotive roster at Coffs Harbour. It took over most of the duties on the jetty until operations ceased there in the mid-1970s.



MSB **Simplex** locomotive at Coffs Harbour in October 1954.

HJ Wright



MSB **Planet** locomotive at the Northern Timber Depot, 1 September 1970. HJ Wright

In 1980 the locomotive was donated to the Richmond Vale Railway Museum of Newcastle. It was transferred there from Coffs Harbour on 20 June 1980.

11. Other Locomotives

A number of other steam locomotives are known, or are rumoured, to have worked at Coffs Harbour at different times over the years. In the well documented category are:

- **NSWGR 0-4-0ST No.1021** (Manning Wardle B/N 1896 of 1916). This locomotive is identical to PWD No's 60-63 and was initially used on construction of the Kempsey-Macksville section of the North Coast railway. It is known to have been on loan to the MSB, Coffs Harbour in May 1949[92]. It is not known how long it spent at Coffs Harbour, but it may have been substituting for MSB No.2 which was reboilered that year. MW1896 is preserved at the NSW Rail Transport Museum, Thirlemere.
- **NSWGR 27-class** (Hunslet 2-6-0). Eight 2-6-0 locomotives were built by the Hunslet

87 Peter Neve, *op cit.*
88 Peter Neve, personal comm. 12 December 1983
89 Rob Pearman, personal comm. 29 September 1982.
90 John Browning, personal comm. 14 January 1981.
91 MSB Records, Coffs Harbour.
92 H Wright *op cit.*

TABLE 3
Summary of Locomotives Which Worked at Coffs Harbour

Builder	Builders No.	Year	Type	Cyls hp.	PWD No.	MSB No.	Period at Coffs In	Out
3ft 6in Gauge								
Andrew Barclay	180	1878	0-6-0ST	8x8,OC	-	-	1909	1911 Sc.
Orenstein & Koppel	4365	1910	0-4-0T	[9]	66	-	1911	1921
Standard Gauge								
Henry Vale	-	1895	0-4-0ST	[9]	66	-	1911	1921
Manning Wardle	1780	1911	0-4-0ST	12xl8,OC	-	-	1913	1916
Manning Wardle	1781	1911	0-4-0ST	12xl8.0C	-	-	1914	1916
Andrew Barclay	1312	1913	0-6-0T	12x20.IC	34	-	1916	cl918
Manning Wardle	1897	1916	0-4-0ST	12xl8,OC	60	-	1917	cl936
Manning Wardle	1900	1916	0-4-0ST	12xl8.0C	61	2	1917	1963 Sc.
Manning Wardle	1899	1916	0-4-0ST	12xl8,OC	63	1	1917	cl957 Sc.
Andrew Barclay	1973	1929	0-4-0ST	14x22.0C	78	-	1930	1940
Motorail Ltd	9021	1952	Simplex	40/56 hp	-	1	1952	1980
FC Hibberd	3715	1954	Planet	75 hp	-	2	1962	1980

Engineering Co, Leeds for the NSW PWD in 1913. Photos show one of these locomotives engaged in harbour construction work at Coffs Harbour. However, no information is yet available as to the date or identity of the locomotive.

Three ex-Sydney steam tram motors - Baldwin 6601 of 1881, Merryweather 141 of 1882 and Wearne 54 of 1884 or 1886 - are rumoured to have worked at Coffs Harbour. No independent confirmation has been found.

The Steam Locomotive Era

The period of peak steam locomotive activity in Coffs Harbour would, perhaps, have been about 1917. PWD locos Nos 31 and 34 were then at work on harbour construction and they had been recently joined by Nos. 60, 61 and 63 on transfer from railway construction duties. In addition, several NSWGR steam locomotives were based at Coffs Harbour to operate the isolated Coffs-Raleigh section of the North Coast Railway which had opened on 30 August, 1915. These engines would probably have belonged tio the C79, *A93* or *B205* classes.

The transfer of PWD No. 61 to Coffs Harbour would have involved a roundabout journey as it was previously employed on construction of the Glenreagh-Dorrigo railway. No.61 probably proceeded under its own steam from Glenreagh to South Grafton where its fire was dropped and the unit loaded onto a steamship. The loco would have been shipped to Coffs, but its 20 ton weight would present unloading difficulties.

It is probable that larger tender locomotives were used on construction work for the Coffs-Glenreagh section of the North Coast Railway given the steep grades north from Coffs Harbour to Landrigans, the most likely contenders being the Hunslet *G1204* class or the Baldwin *K294* class. If this was so, then one or more of these locomotives may have also been transferred to harbour construction work at Coffs.

Railway operations at Coffs Harbour in this period would have, by necessity, been very self-reliant. All repairs would need to be performed locally as far as possible as the only way to get a steam locomotive to railway workshops was by ship. December, 1923 saw a direct railway link established between Sydney and South Grafton, and Coffs Harbour lost its unique position as an isolated railway centre.

WAGONS

A large number of wagons were in use at Coffs Harbour. These were of fairly simple construction, their wooden frames being built locally over imported axle sets. Those used on the jetty were mostly four-wheel flat top types with low decks, whilst wagons used on breakwater construction were mainly four-wheel box type with raised sides and tilting mechanisms to facilitate the dumping of rock.

PWD Wagons

Bert McCarthy, a former PWD foreman, has estimated that "no less than 100 wagons were used for tipping stone on the breakwaters". In addition to these were a number of coal trucks which were in

constant use supplying fuel for the many steam cranes and other steam-powered equipment.

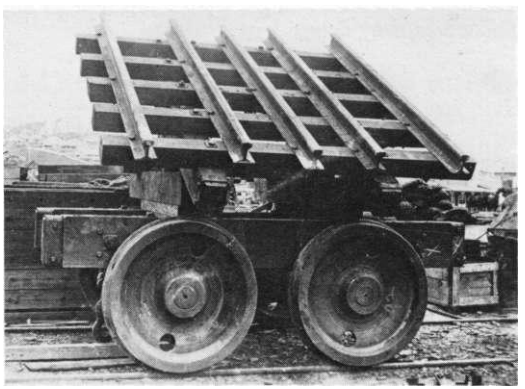
The last wagons to see regular use were several side-tipping flat-top wagons at the quarry. They were used to convey 40-ton concrete blocks along the Eastern Breakwater for dumping. Their last use for this role was in mid-1979, although it is anticipated that they may be required again in the future.

The Jetty Railway

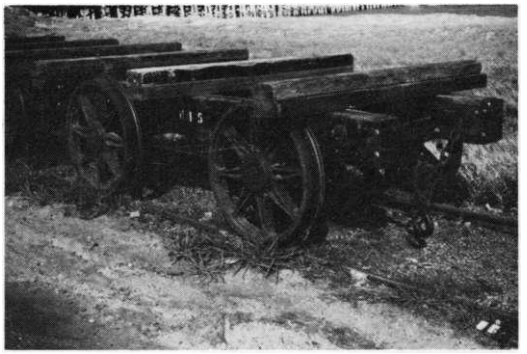
On the jetty the main shipping companies, such as the North Coast Steam Navigation Co and Langley Bros, owned their own wagons in addition to the Navigation Department (later MSB) trollies. As the companies went out of business their rolling stock was either scrapped or passed over to the MSB/Navigation Dept. It is known that, as at 15 May 1950, the NCSN Co had 29 wagons, although only eight of these were operational at the time[93]. In that year the MSB acquired 12 reconditioned bogies for use on the jetty. Possibly others were acquired in later years.

The NSW Government Railway's bogie flat wagons of the *MLE* type were used on the jetty in the early 1950s. With the strengthening of the jetty in 1955 heavier types could be used.

Upon cessation of regular shipping in the early 1970s, most of the wagons fell into disuse. In 1980 the MSB disposed of its wagons (as well as the two diesel locomotives) to two railway museums. The Hunter Valley Steam Railway and Museum (which has since become the Dorrigo Steam Railway and Museum) received 16 steel-framed and 21 timber framed wagons. The Richmond Vale Railway Museum received six of each type. The oldest known wagon, No. 1015, with the date 1889 stamped on one axle, is now preserved at Dorrigo.



Typical PWD side tipping wagon.
Coffs Harbour Historical Society



MSB wagon No. 1015 with cast iron wheels dating from 1889.
Len King

CRANES

The port of Coffs Harbour had a large variety of cranes working on its jetty and along its shores. Leading British crane manufacturers, such as Thomas Smith, Grafton, Ransomes and Rapier, Stothert and Pitt and Cowans Sheldon, were represented.

Between the two World Wars there were perhaps twenty cranes working at the port at various times. In 1950, some 10 years after the Harbour Works had shut down, there were still 12 cranes located at Coffs Harbour. The majority were controlled by the PWD, whilst the Navigation Department, and its successor, the Maritime Services Board, controlled the jetty cranes and a small number of on-shore ones. A numbering system, which may have been part of a state wide PWD system, was used for virtually all cranes at Coffs Harbour.

Jetty Cranes

Not many details of the cranes used on the jetty before World War II come to hand, apart from dates of installation and removal and their various capacities. However, the prospectus of the Commonwealth Lumber and Shipping Co, published in 1900, states that the 5-ton capacity steam crane on the outer end of the jetty at that time was built by Rogers of Newcastle.

The Rogers crane was replaced in 1906-7 by a ***7-1/2*** ton capacity steam derrick crane from the Clarence Harbour Works. This unit may have been built by Ransomes and Rapier. Increasing activity on the jetty resulted in the erection of a second steam crane (10-tons capacity) at the outer end of the jetty in 1914.

In later years two diesel-electric travelling cranes on the jetty, Nos. 209 and 210, provided prominant

landmarks in the port area. These were part of a batch of about eight brought out from Europe soon after World War II. They had been designed for use during the Normandy invasion and some had seen service on both sides of the English Channel[94].

Both cranes were built by Messrs Slothert and Pitt of Bath, England in 1944. They were large rail-mounted portal type cranes of 6-tons capacity (at 60ft radius) and were powered by diesel-electric motors, the generators of which had a rating of 57 KW at 220V DC[95]. The ratings of the different motors were as follows:

Hoist	(1)	55 HP
Slew	(1)	10 HP
Luff	(1)	5 HP
Transverse	(2)	6 HP

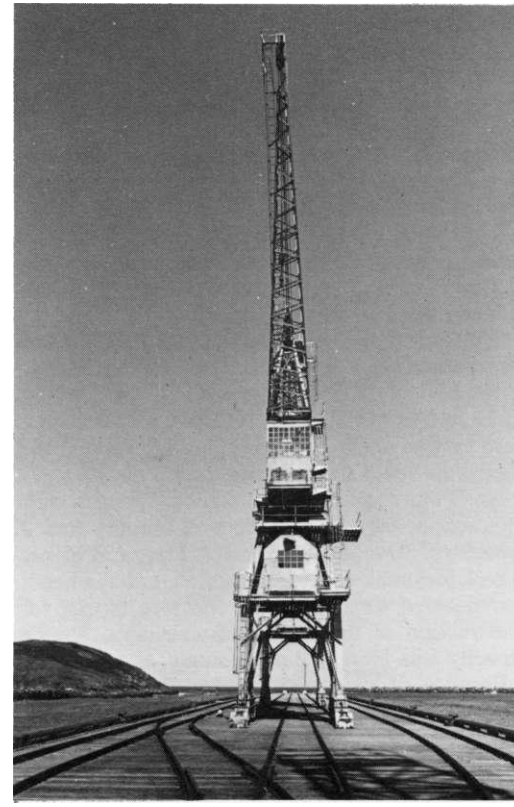
Crane No.210 (the outer crane) was purchased by Evans Deakins and Co from the Commonwealth Department of Supply and Shipping in Brisbane in late 1946. The crane was delivered direct to Coffs Harbour by rail (in crates) between 26 November and 11 December 1946 where it was intended for use on the newly completed jetty extension[96]. It cost approximately £7,000.

On 3 March 1947 a fitter, boiler maker and rigger arrived in Coffs Harbour from the State Dockyard to organise erection of the crane by PWD labour. Despite problems caused by exposure of some parts to the elements, work got under way promptly and the main structural work was completed by the 24 April. On the 6 June the PWD District Engineer oversaw the testing of the crane up to a load of 7 tons 5 cwt (21 percent overload) without any problems.

Special 1071b per yard rail was laid on the jetty for the crane to run on, whilst a tall timber lighting tower was erected to facilitate night work. Flood-lighting was installed on the crane and large wooden rail stops were erected at each end of the crane track. Following painting, crane No.210 was handed over to the MSB on 13 December 1947. Electric travelling gear was installed on the crane in January 1949. By July of that year, the North Berth steam crane had been removed, leaving No.210 as the sole operational crane on the jetty.

Not long afterward it was decided to obtain a second Stothert and Pitt crane from the State Dockyard. This crane, numbered 209, was identical to the first and was subsequently positioned on the Western side of crane No.210.

The delivery of crane No.209 was a rather drawn out procedure, as the first parts were consigned by rail to Coffs Harbour on 1 November 1951, but the engine was not dispatched until 1 June 1953. The engine was initially installed in No.210, as the latter's engine was due for overhaul. Crane No.209 finally entered service on 22 August 1955. This coincided with completion of the jetty widening work on the northern side of the extension, strengthening of the whole jetty and relocation of rail tracks on the outer end.



Stothert & Pitt cranes on Jetty, 1980.
John Kramer

Whilst the main function of crane Nos.209 and 210 was to load timber onto ships, they were also used in some areas of jetty maintenance such as pile driving. In later years owners of local fishing vessels relied on the cranes to lift their boats on and off the jetty for maintenance and servicing.

The general condition of the two cranes deteriorated through lack of use and regular maintenance as shipping declined. After 1973, their main use was in hoisting fishing vessels in and out of the water, but this function was rendered redundant

93 MSB Records, Coffs Harbour.
94 Allan Colwell (Colwell Engineering), personal comm. March 1981
95 PWD Records, Coffs Harbour.
96-101 ***Ibid.***

with the provision of slipway facilities in 1978.

An inspection report, dated 23 December 1977, stated that both cranes were unsafe to operate. However, no funds were available for repairs. The MSB called tenders for dismantling and removing the cranes in December 1983 and this was completed in April 1984.

PWD Cranes

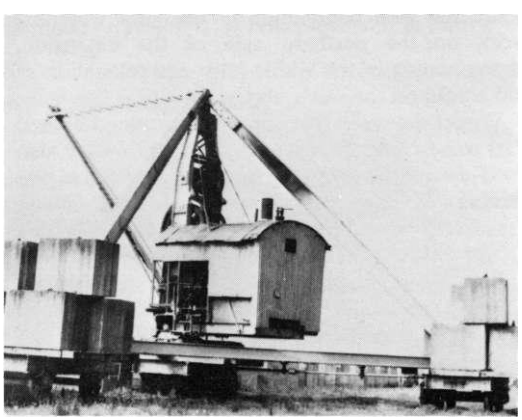
The Public Works Department used at least eight steam cranes on the Harbour Improvement Works at Coffs Harbour (see Table 4). Their capacities ranged from 2 to 40-tons.

The longest serving crane in Coffs Harbour was steam crane No. 9. It was built by Cowans Sheldon in 1913 (B/N 3230) and arrived in Coffs Harbour on 12 January 1914 on the NCSN Co's *Coramba.* It spent the whole of its working life around the quarry on South Coffs Island.

No. 9 was a rail-mounted (standard gauge), stiff-leg derrick, travelling crane and initially had a capacity of 30-tons. It was used to load large pieces of rock for breakwater construction. Later, when it was decided to use 40-ton concrete blocks for construction of the Eastern Breakwater, No.9's capacity was increased accordingly.

Because of the large weights the crane was required to lift, a system of counterweights was necessary to ensure its stability. In later years these comprised a number of 5 to 10-ton concrete blocks carried on 4-wheel timber framed wagons which were attached to the crane by steel beams. No.9 must have made quite a sight in its heyday, puffing and wheezing along its short section of track and straining to lift the huge 40-ton concrete blocks.

Despite continued mechanical problems, mostly caused by constant exposure to salt conditions, No.9 carried on in intermittent service until 1979. In the mid 1950s its boiler was exchanged with that of No.51, a similar crane, to enable it to continue working[97]. Judging by comments by PWD engineers and various boiler inspectors, No.9 was lucky to still be in steam in the 1960s, let alone to struggle on to 1979.



Cowans Sheldon steam crane No. 9 at South Coffs Island quarry, 30 March 1967.

Bob McKillop

Crane No. 4 built by Thomas Smith photographed in December 1963.

B. Belpin

On 26 April 1979 No.9 was given a three-month boiler certificate to operate at a safe working pressure of 501b psi (normal working pressure was 1001b psi) in order to work through another maintenance season. At the conclusion of this work, No.9's fire was dropped for the last time, thus ending the steam era at Coffs Harbour. Insufficient ineterest was able to be generated in this historic relic and it was allowed to go to scrap. The tender of Mr J Shipley of Merewether, Newcastle for $ 1250 was successful. Dismantling and removal of No.9 was completed by January 1980[98].

A small travelling crane, No. 56, saw extensive use at Coffs Harbour. It was a standard gauge, vertical boilered travelling crane which was built around 1902 by Thomas Smith of Rodley, England. Lifting capacity was 2 tons, it had a wheelbase of 6 feet, and the jib was 25 feet in length.

The early movements of No.56 are unclear, although it probably came to Coffs Harbour district in 1916. Between 1938 and 1940 it was used in the reconstruction of the Woolgoolga jetty and then took up duties shunting timber wagons there. The port of Woolgoolga was closed in 1942 and No.56 lay idle until 1944, when it was dismantled and

TABLE 4
Summary of Cranes Used at Coffs Harbour

Crane Number	3	4	5	6	9	35	51	56
Builder	?	Thomas Smith of Rodley, England	?	?	Cowans Sheldon B/No. 3230	Thomas Smith of Rodley, England	? Cowans Sheldon	Thomas Smith of Rodley, England
Type of Crane	Stationary stiff derrick steam crane	Travelling steam crane	Stationary stiff leg derrick steam crane	Stiff leg hand crane	Stiff leg derrick travelling steam crane	Steam crane	Stiff leg derrick travelling steam crane	Travelling steam crane
Year Built	?	c1912	?	?	1913	?	?	c1902
Capacity	6½ tons (1951)	10 tons (new) 7 tons (1949) 4½ tons (1963)	7½ tons (new) 7 tons (1951) 6½ tons (1958)	2 tons	30 tons (new) 40 tons (c1925)	10 tons	30 tons (1949)	2 tons (new) 2 tons (1962)
Working Pressure	100 lb psi	80 lb psi	60 lb psi (1949)	-	100 lb psi	?	100 lb psi	?
Operator	MSB	MSB	MSB	MSB	PWD	PWD	PWD	PWD
Years in Coffs	?-1958	?-1963	?	?	1914-1980	?	?	1944-1962
Location	Northern Timber Ramp 1950-58	Southern Timber Ramp 1949-60	Base of Jetty 1951-58	Cargo Shed	Quarry	Coffs Harbour Improvements	Quarry	Jetty extension 1949, Maintenance 1954-60; Southern Timber Depot 1949
Disposal	To Maclean 28 May 1958	Probably scrapped c1963	?	?	Scrapped January 1980	To Port Kembla after June 1943	?	Grounded 12. 1960 Scrapped 1962
Notes	Referred to as *Radley Crane*	Fixed radius. Also referred to as No.49	Reasonable cond. 1960 but seldom used	On loan Coffs Sewerage Works const. as at 8/3/58	Last steam crane at Coffs Harbour	"Fair" condition only 10/6/1943	Boiler swapped No.9 mid-1950s Probably still at Coffs 1969	Transferred from Woolgoolga 1944

Crane Number	57	67	70a	111	171	209	210
Builder	Thomas Smith	? Cowans Sheldon	?	Thomas Smith	Grafton & Co	Stothert & Pitt	Stothert & Pitt
Type of Crane	Travelling steam crane	Stiff leg derrick travelling steam	?	Steam crane	Travelling steam crane	Porta diesel-electric	Porta diesel-electric
Year Built	c1902	?	?	?	1920s	1944	1944
Capacity	2 tons	30 tons	2 tons	10 tons	5 tons @ 16 ft	6 tons	6 tons
Working Pressure	80 lbs psi Reduced to 55lbs	?	?	?	100 lb psi (1949)	-	-
Operator	PWD	PWD	PWD	PWD	PWD/MSB	MSB	MSB
Years in Coffs	?-1958	?	?-1951	?-1943	1928-1969	1953-84	1946-84
Location	Jetty extension 1945; Jetty 1949; West of NCR 1958	Quarry	?	?	Jetty/Timber Depots etc (mobile)	Jetty	Jetty
Disposal	Probably scrapped 1958	Used to provide spare parts for Nos 9 and 51	Transferred to Clarence Harbour Works 17/10/51	Transferred to Port Macquarie 1943	after 1969	Dismantled 1984	Dismantled 1984
Notes	Sister crane to No.56; condemned Jan 1952.	Out of service before 1945	Book value £72.6s.7d as at 17 Oct 1951	Probably worked in Coffs Harbour pre 1943	Still on books in 1969 but prob. scrapped soon after		

Notes:

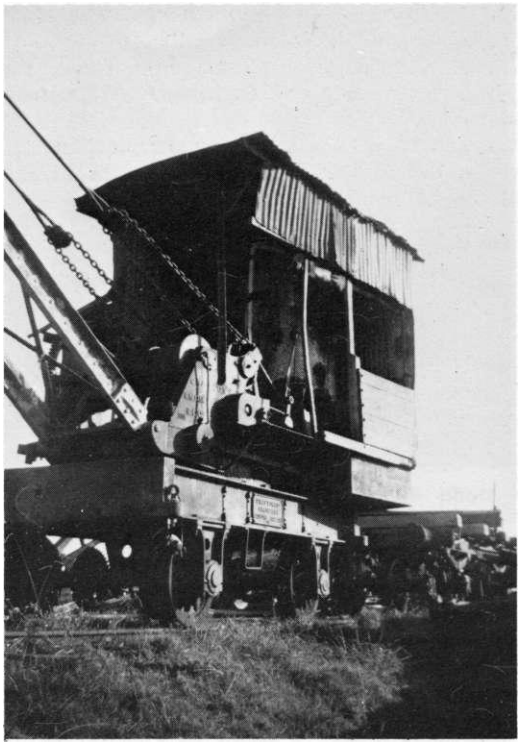
1. It is known that a Ransomes & Rapier steam derrick crane was located at Coffs Harbour in 1906 (possibly on the jetty) and that a Rogers crane worked on the end of the jetty in 1900.
2. All listed rail-mounted cranes ran on standard gauge except Nos. 209 and 210.
3. A 2-ton capacity crane was transferred to Cape Hawke in 1921-22.
4. J. Meredith states that two 30-ton capacity cranes were at work in the quarry in 1923.

transported to Coffs Harbour for further use. Here it was put back to work on the jetty extension and widening project and also took its turn handling timber. The little steam crane sustained fractures on each side of its wheel bearings when struck by a log in 1946 and was withdrawn from service for repairs[99]. No.56 was returned to service in February 1947, but was out of service between 1951 and 1953 with a fracture to its main frame, and again in 1958 with a broken axle. By 1960 time had caught up with the little crane and it was withdrawn from serivce on 30 December 1960. In 1962 the North Coast Demolishing and Salvage Service won a tender to scrap No.56.

A larger steam travelling crane, No. 171, was brought to Coffs Harbour by the PWD in 1928-29. This vertical boilered crane was built by the noted English railway crane construction firm of Grafton and Co, Bedford, probably during the 1920s.

With its mobility and 7-1/2 tons lifting capacity No.l71 would have been used on most facits of harbour construction, although little is known of its history prior to World War II. In March 1945 it was said to be in reasonably good order, having been recently overhauled[100], and over the next 20 years it was used extensively by MSB on timber loading operations, as well as jetty maintenance by PWD. With the scheduled arrival of a ship No.171 would be utilized by MSB to load the trucks which would transfer timber to the ship's side. Records note its suitability for this purpose "as it is able to shunt its own trucks as well as being able to luff and slew."[101]

In late 1960 the Grafton crane (as No.171 was widely referred to in Coffs Harbour) was in very poor condition and a replacement was widely canvassed. However, it was still in service in January 1963 and was on the books in September 1969, although it had probably been withdrawn prior to this date. It was scrapped in 1970.



Steam travelling crane No. 171 at Coffs Harbour in December 1963.

Phil Delpin

RECOLLECTIONS

The author's research into the development of Coffs Harbour port was greatly assisted by a number of old-time local residents. Some of their recollections of bygone days are recorded in the following sections.

Jim Meredith

Jim Meredith was born in Paddington in 1907. He came to Coffs Harbour in 1917 on the NCSN Co steamer *Noorebar*. His father had come up several years previously to work as a storekeeper/ timekeeper on the breakwater construction work. The family lived in one of a group of several houses located near the then PWD office on the small hill immediately opposite South Coffs Island.

Jim finished his schooling at Coffs Harbour in 1923 and obtained a job with the PWD. Initially he worked on the jetty repair gang. He recalls that when a diver came to inspect the jetty piles his job was to crank the handle of the air pump - "it was very tiring!". He thought the diver had a good job, though; he only had to work five hours per day at 10/- per hour plus perks!

Not long afterwards Jim became the first operator of the newly completed weighbridge on South Coffs Island. In 1924 the Australian Workers Union approached the PWD and asserted that he

should be paid an adult wage for doing an adult job. The Department did not agree to this and the final outcome was that Jim was sacked. He left Coffs Harbour shortly after and did not return to the area until 1978.

Some of Jim Meredith's other recollections of PWD operations at Coffs Harbour in the 1917-1924 period include:

- the use of horses to pull wagons loaded with rock or equipment around the quarry. Particularly memorable was the role of a draught horse named *Spanker*. He would pull only one loaded wagon or two empty ones: any more and he would refuse to go!
- the use of wagons with nob rakes which had to be stopped by putting a sprag through the spokes of the wheel. "There was a right way and a wrong way to do this: one day Walter Harvey did it the wrong way and broke his jaw!"
- the washing away of the Northern Breakwater by rough seas one night about 1921. The railway track was left suspended in the air and 5 wagons disappeared into the ocean, never to be seen again.
- A large tender locomotive with Walshaert's valve gear was used on breakwater construction for a while.

Bert McCarthy

Bert McCarthy was born in 1909 on the far south coast of NSW. His family moved about the state during his youth and arrived in Coffs Harbour in 1920 where his father obtained a job on breakwater construction. His father was killed in a shunting accident at Coffs Harbour in 1933.

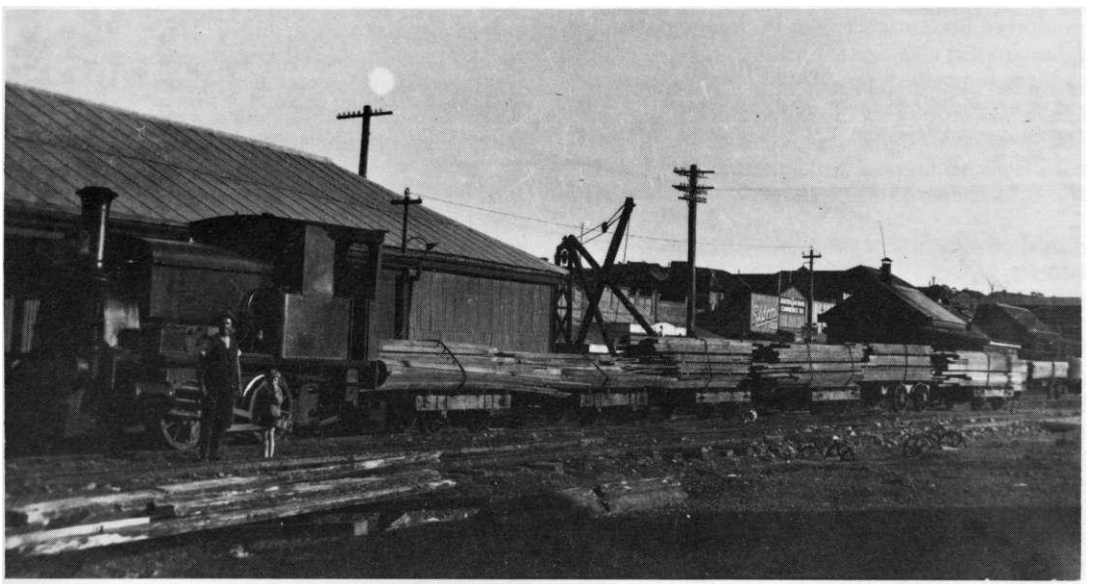
Bert finished his schooling in Coffs Harbour and subsequently worked at a wide variety of occupations such as timber getter, farmer, and taxi driver, before commencing work with the PWD at Coffs Harbour in November 1940.

The World War II period was a very busy time in Coffs Harbour, as Bert recalls. There were blackouts every night and all installations on the waterfront were guarded. Dozens of small vessels came and went every day of the week. Among the tasks undertaken by Bert at this time was the preparation of the jetty for demolition should the Japanese occupation occur.

In 1963 or 1964, Bert was appointed PWD District Foreman in Coffs Harbour. He retired in 1974 at the age of 65 years. Around this time he was awarded the Queen's Medal in recognition of his services.

Some of Bert's memories of his time in Coffs Harbour are as follows:

- PWD steam locomotives were housed in an old iron shed located on reclamed land at the foot of the hill on which the PWD office stood. Behind the office, on a small rise, was an engineering/-



Railway operations in the 1920s. Here the Navigation Department locomotive pauses outside the Department's goods shed with a load of timber.

Coffs Harbour Historical Society

blacksmith's shop about 50ft long. Locomotive repairs were carried out here and one of the locomotives was regularly housed in the shop.

- The MSB locomotive shed was, until 1958, located near the site of the wharfinger's residence, on the western side of the North Coast Railway.
- In the mid-1930s there were five steam locomotives in Coffs Harbour. Two of these were transferred to MSB when breakwater construction was completed.
- In the immediate post-World War II period the PWD had a lot of excess rail tracks to dispose of. Initially it was sold for 1/- per foot and later at 2/- per foot. Offers were received from all over Australia. At that time the NSWGR were selling surplus rail at 10/- per foot.
- One, "Deafy Tonkin", the weighbridge operator, was run over and killed on or near the weighbridge although Bert is not sure of the date. Billy Harber was killed in the late 1920s while "baring down" in the quarry. About the same time Ted McMahon dropped dead of a "heart attack" when working on the Eastern Breakwater.

Mary Thomas

Mary Thomas was born in Wellington, NSW in 1905. She came to Coffs Harbour in 1910 with her family when her stepfather secured work on the North Coast Railway construction as a farrier/ironforger. Soon after arriving the family purchased a bark-roofed slab house for £5.

Mary remembers the official laying of the first stone on the Eastern breakwater in 1918. The ceremony was held in the presence of the State Minister for Public Works, Mr Ball. Hundreds of people were in attendance on this historic day in Coffs Harbour.

The town was very busy at this time with harbour construction going full steam ahead, whilst North Coast Railway construction continued until 1924. Mary recalls that the Coffs Harbour-Raleigh section was initially laid south from Coffs as a light narrow gauge railway, possibly of 3ft 6in. This was to expedite delivery of materials needed for the construction of the bridge over the Bellinger River at Raleigh.

The names of the first two drivers of steam locomotives on breakwater construction come readily to Mary's mind. They were Thomas Gleeson and Harold Lovett, who apparently worked in Coffs Harbour for many years.

The most popular passenger vessel on the run to Sydney at this time was the SS *Fitzroy*, commanded by Captain James Colvin. It used to leave Coffs Harbour on the southbound run at 3pm every Sunday, arriving in Sydney the next day. During rough seas at the jetty, passengers had to be embarked or disembarked in a large basket which was lifted from Ship to jetty and back again by one of the jetty cranes. Inside the basket were two rows of seats facing each other, which held a total of 8 persons.

The loss of the *Fitzory* in a gale in June 1921 shocked the whole town of Coffs Harbour. This trip was to have been Captain Colvin's last, as he planned to retire from the employment of Langley Bros on reaching Sydney. Unfortunately he went to the bottom with his ship.

COFFS HARBOUR TODAY

In 1984 commercial coastal shipping is but a dim memory in Coffs Harbour. The port is still busy although activity is now based on the boat harbour rather than the jetty. The latter structure now functions mainly as a fishing platform and tourist attraction.

MSB Operations

On the 1 July 1978, ownership of the jetty and installations, berth areas and some of the land at the base of the jetty transferred from the PWD to MSB. This was part of a state-wide redistribution of assets at NSW ports.

The change has had little practical effect on operations at Coffs Harbour. The PWD is still responsible for maintenance of the jetty and breakwaters, whilst the main MSB function is to control the operations of the Northern Timber Storage Depot. In addition a MSB Boating Officer is located in Coffs Harbour.

The MSB locomotive shed now houses a forklift truck and the attached meal/store room is still used by the four MSB employees. The MSB office is used mainly by the Boating Officer and the Board's power boat is stored underneath.

The Jetty

With the removal of the cranes the future of the jetty remains in the balance. Many local people favour its retention, both for its historical significance and its undoubted attraction to the tourist. However, preservation would require considerable expenditure to restore the jetty to operationg condition. On the other hand to demolish the entire

Embarking passengers aboard the SS **Fitzroy** by basket for the Sunday departure to Sydney. The loss of the **Fitzroy** in June 1921 shocked the whole town of Coffs Harbour.

Coffs Harbour Historical Society

structure would also be an expensive proposition. At the time of writing the Maritime Services Board of NSW, is whom ownership of the jetty is vested, had still to make a decision on which action to take.

A compromise solution would be to demolish the outer section of the jetty and preserve the original structure.

Northern Timber Storage Depot (NTSD)

The timber storage depot continues to function despite loss of its direct rail connection in October 1982. At present forklift trucks load rail wagons on the section of track leading from the base of the jetty into the goods yard. It is planned to remove this section of track and lay a direct siding into the NTSD, but this requires the relocation of the present Orlando Street level crossing. Construction of the siding has also been delayed by the recent installation of Centralized Traffic Control on the North Coast line.

In the NTSD waste timber is burnt at several locations. The fires tend to burn 24 hours a day 7 days a week and this has led to agitation for cessation of these activities. As a result two of the parties concerned are planning to move their operations away from the area. Thus it is likely that activities at the NTSD will be scaled down in the near future.

PWD Activities

The PWD depot and workshop were built near the base of the jetty in the late 1950s. Equipment used by PWD in the area from Wooli to South-West Rocks is stored and maintained here. It is unlikely that this facility will be relocated in the near future.

As the MSB staff numbers at Coffs Harbour have been progressively reduced the PWD have, directly or indirectly, assumed increased control of operations at the Port of Coffs Harbour.

Foreshore Improvements

In the later 1970s a number of Coffs Harbour service clubs conceived the idea of beautifying the area behind Jetty Beach in conjunction with PWD dunal preservation. The work was completed in early 1983 and now provides an impressive recreational facility with numerous barb**eques,** picnic shelters, landscaped grounds and shade trees.

In keeping with the policy of beautifying the foreshores area, a number of buildings have been removed. The long disused portworkers' amenities block and one of the former timber agent's buildings

A view of the Eastern Breakwater from the top of South Coffs Island in October 1983. Note the 40-ton concrete blocks stored for future maintenance requirements.

John Kramer

were the first to go in 1983. Further landscaping and general tidying up of the area between the jetty and the Northern Breakwater have considerably enhanced its appearance.

Conclusion

In the forseeable future it is unlikely that any major changes will occur in the use of the port of Coffs Harbour. The main activities are now fishing and recreational boating and these are likely to continue. Thus the port will continue to give useful service, although in a vastly different form to that envisaged by its designers in the early years of this century.

For the historically minded, there is much to be learned of the past by inspecting the foreshores. The jetty and breakwaters are obvious. However, much else can also be seen. Old railway cuttings on South Coffs Island and behind the PWD office can be followed, while many sleepers are still in position on both breakwaters and the Southern Reclamation Wall.

Remains of the bridge built to link South Coffs Island with the mainland can be seen emerging from the top of the reclaimed area. In the quarry on South Coffs Island are a number of reminders of the port's former days: mooring bouys, a bouy anchor, lengths of very heavy chain, and pieces of railway track. Long vertical marks in the rack face in the quarry remind one quite firmly of its former use.

ACKNOWLEDGEMENTS

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Source Material and Background Reading

- *The Coffs Harbour Story* by George England; published by the Central North Coast Newspaper Company Pty Ltd, Coffs Harbour 3rd Print March 1978
- *North Coast Run* by Mike Richards; published by Turton and Armstrong; 2nd Edition 1980.
- *Wrecks on the NSW North Coast* by JK Loney; published by Marine History Publications.
- Public Works Department of NSW - Annual Reports.
- NSW Government Railways - Annual Reports
- Maritime Services Board of NSW - Annual Reports.
- *Coffs Harbour Advocate* 1908-1983
- PWD of NSW Files in State Archives, Sydney
- Photos and information from Coffs Harbour Historical Society.
- Material in MSB Library, Sydney.
- Government Reports:
  - "Coffs Harbour"; Report by Commander F Howard, RN, Marine Surveyor, to the Engineer-in-Chief for Harbours and Rivers, NSW 1891.
  - Report of the "Royal Commission as to Decentralization in Railway Transit" 1911 Legislative Assembly, NSW (very detailed).
  - "Decentralisation in Railway Transit" 1915 Legislative Assembly, N.S.W.
  - "Report on Transport in Australia with Special Reference to Port and Harbour Facilities" by Sir George Buchanan. 1926 Commonwealth Government.
  - "The Development of a Deep-Sea Port on the North Coast of New South Wales with Railway and Road Connections", 1946 NSW Parliament.

Appendix A
Agreement with Messrs Norton Griffiths and Co

The agreement provides for the construction of public works to the value of £10,000,000, exclusive of the cost of plant and material supplied by the Department. The expenditure is to be distributed in specified amounts over a period of 5 years.

All work is to be carried out in accordance with plans and specifications prepared by the Dept, but the Company is vested with the entire control and management of the works entrusted to it, and of the officers and workmen employed thereon, excepting only the Chief Accountant.

It was stipulated that the work of construction should be commenced by the Company on the 1st July 1915.

In return for its services it will receive 5% on the actual expenditure incurred in the execution of the works carried out, first, however, deducting the value of plant and material supplied by the Department.

Source: *1915-16 PWD Annual Report.*

Appendix B
The Navigation Department: Maritime Services Board

At the time of construction of the Coffs Harbour Jetty the Government Department responsible for the administration of the port of Coffs Harbour was the Marine Board of NSW. The Board had come into being on 2nd April, 1872 and under its Act was empowered to undertake the general superintendence of all matters within its jurisdiction relating to the issue, suspension and cancellation of certificates of competency and service, the framing of harbour regulations, the preservation of ports, harbours and navigable creeks and rivers within the jurisdiction; the licensing, appointment and removal of pilots, the regulation of lighthouses; and the superintendence of lights and other sea, harbour and river marks.

The Navigation Department, along with the Court of Marine Enquiry, was set up following the recommendation of the Royal Commission into the Marine Board 1897, that the administrative and judicial functions of the Board be separated.

Under the Sydney Harbour Trust Act, 1900, which came into operation on 1st November of that year, the responsibilities of the Navigation Department, and formerly the Marine Board, which were related to Sydney Harbour, were taken over by the Trust.

When the Maritime Services Board was set up in 1936, upon the recommendation of the Maritime Services Co-ordination Board it combined the functions of the Navigation Department and the Sydney Harbour Trust.

Source: *Guide to the State Archives of N.S.W: Information Leaflet No.17* Written and Printed by NSW State Archives, 1981.

Rear Cover: Aerial view of Coffs Harbour in 1972 showing early construction work on the boat harbour, the jetty and associated railways. The timber storage areas are clearly visible at the bottom left of the photograph.

Photo: PWD of NSW