



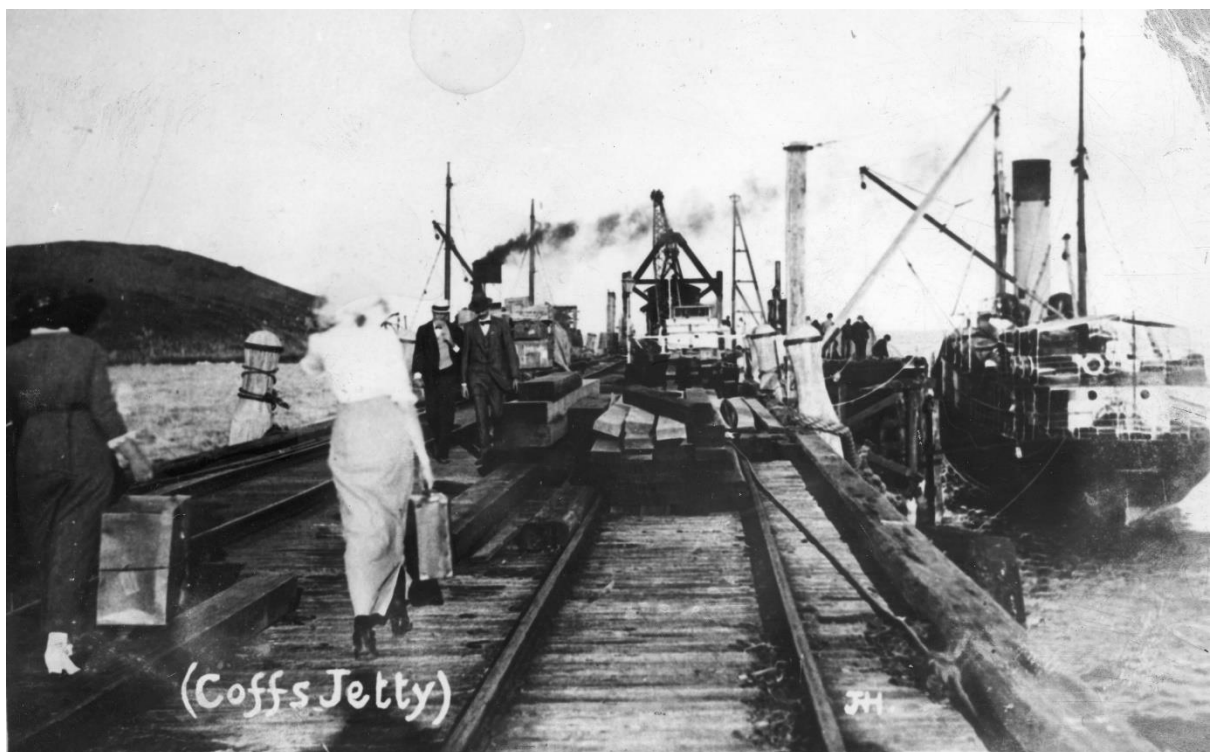
Sydney 46 Gale Road
Maroubra, NSW, 2035

Northern 2 Queen St
NSW Murwillumbah, NSW
P.O. Box 42 Condong, 2484

General Inquiries +61 2 9568 5800
www.cosmosarch.com

A.B.N. 83 082 211 498

Coffs Harbour Jetty Foreshore State Assessed Planning Proposal



Desktop Maritime Archaeological Assessment

Coffs Harbour Jetty Foreshore Precinct,
New South Wales

February 2025

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Prepared for:
Property and Development NSW (PDNSW)

By:
Caroline Wilby

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Cover Image: Anon. ca. 1915. “Preparing to embark, c.1915. Ships at Jetty. A busy port.”
Coffs Collections, City of Coffs Harbour, Image No. mus07-2156.

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EXECUTIVE SUMMARY

Background

Property and Development NSW (PDNSW) is continuing to lead the revitalisation of the Coffs Harbour Jetty Foreshore Precinct (the Precinct) on behalf of the NSW Government. Cosmos Archaeology Pty Ltd has been engaged by PDNSW to prepare a desktop maritime archaeological assessment to identify known and potential maritime heritage and archaeological resources within the Precinct boundaries and provide a general outline of development constraints based on maritime heritage and archaeological sensitivity mapping. The study area for the maritime assessment covers all areas of the seabed, and former seabed under reclaimed land, within the Precinct up to the historical low water mark.

This desktop maritime archaeological assessment supports a Planning Justification Report that outlines proposed amendments to the *Coffs Harbour Local Environmental Plan (LEP) 2013* and will be submitted to the Department of Planning, Housing and Infrastructure (DPHI) as part of a State Assessed Planning Proposal.

Maritime heritage & archaeology within the Precinct

There are two known maritime heritage sites within the Precinct boundaries – the Coffs Harbour Jetty originally constructed in 1890-1892 listed on the NSW State Heritage Register and the *Coffs Harbour LEP 2013*, and a buried timber trestle rail bridge constructed in 1913-1915 between South Coff Island and the mainland listed on the *Coffs Harbour LEP 2013*. There is also a potential for several types of maritime archaeological sites and deposits to occur on the Coffs Harbour seabed within the Precinct, including *in situ* structural remains of former footprints of the Coffs Harbour jetty, cultural deposits associated with the use of Coffs Harbour jetty, *in situ* structural remains and cultural deposits associated with the Coffs Harbour jetty moorings and small vessel moorings between the jetty and the northern breakwater, and *in situ* and scattered remains of fifteen shipwrecks. These remains are afforded automatic protection under the Commonwealth *Underwater Cultural Heritage Act 2018* and NSW *Heritage Act 1977*.

Areas of the seabed within the Precinct have been variously ranked in terms of assessed maritime archaeological sensitivity based on known heritage and potential archaeological sites.

Risks & constraints

The State Assessed Planning Proposal involves amendment of the planning framework to enable the revitalisation of the Precinct, and is supported by an Illustrative Masterplan, broadly organised across six sub-precincts, that presents a potential development outcome that could be realised at Coffs Harbour. Only two of the Illustrative Masterplan sub-precincts fall within the maritime archaeological assessment area; Corambirra Point and the Marina. The North Park, Jetty Hub, Activity Hub, and Foreshore Parklands sub-precincts are outside the maritime archaeological assessment area and have no maritime archaeological risks or constraints.

The proposed planning amendments relevant to Corambirra Point and the Marina consist of changes to land use zoning, additional permitted uses, and building heights. Proposed development under the Illustrative Masterplan for the Corambirra Point and Marina sub-precincts consists of the development of a new regional tourist destination on the site of the former Deep Sea Fishing Club at the landward end of Corambirra Point, and revitalisation of the Marina to accommodate local marine businesses via development of buildings and facilities on the north-western marina hardstand.

The Corambirra Point proposed development area falls outside the maritime archaeology assessment area and thus has no maritime archaeological risks or constraints.

Proposed development within the Marina sub-precinct is contained within an area of the existing hardstand and land reclamation laid down in the 1970s. The former seabed buried underneath this reclamation is assessed to be of moderate to high maritime archaeological sensitivity with a potential to contain remains of protected shipwrecks. However, as proposed development under the Illustrative Masterplan involves changes to buildings on and above the existing hardstand only, the potential risk to maritime archaeological resources is low. Nonetheless, in the event that development may disturb the former seabed in this area – e.g. excavation for building foundations or services etc. – a maritime archaeological impact assessment and maritime heritage management plan should be prepared.

Conclusions

The proposed rezoning and potential future development under the Illustrative Masterplan does not contain works that will have substantial physical impact to the seabed within Coffs Harbour. Whilst there are two known items of maritime heritage within the Precinct and the potential for additional maritime archaeological sites to occur on areas of current and former seabed, the potential risk of impact to maritime heritage resources associated with the proposed rezoning is considered to be low.

The Marina sub-precinct presents the main area for potential impact, but such a risk can be mitigated via preparation of a maritime archaeological impact assessment and maritime heritage management plan when a detailed development application is lodged for works in this area. Beyond the Marina sub-precinct, there are no proposed planning amendments or proposed future development activities that would impact known or potential maritime heritage and archaeological resources across the seabed of Coffs Harbour.

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Abbreviations

AUCHD	Australasian Underwater Cultural Heritage Database
DCCEEW	Department of Climate Change, Energy, the Environment and Water
DPHI	Department of Planning, Housing and Infrastructure
EP&A Act	<i>Environmental Planning and Assessment Act 1979 (NSW)</i>
LALC	Local Aboriginal Land Council
LEP	Local Environment Plan
ICOMOS	International Council on Monuments and Sites
NSW	New South Wales
PDNSW	Property and Development NSW
RNE	Register of the National Estate
SHR	State Heritage Register
SSILO	South Solitary Island Lighthouse Optic
UCH	Underwater cultural heritage
UCH Act	<i>Underwater Cultural Heritage Act 2018 (Commonwealth)</i>
UNESCO	United Nations Educational, Scientific and Cultural Organisation

1 INTRODUCTION

1.1 Background

Property and Development NSW (PDNSW) is continuing to lead the revitalisation of the Coffs Harbour Jetty Foreshore Precinct (the Precinct) on behalf of the NSW Government. Cosmos Archaeology Pty Ltd has been engaged by PDNSW to prepare a desktop maritime archaeological assessment to identify known and potential maritime heritage and archaeological resources within the Precinct boundaries and provide a general outline of development constraints based on maritime heritage and archaeological sensitivity mapping.

This desktop maritime archaeological assessment supports a Planning Justification Report that outlines proposed amendments to the *Coffs Harbour Local Environmental Plan (LEP) 2013* and will be submitted to the Department of Planning, Housing and Infrastructure (DPHI) as part of a State Assessed Planning Proposal (planning proposal).

As Coffs Harbour continues to grow as a Regional City, the NSW Government and Coffs Harbour City Council have, through various strategic planning exercises, identified four key strategic priorities to reimagine its direction and respond to current and future challenges and opportunities:

- Deliver a regional economy (CHCC LSPS, 2020; CH Economic Development Strategy, 2017) that is diverse, sophisticated and able to retain businesses and skills;
- Evolve the tourism offering (CHCC LSPS, 2020) with improved attractions, activities and accommodation;
- Provide more housing (CHCC LSPS, 2020) in accessible locations, including affordable housing;
- Provide better connections between places with more sustainable movement choices (CHRCAP, 2021; CHCC, 2020).

As a large, strategically located and wholly government owned site, the Precinct represents a significant opportunity to deliver on each of these key regional priorities. In this planning proposal, PDNSW seeks to celebrate the unique location, history and culture of the Jetty Foreshore to deliver outcomes for the benefit of the Coffs Harbour community. The revitalisation will be staged and funded, over time, to deliver the shared community vision.

Our shared community vision

Coffs' family playground, a precinct of parks and places, that connects community with Country. The community is and always has been at the heart of creating a thriving regional economy and destination for Coffs Harbour. Shaped with the community, our vision is to ensure the Jetty Foreshore will become a world-class oceanfront precinct through the principles shown in Figure 1.1.



Figure 1.1: Vision for the Coffs Harbour Jetty Foreshore.

1.2 The Precinct

The Precinct, wholly owned by the NSW Government, is strategically significant to the State and to the Coffs Harbour region. The Precinct is located on the traditional lands of the Gumbaynggirr people, in saltwater freshwater Country. It encompasses approximately 62 hectares of foreshore land, 5 km east of the Coffs Harbour CBD, located on the Coffs Harbour coast with direct access to the Pacific Ocean. Access is provided on Marina Drive in the north, and Camperdown Street in the south, with Jordan Esplanade bisecting the site north to south. A Precinct map showing existing conditions is provided at Figure 1.2.

The west boundary is generally defined by the railway line and Coffs Harbour Railway Station. To the north the Precinct borders a culturally significant site known as “Happy Valley”, which has been returned as freehold land to the Coffs Harbour and District Local Aboriginal Land Council (LALC). Gallows and Boambee Beaches are located to the south of the Precinct, where Littoral Rainforest occurs. Coffs Harbour itself, the Pacific Ocean, Muttonbird Island and South Coffs Island (Corambirra Point) form the eastern boundary.

The Precinct is a popular destination for both locals and tourists offering a variety of attractions and amenities. These include Jetty Beach and extensive parklands with biodiversity value, as well as items of heritage significance such as the Coffs Harbour Jetty and Ferguson’s Cottage, owned by the Coffs Harbour LALC. Further, the Coffs Harbour Fisherman’s Co-op, the Coffs Harbour Yacht Club, weekly Sunday markets, and community hub building (recently delivered by PDNSW) are located within the Precinct. Various public works including breakwater and boat ramp upgrades have been undertaken over recent years to support the marina function.

There are redeveloped and well-maintained parts in the area however, much can be done to enhance the Coffs Harbour Jetty Foreshore Precinct. A large portion of the Precinct is currently gravelled, and a large area of residual railway land is fenced off and inaccessible to the public, as shown in Figure 1.3. While gravelled areas provide informal overflow parking, they do not reflect the potential of this foreshore.

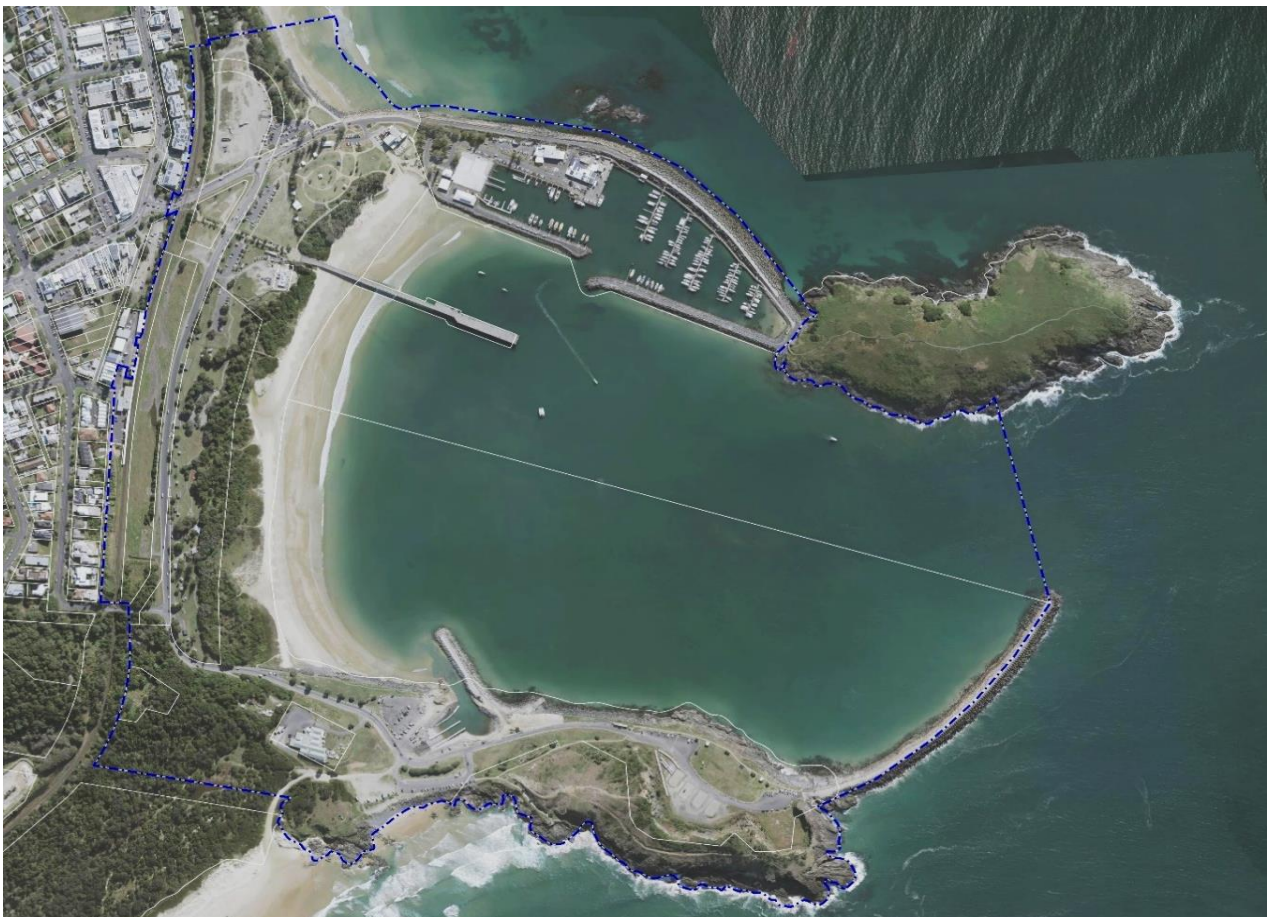


Figure 1.2: Coffs Harbour Jetty Foreshore Precinct (Source: SJB).



Figure 1.3: Existing state of the Precinct rail lands and gravelled areas (Source: PDNSW).

1.3 The Illustrative Masterplan

The planning proposal is supported by an Illustrative Masterplan (Figure 1.4) that presents a potential development outcome that could be realised at the Coffs Harbour Jetty Foreshore Precinct – it is not prescriptive nor is it determined. The Illustrative Masterplan builds on the shared vision created via extensive community and stakeholder consultation and provides further detail in relation to land use and development outcomes sought for the Precinct.

The Place Principles shown in Figure 1.5, agreed with the community, guided the formation of the Illustrative Masterplan.

The Illustrative Masterplan is broadly organised across six sub-precincts that will each have a distinct character and function. These are identified as:

1. Foreshore Parklands – with improved amenities, proposed new board walk and nature-based playground.
2. The Marina – An active marina revitalised to accommodate local marine based businesses that reflect their regional importance.
3. North Park – Functional open space with recreational courts and formalised parking.
4. Jetty Hub – A hub of residential and tourist accommodation supporting activation, tourism and regional attraction located adjacent to the current Jetty Walkway, with massing capped at 6 storeys stepping down in scale when closer to public areas.
5. Activity Hub and Village Green – An active village green that delivers increased public open space connected to the existing foreshore parklands and may include family-friendly food and beverage, community uses and club houses or facilities to support events. A local business activity zone connected to the rail station.
6. Corambirra Point – A new regional tourist destination on the site of the former Deep Sea Fishing Club site including publicly accessible cafes and restaurants, a function space, activity centre and tourist accommodation.

A precinct map showing the Illustrative Masterplan and the six distinct zones is provided at Figure 1.6.

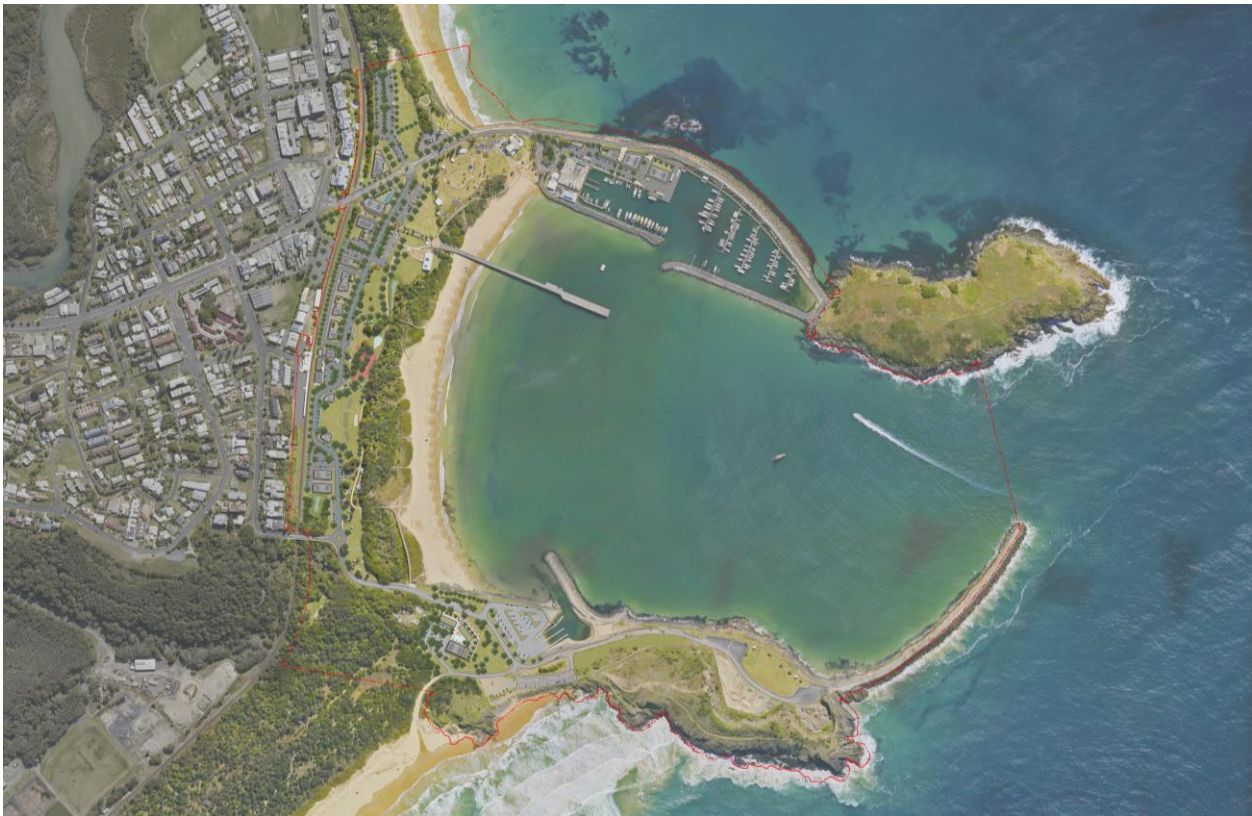





Figure 1.4: Illustrative Masterplan (Source: SJB).




Gathering place
Become the premier place on the North Coast where all are welcome and feel at home, now and in the future



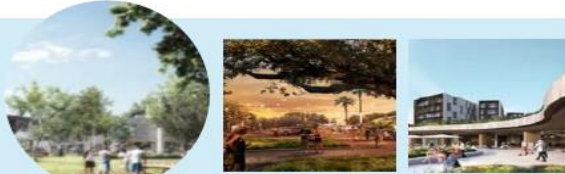
Seamlessly connected
Tie the city structure and regional networks into the precinct and provide accessibility for all abilities throughout




Sustainable economy
Foster a wider mix of uses that leverage existing industry to create a balance of local employment opportunities and waterfront activation



Resilient environment
Be the exemplar for the North Coast on adapting to climate change by safeguarding existing assets and mitigating future risk



Choice destination
Enhance the precinct as a family friendly collection of local and regional destinations offering an accessible, engaging, safe, comfortable and inclusive environment day and night



Celebrate Country
Ensure opportunities for Gumbaynggirr people to Care for Country and heal Country, with long-term community involvement, cultural activation and education, and protection of significant heritage sites

Figure 1.5: Community-led place principles.



Figure 1.6: Sub-precinct map (Source: SJB).

1.4 The Planning Proposal

The master planning of large-scale precincts follows a highly consultative and stepped approach. The current step, which paves the way for the revitalisation of the Coffs Harbour Jetty Foreshore Precinct, is the application for a State Assessed Planning Proposal, which is a legislated process.

PDNSW is lodging a planning proposal with the Department of Planning, Housing and Infrastructure that seeks approval for:

- Changes to permissible land uses
- Changes to permissible maximum building heights
- Planning controls for future State Significant Development Applications including design guidelines and design excellence processes

This desktop maritime archaeological assessment supports this planning proposal.

1.5 Study Area

The study area for this desktop maritime archaeological assessment covers all areas of the seabed, and former seabed under reclaimed land, within the Precinct up to the historical low water mark – i.e. the 19th century low water mark as at the start of historical colonial occupation.

The boundaries of the maritime archaeological assessment study area are provided in Figure 1.7.



Figure 1.7: Maritime archaeological assessment study area – outlined in red (Base map source: SJB).

1.6 Scope

The scope of this desktop maritime archaeological assessment includes:

- Shipwrecks and aircraft wrecks, whether underwater or under reclamation;
- Maritime infrastructure such as jetties, slipways, wharves, breakwaters that are either archaeological (non-functioning) or functioning and which may have heritage significance, whether underwater or under reclamation, and;
- Cultural deposits on the seabed associated with the historical use of maritime infrastructure and historical shipping activities within the study area.

2 HERITAGE LISTINGS

There are three types or levels of statutory listings for cultural heritage sites, objects, and places in NSW, including local listing on the heritage schedule of a Council's environmental planning instrument; state listing on the NSW State Heritage Register; and national listing on the National Heritage List or Commonwealth Heritage List. Inclusion within such statutory heritage registers provides automatic legal protection; in NSW protection for historical heritage sites is afforded by the NSW *Heritage Act 1977*, the NSW *Environmental Planning and Assessment (EP&A) Act 1979* and the Commonwealth *Environment Protection and Biodiversity Conservation (EPBC) Act 1999*.

Historical heritage sites, objects and places may also be listed on non-statutory registers, such as the Register of the National Estate and the National Trust of Australia Heritage Register. The act of listing a place on such registers does not constitute automatic legal protection, however both registers are widely recognised as authoritative compilations of the heritage significance of many of Australia's natural and cultural places and are considered by planning agencies when decisions about development and conservation are being made.

Automatic statutory protection is also afforded to historical maritime heritage sites, objects, and places in NSW under the NSW *Heritage Act 1977* and the Commonwealth *Underwater Cultural Heritage (UCH) Act 2018*, regardless of whether the existence or location of a site or object is known or included on a statutory register – see Annex A.

There are two heritage listed items located either wholly or partially within the maritime archaeological assessment area – see also Table 2.1 and Figure 2.1:

- Coffs Harbour Jetty – listed as an item of State heritage significance on the State Heritage Register (SHR), as an item of local heritage significance in Schedule 5 of the *Coffs Harbour Local Environmental Plan (LEP) 2013* made under the *Environmental Planning and Assessment Act*, as an indicative place on the Register of the National Estate, and on the National Trust Register (NSW), and;
- Buried trestle bridge, tramway line site and World War II gun turret – listed as an item of local heritage significance in Schedule 5 of the *Coffs Harbour Local Environmental Plan (LEP) 2013* made under the *Environmental Planning and Assessment Act*,

	Heritage Register	Statutory Protection	Coffs Harbour Maritime Study Area
National	National Heritage List	<i>EPBC Act 1999</i>	No listings.
State	NSW State Heritage Register (SHR)	<i>NSW Heritage Act 1977</i>	<i>Coffs Harbour Timber Jetty</i> (Item # 02040), Jetty Foreshore. Listing starts at the first timber decking board at shoreward end of extant jetty structure (ca. 360 m long, ca. 6.5 m landward end width, ca. 15 m seaward end width) and includes a 5 m buffer on all but landward side.
Local	Schedule 5, Environmental Heritage, <i>Coffs Harbour LEP 2013</i>	<i>Coffs Harbour LEP 2013</i> made under the <i>EP&A Act 1979</i>	<i>Coffs Harbour Jetty</i> (Item # 120), Jordan Esplanade, Lot 546, DP 45226. <i>Buried trestle bridge, tramway line site and World War II gun turret</i> (Item # 18), Jordan Esplanade, Lot 21, DP 850150.
Non-statutory	Register of the National Estate (RNE)	Non-statutory register	<i>Coffs Harbour Jetty</i> (Item # 18999), Jordan Esplanade – Indicative Place (nominated to the RNE however a decision whether place should be entered was not made before RNE was closed in 2007).
	National Trust of Australia Register	Non-statutory register	<i>Coffs Harbour Jetty (Timber Jetty)</i>

Table 2.1: Heritage listings within maritime assessment area.



Figure 2.1: Heritage listings within maritime archaeological assessment area (Base map source: SJB).

3 HISTORICAL BACKGROUND

3.1 Coffs Harbour maritime development

3.1.1 Early Coffs Harbour settlement & shipping – 1840s-1880s

The earliest documented European visitation of Coffs Harbour occurred in 1847 when John Korff and his sons, Frederick and Gordon, aboard ketch *Brothers*, anchored off what is now known as South Coff Island. Korff was a naval architect, shipbuilder, and merchant who emigrated from England to Sydney in 1835. *Brothers* was one of Korff's own built ships that traded between Sydney and the central to mid-north NSW coast for many years. On the occasion in 1847, Korff had left Sydney bound for the Bellinger River when a gale blew them north past their destination. Upon sighting Coffs Harbour, the sought shelter in the lee of South Coffs Island, where they apparently remained anchored for several days, during which time Frederick and Gordon made some explorations ashore. Korff was impressed by the sheltered natural harbour and the depth of the waters and reported the location to the NSW government on his return. The harbour thereafter became officially known as "Korff's Harbour"; reportedly changed by accident to "Coffs Harbour" due to an error later printed in a Government Gazettal notice.¹

European land use and occupation of the Coffs Harbour region, however, did not begin until the mid 1860s with the arrival of timber-getters working their way along the NSW coast. The first documented settler was Walter Harvie, who arrived from the Bellinger River via Bonville Creek in 1865-1866. Harvie and partner George Tucker set up a camp near the mouth of Coffs Creek and logged up the creek to the Red Hill area until the mid 1870s. Bullock teams were used to haul the felled logs down to the Coffs Creek campsite where they were squared and cut into seven-foot lengths. The timber was then rolled into Coffs Creek, floated down to the river mouth on an outgoing tide, and dragged again via bullock team across the beach to await shipment to Sydney. Once a vessel arrived, it would anchor in deep water beyond the breakers between what was then known as North Coff Island (now Muttonbird Island) and South Coff Island, and a boat would be sent ashore with lines to attach to a raft of cut timber. The lines would then be winched through the surf out to the waiting vessel and the timber hoisted onboard.²

During Harvie's first year of operation in 1865-1866, five shiploads of timber were transported from Coffs Harbour. By the 1870s, more timber-getters, including William Bradley, John Friday, and James Small, began arriving in the region and following Harvie's practice of floating logs down Coffs Creek to the beach and rafting them out to waiting ships. The range of timbers shipped from Coffs Harbour during this period included Red Cedar (*Toona ciliata*), Blackbutt (*Eucalyptus pilularis*), Blue Gum (*Eucalyptus saligna*), Turpentine (*Syncarpia glomulifera*), and Tallowwood (*Eucalyptus microcorys*).³

The first land selectors arrived in the Coffs Harbour region in 1880 and the beginnings of small farming industries began to develop on areas cleared via timber-getting, with early crops including sugar cane, bananas, vines, fruit trees, and maize. In 1886, Government Surveyor H. A. Evans laid out a town plan for a new village at the current site of Coffs Harbour – originally officially named "Brelsford" after District Surveyor, William Braylesford Greaves. The first land auctions were held in 1888, with twenty half-acre rural lots offered for public sale.⁴⁵

¹ England, G. E. 1974. "John Korff (1799-1870). *Australian Dictionary of Biography*. Vol. 5, National Centre of Biography, Australian National University.; Hedditch, R. 2013. *Coffs Harbour 2013 Heritage Study*. Prepared for Coffs Harbour City Council, NSW.; Korff, G. 1906. "Coffs Harbour." *Clarence and Richmond Examiner*. p. 10.

² Davey, M. 2018. "The story of the Coffs Harbour Jetty." *Coffs Coast Heritage*. Coffs Harbour City Council, NSW.; Harvie, W. 5 October 1926. "Loading the Timber" *Coffs Harbour Advocate*.; Hedditch, R. 2013. *Coffs Harbour 2013 Heritage Study*. Prepared for Coffs Harbour City Council, NSW.; Watts, G. 2021. "Vessels Using Port of Coffs Harbour, 1847-1980." *Coffs Collections*, City of Coffs Harbour, Item No. LS2023.39.1.

³ Hedditch, R. 2013.; Sadler, B. 1984. "The End of an Era for North Coast Timber Port." *Ports of NSW*. Vol. 4, No. 9.; Watts, G. 2021.

⁴ Watts, G. 2021; Yeates, N. 1990. *Coffs Harbour. Volume. 1, Pre-1880 to 1945*. Bananacoast Printers for Coffs Harbour City Council, NSW.

One of the earliest identified plan of Coffs Harbour, dating to 1882, shows the natural features of the harbour during the early years of European occupation, prior to maritime development – see Figure 3.1. At this time, North Coff (Muttonbird) Island and South Coff Island were separated from the mainland by a nearshore channel. An exposed line of rocky reef outcrop extended broadly north-east from the mainland towards North Coff (Muttonbird) Island, separated by a “deep water” channel as marked on the 1882 plan; whilst a low headland extended towards South Coff Island, separated from the mainland by a shallow, narrow channel with a “rocky bottom.”

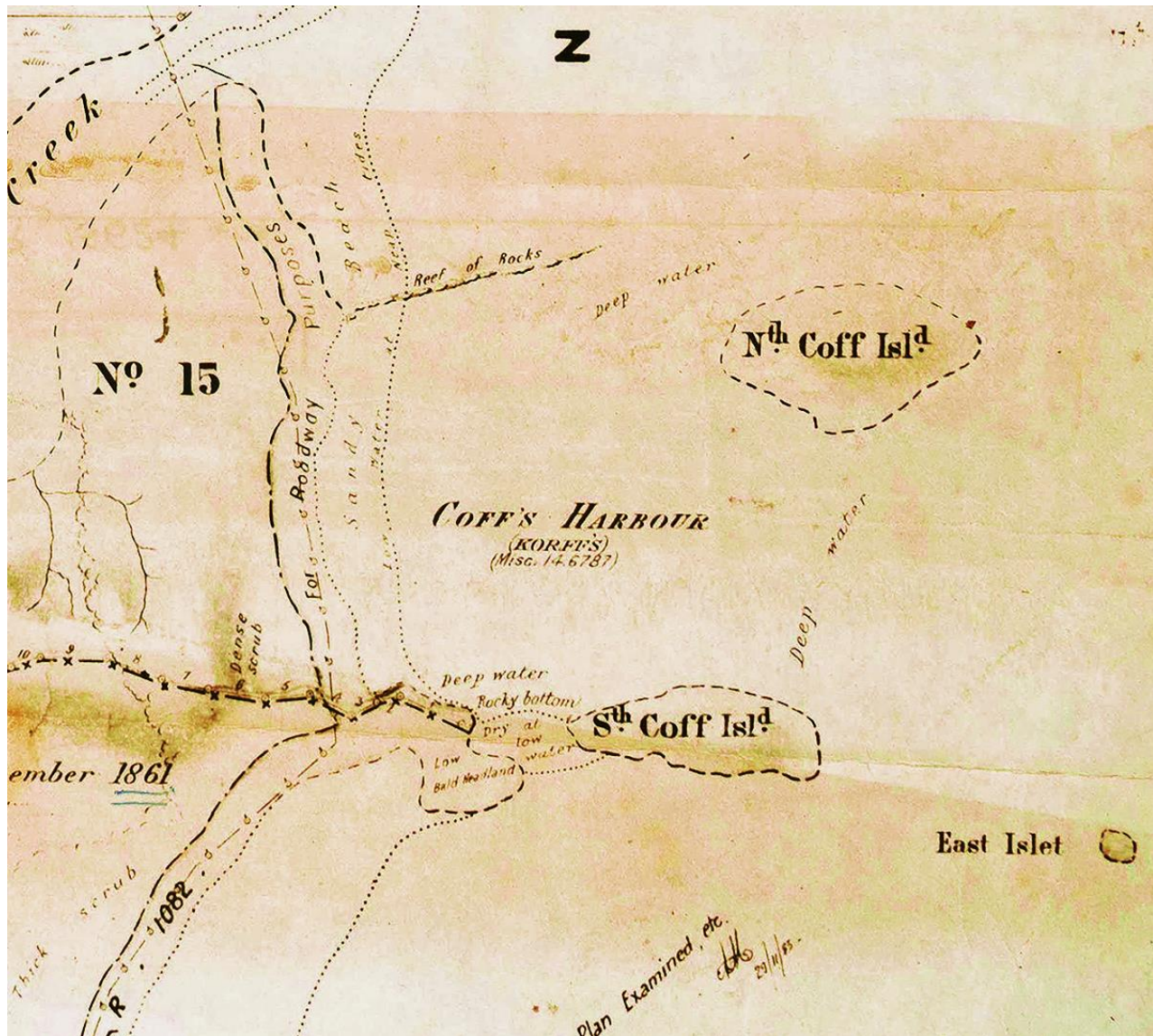


Figure 3.1: 1882 plan of Coffs Harbour.⁶

As the population of the Coffs Harbour region grew and the volume of local production increased, an increasing number of appeals and petitions were made to the NSW Government for the construction of a public jetty. The process of rafting timber and ferrying goods and supplies via small boat to and from coastal cargo ships at anchor outside the harbour was difficult, time-consuming, weather reliant, and often hazardous. In 1888, approval from the Department of Public Works was finally received for the proposal, and a sum to build a jetty at Coffs Harbour was placed upon the Parliamentary estimates.⁷

⁵ Yeates, N. 1990.

⁶ Parsons, G. 1882. *Plan of Reserve No. 644, and Consolidated Reserves, Parishes of Coff & Bonville, Counties of Fitzroy and Raleigh*. Image No. 12.349, *Coffs Collections*, City of Coffs Harbour, NSW.

⁷ Hedditch, R. 2013.; Sadler, B. 1984.; Yeates, N. 1990.

3.1.2 Construction of Coffs Harbour jetty – 1889-1892

Tenders for construction of a jetty at Coffs Harbour were called in December 1889 by the Office of the Engineer-in-Chief for Harbours and Rivers, Department of Public Works.⁸ In accordance with plans prepared by the Department of Public Works – see Figures 3.2 - 3.3 – the jetty was designed to measure 1640' (499.9 m) long by 21' 6" (8.2 m) wide, and be constructed of timber with metal fastenings. The jetty was to be positioned to commence at the top of a back dune rise and run south-east across the beach, with the first approximately 700' (213.4 m) of the landward end situated above the low water mark, and extending into Coffs Harbour with the seaward end terminating at water depths of approximately 18' (5.5 m) at low water⁹ – see Figure 3.10.

The following description of the jetty design was published in December 1889 in association with the call for tenders:

For about 500 feet the courses of piles will be three abreast, for another interval every alternate course shall consist of five piles, while towards the outer end each course shall be five piles, the outer or raking piles being driven at a slant of one foot in six. The cornices are 20 feet apart each being firmly tied together with turpentine bracing. The piles are to be 20in. in diameter at the head, and 15in. at the small end, and are to be of best turpentine timber. The planking for the greater part of the decking is 9 x 4in., but on 48 feet at the outer end the planks are 9 x 3in., laid diagonally to ensure stability. The decking will be 12ft. above high water, and near the sea end a landing stage is to be erected, with flight of steps to water level.¹⁰

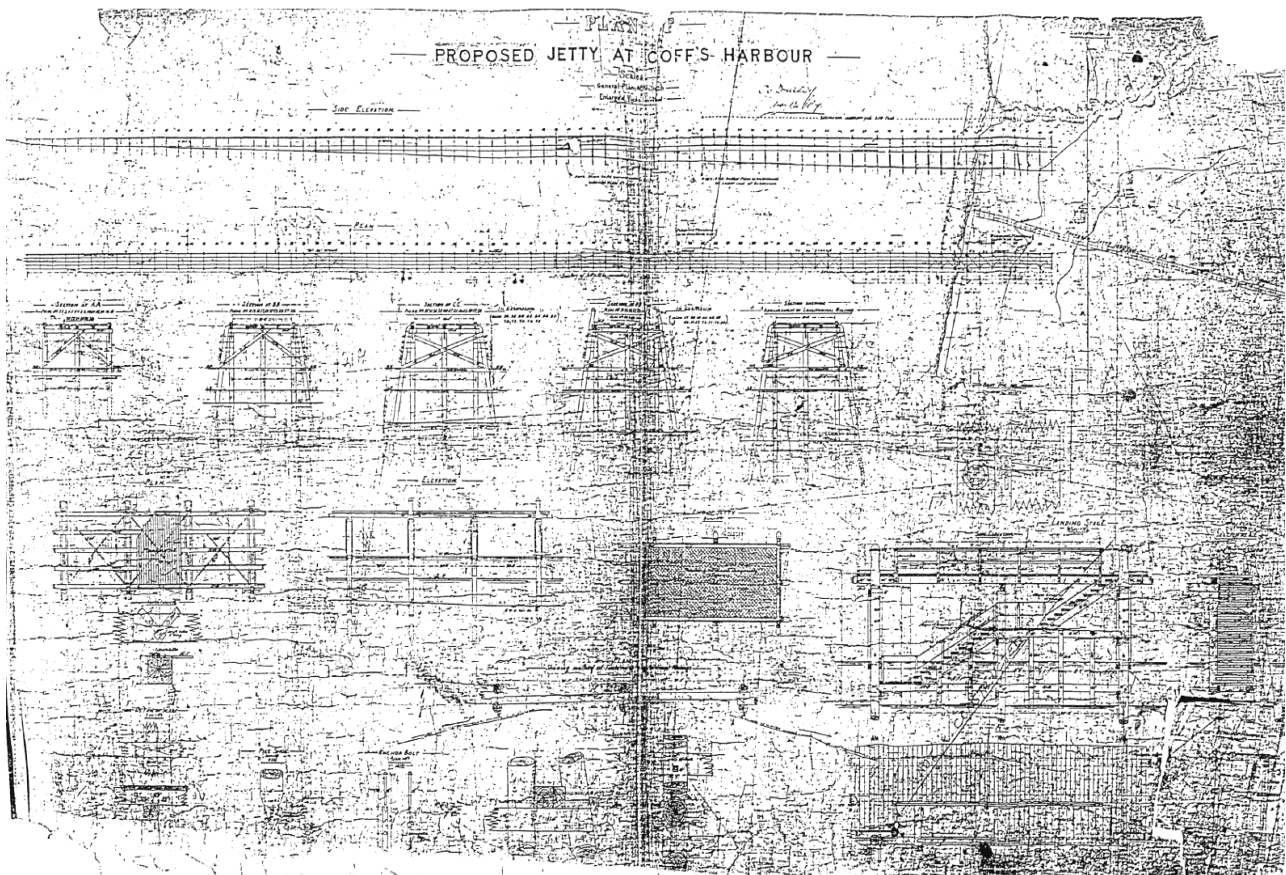


Figure 3.2: NSW Public Works Department 1889 design plan of proposed jetty at Coffs Harbour.¹¹

⁸ NSW Department of Public Works. 24 December 1889. "Tenders for Public Works." *New South Wales Government Gazette*. Issue No. 679, p. 3320.

⁹ Howard, F. Commander RN. October 1891. "Report – Coff's Harbour." Reproduced in *Coffs Harbour Advocate*. p. 4.

¹⁰ Anon. 17 December 1889. "The Coffs Harbour Jetty." *Clarence and Richmond Examiner and New England Advertiser*. p. 3.

¹¹ NSW Public Works Department. 1889. *Plan of Proposed Jetty at Coff's Harbour*. Reproduced in Boyd, N., Kass, T., J. Singh, & V. Sicari. 1994. *Coffs Harbour Jetty Conservation Plan*. Heritage Group, State Projects, NSW Public Works.

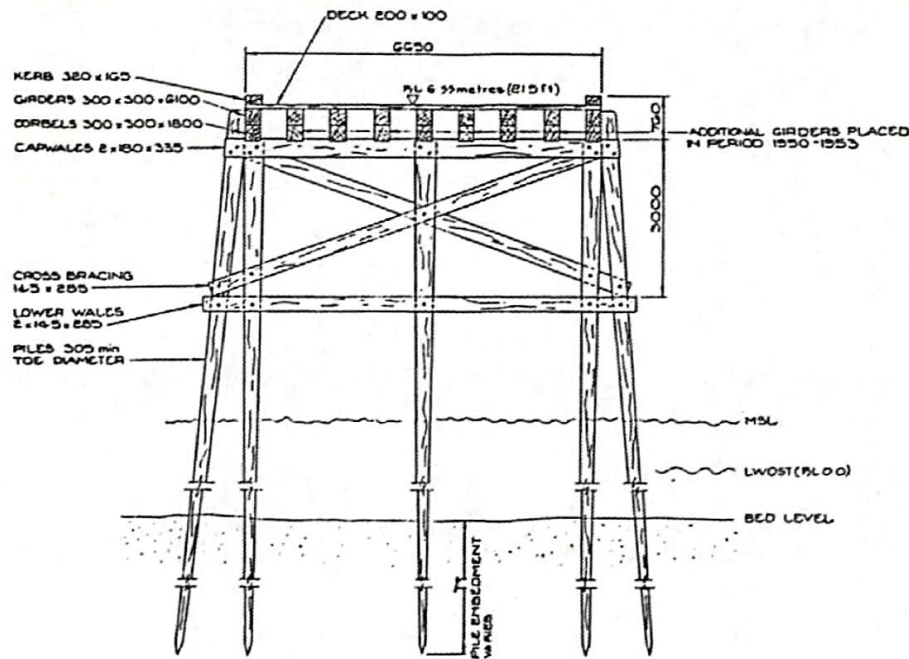


Figure 3.3: Typical cross section of the five pile trestles of the Coffs Harbour jetty design.¹²

In January 1890, local builder and contractor brothers Thomas and George Lawson were announced as successful tenderers for the construction of Coffs Harbour jetty.¹³ Site preparation work began shortly thereafter. Construction commenced with the first pile successfully driven in April 1890. Locally-sourced turpentine, with bark remaining, was used for the jetty piles – some of which were driven up to 25' (6.7 m) into the seabed. Work continued throughout 1890 to 1891, with the final pile driven in late January 1892. In February 1892, the Coffs Harbour jetty was gazetted by the NSW Government as a legal wharf.¹⁴



Figure 3.4: Construction of Coffs Harbour jetty, 1892 – pile driver in operation at the seaward end.¹⁵

¹² Illustration 45 in Boyd, N., Kass, T., J. Singh, & V. Sicari. 1994. *Coffs Harbour Jetty Conservation Plan*. Heritage Group, State Projects, NSW Public Works.

¹³ Barling, J. 29 January 1890. "Official Correspondence." *Macleay Argus*. p. 3.; Smith, B. 31 January 1890. "Department of Public Works – Tenders Accepted." *New South Wales Government Gazette*. No. 62, p. 995.; Yeates, N. 1990.

¹⁴ Anon. 29 April 1890. "Upper Orara and Coffs Harbour." *Clarence and Richmond Examiner*. p. 3.; Anon. 20 June 1890. "The Coffs Harbour Jetty." *Macleay Argus*. p. 4.; Anon. 20 March 1891. "Woolgoolga and Coffs Harbour Jetties." *Macleay Argus*. p. 4.; Anon. 25 January 1892. "News." *The Sydney Morning Herald*. p. 5.; See, J.; NSW Treasury. 12 February 1892. "Notice – Legal Wharfs." *New South Wales Government Gazette*. Issue No. 97, p. 1203.

¹⁵ Anon. 1892. "Constructing the Jetty, 1892." *Coffs Collections*, City of Coffs Harbour, Image No. mus07-2104.

Over the following months, a range of cargo loading and unloading machinery and facilities were installed at the jetty; including a 3½' gauge tramway running along the full length of the jetty and fitted with horse-drawn trollies, a 5 tonne steam derrick crane, built by Rogers of Newcastle, at the jetty head, a cargo shed, wharfinger's cottage, and livestock pens at the landward end.¹⁶ Three vessel moorings, each consisting of a wrought iron mooring buoy affixed via heavy chain to two anchors, were also installed to the north, east, and south of the jetty head. These were provided to enable larger coastal vessels to load and offload cargo via crane whilst moored a few metres away from the jetty rather than directly alongside thus avoiding damage to both jetty and vessel; a particular concern during bad weather and rough seas. During high swells even passengers were transferred to and from vessels moored off the jetty via a basket suspended from the jetty crane.¹⁷

The completed Coffs Harbour jetty was officially opened on 5 August 1892, to much celebration.¹⁸



Figure 3.5: 1908 view of Coffs Harbour, facing north-east towards jetty and Muttonbird Island.¹⁹



Figure 3.6: 1910 view of Coffs Harbour, facing north-west towards jetty from southern headland.²⁰

¹⁶ Howard, F. Commander RN. October 1891.; Kramer, J. W. 1985. *Ships and Timber: A Short History of Coffs Harbour Port and Associated Railways*. Light Railways Research Society of Australia, Victoria.; See, J.; NSW Treasury. 12 February 1892.

¹⁷ Anon. 30 April 1892. "Mooring Buoys." *Clarence and Richmond Examiner*. p. 5.; Anon. 4 June 1892. "The Coast Jetties." *Clarence and Richmond Examiner*. p. 5.; Anon. 11 December 1892. "Coff's Harbour." *Clarence and Richmond Examiner*. p. 4.; NSW Department of Public Works. 2 October 1891. "Tenders for Public Works; Harbours and Rivers." *New South Wales Government Gazette*. Issue No. 631, p/7805.; Howard, F. Commander RN. October 1891.; Kramer, J. W. 1985.; Yeates, N. 1990.

¹⁸ Anon. 6 August 1892. "Opening of the Coff's Harbour Jetty." *The Sydney Morning Herald*. p. 10.

¹⁹ Crook, P. ca. 1908. "Coffs Harbour showing Muttonbird Island; Coffs Harbour Jetty, 1908." *Coffs Collections*, City of Coffs Harbour, Image No. mus07-3810.

²⁰ Crook, P. ca. 1910. "Coffs Harbour showing Muttonbird Island; Coffs Jetty from the Southern Headland, c. 1910." *Coffs Collections*, City of Coffs Harbour, Image No. mus07-3083.



Figure 3.7: 1910 view of Coffs Harbour jetty facing north-west from beach; showing the three-pile trestle piers at landward end and five-pile trestle piers beyond low water mark.²¹

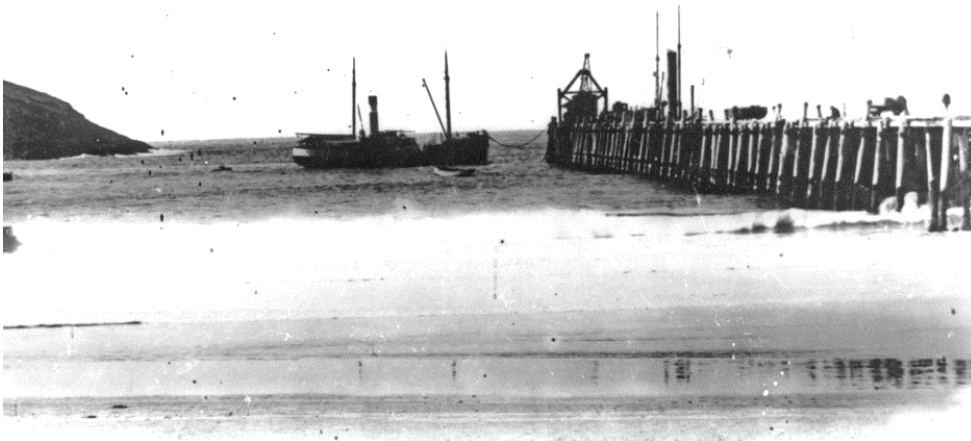


Figure 3.8: 1910 view of Coffs Harbour jetty, facing south-east from the beach; showing coastal steamer moored off the northern side of the jetty²²



Figure 3.9: 1908 view of seaward end of Coffs Harbour jetty; showing original single tramway and 5 tone steam derrick crane.²³

²¹ Phipps, S. 1910. "Viewing the jetty and Mutton Bird Island from horseback." *Coffs Collections*, City of Coffs Harbour, Image No. mus07-2101.

²² Anon. ca. 1910. "Coffs Harbour Jetty showing the first crane, c.1910." *Coffs Collections*, City of Coffs Harbour, Image No. mus07-2330.

²³ Crook, P. 1908. "Shipping timber at Coffs Jetty, 1908." *Coffs Collections*, City of Coffs Harbour, Image No. mus07-3893.



Figure 3.10: 1893 hydrographic chart of Coffs Harbour showing completed jetty²⁴ – maritime archaeological assessment study area outlined in red.

The construction of Coffs Harbour jetty opened the region up to coastal shipping trade and transport and was a major stimulus in regional settlement, development, and the growth of local industries – particularly timber-getting, sawmilling, and various pastoral and agricultural pursuits. The population of Coffs Harbour steadily increased from less than one hundred in the early 1890s to over two thousand by the early 1910s. From 1892 to 1902, an average of fifty to one hundred ships utilised Coffs Harbour jetty each year, exporting regional produce to national markets and importing goods and supplies for the expanding settlement. Following the beginnings of international export of Australian timber in 1905, the number of ships visiting Coffs Harbour jumped to between three hundred to four hundred each year. In 1911, Coffs Harbour exported 6,137,000 super feet of timber, 19,673 boxes of butter, 90 tons of copper ore, 3,000 pigs, and 825 tons of general cargo, whilst 7,104 passengers went in or out of the port.²⁵

Coffs Harbour jetty facilities were improved and expanded throughout this period to cater for the increasing traffic; including erection of a 3 ton crane to handle drays at the jetty base (1897), installation of timber fenders on both sides of the jetty head (1905), replacement of the 5 tonne crane at the jetty head with a 7½ tonne capacity steam derrick built by Ransomes & Rapier (1906-1907), improvements and extensions to the tramway and erection of additional cargo sheds (1907-1908), construction of a timber landing stage under the jetty deck (1908), replacement and duplication of the tramway with 3½' railways and installation of an Orenstein & Koppel steam locomotive and trucks to replace the horse-drawn haulage trollies (1909-1910).²⁶

²⁴ Howard, Comr. R.N., & Francis, Lieut. R.N. 1890 (updated 1893). *Coffs Harbour*. Government Printing Office, NSW. *Coffs Collections*, City of Coffs Harbour, Image No. 12.346.

²⁵ Hedditch, R. 2013.; Kramer, J. W. 1985.; Watts, G. 2021; "Coffs Harbour Scheme of Improvements to Afford Shipping Facilities." *NSW Parliamentary Papers*. Cited in Boyd, N., Kass, T., J. Singh, & V. Sicari. 1994.

²⁶ Kramer, J. W. 1985.; McNeil, I. 2016. "The Coffs Harbour Timber Company Limited – Part 1 – Nondaville Mill and the Boambee Timber Tramway (NSW)." *Light Railways*. No. 251.; NSW Department of Public Works *Annual Reports 1898-1911*; cited in Boyd, N., Kass, T., J. Singh, & V. Sicari. 1994.

Various repairs and maintenance works on the jetty were also undertaken – particularly repairs and replacement of timber jetty piles and various superstructure elements following damage incurred in severe gales and storm surges in 1893 and 1903, and regular maintenance replacements of deteriorated timber piles; on average five to twenty pile replacements each year.²⁷



Figure 3.11: Coffs Harbour jetty ca. 1912 – showing duplicated rail lines and SS *Orara* unloading whilst moored off northern side of jetty.²⁸



Figure 3.12: Timber logs being loaded onto jetty via landward crane, ca. 1912.²⁹



Figure 3.13: Landing passengers by basket from SS *Cavanba* at Coffs Harbour jetty.³⁰

²⁷ Anon. 24 June 1893. "Coffs Harbour." *Clarence and Richmond Examiner*. p. 4; Anon. 12 August 1893. "Coffs Harbour." *Clarence and Richmond Examiner*. p. 3; Kramer, J. W. 1985.; NSW Department of Public Works *Annual Reports* 1902-1910; cited in Boyd, N., Kass, T., J. Singh, & V. Sicari. 1994.

²⁸ Anon. ca. 1912. "Arrivals by SS 'Orara' – Coffs Harbour, NSW." Mitchell Library, State Library of New South Wales, Image No. IE1672780.

²⁹ Anon. ca. 1912. "Landing Logs at Coffs Harbour Jetty." *Coffs Collections*, City of Coffs Harbour, Image No. mus07-3477.

³⁰ Crook, P. ca. 1908. "Landing passengers by basket from SS *Cavanba* at Coffs Harbour." *Coffs Collections*, City of Coffs Harbour, Image No. mus07-4875.

3.1.3 Widening of Coffs Harbour jetty – 1912-1914

By the early 1910s, the steadily increasing volume of traffic and trade at Coffs Harbour jetty was beginning to result in substantial delays and congestion of cargo waiting to be loaded. Shipping was held up by the limited capacity of the jetty, whereby only two vessels could berth at one time with only a single crane each to work them; and often additional vessels would be anchored nearby waiting to approach.³¹

In 1911, the Department of Public Works and the Navigation Department reported to the Minister for Works that there was an urgent need to enlarge the Coffs Harbour jetty and improve storage facilities at the base. In early 1912, the Chief Engineer of the Navigation Department drew up design recommendations to expand berthing capacity and loading facilities by doubling the width of the jetty structure for at least 150' (45.7 m) of the seaward end length and installing two more powerful cranes, thus providing berthing space for at least four vessels to load at one time. By mid 1912, the design plan was revised to widen the seaward end of the jetty by 20' (6.1 m) to a total width of 41.6' (12.6 m) for a length of 320' (97.5 m), and install another 5-tonne capacity crane at the jetty head, and funding was placed on the Parliamentary Estimates to carry out the proposed improvements.³²

Widening works on the Coffs Harbour jetty commenced in late 1912. After some debate, the plan was revised again to install a larger 10-tonne capacity crane, rather than another 5-tonne capacity crane, at the seaward end, and the jetty substructure was strengthened with Monier pipes to accommodate the additional weight. The vessel moorings at the jetty were also relocated 50' (15.2 m) farther out from the jetty and provided with heavier mooring chains in order to accommodate both the widening of the jetty and the anticipated increasing size of vessels visiting Coffs Harbour. Works were completed in mid 1914.³³

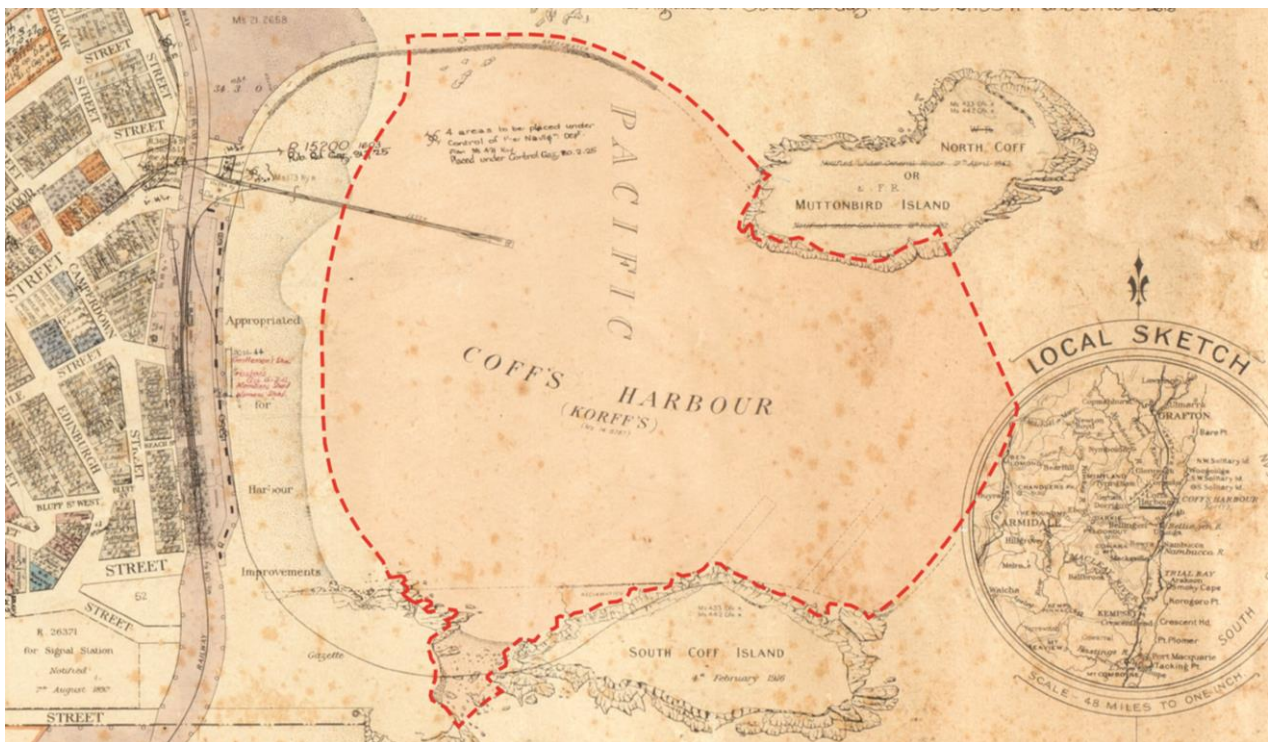


Figure 3.14: 1922 map of Coffs Harbour – showing widened jetty³⁴ – maritime archaeological assessment study area outlined in red.

³¹ Anon. 31 May 1912. "Jetty Improvements." *Coffs Harbour Advocate*. p. 2.; C. W. Elliott, Coffs Harbour agent of NCSN Co., Coffs Harbour Improvements. 1913, cited in Boyd, N., Kass, T., J. Singh, & V. Sicari. 1994.; Kramer, J. W. 1985.

³² Anon. 31 May 1912. "Jetty Improvements." *Coffs Harbour Advocate*. p. 2.; Anon. 10 September 1912. "Coffs Harbour." *Clarence and Richmond Examiner*. p. 2.; Public Works Department. 1911-1912. *Annual Report*. Cited in Boyd, N., Kass, T., J. Singh, & V. Sicari. 1994.

³³ Anon. 10 September 1912. "Coffs Harbour." *Clarence and Richmond Examiner*. p. 2.; Anon. 3 March 1914. "Coffs Harbour Progress." *Clarence and Richmond Examiner*. p. 3.; Anon. 6 April 1915. "Coff's Harbour Jetty." *Clarence and Richmond Examiner*. p. 2.; Boyd, N., Kass, T., J. Singh, & V. Sicari. 1994.; Kramer, J. W. 1985.

³⁴ NSW Department of Lands. 1922. *Map of the Town of Coff's Harbour and suburban lands, Parish of Coff, County of Fitzroy, Land District of Bellingen, Dorrigo Shire*. Coffs Collections, City of Coffs Harbour, Image No. 11.1121,



Enlargement of 1922 plan of Coffs Harbour – showing detail of widened jetty.

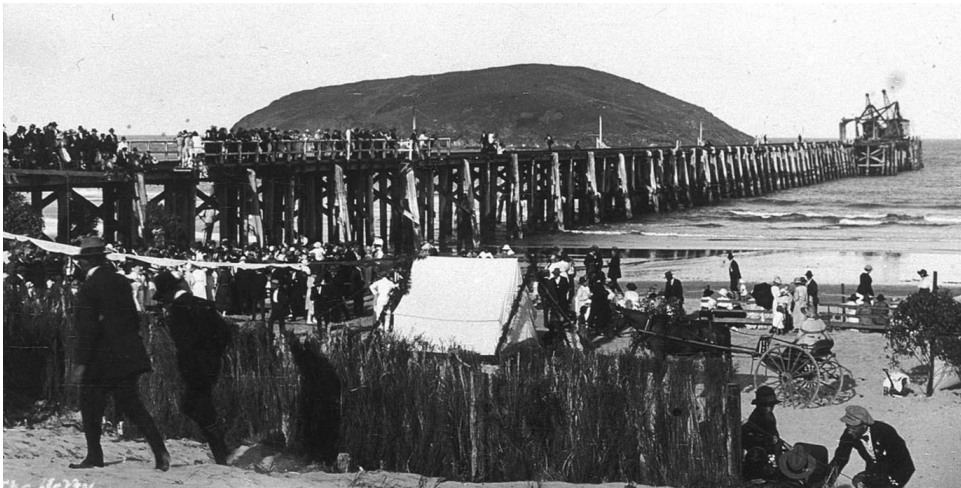


Figure 3.15: ca. 1920 view of southern side of Coffs Harbour jetty—showing widening and additional crane at seaward end.³⁵

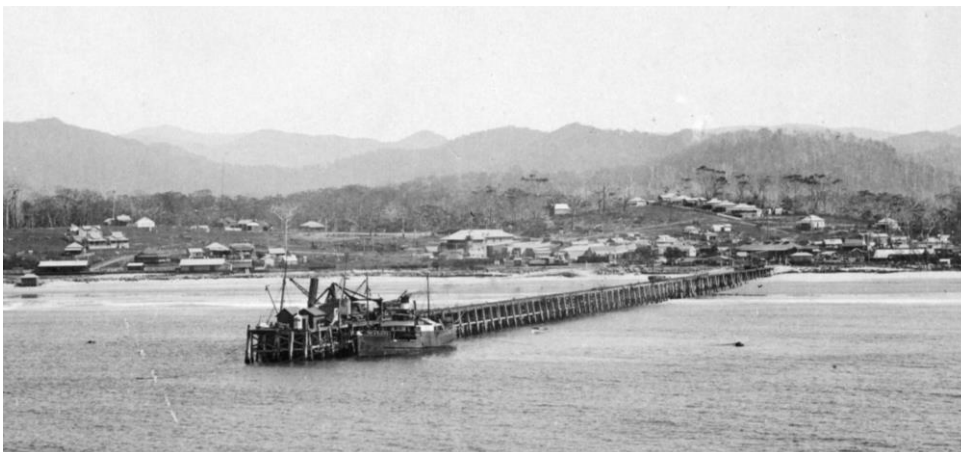


Figure 3.16: ca. 1920 view of Coffs Harbour jetty, facing south-west from Muttonbird Island – showing widening and additional crane at seaward end, and mooring buoys on northern and southern side of jetty head.³⁶



Figure 3.17: ca. 1930 view of Coffs Harbour jetty – showing widening and additional crane on southern side of jetty head.³⁷

³⁵ Anon. ca. 1920s. "Boxing Day sports at Coffs Harbour Jetty – Coffs Harbour, NSW." Mitchell Library, State Library of New South Wales, Image No. IE1681181.

³⁶ Howarth, H. ca. 1920. "Coffs Jetty from Muttonbird Island, c. 1920." *Coffs Collections*, City of Coffs Harbour, Image No. mus07-3886.

³⁷ Maston, T. ca. 1930. "Tram tracks on the jetty, c. 1930." *Coffs Collections*, City of Coffs Harbour, Image No. mus07-5629.



Figure 3.18: ca. 1920 view of passengers disembarking in the basket at Coffs Harbour jetty – showing widening on southern side of jetty head.³⁸

* Inscription on reverse:

To Mumsie, This is the way they land & embark passengers at the jetty. The boat is moored by anchors about 10 or 12ft away from the jetty & rises & falls with the swell of the sea, sometimes rising 15ft or more so you can see they cannot use a gangway. The crane you can see can lift an 8 house load of sawn hardwood, so 1/2 doz men is no lift at all. H.G.Wood.

Several further upgrades to Coffs Harbour jetty were undertaken over the following few years – notably, conversion of the jetty railway to the standard 4' 8.5' gauge (1917) to enable direct connection of rolling stock following the opening of the Coffs Harbour to Raleigh section of the North Coast Railway (1915), relaying of the track with 80 lb rails (1925), and installation of a 5.5 tonne fixed crane at the jetty base and a 7.5 tonne travelling crane for timber handling (1928).³⁹

General maintenance and repair works also continued throughout the 1910s-1930s, including regular replacement and renewal of deteriorated timber piles, girders, fenders, and deck planking, and overhaul of jetty moorings. Localised dredging of the seabed on the southern side of the widened jetty head was also undertaken during the 1930s, in order to increase the water depth in the southern berth from 18' (5.5 m) to 21' (6.4 m) (above lowest astronomical tide) to cater for the increasing size and draught of cargo vessels using the jetty.⁴⁰

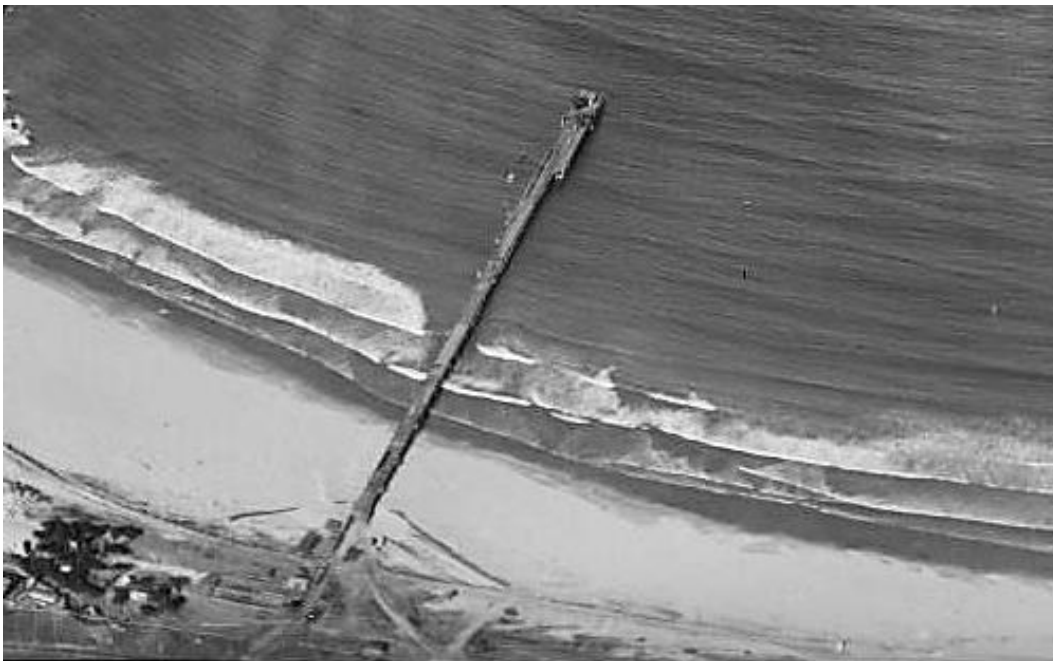


Figure 3.19: ca. mid to late 1920s aerial photograph of Coffs Harbour – showing detail of widened jetty.⁴¹

³⁸ Howarth, H. ca. 1920. "Passenger transfer by basket for the SS Orara at the Jetty, 1920." *Coffs Collections*, City of Coffs Harbour, Image No. mus07-2927.

³⁹ Public Works Department. 1914-1929 *Annual Reports*. Cited in Boyd, N., Kass, T., J. Singh, & V. Sicari. 1994.; Kramer, J. W. 1985.

⁴⁰ Anon. 20 June 1933. "A Better Harbour. Deepening Near Jetty." *Coffs Harbour Advocate*. p. 3.; Kramer, J. W. 1985.; NSW Department of Public Works *Annual Reports* 1939-1940; cited in Boyd, N., Kass, T., J. Singh, & V. Sicari. 1994.

⁴¹ Fairfax Corporation. ca. 1920s. "Aerial view of Coffs Harbour, New South Wales, ca. 1920s." National Library of Australia, Image No. 163034477.

3.1.4 Construction of Coffs Harbour breakwaters – 1910s-1940s

Whilst Coffs Harbour was initially selected as a largely sheltered natural harbour and the construction of the jetty vastly improved the efficiency and safety of shipping trade and transport, use of the jetty was regularly limited by weather conditions. Vessels were unable to lie alongside the jetty during heavy swells, could not load cargo at all when easterly or south-easterly weather prevailed, and on occasion when the weather was very heavy from the north-east, vessels often had to pass by the harbour altogether and return only when the weather calmed. The need to create a more sheltered port and safe anchorage via the construction of breakwaters was raised as early as 1890-1891 by numerous local Coffs Harbour residents and Royal Navy Commander F. Howard in his hydrographic survey and report on Coffs Harbour – yet the expense of such works was considered by the Government to be too prohibitive at the time.⁴²

Following the substantial regional development and increase in shipping throughout the early 1900s, however, Coffs Harbour was emerging as an important trade and transport centre. In a 1910-1911 NSW Royal Commission into decentralisation in railway transit, Coffs Harbour was nominated as one of several potentially suitable locations for the development of a deep-sea port for overseas trade that could be connected by rail to inland centres, and alternative options to create an artificial harbour and enclose an area of deep water for port purposes were submitted by E. M. de Burgh, Chief Engineer for Harbours and Water Supply, Department of Public Works, and T. W. Keele, Sydney Harbour Trust Commissioner and former Chief Engineer for Harbours and Water Supply. Whilst the Royal Commission recommended Port Stephens as the major overseas port servicing northern NSW, the Minister for Public Works decided to refer the scheme for Coffs Harbour as proposed by de Burgh to a Parliamentary Standing Committee on Public Works for consideration, in conjunction with a proposal to construct a section of the North Coast Railway between Coffs Harbour and the Bellinger River.⁴³

de Burgh described his proposed scheme for the development of Coffs Harbour to the Royal Commission in 1911 as follows (see also Figure 3.20):

A harbour might be made by running a breakwater in a northerly direction from near the eastern end of North Coff's Island, and another in an easterly direction from North Islet as shown on the accompanying plan. A viaduct or causeway from the shore line to the western end of North Coff's Island would be necessary to convey stone for the eastern breakwater, and for access to the wharves and stores which would be placed on North Coff's Island. The northern breakwater would have a length of 4,600 feet and the southern 1,800 feet, the opening to the harbour between the outer extremities of these walls being 800 feet, and in which the depth at low water spring tides is from 41 feet to 35 feet. The causeway between Coff's Island and the mainland, which would be built mainly of the small stone arising in obtaining the large blocks for the more exposed breakwaters, would be about 3,000 feet long.

The general idea is to have a north breakwater, the great object of which is to intercept the running of the sand and turn it into the current in the ocean. This wall running northwards is for shelter, and it would be exposed to the full force of the easterly gale. Its form with the curve outwards would help it a little, but it would need to be made of very large stone, and there is no doubt that from time to time it would need a certain amount of repair.⁴⁴

⁴² Howard, F. Commander RN. October 1891. "Report – Coff's Harbour." Reproduced in *Coffs Harbour Advocate*. p. 4.; Macnamara, P. J. 1913. "Coffs Harbour Scheme of Improvements to Afford Shipping Facilities." *NSW Parliamentary Papers*. Cited in Boyd, N., Kass, T., J. Singh, & V. Sicari. 1994.; Manning, W. A. 1898. Evidence. *NSW Legislative Assembly, Parliamentary Standing Committee on Public Works – Report on Harbour Works at Bellinger River*. William Applegate Gullick, Government Printer, Sydney, NSW.

⁴³ Anon. 15 August 1911. "A Northern Deep Sea Port. Coffs Harbour Selected; To Attract the Trade: of the Bellinger and Nambucca Rivers, and the Hinterland of the Dorriggo." *Clarence and Richmond Examiner*. p. 2.; Anon. 28 August 1911. "Coffs Harbour: A New Port for the North Coast." *Evening News*. p. 3.; Kramer, J. W. 1985.; NSW Legislative Assembly. 1911. *Report of the Royal Commission as to Decentralisation in Railway Transit*. William Applegate Gullick, Government Printer, Sydney, NSW.

⁴⁴ de Burgh, B. M. 7 July, 1911. Evidence. NSW Legislative Assembly. 1911.

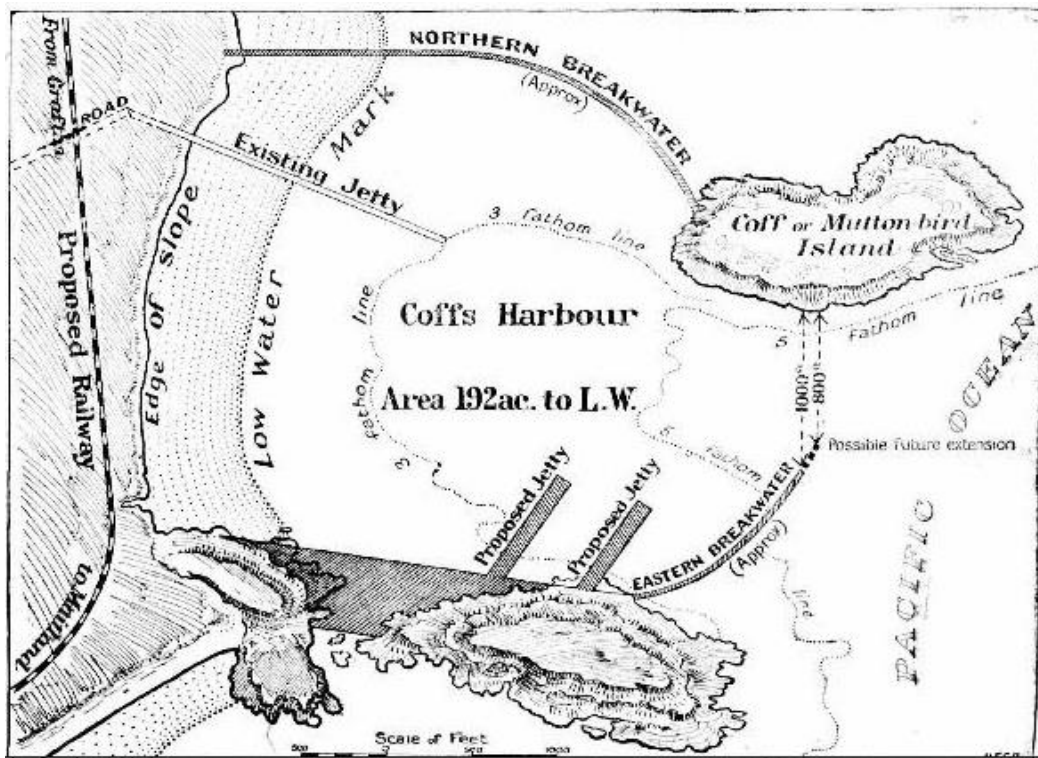


Figure 3.20: 1911 diagram of de Burgh's proposed scheme for Coffs Harbour.⁴⁵

In June 1913, the Parliamentary Standing Committee on Public Works reported in favour of de Burgh's proposed scheme for the development of Coffs Harbour, and Parliament passed the necessary authorising legislation – the *Coffs Harbour Improvement Act 1913* – in October that year. The final design of the scheme as detailed in the Act, which saw some slight variation to de Burgh's original proposal, involved the construction of a northern breakwater, commencing approximately 600' (182.8 m) north of the shore end of the Coffs Harbour jetty and extending in a straight and curved line for about 3,050' (929.6 m) to the western end of North Coffs / Muttonbird Island; and an eastern breakwater commencing at the northern shore of South Coffs Island and extending for about 1,500' (457.2 m) in a north-easterly direction – enclosing a safe harbour of approximately 217 acres at low tide. Reclamation of approximately 13 acres between South Coffs and the mainland, and the construction of two low-level jetties off South Coffs Island was also proposed in the scheme (see Figure 3.20).⁴⁶

Preliminary work was commenced shortly after the passing of the Act in 1913 however, owing to want of funds, construction did not begin in earnest until early 1915. Over the years, the Coffs Harbour improvements were variously undertaken by the Department of Public Works and private contractors Norton, Griffiths, and Co.⁴⁷

The first stage of works involved the construction of a timber trestle railway bridge and embankments between South Coff Island and the mainland in order to provide rail access to the planned quarry at the base of Corambirra Point on the northern end of South Coff Island. The bridge was constructed following the standard Department of Public Works design of timber trestle rail bridges at the time, consisting of nine spans of tall, cross-braced timber trestles supporting timber beams, over which were laid the rail deck and standard gauge 4' 8.5' track.⁴⁸

⁴⁵ "Plan Showing the Proposals by Mr. E. M. De Burgh for the Provision of a Deep Sea Port at Coff's Harbour." in Anon. 15 August 1911. "A Northern Deep Sea Port. Coffs Harbour Selected; To Attract the Trade: of the Bellinger and Nambucca Rivers, and the Hinterland of the Dorrigo." *Clarence and Richmond Examiner*. p. 2.

⁴⁶ Anon. 29 June 1917. "The Breakwater. Laying the First Stone." *Daily Examiner*. p. 2.; Kramer, J. W. 1985.; NSW Department of Public Works. 1914-1915 *Annual Report*. cited in Boyd, N., Kass, T., J. Singh, & V. Sicari. 1994.; NSW Government *Coff's Harbour Improvement Act 1913* – Schedule; NSW Parliamentary Standing Committee on Public Works, *Annual Report*. 1913.

⁴⁷ Anon. 29 June 1917.; Kramer, J. W. 1985. NSW Department of Public Works. 1914-1918. *Annual Report*. cited in Boyd, N., Kass, T., J. Singh, & V. Sicari. 1994.

⁴⁸ Anon. 29 June 1917. "The Breakwater. Laying the First Stone." *Daily Examiner*. p. 2.; Hedditch, R. 2012. *Coffs Harbour Eastern Breakwater Rail Line Photographic Survey and Archival Recording June 2012*. Prepared for the NSW Department of Crown Lands.; Kramer, J. W. 1985.

The railway was then laid down to the east along the northern side of South Coffs Island to Corambirra Point, and to the west and along the shoreline of Coffs Harbour to connect with the jetty railway and thence to the proposed location of the northern breakwater. Work on opening up the quarry commenced shortly thereafter, utilising steam-driven drilling rigs and explosives to blast a range of blocks from 3 to 30 tonnes in weight, which were then lifted via steam crane onto purpose-built front and side tipping rail wagons for transport to the breakwater construction site. Initial quarrying activities were slow and difficult due to the limited working space available at the quarry face between the base of Corambirra Point and the shoreline, and for several years the volume of rock output was quite low.⁴⁹



Figure 3.21: Timber trestle railway bridge between South Coffs Island and mainland, facing east with Corambirra Point quarry in background— showing Manning Wardle locomotive crossing the bridge, 1918.⁵⁰



Figure 3.22: View of timber trestle railway bridge between South Coffs Island and mainland, facing north-east, ca. late 1915.⁵¹

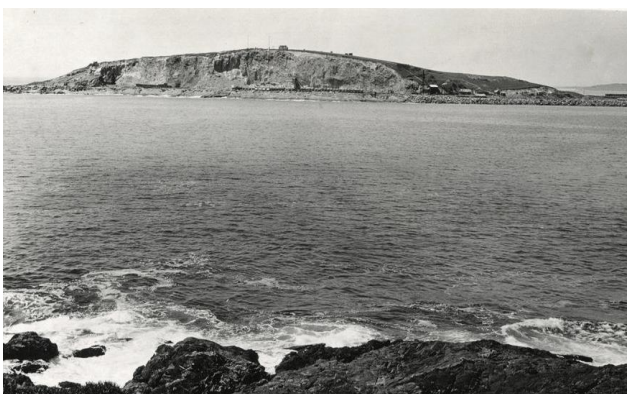


Figure 3.23: Quarry at Corambirra Point on South Coffs Island, facing south from Muttonbird Island, ca. 1929.⁵²



Figure 3.24: Quarrying activities at Corambirra Point, South Coffs Island, 1917.⁵³

⁴⁹ Anon. 3 March 1914. "Coff's Harbour Progress." *Clarence and Richmond Examiner*. p. 3.; Anon. 2 February 1915. "Coff's Harbour." *Clarence and Richmond Examiner*. p. 8.; Anon. 8 January 1916. "The Breakwater." *Coffs Harbour Advocate*. p. 2.; Anon. 29 June 1917. "The Breakwater. Laying the First Stone." *Daily Examiner*. p. 2.; Anon. 2 December 1925. "Building a Breakwater." *Sydney Mail*. p. 3.; Hedditch, R. 2012.; Kramer, J. W. 1985.; Yeates, N. 1990. *Coffs Harbour. Volume 1, Pre-1880 to 1945*. Bananacoast Printers for Coffs Harbour City Council, NSW.

⁵⁰ Anon. 1918. "A Manning Wardle locomotive crosses the viaduct, 1918." *Coffs Collections*, City of Coffs Harbour, Image No. mus07-2120.

⁵¹ Potter, G. R. ca. 1915. "Viaduct to South Coffs Island, c. 1915." *Coffs Collections*, City of Coffs Harbour, Image No. mus07-7628.

⁵² Maston, W. A. J. 1929-1930. "Scarred rock face of South Coffs Island, 1929-1930." *Coffs Collections*, City of Coffs Harbour, Image No. mus07-5699.



Figure 3.25: Rock blasting at South Coffs Island quarry, ca. 1915-1917.⁵⁴

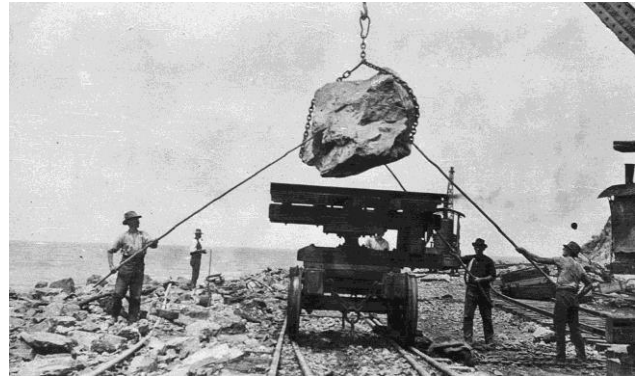


Figure 3.26: Loading rock onto purpose-built rail wagon, South Coffs Island quarry, 1920.⁵⁵

As works progressed, rock and fill from the quarry was used to construct a retaining wall along the south-western shore of Coffs Harbour and reclaim an area of the seabed to the south, thus creating a land bridge between South Coffs Island and the mainland. The timber trestle railway bridge was left in place and eventually completely buried within the reclamation. These works were completed in 1928.⁵⁶



Figure 3.27: View facing west from Corambirra Point, showing the gap between the South Coffs Island and the mainland, prior to the construction of the retaining wall and reclamation, 1917.⁵⁷



Figure 3.28: View facing east towards Corambirra Point from the mainland, showing completed retaining wall and area of reclamation, 1936.⁵⁸

⁵³ Howarth, J. H. 1917. "Quarry at South Coffs Island, June 1917." *Coffs Collections*, City of Coffs Harbour, Image No. mus07-5394.

⁵⁴ Anon. ca. 1915-1917. "Breaking boulders at the South Coffs Quarry." *Coffs Collections*, City of Coffs Harbour, Image No. mus07-4291.

⁵⁵ Anon. 1920. "Loading rock for the Breakwater construction." *Coffs Collections*, City of Coffs Harbour, Image No. mus07-3400.

⁵⁶ Anon. 29 June 1917. "The Breakwater. Laying the First Stone." *Daily Examiner*. p. 2.; Hedditch, R. 2012. *Coffs Harbour Eastern Breakwater Rail Line Photographic Survey and Archival Recording June 2012*. Prepared for the NSW Department of Crown Lands.; Kramer, J. W. 1980.

⁵⁷ Taylor, A. J. 1917. "The gap between South Coffs Island and the mainland, 1917." *Coffs Collections*, City of Coffs Harbour, Image No. mus07-7660.

⁵⁸ Maston, W. A. J. 1936. "Eastern breakwall construction, 1936." *Coffs Collections*, City of Coffs Harbour, Image No. mus07-5822.

Construction of the northern breakwater commenced in 1915. Works were initially undertaken by private contractors Norton Griffiths & Co.; however, in early 1917, the arrangement fell through and construction was taken over by the Department of Public Works. At this stage, the breakwater had been constructed ca. 1,222' (372.5 m) along the line of shallow reef extending out from the mainland – about a third of its proposed length; with the more challenging section of the construction across deeper water still ahead.⁵⁹

In 1921, when the northern breakwater was approximately 2,500' (762 m) long – about two thirds of its proposed length, the outer end was considerably damaged by severe storms. Several sections subsided, washing away five loading wagons and leaving the railway track suspended in mid-air. Approximately 7,000 tonnes of additional rock were required to repair the damage and rebuild the lost breakwater sections.⁶⁰

The northern breakwater finally reached Muttonbird Island in early 1924. Continual maintenance was required as the wall was low enough to be overtopped by storms – indeed, the following year, heavy seas levelled approximately 400' (121.9 m) of the breakwater, necessitating reconstruction. Concrete capping of the crest was subsequently undertaken – this work was carried out in stages until finally completed in mid 1935.⁶¹

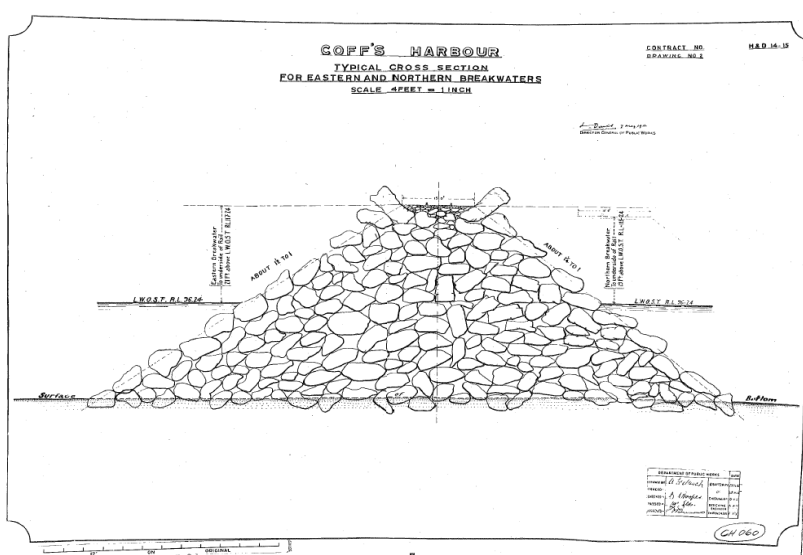


Figure 3.29: NSW Public Works Department plan of typical cross section for northern and eastern breakwaters at Coffs Harbour, 1912.⁶²

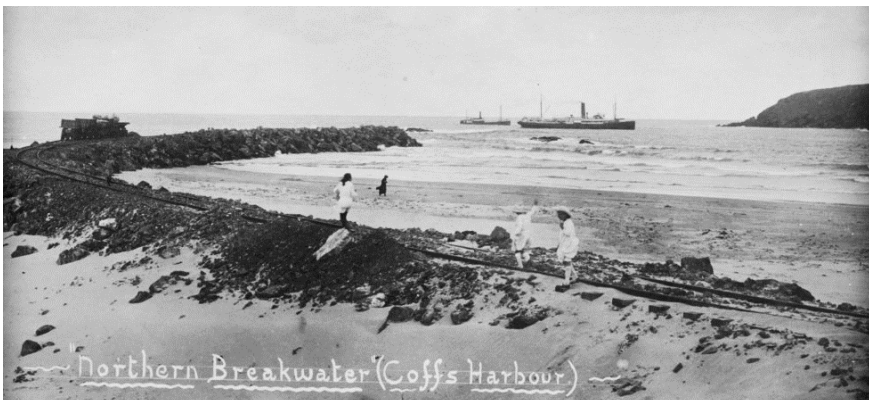


Figure 3.30: Construction of northern breakwater, facing south-east, 1916.⁶³

⁵⁹ Anon. 27 March 1917. "Coffs Harbour Breakwater." *Coffs Harbour Advocate*. p. 2.; Anon. 29 June 1917. "The Breakwater. Laying the First Stone." *Daily Examiner*. p. 2.; Anon. 18 August 2011. "Looking Back." *Coffs Coast Advocate*. p. 3.; Hedditch, R. 2012. *Coffs Harbour Eastern Breakwater Rail Line Photographic Survey and Archival Recording June 2012*. Prepared for the NSW Department of Crown Lands.; NSW Department of Public Works. 1917. *Annual Report*.

⁶⁰ NSW Department of Public Works. 1922. *Annual Report*; Wyllie, S. J., D. B. Lord, I. F. W. Jayewardene, & T. Young. 1998. "Coastal Defence Structures in NSW, Australia." *Coastal Engineering*. pp. 1744-1757.

⁶¹ Anon. 9 April 1924. "Coff's Harbour." *Daily Examiner*. p. 2.; Hedditch, R. 2012.; Wyllie, S. J., D. B. Lord, I. F. W. Jayewardene, & T. Young. 1998.

⁶² NSW Department of Public Works. 1912. *Coff's Harbour – Typical Cross Section for Eastern and Northern Breakwaters*. Contract No. H&D 14-15, Drawing No. 2. Reproduced in Russel, G., I. Jayewardene & N. Patterson. 2013. "Coffs Harbour Eastern Breakwater Remediation – the challenges of restoring existing coastal infrastructure." NSW 31st Coastal Conference papers.

⁶³ Howarth, J.H. 1916. "Northern breakwater under construction, 1916." *Coffs Collections*, City of Coffs Harbour, Image No. mus07-7633.



Figure 3.31: Construction of northern breakwater, view facing south-east from Coffs Creek, ca. 1918.⁶⁴



Figure 3.32: Construction of the northern breakwater, showing series of railway wagons loaded with rocks from South Coffs island quarry, ca. 1917.⁶⁵



Figure 3.33: Construction of the northern breakwater; tipping rock from railway wagon ca. 1917.⁶⁶



Figure 3.34: Northern breakwater joining Muttonbird Island, ca. 1930s.⁶⁷



Figure 3.35: Northern breakwater from Muttonbird Island, ca. 1940s – showing concrete capping.⁶⁸

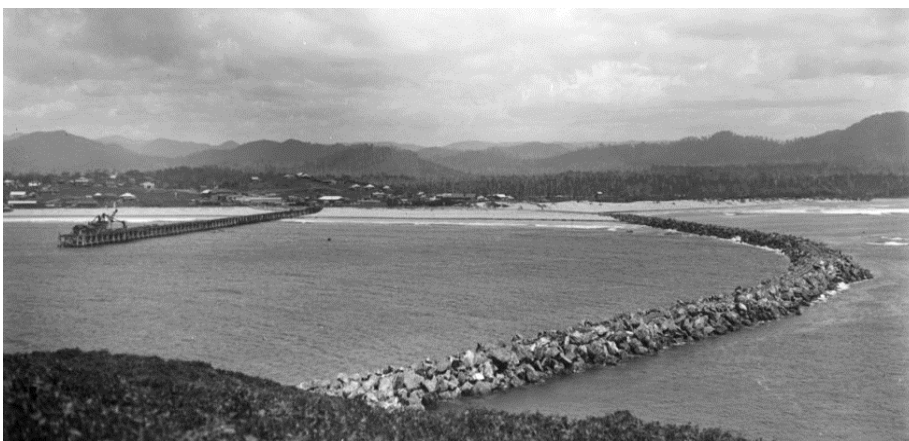


Figure 3.36: Overall view of completed northern breakwater and Coffs Harbour jetty, facing west from Muttonbird Island, 1925.⁶⁹

⁶⁴ Anon. ca. 1918. "Northern breakwater construction viewed from Coffs Creek, c.1918." *Coffs Collections*, City of Coffs Harbour, Image No. mus07-7663.

⁶⁵ Anon. ca. 1917. "Northern breakwater construction, c.1917." *Coffs Collections*, City of Coffs Harbour, Image No. mus07-5299.

⁶⁶ Anon. ca. 1917. "Building the northern breakwater – Coffs Harbour, NSW." Mitchell Library, State Library of NSW, Image No. IE1716454.

⁶⁷ Anon. ca. 1930s. "The northern breakwater joining Muttonbird Island to the mainland, 1930s." *Coffs Collections*, City of Coffs Harbour, Image No. mus07-12703.

⁶⁸ Anon. ca. 1940s. "The Northern Breakwater, c. 1940s." *Coffs Collections*, City of Coffs Harbour, Image No. mus07-6191.

⁶⁹ Jensen, P. 1925. "View of Coffs Jetty from Mutton Bird Island, 25 January 1925." *Coffs Collections*, City of Coffs Harbour, Image No. mus07-7123.



Figure 3.37: ca. mid 1920s aerial photograph of Coffs Harbour, showing completed northern breakwater.⁷⁰

Work on the eastern breakwater began in June 1917 with an official ceremony attended by the Hon. R. T. Ball, Minister for Public Works, to mark the first rock being placed. Active construction of the breakwater, however, was delayed until late 1918. For several years thereafter only small progress was made, and on two occasions – in 1919 and 1920 – sections of the breakwater works were washed away by heavy storms.⁷¹

In 1926, the Coffs Harbour works were inspected by consulting British civil engineer, Sir George Buchanan, as part of a wider examination of Australian ports requested by the Commonwealth Government. Buchanan reported several concerns with the design of the Coffs Harbour works; most notably, he argued that the scheme would not provide sufficient shelter for shipping as the size of the entrance between the northern and eastern breakwaters still left the harbour too exposed to east / north-east and east / south-east storms, and that the quarry could not provide rocks of adequate size or weight for the breakwaters to withstand heavy seas. In order to address these issues, Buchanan recommended that the eastern breakwater be reconstructed on a different alignment curving more to the east and substantially extended to a total length of 2,300' (701 m), thus creating a much smaller harbour entrance, that 40 tonne concrete blocks be added to the breakwater as armour, and that a toe of 100 tonne concrete blocks be constructed on the seaward face. Following further storms and substantial damage to the eastern breakwater in 1926, some of Buchanan's recommendations were partially taken up. The length of the eastern breakwater was extended an additional 330' (100.6 m), to a total of 1,530' (466.3 m), however, it was continued on the original alignment; and 40 tonne concrete block armour was added, however, a seaward toe of 100 tonne blocks was not installed.⁷²

Setbacks and delays due to adverse weather continued to be experienced on the eastern breakwater throughout the 1930s – the worst occurring in 1937 when severe storms demolished approximately 110' (33.5 m) of the wall. The main construction of the eastern breakwater was finally completed in late 1939, and concrete capping of the crest was undertaken in stages until finished in early 1943.⁷³

⁷⁰ Fairfax Corporation. ca. mid 1920s. *Aerial view of Coffs Harbour, New South Wales, ca. 1920s*. National Library of Australia, Image No. 163034477.

⁷¹ Anon. 29 June 1917. "The Breakwater. Laying the First Stone." *Daily Examiner*. p. 2.; Hedditch, R. 2012. *Coffs Harbour Eastern Breakwater Rail Line Photographic Survey and Archival Recording June 2012*. Prepared for the NSW Department of Crown Lands.; NSW Department of Public Works. 1922. *Annual Report*.; Wyllie, S. J., D. B. Lord, I. F. W. Jayewardene, & T. Young. 1998. "Coastal Defence Structures in NSW, Australia." *Coastal Engineering*. pp. 1744-1757.; Yeates, N. 1990.

⁷² Buchanan, G. C. 1926. *Report on the ports of north and north-western Australia, 30th April 1926*. Government Printer for the Government of the Commonwealth of Australia, Melbourne, VIC.; Hedditch, R. 2012.; Wyllie, S. J., D. B. Lord, I. F. W. Jayewardene, & T. Young. 1998.

⁷³ Anon. 26 February 1937. "Trail of Destruction. Cyclone on N.S.W. Coast." *The Albury Banner and Wodonga Express*. p. 6.; Hedditch, R. 2012.; NSW Department of Public Works. 1943. *Annual Report*.; Wyllie, S. J., D. B. Lord, I. F. W. Jayewardene, & T. Young. 1998.

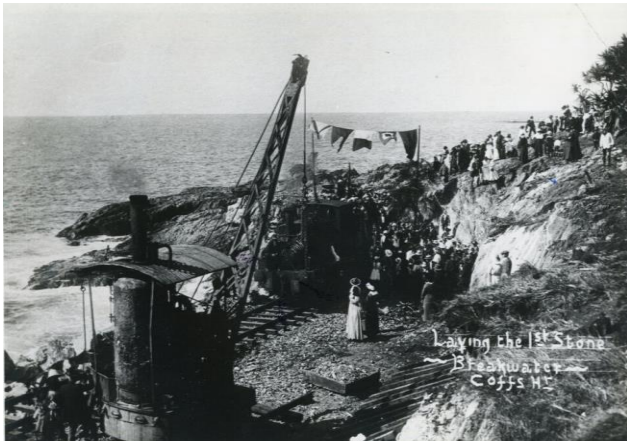


Figure 3.38: Official ceremony for the commencement of works on the eastern breakwater, 28 June 1917.⁷⁴



Figure 3.39: Official ceremony at the eastern breakwater –Minister Ball tipping the first rock, 28 June 1917.⁷⁵



Figure 3.40: 40 tonne concrete block being placed at eastern breakwater, early 1930s.⁷⁶



Figure 3.41: View towards end of the eastern breakwater, showing rock and concrete block placement, early 1930s.⁷⁷



Figure 3.42: Waves breaking over base of eastern breakwater during storm, ca. 1940s.⁷⁸



Figure 3.43: Waves breaking over end of eastern breakwater during storm, ca. 1940s.⁷⁹

⁷⁴ Anon. 1917. "Laying of the first stone for the southern breakwall, 28 June 1917." *Coffs Collections*, City of Coffs Harbour, Image No. mus07-4893.

⁷⁵ Howarth, H. 1917. "Tipping of the first stone in the eastern breakwall construction, 28 June 1917." *Coffs Collections*, City of Coffs Harbour, Image No. mus07-5395.

⁷⁶ Anon. ca. 1930s. "Lumping 40 ton block, south breakwater." State Archives & Records Authority of NSW, Image No. IE1735175.

⁷⁷ Maston, W. A. J. 1936. "At the end of the eastern breakwall, 1936." *Coffs Collections*, City of Coffs Harbour, Image No. mus07-5833.

⁷⁸ Anon. ca. 1940. "Eastern breakwater after a storm, c.1940." *Coffs Collections*, City of Coffs Harbour, Image No. mus07-7648.

⁷⁹ Anon. 1945. "Storm at the Eastern Breakwall with waves covering railway tracks, 12 June 1945." *Coffs Collections*, City of Coffs Harbour, Image No. mus07-6027.



Figure 3.44: View of completed eastern breakwater, facing south-east from mainland, ca. 1940.⁸⁰



Figure 3.45: 1946 aerial photograph showing completed eastern breakwater.⁸¹



Figure 3.46: 1934 hydrographic chart of Coffs Harbour⁸² – showing completed northern breakwater, partially completed eastern breakwater, quarry on South Coffs Island, and retaining wall and reclamation connecting South Coffs Island to the mainland; also expanded Coffs Harbour jetty and three mooring barrel buoys. Maritime archaeological assessment study area outlined in red.

⁸⁰ McLeod & Sanders. ca. 1940. "Quarry and southern breakwater – Coffs Harbour." *Coffs Collections*, City of Coffs Harbour, Image No. mus07-10020.

⁸¹ Anon. 1946. "Aerial view of the Harbour with both breakwalls and the jetty." *Coffs Collections*, City of Coffs Harbour, Image No. mus07-2309.

⁸² Great Britain Hydrographic Office. 1934. *Coffs Harbour. Australia – East Coast Plans in New South Wales*. ("From surveys by the Department of Public Works, NSW to 1934 and a survey by Commr Howard R.N and Lieut. Francis R.N 1890.") State Library of Victoria, MAPS 100 AJ 1795-(1379).

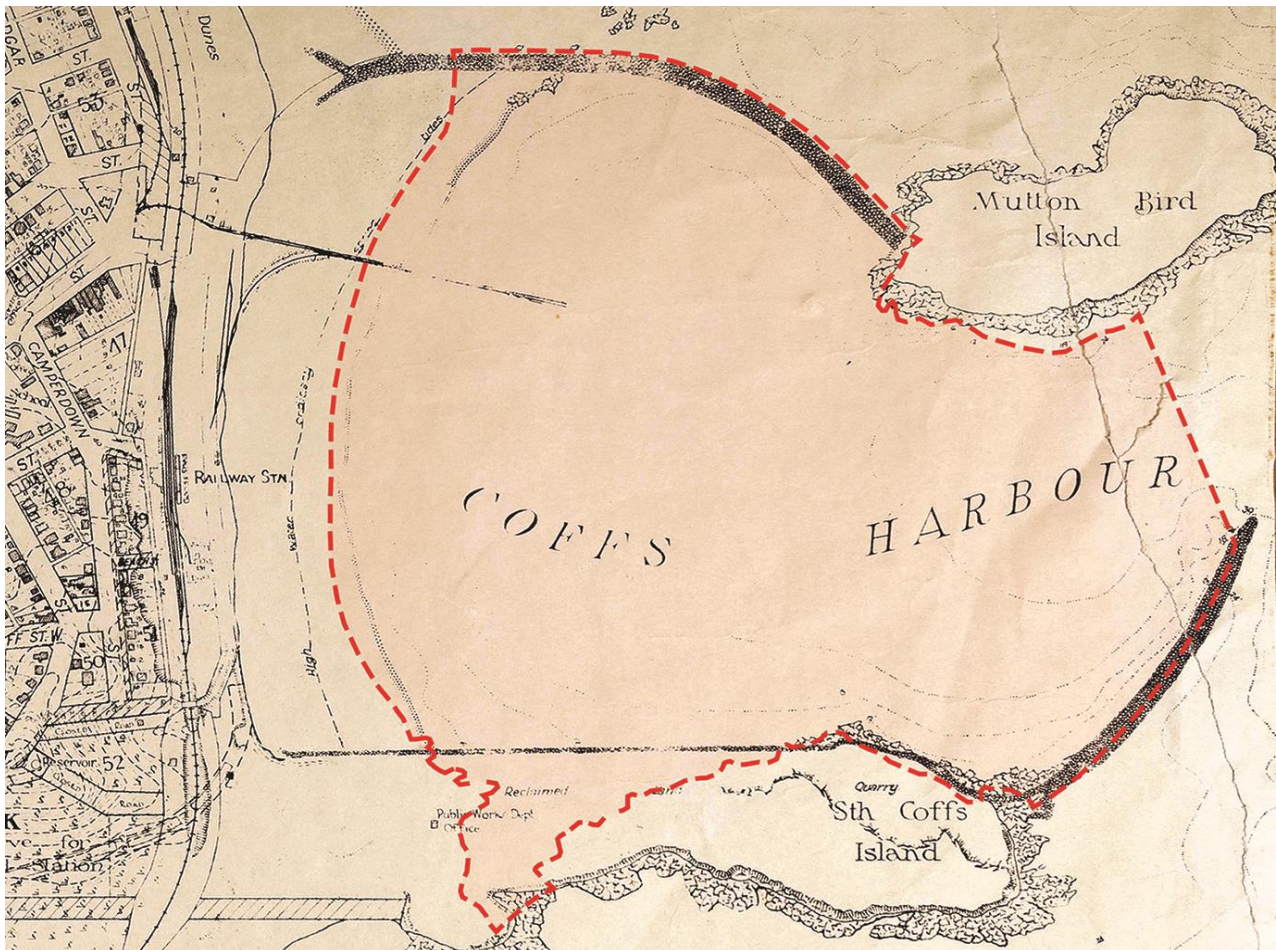


Figure 3.47: 1951 plan of Coffs Harbour – showing detail of completed northern breakwater, eastern breakwater, and retaining wall between South Coffs Island and mainland.⁸³ Maritime archaeological assessment study area outlined in red.

3.1.5 Lengthening & widening of Coffs Harbour jetty – 1940s-1950s

Cargo handling and shipment via the Coffs Harbour jetty increased to reach a peak throughout the 1920s to 1930s. Timber traffic in particular expanded drastically, catering for growing overseas markets for piles and cut lengths. By the late 1930s, between 9,000,000 to 12,000,000 feet of timber was loaded and shipped from Coffs Harbour jetty each year, and Coffs Harbour had become the largest timber export port in Australia.⁸⁴

Once again, significant delays and difficulties were being experienced in shipping trade and traffic due to heavy traffic and limitations of the jetty. Cargo loading was often congested and dangerous when two vessels were alongside the jetty at the same time, and the restricted working room and only two sets of rails at the jetty head often necessitated repeated timber handling and constant shunting back and forth.⁸⁵

In early 1940, R. S. Vincent, MLA, made representations to the NSW Minister of Works on behalf of the Coffs Harbour Chamber of Commerce regarding the increasing restrictions in transit of cargo at Coffs Harbour jetty and the urgent need to improve shipping facilities. The Minister took the matter into consideration and throughout 1940-1941, the Department of Public Works carried out survey and design work with a view to extending the jetty and increasing the rail tracks and cargo loading capabilities.⁸⁶

⁸³ NSW Department of Local Government, Town & Country Planning Branch. 1951. *Coffs Harbour and Environs*. *Coffs Collections*, City of Coffs Harbour, Image No. 12.368.

⁸⁴ Anon. 23 February 1940. "Harbour Works. The Ministerial View. Substantially Finished." *Coffs Harbour Advocate*. p. 1.; Kramer, J. W. 1985.; Watts, G. 2021.

⁸⁵ Anon. 9 February 1940. "Harbour Works. Widening of Jetty." *Coffs Harbour Advocate*. p. 4.; Anon. 23 February 1940.; NSW Department of Public Works. 1941. *Annual Report*. Cited in Boyd, N., Kass, T., J. Singh, & V. Sicari. 1994.

⁸⁶ Anon. 9 February 1940. "Harbour Works. Widening of Jetty." *Coffs Harbour Advocate*. p. 4.; NSW Department of Public Works. *Annual Report*. 1941-1942. Cited in Boyd, N., Kass, T., J. Singh, & V. Sicari. 1994.

In 1943, the proposed design for improvements and upgrades to Coffs Harbour jetty was finalised and approved. The final design included the construction of a 300' (91.4 m) long seaward extension of the jetty that widened out from 41.6' (12.6 m) to 51' (15.5 m) for 255' (77.7 m) of the outermost length, the provision of two additional vessel berths, replacement of the two existing cargo loading steam cranes with a two new diesel electric cranes – one of which would be a mobile 6 tonne capacity Stothert and Pitt crane, and associated strengthening of the jetty head to accommodate the additional weight of the larger cranes. Overall, these works would allow four vessels to be moored at the jetty and loaded simultaneously. The upgrades also included construction of an earthen ramp at the jetty base and approach, erection of a large timber storage depot extending both north and south from the jetty base, and widening of the jetty base to allow construction of a rail loopline to the new timber depot.⁸⁷

Work on the jetty improvements commenced in 1944 with the construction of the seaward extension (see Figures 3.49-3.52) – with the main structure completed in 1946. In 1947-1949, the two steam cranes were removed, sections of the jetty head were strengthened with additional piles and girders, the jetty railway extended to provide three sets of tracks at the seaward end, and the two new travelling diesel electric cranes – that were able to traverse up to 250' (76.2 m) along the length of the jetty – were installed. Other additions to the jetty during these works included the construction of high and low water landing stages for small craft – particularly designed to cater for the Coffs Harbour commercial fishing fleet.⁸⁸

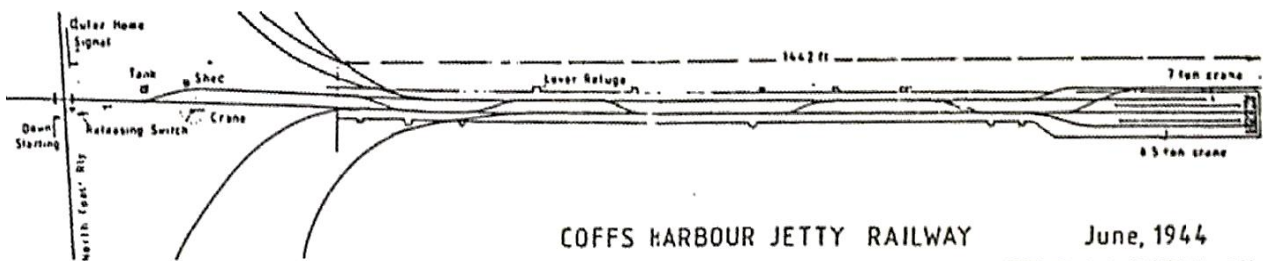


Figure 3.48: 1944 plan of Coffs Harbour jetty – showing jetty structure and railway configuration immediately prior to the 1944-1946 extensions and upgrades.⁸⁹



Figure 3.49: Construction of Coffs Harbour jetty extension, 1945 – showing timber pile being hoisted into position in pile driving rig.⁹⁰



Figure 3.50: Construction of Coffs Harbour jetty extension, 1945 – showing timber pile being driven.⁹¹

⁸⁷ Anon. 13 April 1948. "Big Development in Coffs Shipping." *Coffs Harbour Advocate*. p. 1.; Anon. 2 June 1950. "Coffs Harbour Improvements." *Coffs Harbour Advocate*. p. 1.; Kramer, J. W. 1985; NSW Department of Public Works. *Annual Report*. 1942-1944. Cited in Boyd, N., Kass, T., J. Singh, & V. Sicari. 1994.

⁸⁸ Anon. 11 March 1948. "Works in Hand at Coffs Port." *Coffs Harbour Advocate*. p. 1.; Anon. 13 April 1948. "Big Development in Coffs Shipping." *Coffs Harbour Advocate*. p. 1.; Kramer, J. W. 1985; NSW Department of Public Works. *Annual Report*. 1945-1949. Cited in Boyd, N., Kass, T., J. Singh, & V. Sicari. 1994.

⁸⁹ NSW Department of Public Works. June 1944. "Coffs Harbour Jetty Railway." Reproduced in Boyd, N., Kass, T., J. Singh, & V. Sicari. 1994.

⁹⁰ Brown, A. G. 1945. "Coffs Harbour jetty extensions – pile being lifted into position." *Coffs Collections*, City of Coffs Harbour, Image No. mus07-2392.

⁹¹ Brown, A. G. 1945. "Jetty extensions, 1945 – taken from boat looking to shore." *Coffs Collections*, City of Coffs Harbour, Image No. mus07-2360.



Figure 3.51: Construction of Coffs Harbour jetty extension, 1945 – showing close up of pile rig.⁹²



Figure 3.52: Construction of Coffs Harbour jetty extension, 1945 – showing timber girders being positioned.⁹³

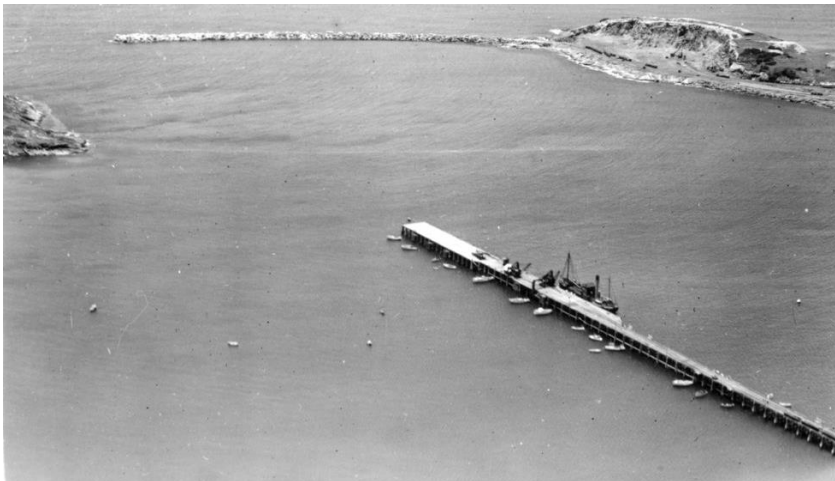


Figure 3.53: ca. 1946 aerial photograph of Coffs Harbour – showing the jetty extension, prior to the completion of additional rail lines and replacement of the steam cranes.⁹⁴

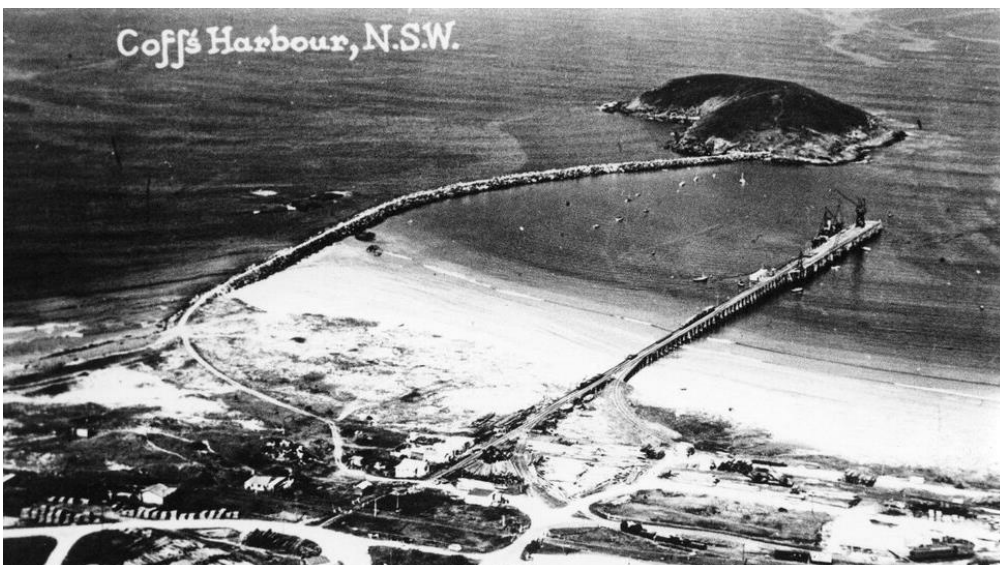


Figure 3.54: 1949 aerial photograph of Coffs Harbour – showing the completed jetty extension with Stothert and Pitt travelling crane installed at the jetty head.⁹⁵

⁹² Brown, A. G. 1945. "Coffs Harbour Jetty, a close up of the pile rig. Work carried out by day labour staff 1945." *Coffs Collections*, City of Coffs Harbour, Image No. mus07-2350.

⁹³ Brown, A. G. 1945. "Jetty extensions, 1945 – timber girders being positioned." *Coffs Collections*, City of Coffs Harbour, Image No. mus07-2358.

⁹⁴ McLeod & Sanders. ca. 1946. "Aerial view of the Jetty and the eastern breakwall, c. 1946." No. mus07-2134.

⁹⁵ Grebert, E. 1949. "Aerial view of the Jetty." *Coffs Collections*, City of Coffs Harbour, Image No. mus07-11276.

By early 1948, plans for further extensions and improvements to cargo storage and loading facilities at Coffs Harbour jetty were already being considered by the Department of Public Works and the Maritime Services Board. Commercial demand for timber had surged with a post World War II building boom across NSW and the re-establishment of overseas trade, and Coffs Harbour jetty was again seeing a considerable increase in shipping traffic. Throughout 1947 to 1948, between 6,000 to 10,000 tonnes of timber were loaded and shipped from Coffs Harbour jetty each month. Public agitation throughout 1948-1949 spurred the development of additional upgrades to the jetty, until design plans were finalised by Department of Public Works engineers in late 1949.⁹⁶

The second phase of extensions to Coffs Harbour jetty comprised widening and strengthening another 385' (117.3 m) section of the jetty to a width of 51' (15.5 m) inshore of the extensions constructed in 1944-1946, thus making a total length of 640' (195 m) at 51' (15.5 m) wide at the seaward end of the jetty; reallocation of rail tracks including three lines along the length of the widened section, and the installation of a second 6 tonne capacity diesel electric travelling crane, similar to the one at the jetty head. The remaining 1,320' (402.3 m) of the landward end of the jetty was maintained at 21' (6.4 m) width.⁹⁷

Construction works commenced in mid 1950 and were finished with the installation of a second Stothert and Pitt crane in mid 1955. Additional works throughout this period included the construction of a new timber storage depot on the northern side of the jetty base, and the relocation and renewal of all jetty moorings – with four vessel moorings installed; two on the north and two on the south of the jetty (see Figure 3.46).⁹⁸

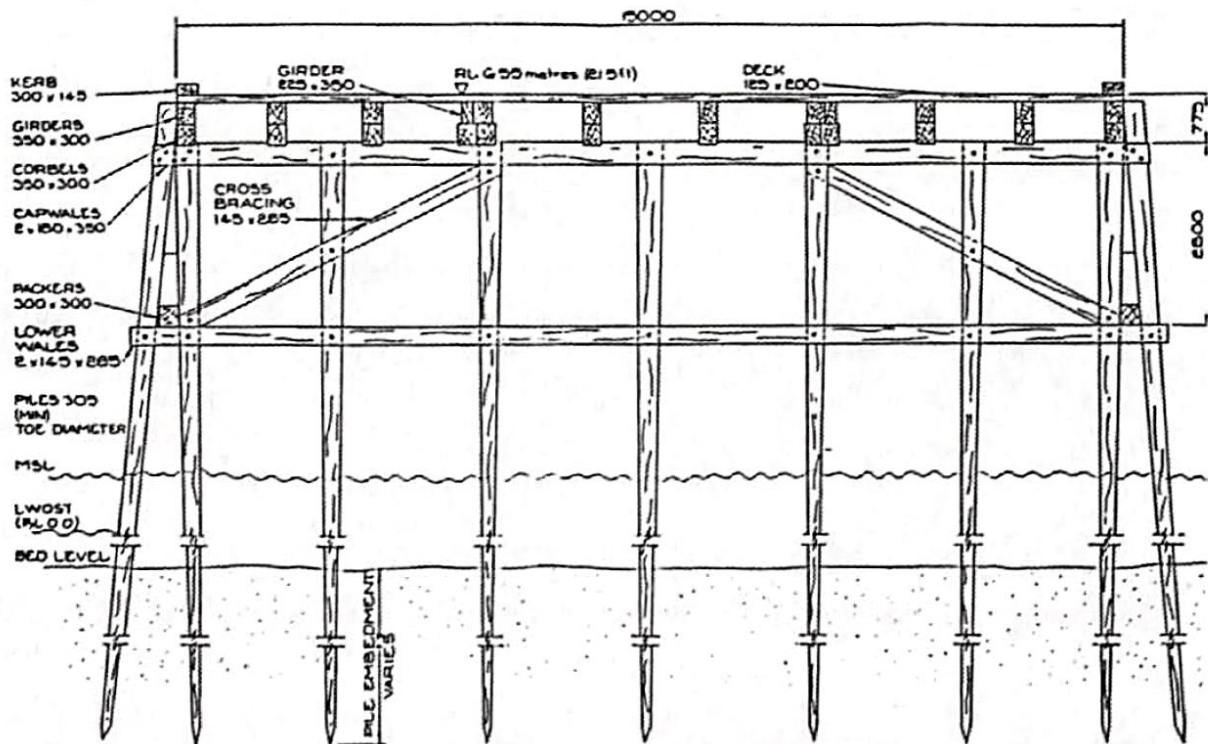


Figure 3.55: Typical cross section of extended and widened seaward section of Coffs Harbour jetty as constructed in 1946 to 1953.⁹⁹

⁹⁶ Anon. 13 April 1948. "Big Development in Coffs Shipping." *Coffs Harbour Advocate*. p. 1.; Anon. 25 March 1949. "Needs at Coffs Port Not Overlooked." *Coffs Harbour Advocate*. p. 3.; Kramer, J. W. 1985.

⁹⁷ Anon. 11 March 1948. "Works in Hand at Coffs Port." *Coffs Harbour Advocate*. p. 1.; Anon. 13 April 1948. "Big Development in Coffs Shipping." *Coffs Harbour Advocate*. p. 1.; Anon. 25 March 1949. "Needs at Coffs Port Not Overlooked." *Coffs Harbour Advocate*. p. 3.; Anon. 2 June 1950. "Coffs Harbour Improvements." *Coffs Harbour Advocate*. p. 1.; NSW Department of Public Works. *Annual Report*. 1950-1955. Cited in Boyd, N., Kass, T., J. Singh, & V. Sicari. 1994.

⁹⁸ Kramer, J. 1985; NSW Department of Public Works. *Annual Report*. 1950-1956. Cited in Boyd, N., Kass, T., J. Singh, & V. Sicari. 1994.

⁹⁹ Illustration 46 in Boyd, N., Kass, T., J. Singh, & V. Sicari. 1994. *Coffs Harbour Jetty Conservation Plan*. Heritage Group, State Projects, NSW Public Works.



Figure 3.56: View of northern side of Coffs Harbour jetty, ca. 1952 – showing widening works in progress with pile driving rig adjacent to steam crane.¹⁰⁰



Figure 3.57: 1972 oblique aerial photograph of Coffs Harbour, showing extended and widened jetty with two Stothert & Pitt cranes.¹⁰¹



Figure 3.58: 1968 aerial photograph of Coffs Harbour showing widened and extended jetty¹⁰²



Figure 3.59: 1957 view of Coffs Harbour jetty – showing detail of widened structure at jetty head.¹⁰³

¹⁰⁰ Hogbin, A. ca. 1952. "Diesel-electric and steam cranes operating at Coffs Harbour Jetty, c.1952." *Coffs Collections*, City of Coffs Harbour, Image No. mus07-11330.

¹⁰¹ Rotar, J. 1972. "An aerial view of a Tiger Moth biplane VH-RIN flying over the Harbour." *Coffs Collections*, City of Coffs Harbour, Image No. mus07-4643.

¹⁰² Jelliffe, R. 1968. "Above the jetty and Jetty Beach, 1968." *Coffs Collections*, City of Coffs Harbour, Image No. mus07-11012.

¹⁰³ Anon. 1957. "Coffs Harbour Jetty and cranes, 1957." *Coffs Collections*, City of Coffs Harbour, Image No. mus07-2322.



Figure 3.60: ca. late 1950s view of southern side of Coffs Harbour jetty – showing widened seaward end, with cargo vessel being loaded by Stothert & Pitt crane.¹⁰⁴



Figure 3.61: 1957 side view of Coffs Harbour jetty – showing strengthened sections for Stothert & Pitt cranes.¹⁰⁵

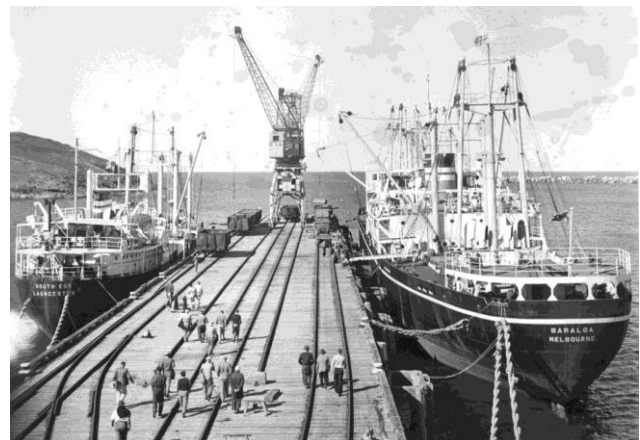


Figure 3.62: Loading MV *South Esk* and MV *Baralga* at Coffs Harbour jetty, ca. 1961.¹⁰⁶

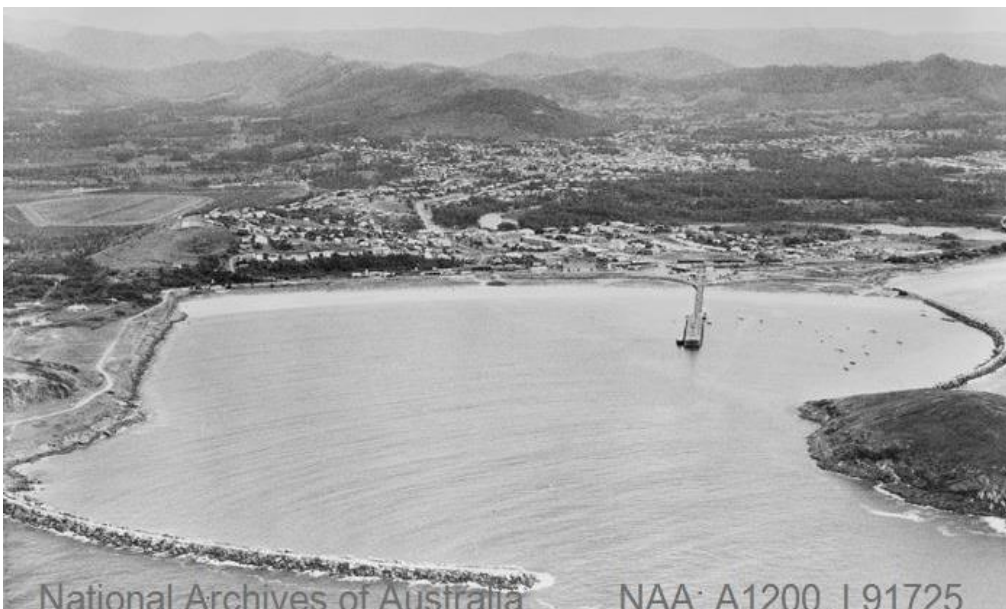


Figure 3.63: 1970 aerial photograph of Coffs Harbour, showing northern and eastern breakwaters, reclamation between South Coffs Island and mainland, and extended and widened jetty.¹⁰⁷

¹⁰⁴ Woods, J. ca. late 1950s. "Timber jetty with ship and train." *Coffs Collections*, City of Coffs Harbour, Image No. CC2020.14.9.

¹⁰⁵ Anon. 1957. "Coffs Harbour Jetty and cranes, 1957." *Coffs Collections*, City of Coffs Harbour, Image No. mus07-2323.

¹⁰⁶ Anon. ca. 1961. "Loading the MV *South Esk* and the MV *Baralga* at Coffs Jetty, c.1961." *Coffs Collections*, City of Coffs Harbour, Image No. mus07-2387.

¹⁰⁷ Anon. 1970. "General view of Coffs Harbour." National Archives of Australia, Series A1200, Control Symbol L91725, Item ID. 11706377.



Figure 3.64: 1965 hydrographic chart of Coffs Harbour¹⁰⁸ – showing extended and widened jetty and relocated moorings; marked with mooring barrel buoys. Maritime archaeological assessment study area outlined in red.

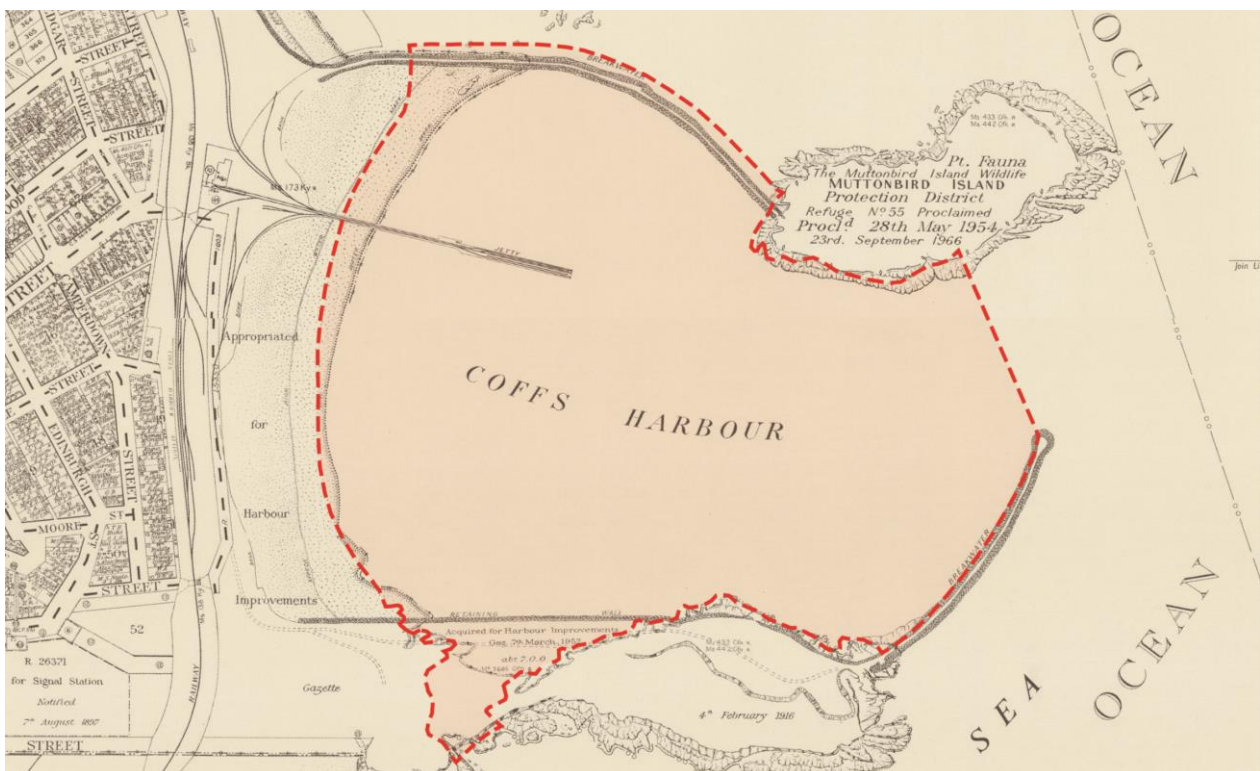


Figure 3.65: 1968 plan of Coffs Harbour¹⁰⁹ – showing detail of lengthened and widened jetty, earthen embankment, and railway links, breakwaters, and southern retaining wall. Maritime archaeological assessment study area outlined in red. (Enlarged detail of jetty shown overleaf).

¹⁰⁸ Great Britain Hydrographic Office. 1965. *Coffs Harbour. Australia – East Coast Plans in New South Wales*. ("From surveys by the Department of Public Works, NSW to 1934 and a survey by Commr Howard R.N and Lieut. Francis R.N 1890; updated 1944 and 1965.") State Library of Victoria, MAPS 100 AJ 1795-(1379).

¹⁰⁹ NSW Department of Lands. 1968. *Town of Coffs Harbour and adjoining lands Parish - Coff Bonville, Counties - Fitzroy Raleigh, Land District - Bellinger, Shire - Coffs Harbour : within Division - Eastern N.S.W., Pastures Protection District – Grafton*. National Library of Australia, MAP G8974.C3G46 1968.



Enlarged of 1968 plan showing detail of Coffs Harbour jetty.

3.1.6 Coffs Harbour boat harbour and boat ramp – 1970s

Commercial and recreational fishing activities gained increasing popularity at Coffs Harbour from the 1950s onwards. However, whilst some accommodation for small vessels were added to Coffs Harbour jetty in the early 1950s, including high and low water landing stages, overall facilities in the harbour were limited. Wave action in the harbour also posed a serious threat to small vessels during stormy weather.

An investigation by the NSW Department of Works in the late 1960s resulted in the decision to build a sheltered inner boat harbour along the southern side of the northern breakwater to cater for the Coffs Harbour commercial fishing fleet. The *Coffs Harbour Boat-Harbour Works Act of 1972* was subsequently passed to authorise the works, with the harbour design comprising:

- Construction of a breakwater ca. 1,230' (374.9 m) long north-west from Mutton Bird Island;
- Construction of a retaining wall ca. 1,550' (472.4 m) long at the north-west corner of Coff's Harbour;
- Dredging of an area of ca. 13 acres from the northern part of Coff's Harbour to form part of the new boat-harbour;
- Reclamation of an area of ca. 5.5 acres at the north-west corner of Coff's Harbour with materials from the dredging works;
- Construction of a breakwater ca. 550' (167.6 m) long south-east from the reclaimed land;
- Construction of a concrete wharf ca. 120' (36.6 m) long and ca. 30' (9.1 m) wide at the eastern extremity of the reclaimed land, and;
- Construction of mooring facilities for fishing vessels within the new boat-harbour.¹¹⁰

Work on the boat harbour commenced in 1972 with construction of the breakwaters, utilising rock from the existing quarry at Corambirra Point on South Coffs Island, with dredging and reclamation works, and installation of piled moorings completed the following year. The boat harbour facilities were expanded in 1978-79, with the construction of a slipway, additional wharfage and moorings; and again in 1982, with the installation of a marina catering to recreational vessels at the eastern end of the boat harbour.¹¹¹

¹¹⁰ Coff's Harbour Boat-Harbour Works Act 1972 – Schedule: Description of Works.

¹¹¹ Kramer, J. W. 1985.; Parliament of New South Wales. 1972. *Report of the Department of Public Works for the Year ended 30 June, 1972*. V. C. N. Blight, Government Printer, NSW.; Parliament of New South Wales. 1980. *Report of the Department of Public Works for the Year ended 30 June, 1980*. V. C. N. Blight, Government Printer, NSW.

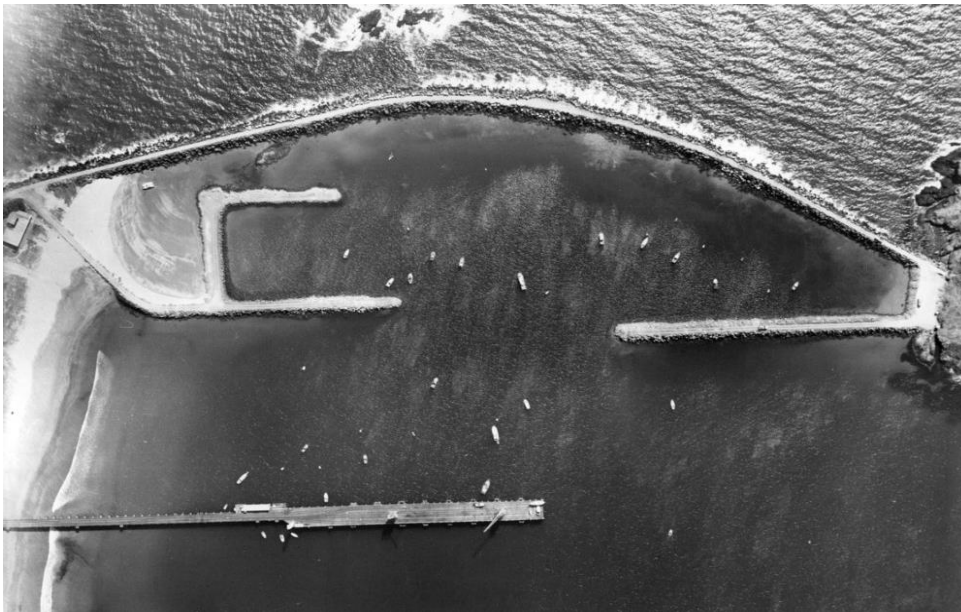


Figure 3.66: 1972 aerial photograph of Coffs Harbour showing boat harbour being constructed.¹¹²



Figure 3.67: 1975 aerial photograph of Coffs Harbour, showing constructed boat harbour.¹¹³

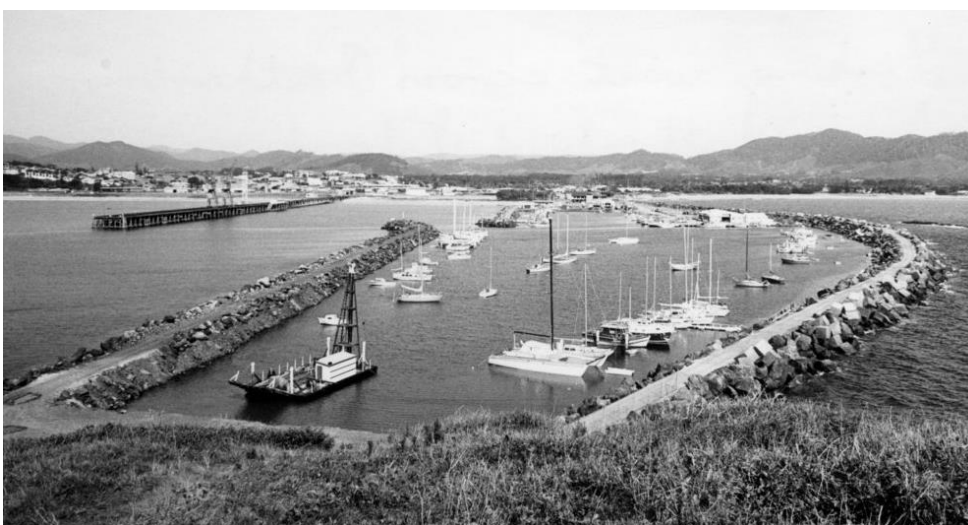


Figure 3.68: View of Coffs Harbour boat harbour, facing west from Muttonbird Island, 1980.¹¹⁴

¹¹² Anon. 1972. "Aerial view of Coffs Harbour jetty and marina." *Coffs Collections*, City of Coffs Harbour, Image No. mus07-2384.

¹¹³ Anon. 1975. "An aerial view of the northern and eastern breakwalls." *Coffs Collections*, City of Coffs Harbour, Image No. mus07-2145.

¹¹⁴ Kramer, J. W. 1980. "Coffs Harbour March 1980, looking west across boat harbour from Muttonbird Island." *Coffs Collections*, City of Coffs Harbour, Image No. mus07-2097.

The Coffs Harbour boat harbour was designed primarily to provide for commercial fishing vessels, and local agitation was steadily growing at the lack of adequate facilities for recreational fishers. In early 1973, Coffs Harbour Shire Council approached the NSW Department of Local Government for a grant towards the cost of building a proposed boat ramp on the southern side of Coffs Harbour – to no avail. Over the following two years, funding was eventually raised via a combination of a public fundraising committee and Council loans. Construction of the boat ramp was undertaken in 1975-1978, and involved the excavation of an area of the reclaimed land between South Coffs Island and the mainland to create a small sheltered basin, installation of a concrete ramp and single pontoon within the basin, and construction of a small protective armour rock breakwater extending north-west.¹¹⁵

The boat ramp basin was extended in 2015 to reduce wave impact experienced during swells, and substantial upgrades were undertaken in 2021-2022, including extension of the existing breakwater by 75 m, widening of the boat ramp, extension of existing pontoon and installation of two additional pontoons, and dredging of the boat basin and entrance channel as part of an ongoing maintenance program.¹¹⁶

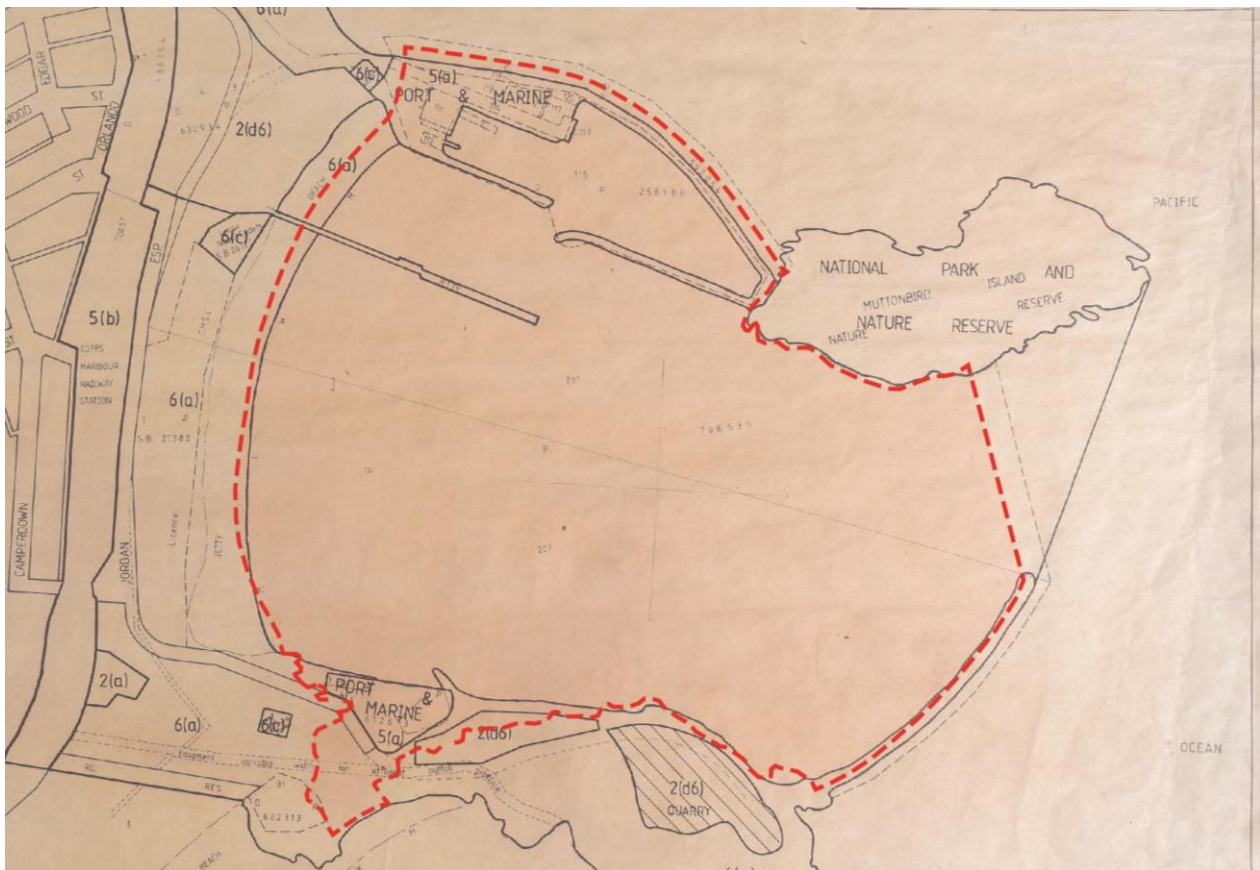


Figure 3.69: 1985 plan of Coffs Harbour¹¹⁷ – showing outline of Coffs Harbour boat harbour adjacent to northern breakwater and boat ramp allotment on the southern side of the harbour. Maritime archaeological assessment study area outlined in red.

¹¹⁵ Anon. 18 January 1973. "Council is Looking at Boat Ramps." *Sawtell Guardian*. p. 1.; Anon. 8 August 1974. "Association Seeks Action on Boat Ramp." *The Bananacoast Opinion*. p. 3.; Anon. 28 May 1975. "\$6000 raised for boat ramp." *The Bananacoast Opinion*. p. 1.; Anon. 17 November 1976. "New Facilities at Boat Ramp." *The Bananacoast Opinion*. p. 13.

¹¹⁶ Proctor, L. 2020. *Proposed Upgrade of Coffs Harbour Regional Boat Ramp Stages 1 and 2 Review of Environmental Factors*. Prepared by Blue Sky Planning and Environment on behalf of Transport for NSW.; Transport for NSW. 2024. "Coffs Harbour Regional Boat Ramp." <https://www.transport.nsw.gov.au/projects/current-projects/coffs-harbour-regional-boat-ramp>

¹¹⁷ City of Coffs Harbour. 1985. *Coffs Harbour Jetty Environmental Plan, October 1985*. Plan No. 38. *Coffs Collections*, City of Coffs Harbour, Image No. 12.1082.



Figure 3.70: ca. 1990 aerial photograph of Coffs Harbour showing boat harbour and boat ramp basin.¹¹⁸

3.1.7 Decommissioning & partial demolition of Coffs Harbour Jetty 1970s-1990s

During the early 1950s, whilst the second phase widening and strengthening of the jetty were being completed, the Coffs Harbour shipping trade experienced a short-lived revival. The highest ever trading figures for Coffs Harbour were reached in 1951-1952 when large quantities of timber were shipped and a substantial amount of general cargo entered the port, whilst 1952-1953 was the busiest commercial year Coffs Harbour had seen since the 1930s. In 1954, however, the North Coast Steam Navigation Company – the mainstay of shipping to and from Coffs Harbour since the construction of the jetty and representing around 65% of shipping traffic at Coffs Harbour during the early 1950s – went into voluntary liquidation due to rising costs and unfavourable industrial conditions, and intrastate shipping at Coffs Harbour virtually ceased. International vessels continued to call at Coffs Harbour throughout the late 1950s and 1960s, however, with the increasing growth of rail, road, and air transport, shipping operations at Coffs Harbour began a steady decline. The annual number of vessels using Coffs Harbour reduced to twenty-six in 1960; and diminished even further to seven by 1970.¹¹⁹

Regular maintenance of Coffs Harbour jetty was undertaken throughout the mid to late 1950s – including the reconstruction of timber fenders on both sides of the jetty and replacement of sixty deteriorated timber piles. However, as shipping numbers drastically declined throughout the 1960s, maintenance and upkeep of the jetty structure and cargo loading equipment was correspondingly reduced.¹²⁰

The last regular commercial shipping to Coffs Harbour ended in 1973, with the final visit by Union Bulk Ships Pty Ltd vessel *Abel Tasman* carrying a load of timber and general cargo in mid 1973. By 1975, commercial shipping had almost ceased altogether, save for one last visit by *Lorrana* in mid 1979 to collect general cargo bound for Lord Howe Island.¹²¹

Only minimal and irregular maintenance was carried out at Coffs Harbour jetty throughout the 1970s, and it began to fall into a state of disrepair. Inspections carried out by the Department of

¹¹⁸ Anon. ca. 1990. "Coffs Harbour." *Coffs Collections*, City of Coffs Harbour, Image No. M2021.30.1.

¹¹⁹ Kramer, J. W. 1985.; Sadler, B. 1984.; Watts, G. 2021.

¹²⁰ Kramer, J. W. 1985.

¹²¹ Davey, M. 2018.; Kramer, J. W. 1985.; Watts, G. 2021.

Public Works and the Marine Services Board from 1975 to 1977 found the condition of the timber structure was too poor to support regular shipping or cargo handling, and the two Stothert and Pitt cranes had become unsafe to operate. Another inspection by the Marine Services Board in 1981 found that the two cranes were unstable and presented a danger to the public. Both cranes, their accompanying railway track, and associated equipment, were subsequently dismantled and removed in 1983-1984.¹²²

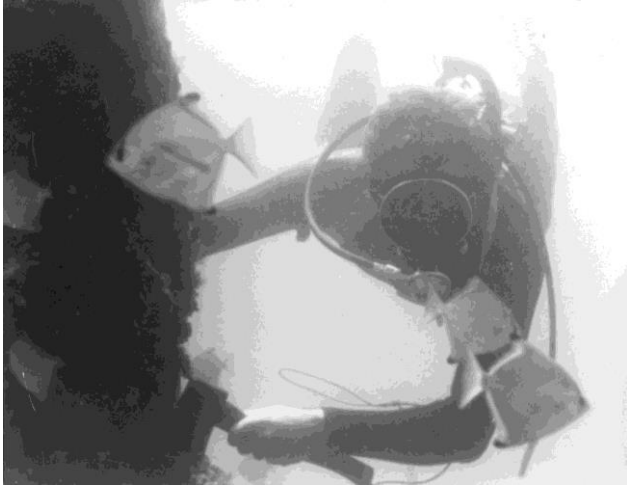


Figure 3.71: Department of Public Works dive inspections of Coffs Harbour jetty piles, 1975 – clearing marine growth to observe pile condition.¹²³



Figure 3.72: Department of Public Works dive inspections of Coffs Harbour jetty piles, 1975 – broken pile suspended above seabed, showing evidence of extreme marine borer damage.¹²⁴



Figure 3.73: Stothert & Pitt cranes on Coffs Harbour jetty being disassembled, 1984.¹²⁵



Figure 3.74: Sections of Stothert & Pitt cranes and machinery being removed from Coffs Harbour jetty.¹²⁶

In 1990, the Coffs Harbour jetty as a whole was deemed unsafe due to its deteriorating condition and was closed to the public. Whilst partial or complete demolition of the jetty was considered, a spirited campaign and fundraising effort by local Coffs Harbour historians and stakeholders sought to save it. The NSW Government subsequently made the decision to restore and conserve the jetty as a tourist attraction and recreational asset. Several refurbishment options were considered, ranging from retention of the whole jetty structure to reinstallation of the original 1892 configuration – however, it was ultimately decided to demolish the seaward end of the jetty

¹²² Davey, M. 2018.; Kramer, J. W. 1985.; Sadler, B. 1984.

¹²³ Anon. 1975. "Underwater inspection of Coffs Harbour Jetty, 1975." *Coffs Collections*, City of Coffs Harbour, Image No. mus07-2317.

¹²⁴ Anon. 1975. "Underwater inspection of Coffs Harbour Jetty, 1975." *Coffs Collections*, City of Coffs Harbour, Image No. mus07-2320.

¹²⁵ Anon. 1984. "Jetty cranes being disassembled, 13 April 1984." *Coffs Collections*, City of Coffs Harbour, Image No. mus07-7782.

¹²⁶ Anon. 1984. "A Lindsay Bros North Coast Crane being used to remove one of the cranes from the end of the jetty." *Coffs Collections*, City of Coffs Harbour, Image No. CC2022.8.1.

representing the 91.4 m long extension constructed in 1944-1946, and retain the original 1892 length, complete with the 1912-1914 widening and sections of the 1950-1955 widening.

Demolition and restoration works commenced in March 1996 and were finished with a re-opening ceremony and festivities on 11 October 1997.



Figure 3.75: Inspection of the Coffs Harbour jetty as part of partial demolition and refurbishment works, 1996.¹²⁷



Figure 3.76: Coffs Harbour jetty partial demolition and refurbishment works, 1996.¹²⁸

3.2 Shipwrecks

3.2.1 *Carry Well* (1866)

The wooden schooner *Carry Well* was wrecked at Coffs Harbour on 12 July 1866; however, the location of the wreck site is not known. The *Carry Well* wreck is listed in the NSW Maritime Heritage Database (ID 1916)¹²⁹ and the AUCHD (ID No. 316),¹³⁰ and is automatically protected under the UCH Act 2018.

Carry Well was built in Melbourne in 1850, and measured 25.3 m (83') long, 6.2 m (20.34') wide, 2 m (6.56') draught, 74 gross tonnage, and 7 net tonnage. On 11 July 1866, *Carry Well* was lying at anchor in Coffs Harbour, loading a cargo of timber, when it was caught in a heavy gale. The captain managed to hold the anchors until midday the following day, when *Carry Well* began to drag onto a series of rocks close to shore – at which point the Captain determined it necessary to slip the moorings and beach the vessel. Most of the cargo and rigging were subsequently recovered, however, the *Carry Well* was deemed a complete wreck.¹³¹

¹²⁷ Anon. 1996. "Inspecting the jetty before refurbishment, 14 October 1996." *Coffs Collections*, City of Coffs Harbour, Image No. mus07-6883.

¹²⁸ Anon. 1996. "Jetty upgrade, 1990s." *Coffs Collections*, City of Coffs Harbour, Image No. mus07-10072.

¹²⁹ Heritage NSW. Maritime Heritage Database. *Carry Well*. Site ID: 1813.

¹³⁰ <https://apps.environment.nsw.gov.au/dpcmaritimeheritageapp/ViewSiteDetail.aspx?siteid=1916>.

¹³¹ DCCEEW. AUCHD. *Carry Well*. Shipwreck ID No. 316. <http://www.environment.gov.au/shipwreck/public/wreck/wreck.do?key=316>

¹³¹ Anon. 24 July 1866. "Wrecks." *The Sydney Morning Herald*. p. 4.; Anon. 28 July 1866. "Wreck of the Schooner Carrywell." *The Age*. p. 4.; Anon. 3 November 1866. "Parliamentary Paper. Vessels Wrecked on the Coast." *Empire*. p. 3.; Rose, L. 2017. *Local Shipwrecks; Wrecks in the Solitary Islands Marine Park 1843-1933*. Coffs Harbour Regional Museum Publication, NSW.

3.2.2 *Belmore* (1893)

The wooden paddle steamer *Belmore* was wrecked in Coffs Harbour in early 1893; however, the location of the wreck site is not known. The *Belmore* wreck is listed in the NSW Maritime Heritage Database (ID 1813)¹³² and the AUCHD (ID No. 201),¹³³ and is automatically protected under the UCH Act 2018.

Belmore was a timber paddle steamer measuring 30.99 m (101.57') long, 4.754 m (15.6') wide, 1.859 m (6.1') draft, 66 gross tonnage, 42 net tonnage, with a single cylinder 30 hp engine. *Belmore* was built in 1876 by Stuart & Ferguson, Macleay River, NSW, and owned by the Clarence, Richmond & Macleay Rivers Steam Navigation Company.

On 21 January 1893, *Belmore* was at anchor in Coffs Harbour, having stopped en route from Sydney to the Bellinger River, when a heavy easterly gale came up and drove *Belmore* ashore from its moorings. The crew and passengers were safely landed, however, *Belmore* suffered substantial damage. Over the following few weeks, efforts were made to repair and refloat *Belmore*, and by early March, the paddle steamer had been moved down close to the waters edge and was ready to relaunch. On 9 March 1893, however, another heavy storm hit Coffs Harbour and wrecked *Belmore* once again, leaving the paddle steamer filled with water and partially buried in over a metre of sand. Attempts to refloat the *Belmore* a second time proved unsuccessful, and the paddle steamer was ultimately written off as a complete wreck, with only the engine and boiler recovered.¹³⁴

3.2.3 *Wanderer* (1929)

The wooden fishing yawl *Wanderer* was wrecked on the “south-western wall” in Coffs Harbour on 4 April 1929; however, the specific location of the wreck site is not known. The *Wanderer* wreck is listed in the NSW Maritime Heritage Database (ID 2025)¹³⁵ and the AUCHD (ID No. 192),¹³⁶ and is automatically protected under the UCH Act 2018.

Wanderer was built in 1928 by Roderick & Griffiths, Drummoyne, NSW, measured 16.97 m (55.68') long, 4.51 m (14.8') wide, 2.53 m (8.3' draft), and 15 gross tonnage, and had a diesel 100 hp auxiliary engine. *Wanderer* was owned by Mr. J. F. Jackson, Camperdown, Sydney, and was being leased by H. W. Shaw for north coast schnapper fishing based of out with Coffs Harbour.

Late on 3 April 1929, *Wanderer*, with skipper Shaw and five crew on board, returned to Coffs Harbour from a fishing trip, owing to strong north-easterly wind, and anchored at the vessel's permanent mooring near the northern breakwater. Early the following morning, the wind reached gale force strength and *Wanderer* broke from its mooring and was swept, dragging its anchors, south across the harbour. Shaw tried to start the engine, however, as soon as the propeller engaged, the *Wanderer* struck hard against the southern breakwater / south-western retaining wall between South Coff Island and the mainland. A large hole was torn in the port side hull and *Wanderer* was pushed up broadside onto the rocks, continuously battered by the heavy seas. One crew member, Henry John Whear, was swept from the deck and subsequently drowned. Shaw and the other four crew managed to hold onto the rigging until they were able to climb onto the rocks and make their way to shore. Officers of the Navigation Department inspected the wreck on 5 April 1929 in an unsuccessful effort to locate Whear's body. *Wanderer* was observed to be badly broken up with the engine lying separate from the hull. No attempts were made to

¹³² Department of Climate Change, Energy, the Environment and Water (DCCEEW). Australasian Underwater Cultural Heritage Database (AUCHD). *Belmore*. Shipwreck ID No. 201. <http://www.environment.gov.au/shipwreck/public/wreck/wreck.do?key=201>

¹³³ Heritage NSW. Maritime Heritage Database. *Belmore*. Site ID: 1813.

<https://apps.environment.nsw.gov.au/dpcmaritimeheritageapp/ViewSiteDetail.aspx?siteid=1813#database>

¹³⁴ NSW Treasury. 16 January 1894. “Register of Wrecks.” *New South Wales Government Gazette*. Issue No. 35.; Anon. 25 January 1893.

“Intercolonial Telegrams. New South Wales.” *Western Star and Roma Advertiser*. p. 2.; Anon. 14 March 1893. “Latest Telegraphic.” *Clarence and Richmond Examiner*. p. 5.; Anon. 28 March 1893. “Coffs Harbour.” *Clarence and Richmond Examiner*. p. 4.; Anon. 1 April 1893. “The Wreck of the *Belmore*.” *The Sydney Morning Herald*. p. 8.; Rose, L. 2017.

¹³⁵ DCCEEW. Australasian Underwater Cultural Heritage Database (AUCHD). *Wanderer*. Shipwreck ID No. 2025.

<https://www.environment.gov.au/shipwreck/public/wreck/wreck.do?key=2025>

¹³⁶ Heritage NSW. Maritime Heritage Database. *Wanderer*. Site ID: 1813.

<https://apps.environment.nsw.gov.au/dpcmaritimeheritageapp/ViewSiteDetail.aspx?siteid=192#database>

salvage the wreck; however, contemporary reports state recovery of the engine may have been attempted once the seas calmed down. Whear's body was finally found amongst the rocks of the northern breakwater almost two weeks later.¹³⁷

3.2.4 Schnapper fishing fleet – 6 vessels (1914)

In the early hours of 18 October 1914, Coffs Harbour was struck by a sudden storm with gale force winds and heavy rain resulting from a severe east coast low. Six fishing vessels moored in the harbour, comprising the entire local schnapper fishing fleet, were destroyed – including motor vessel *Alfred* owned by W. Best, motor vessel *Wee Kitty* owned by E. Davis, motor vessel *Einar* owned by O. Petersen, motor vessel *Florrie McKay* owned by Johnstone and Coodon, motor vessel *Sandon Lass* owned by Gallagher, and an unnamed sailing vessel owned by J. Cousins.

Einar was moored to the southern side of the Coffs Harbour jetty when the storm struck, and was quite quickly driven against the jetty, swamped, and sunk. The other five vessels were moored along the northern side of the jetty at the time, and throughout the morning all five were lost. *Florrie McKay* and the unnamed sailing vessel were swamped, partially broken up, and sunk at their moorings. *Alfred* and *Wee Kitty* both broke their moorings and were swept northwards where they were ultimately wrecked on the reef opposite Muttonbird Island (current location of the landward end of the northern breakwater). *Sandon Lass* was largely swamped and partially stripped at its moorings by the heavy seas – including losing its engine house and benzine tank, until it finally sank. The vessel's engine was found high up on the rocks of Muttonbird Island several weeks later.¹³⁸

3.2.5 Deep-sea fishing launches x 4 (1934)

On 2-3 September 1934, Coffs Harbour was hit by a severe south-westerly gale with wind speeds of up to 40-50 miles per hour. During the height of the gale on 2 September 1934, five deep-sea fishing launches broke from their moorings in the harbour and were swept onto the northern breakwater. One vessel was subsequently able to be salvaged, however, the remaining four were heavily battered and broken up against the rocks of the breakwater – three sinking alongside the breakwater, and the fourth partially washing up along the beach.¹³⁹



Figure 3.77: Coffs Harbour fishing fleet tied up along northern side of jetty, ca. 1930.¹⁴⁰ – showing example of local 1930s fishing vessels.

¹³⁷ Anon. 5 April 1929. "Auxiliary Yawl. Smashed on Rocks in Gale. Man Believed Drowned." *The Sydney Morning Herald*. p. 13.; Anon. 5 April 1929. "Schooner Wrecked." *Daily Commercial News and Shipping List*. p. 4.; Anon. 5 April 1929. "Swept by Gale. Broke from Moorings. Fishing Boat Sunk. Brisbane Man Drowned." *Toowoomba Chronicle and Darling Downs Gazette*. p. 10.; Anon. 5 April 1929. "Yacht Wrecked. Brisbane Man Missing. Tragedy Feared in Coffs Harbour." *The Brisbane Courier*. p. 13.; Anon. 26 April 1929. "The Wanderer Wreck. Story Told to Coroner. 'Should Have Been Better Watch Kept.'" *Coffs Harbour Advocate*. p. 1.; Rose, L. 2017.

¹³⁸ Anon. 20 October 1914. "Damage at Coff's Harbour." *The Brisbane Courier*. p. 8.; Anon. 20 October 1914. "The Weather. Destructive Gale at Coff's Harbour. Six Fishing Boats Lost." *Clarence and Richmond Examiner*. p. 5.; Anon. 6 November 1914. "Wrecked Fishing Launch, Coff's Harbour." *The Sydney Morning Herald*. p. 10.; Callaghan, J. 2020. "Extraordinary sequence of severe weather events in the late-nineteenth century." *Journal of Southern Hemisphere Earth Systems Science*. Vol. 70, pp. 252-279.

¹³⁹ Anon. 3 September 1934. "Launches Wrecked at Coff's Harbour." *Northern Star Lismore*. p. 4.; Anon. 7 September 1934. "Fishing Launches Wrecked." *Nambucca and Bellinger News*. p. 3.; Anon. 14 September 1934. "Salvaged. Fisherman's Wrecked Boat." *Coffs Harbour Advocate*. p. 3.; Anon. 17 September 1934. "Launch Salvaged, Coff's Harbour." *The Sydney Morning Herald*. p. 10.

¹⁴⁰ Anon. ca. 1930. "A fishing fleet at Coffs Jetty, c. 1930." *Coffs Collections*, City of Coffs Harbour, Image No. mus07-2522.

3.2.6 Fishing launches x 2 (1948)

On 15 June 1948, Coffs Harbour was hit with severe winds and storm surges resulting from an extratropical conversion of cyclonic weather to the north. Two fishing launches that were moored alongside the Coffs Harbour jetty were lost. The first, owned by M. Bishop, broke from its moorings and was swept onto the northern breakwater, where it was smashed against the rocks, broken up, and finally sunk. The second, owned by V. Fryer, was swamped and sunk at its moorings.¹⁴¹



Figure 3.78: Coffs Harbour fishing fleet tied up along northern side of jetty, 1947¹⁴² - showing example of local 1940s fishing vessels.

3.2.7 Undocumented / unidentified shipwrecks

Further to the three shipwrecks listed on the AUCHD and NSW Maritime Heritage Database and the twelve identified in the historical record, it is possible that additional shipwrecks have occurred within Coffs Harbour since the mid 19th century. This is especially the case given the high number of severe weather events and storm surges derived from tropical cyclone activity and east coast low systems that have occurred along the mid-central NSW coast during this period – particularly between 1893 and 1967.¹⁴³

Numerous reports of storms resulting in multiple vessels at Coffs Harbour – from small fishing vessels to large coastal steamers – being damaged, swamped, grounded, and / or washed ashore have been found in the historical record.

Particularly high numbers of fishing and recreational vessels were damaged or destroyed in severe weather events prior to the construction of the Coffs Harbour boat harbour in the early 1970s, when small vessel moorings along the jetty and the northern breakwater offered next to no shelter during stormy weather – indeed twenty-five small vessels were written off at Coffs Harbour between 1952-1971.¹⁴⁴ Whilst the vessels in these cases were able to be recovered or refloated, the high incidence and frequency of historical storm damage to marine craft supports the possibility of undocumented or unidentified shipwrecks occurring within Coffs Harbour.

¹⁴¹ Anon. 18 June 1948. "Fishing Craft Losses." *Daily Examiner*. p. 3.; Anon. 18 June 1948. "Fishing Launch Wrecked in Harbour." *Coffs Harbour Advocate*. p. 2.

¹⁴² Anon. 1947. "Before the marina, 1947." *Coffs Collections*, City of Coffs Harbour, Image No. mus07-6123.

¹⁴³ Callaghan, J. 2020.

¹⁴⁴ Kramer, J. W. 1985.



Figure 3.79: 1951 view of Coffs Harbour showing fishing fleet at small vessel moorings between the jetty and northern breakwater.¹⁴⁵



Figure 3.80: Fishing vessel beached during storm being pulled by bullock team, Coffs Harbour, 1928.¹⁴⁶



Figure 3.81: Fishing vessel *Reliance Star* swept onto the northern breakwater at Coffs Harbour during severe east coast low storm, June 1950.¹⁴⁷



Figure 3.82: Cargo steamer *Bangalow* grounded alongside Coffs Harbour jetty following severe east coast low storm, June 1950.¹⁴⁸



Figure 3.83: Beached vessel near northern breakwater, Coffs Harbour, following severe east coast low storm, June 1950.¹⁴⁹

¹⁴⁵ Anon. 1951. "Northern Breakwall and fishing fleet, c. 1951." *Coffs Collections*, City of Coffs Harbour, Image No. mus07-3889.

¹⁴⁶ Pearce, R. H. 1928. "Coffs Harbour (Sea Port) – stranded fishing boat being pulled to low water mark." *Coffs Collections*, City of Coffs Harbour, Image No. mus07-2165.

¹⁴⁷ Anon. 1950. "The 'Reliance Star' rests against rocks on north wall after a cyclone, June 1950." *Coffs Collections*, City of Coffs Harbour, Image No. mus07-13874.

¹⁴⁸ Hunt, M. 1950. "North Coast Co's cargo steamer 'Bangalow' run aground in a cyclone at Coffs Harbour, 24 June 1950." *Coffs Collections*, City of Coffs Harbour, Image No. M2022.91.6.

¹⁴⁹ Anon. 1950. "A beached boat in Coffs Harbour, 24 June 1950." *Coffs Collections*, City of Coffs Harbour, Image No. mus07-13899.

4 KNOWN & POTENTIAL MARITIME HERITAGE & ARCHAEOLOGICAL SITES

4.1 Known maritime heritage & archaeological sites

4.1.1 Coffs Harbour jetty

The Coffs Harbour jetty is listed as an item of State heritage significance on the State Heritage Register (SHR), as an item of local heritage significance in Schedule 5 of the *Coffs Harbour Local Environmental Plan (LEP) 2013* made under the *Environmental Planning and Assessment Act*, as an indicative place on the Register of the National Estate, and on the National Trust Register (NSW).

The boundaries of the statutory heritage listings for the Coffs Harbour jetty – both SHR and LEP – commence at the first timber decking board at the shoreward end of the jetty and extend along the full length and width of the extant jetty structure, measuring ca. 360 m long, ca. 6.5 m wide at the landward end, and ca. 15 m wide at the seaward end, and incorporate a 5 m buffer covering land and water on all but the landward end – see Figure 4.1.

The extant Coffs Harbour jetty consists of original 1892 construction, the 1912-1914 widening, and sections of the 1950-1955 widening. The 1944-1946 seaward extension of the jetty, measuring 91.4 m in length, was demolished in 1996-1997 as part of the Coffs Harbour jetty restoration and refurbishment program. The landward end of the 1892 jetty, extending ca. 125 m from the first decking board of the extant jetty structure, is believed to be buried within the earthen embankment constructed during the 1940s.¹⁵⁰



Figure 4.1: Known maritime heritage and archaeological sites within the Coffs Harbour maritime assessment area.

¹⁵⁰ Boyd, N., Kass, T., J. Singh, & V. Sicari. 1994.

4.1.2 Buried timber trestle rail bridge (archaeology)

The buried timber trestle rail bridge, constructed in 1913-1915, is listed as part of a group of archaeological remains – including the rail bridge, tramway line site, and World War II gun turret – of local heritage significance in Schedule 5 of the *Coffs Harbour Local Environmental Plan* (LEP) 2013 made under the *Environmental Planning and Assessment Act*.

The timber trestle rail bridge was built across the seabed and intertidal area of the natural gap between South Coffs Island and the mainland in order to provide rail access to the quarry at Corambirra Point used for the construction of the Coffs Harbour northern and eastern breakwaters. As works at the quarry progressed, the gap between South Coffs Island and the mainland was progressively reclaimed with quarry fill, and the timber trestle rail bridge was buried intact – completed in 1928.

Part of the retaining wall and land reclamation between South Coffs Island and the mainland was excavated during the mid 1970s to create the Coffs Harbour boat ramp basin, and both the basin and the entrance channel are regularly maintenance dredged. These works, however, did not extend to the location of the timber trestle rail bridge, as marked on early to mid 19th century plans – see Figure 4.1.

4.1.3 South Solitary Island Lighthouse Optic (SSILO)

Precinct Development NSW agreed in 2020 to play a pivotal role in the relocation of the South Solitary Island Lighthouse Optic (SSILO). State government not only funded the new building that houses the SSILO today, but also coordinated the engineering, architectural design and onsite project management for its relocation.

A dramatic landmark off the Coffs Coast, the South Solitary Island Lighthouse is located approximately 18 kilometres north-east of Coffs Harbour. It is the most isolated light stations in New South Wales. The lighthouse optic, which comprises a lens and pedestal, was installed in 1879 and became operational on 15 March 1880, a catalyst for safe coastal shipping and the economic development of Coffs Harbour.

The optic was replaced in 1975 with a fully automated electric light, bringing an end to lightkeeping on the island. Removed from the island in 1976, the optic was installed in the then Museum at 189 Harbour Drive. The most valuable object in the Yarrila Arts and Museum (YAM) collection, it was carefully relocated in 2023 to its current position on the Jetty Foreshore, once again in sight of the ocean where it belongs.

PDNSW involvement in relocating this irreplaceable maritime artefact is a further celebration of the State Government's commitment to celebrating unique local heritage linked to the Coffs Harbour Jetty Foreshore.

4.2 Potential maritime archaeological sites & deposits

4.2.1 Structural remains & cultural deposits associated with Coffs Harbour jetty

There is a potential for two types of maritime archaeological remains associated with the Coffs Harbour jetty to occur on and buried within the seabed; *in situ* structural remains of the jetty and cultural deposits associated with the use of the jetty.

4.2.1.1 *In situ structural remains of Coffs Harbour jetty*

The Coffs Harbour jetty was originally constructed in 1890-1892, widened at the jetty head in 1912-1914, extended, widened, and strengthened at the seaward end in 1944-1946, and widened and strengthened inshore of the seaward extension in 1950-1955. Figure 4.2 provides an overlay of the footprint of each phase of construction of Coffs Harbour jetty.

The substructure of the original 1890-1892 jetty construction consisted of eighty-three timber trestles positioned at ca. 6 m intervals. The trestles of the landward end of the jetty across the

backdune of the beach were formed of three vertical timber piles. The trestles running across the foredune and intertidal zone were comprised of an alternating series of three pile trestles and five pile trestles comprising three vertical timber piles and an inclined raking pile at each end. The trestles at the seaward end of the jetty consisted entirely of five pile trestles – with three vertical and two raking piles. Each timber pile measured ca. 300 mm in diameter, and was driven into the sand and clay substrate to depths of between ca. 4.8 – 6.4 m. The original design would thus have contained between 300-400 piles.

The 1912-1914 widening involved doubling the width of a 47.5 m long section of the seaward end of the jetty via construction of what appears to be a duplicate set of five pile timber trestles alongside the original. The substructure of the 91.4 m long 1944-1946 seaward extension and widening and the 1950-1955 widening of another 117.3 m long section inshore of the seaward extension consisted of timber trestles set at ca. 6 m intervals, with each trestle comprised of seven vertical piles and inclined raking piles at each end. Again, each pile measured ca. 300 mm in diameter and was driven between ca. 4.8 – 6.4 m into the seabed.

Overall, the design of full extent of the main jetty substructure, including widening and lengthening works, would have contained a minimum of 800-900 timber piles. Additional features of, and associated with, the jetty – such as the timber fenders and dolphins – were also constructed of timber vertical and raked piles. Timber jetty piles generally have a lifespan of between 25-35 years, depending on the timber type and local environmental conditions. Ongoing and regular replacement of deteriorated timber piles at Coffs Harbour jetty has been undertaken since the 1890s; as has replacement of piles damaged during severe weather events over the years. Ultimately, it is likely that the construction and maintenance of Coffs Harbour jetty over the 134 years of its life has involved several thousand timber piles being driven into the seabed.

The most common method of removal and replacement of deteriorated or otherwise damaged timber piles in pile-driven jetties throughout the late 19th to 20th centuries involved cutting off the failing pile flush with, or close to, the level of the seabed and driving in a new pile adjacent – thus leaving the buried base of the failed pile *in situ*. The methods of demolition of timber jetties generally also resulted in the base of timber piles being left buried in the seabed. Latter 20th century demolitions – such as the demolition of the seaward 91.4 m length of Coffs Harbour jetty in 1996-1997 – usually involved the use of a mechanical excavator to wrench or snap the piles off as close to the seabed as possible, often with divers subsequently cutting any remaining stumps down flush with the seabed. It is sometimes possible for the entire pile to be pulled out by the excavator during such methods of jetty demolition; however, in the majority of cases, the base of the timber pile, below the seabed, remains *in situ*.

As such, it is highly likely that the basal remains of the majority, if not all, of the timber piles replaced during general maintenance and repair of Coffs Harbour jetty since its construction, and of the timber piles of the seaward extent of the jetty demolished in 1996-1997, remain *in situ*. The majority of these pile remains would be located within the footprint of the extant Coffs Harbour jetty, and the boundaries of the SHR and LEP heritage listings. Pile remains from the 1944-1946 extension of the jetty, however, would extend up to 90-95 m beyond the seaward end of the extant jetty and be located outside the SHR and LEP heritage listings. See Figures 3.2 and 3.3.

In most cases, it is likely that only the buried portion of such piles survives and that there is little, if any, visible evidence above the seabed, as any exposed stumps of removed piles would have been subject to marine borer attack. Several high-activity marine borers are known to occur in Coffs Harbour, including small crustaceans (*Limnoria* sp. and *Sphaeroma* sp.) that bore into wood for food and shelter are generally active between the seabed and mid-tide line, and long wormlike bivalve molluscs (*Teredinidae* sp.) that bore into wood for food and are often most active near the surface of the seabed. Various inspections of Coffs Harbour jetty over the years has shown evidence of extensive marine borer damage over the full length of timber piles

between the seabed and the water surface, with the most intense attack evidence occurring from the seabed to the intertidal zone¹⁵¹ (see Figure 3.72). Timber buried within the seabed, however, is generally protected from marine borer activity.



Figure 4.2: Footprint outlines of construction phases of Coffs Harbour jetty overlain on current aerial photograph.



Figure 4.3: Footprint outlines of construction phases of Coffs Harbour jetty overlain on current aerial photograph – SHR and LEP heritage listing boundaries shown in red.

¹⁵¹ Boyd, N., Kass, T., J. Singh, & V. Sicari. 1994.

4.2.1.2 Cultural deposits associated with the use of Coffs Harbour jetty

From the late 19th century to latter 20th century, Coffs Harbour jetty served as a vital link between local and regional settlement and various intrastate, interstate, and overseas centres and markets. For many years the jetty was the focal point of a wide range of shipping activities including cargo storage, handling, trade, and transport – both exports of local produce and imports of goods and supplies, passenger traffic, and short and long term mooring of vessels. The jetty has also served a range of social functions, representing a place where people congregated for recreational activities such as fishing, swimming, or promenading – activities that continue today.

Accumulations of artefact deposits tend to form across the seabed underneath and adjacent to jetty structures; consisting of objects either intentionally discarded into the water or accidentally lost during activities undertaken on the jetty – with cargo and other objects accidentally dropped over the edge or falling through gaps in the decking, on vessels moored alongside, or transfer between the two. In the case of jetties with a long lifespan and a high volume and frequency of shipping traffic, such as Coffs Harbour jetty, such artefact deposits can be substantial.

Previous maritime archaeological excavations underneath and adjacent to 19th – 20th century jetties, such as Windsor Wharf, NSW, Long Jetty, WA, Albany Jetty, WA, and Holdfast Bay Jetty, SA, have found seabed deposits of a wide range of artefacts including ships fittings and fixtures, mooring ropes, chains, and anchors, manual tools, machinery components, building materials, munitions, fishing hooks and sinkers, glass and ceramic food and drink containers, wares, and utensils, and a wide array of personal items including footwear, clothing, jewellery, adornments, coins, clay pipes and other smoking paraphernalia, writing implements, musical instruments, keys, and toys. Such seabed artefactual deposits have also been found to contain structural and ancillary elements of the jetty itself, such as timber components of various sizes and metal fastenings, fittings, offcuts, pipes, and rails, which were either deposited during episodes of jetty maintenance and repair, or simply fell to the seabed due to structural deterioration.

These maritime archaeological investigations have also identified general patterns in the spatial distribution of such seabed cultural deposits, whereby artefacts tend to be concentrated underneath and immediately adjacent to the footprint of the jetty, or former jetty, extending with diminishing frequency out to an area up to 10 m either side of the jetty piles; with a lower density and more widely dispersed deposition of artefacts also occurring in the area 15-25 m on either side of the jetty. These deposits tended to be particularly concentrated at the seaward end of the jetty where most shipping activities took place. The types of artefacts found in the 0-10 m area indicate that most such material was either lost from the side of moored vessels or from the jetty itself, whilst those found in the 15-25 m area tended to have a greater association with shipping activities and were likely lost from the outer side of vessels moored alongside the jetty.¹⁵²

There is a high potential for such artefact deposits to occur on the seabed underneath and adjacent to Coffs Harbour jetty. Based on the long working life and high volume of shipping activity at Coffs Harbour jetty since its construction in 1890-1892, such deposits may be highly varied and considerable in size. The distribution of artefact deposits associated with Coffs jetty may also extend further beyond the 0-10 m and 15-25 m areas previously identified in maritime archaeological excavations, due to the nature of loading and unloading at the jetty, particularly prior to the construction of the breakwaters in the early to mid 20th century, whereby adverse weather conditions often required vessels to anchor some distance from the jetty – commonly between 18-21 feet / 5.5-6.4 m distant – and transfer both cargo and passengers over the gap via

¹⁵² Cosmos Archaeology Pty Ltd. 2021. Windsor Bridge Replacement Project – Report on Maritime Archaeological Excavation and Survey, June to September 2018. Prepared for Transport for NSW.; Garratt, D. 1994. The Long Jetty Excavation, 14 July to 20 Aug, 1 84 – A Report on the Long Jetty Excavation. Report for the Western Australian Maritime Museum.; Garratt, D., M. McCarthy, V. Richards, A. Wolfe, J. Carpenter, C. Corvaia & R. Shaw. 1995. An Assessment of the Submerged Archaeological Remains at the Albany Town Jetty. Department of Maritime Archaeology, Western Australian Maritime Museum, No. 96.; Lewczak, C. & N. Richards. 2007. "Artefact patterning at the Holdfast Bay jetty: Part 1, a consideration of non- cultural site formation factors." in Bulletin of the Australasian Institute for Maritime Archaeology. Vol. 31, pp. 45-55; Lewczak, C. & N. Richards. 2007. "Artefact patterning at the Holdfast Bay jetty: Part 2, an interpretation of the archaeological deposit." in Bulletin of the Australasian Institute for Maritime Archaeology. Vol. 31, pp. 56-63.

crane (see Figures 3.13 and 3.18). As such, artefact deposits may extend up to and at least 0-15 m and 15-30 m from the jetty. It is important to note that these areas fall outside the SHR / LEP listing boundaries of the Coffs Harbour jetty.

Activities such as natural scouring and dredging around the jetty – known to have occurred in a localised area on the southern side of the jetty head in the 1930s in order to increase the water depth at the southern berth – are likely to have disturbed, dispersed, and / or removed some of the artefact deposits associated with the use of the jetty. However, such impacts are unlikely to have disturbed or removed the majority of the potential artefact deposits.



Figure 4.4: Potential extent of artefact deposits on the seabed underneath and adjacent to Coffs Harbour jetty.

4.2.2 Structural remains & deposits associated with vessel moorings

A number of vessel moorings have been established in Coffs Harbour since the late 19th century. The earliest recorded moorings were installed in 1892, in association with the original construction of Coffs Harbour jetty. These moorings, each consisting of a wrought iron mooring buoy affixed via heavy chain to two anchors, were positioned to the north, east, and south of the jetty head and were provided to enable larger coastal vessels to securely moor a few metres from the jetty for cargo transfer during rough weather, thus avoiding damage to both the vessel and the jetty itself. As shipping traffic at Coffs Harbour increased throughout the early 1900s, additional moorings were established to the north, east, and south of the jetty for vessels waiting in line to use one of the jetty berths. These collections of moorings were relocated further out from the jetty and upgraded with heavier anchors and chains following the 1912-1914 widening and the increasing size of vessels visiting Coffs Harbour. A 1934 hydrographic chart of Coffs Harbours (Figure 3.46) shows three moorings marked with barrel buoys positioned between ca. 100-125 m to the north, east, and south of the jetty. The moorings were altered again following the 1944-1946 widening and 1950-1955 lengthening of the jetty; the 1934 chart updated in 1944 and 1965 (Figure 3.64) shows four moorings marked with barrel buoys, two to the north and two to the south of the jetty – see Figure 4.5. The various jetty moorings were also periodically overhauled and / or upgraded over the years as part of general harbour maintenance works, expansion and increases in shipping traffic, or following damage to the moorings due to severe storm events.



Figure 4.5: Overlay showing locations of vessel moorings as marked on 1934 and 1965 hydrographic charts.

An unknown number of small vessel moorings were also established in Coffs Harbour throughout the early to mid 20th century, catering to smaller vessels and the growing Coffs Harbour commercial fishing fleet, prior to the construction of the boat harbour in the mid 1970s. Based on a range of historical photographs (e.g. Figures 3.35, 3.36, 3.54 and 3.79), these moorings appear to have been located north of Coffs Harbour jetty, scattered throughout the area within the shelter of the northern breakwater and Muttonbird Island – see Figure 4.6.



Figure 4.6: General extent of former area of small vessel moorings in Coffs Harbour.

There is a potential for structural remains of with the jetty moorings and some of the small vessel moorings to occur on the seabed within Coffs Harbour – such as mooring anchors, blocks, chains, cables, and possible remains of sunken mooring buoys. There is also a potential for artefact deposits associated with the use of these moorings, representing objects either deliberately discarded or accidentally lost from vessels. Similar to the potential artefact deposits underneath and adjacent to Coffs Harbour jetty, such deposits could contain a range of objects associated with shipping, cargo handling, fishing, and various personal objects. However, the range and density of potential artefact deposits associated with former vessel moorings would likely be much lower and more dispersed than those associated with the jetty.

The potential for archaeological remains associated with the former moorings is likely to be limited to the former moorings to the south and east of the jetty, and those between the jetty and the current boat harbour. It is likely that remains associated with the former vessel moorings within the marina areas and the entrance channel of the boat harbour have been largely, if not wholly, removed via dredging undertaken during construction of the boat harbour in the mid 1970s and / or maintenance dredging carried out in the years since.

4.2.3 Shipwrecks

There have been fifteen documented shipwreck in Coffs Harbour since the mid 19th century, where vessels are known to have been irretrievably wrecked or sunk but the actual wreck location is not known. These shipwrecks include two wooden-hulled coastal cargo vessels – one schooner and one paddle steamer – lost during severe storms in the 1860s and 1890s, and thirteen wooden-hulled commercial fishing vessels lost in storms from the 1910s-1940s. These wrecks are summarised in Table 4.1 below. It is also quite possible that further unidentified or undocumented historical shipwreck events have occurred.

Vessel	Wreck ID #	Vessel type	Date lost	Wreck event
<i>Carry Well</i>	NSW MHD 1916; AUCHD 316	Wooden hulled schooner; 25.3 m long x 6.2 m wide; 74 gross tonnage.	12 July 1866	<i>Carry Well</i> was caught in a heavy gale whilst anchored in Coffs Harbour and was dragged and wrecked on a series of rocks close to shore. Cargo and rigging were later recovered.
<i>Belmore</i>	NSW MHD 1813; AUCHD 201	Wooden hulled paddle steamer 30.99 m long x 4.75 m wide; 66 gross tonnage; with a single cylinder 30 hp engine.	9 March 1893	<i>Belmore</i> was initially heavily damaged after being driven ashore from its moorings in Coffs Harbour on 21 January 1893 during a severe storm. The vessel was repaired and ready to relaunch from the beach when it was caught in another heavy storm on 9 March 1893 and wrecked completely. The engine and boiler were later recovered.
<i>Wanderer</i>	NSW MHD 2025; AUCHD 192	Wooden hulled fishing yawl, 16.97 m long x 4.51 m wide; 15 gross tonnage, with diesel 100 hp auxiliary engine.	4 April 1929	<i>Wanderer</i> was swept from its moorings near the northern breakwater in Coffs Harbour during a severe storm and dragged south across the harbour where it was wrecked against the rocks along the southern breakwater / south-western retaining wall between South Coffs Island and the mainland, with the loss of one of its crew. The wreck was badly broken up – not known if the engine was later recovered.
<i>Alfred</i>	N/A	Deep sea fishing vessel; motor vessel; most likely wooden hulled	18 October 1914	<i>Alfred</i> was dragged from its moorings along the northern side of the jetty by a severe storm, swept northwards and wrecked on the reef opposite Muttonbird Island (current location of the landward end of the northern breakwater).

Vessel	Wreck ID #	Vessel type	Date lost	Wreck event
<i>Wee Kitty</i>	N/A	Deep sea fishing vessel; motor vessel; most likely wooden hulled	18 October 1914	<i>Wee Kitty</i> was dragged from its moorings along the northern side of the jetty by a severe storm, swept northwards and wrecked on the reef opposite Muttonbird Island (current location of the landward end of the northern breakwater).
<i>Einar</i>	N/A	Deep sea fishing vessel; motor vessel; most likely wooden hulled	18 October 1914	<i>Einar</i> was swamped and sunk at its moorings on the southern side of Coffs Harbour jetty during a severe storm.
<i>Florrie McKay</i>	N/A	Deep sea fishing vessel; motor vessel; most likely wooden hulled	18 October 1914	<i>Florrie McKay</i> was swamped, partially broken up, and sunk at its moorings on the northern side of Coffs Harbour jetty.
<i>Sandon Lass</i>	N/A	Deep sea fishing vessel; motor vessel; most likely wooden hulled	18 October 1914	<i>Sandon Lass</i> was largely swamped and partially stripped at its moorings on the northern side of Coffs Harbour jetty during a heavy storm – including losing its engine house and benzine tank, until it finally sank. The vessel's engine was found high up on the rocks of Muttonbird Island several weeks later.
Fishing vessel (name unknown)	N/A	Deep sea fishing vessel; sailing vessel; most likely timber hulled	18 October 1914	The fishing vessel (name unknown) was swamped, partially broken up, and sunk at its moorings on the northern side of Coffs Harbour jetty.
Fishing vessel (name unknown)	N/A	Deep-sea fishing launch; motor vessel; most likely wooden hulled	2-3 September 1934	Vessel broke its moorings in Coffs Harbour during a heavy storm, was swept against the rocks of the northern breakwater where it broke up and sank.
Fishing vessel (name unknown)	N/A	Deep-sea fishing launch; motor vessel; most likely wooden hulled	2-3 September 1934	Vessel broke its moorings in Coffs Harbour during a heavy storm, was swept against the rocks of the northern breakwater where it broke up and sank.
Fishing vessel (name unknown)	N/A	Deep-sea fishing launch; motor vessel; most likely wooden hulled	2-3 September 1934	Vessel broke its moorings in Coffs Harbour during a heavy storm, was swept against the rocks of the northern breakwater where it broke up and sank.
Fishing vessel (name unknown)	N/A	Deep-sea fishing launch; motor vessel; most likely wooden hulled	2-3 September 1934	Vessel broke its moorings in Coffs Harbour during a heavy storm, was swept against the rocks of the northern breakwater and was wrecked scattered along the breakwater and adjacent beach.
Fishing vessel (name unknown)	N/A	Deep-sea fishing launch; motor vessel; most likely wooden hulled	15 June 1948	Vessel was swamped and sunk at its moorings alongside Coffs Harbour jetty during a heavy storm.
Fishing vessel (name unknown)	N/A	Deep-sea fishing launch; motor vessel; most likely wooden hulled	15 June 1948	Vessel broke from its mooring alongside Coffs Harbour jetty during a heavy storm, was swept north and wrecked against the rocks of the northern breakwater.

Table 4.1: Known (but unlocated) shipwrecks in Coffs Harbour.

Whilst actual wreck locations are not known, contemporary accounts of the loss of each of these vessels contain basic descriptions of the general wreck area within Coffs Harbour. Based on these accounts, the majority of vessels were wrecked in the northern part of Coffs Harbour – either on the natural rocky reef outcrop between Muttonbird Island and the mainland (prior to the construction of the northern breakwater), against the rocks of the northern breakwater, or alongside Coffs Harbour jetty. Only one wreck – *Wanderer* – is known to have occurred along the southern side of the harbour, whilst another – *Belmore* – is known only to have occurred

somewhere along Jetty Beach. Figure 4.7 below shows the general wrecking location of each vessel according to the broad descriptions in historical accounts.



Figure 4.7: General wrecking location of known shipwrecks within Coffs Harbour according to historical accounts.

It is important to note, however, that these areas mark only the general locations in Coffs Harbour where the vessel was initially wrecked or sunk. In the majority of cases, vessels were reportedly badly broken up during the wrecking event by the heavy storm seas, with many battered against rocky reef outcrops or the rocks of breakwater walls, with elements of wreckage subsequently observed scattered over wide areas of the breakwater walls and / or beach. Indeed, the engine house from *Sandon Lass* – a fishing vessel that was swamped, partially broken up, and sunk by heavy seas whilst moored on the northern side of Coffs Harbour jetty – was found washed up on Muttonbird Island several weeks later.

Various post-depositional processes, including formal and informal salvage of vessel components, tide and wave action – particularly during storm surges, seabed erosion and scouring, biological deterioration of organic components, disturbance from shipping activities such as anchor drag, would have likely further dispersed wreck elements.

Overall, there is some likelihood that wreckage from several of these vessels could occur scattered over wide areas throughout the whole of Coffs Harbour; with a higher likelihood of wreckage occurring in a broad arc from the jetty northwards to areas along the northern breakwater and the western end of Muttonbird Island.

In the case of the larger coastal cargo vessels, *Carry Well* and *Belmore*, it may be expected that sections of timber keel, floor timbers, ferrous fittings and components such as hawse pipes and *Belmore's* paddle wheels and framing, and various ferrous and copper alloy fastenings could

survive; *albeit* likely broken up and scattered. Elements of the fishing vessel *Wanderer*, including sections of timber hull, metal fittings and fastenings, and possibly engine components if not salvaged, could be expected to occur scattered throughout the southern part of Coffs Harbour, particularly along the southern retaining wall. For the twelve fishing vessels lost during storm events in 1914, 1934, and 1948, it is likely that sections of the hulls, particularly keels and lower frames, metal fittings and fastenings, engines, propellers, propeller shafts, anchors and chains, could occur scattered throughout the northern part of Coffs Harbour, with particular concentration between the jetty, northern breakwater, and Muttonbird Island.

Development of Coffs Harbour during the latter 20th century; notably the excavation and dredging associated with the construction of the inner boat harbour and the boat ramp in the mid 1970s and maintenance dredging in the years since, are likely to have disturbed and largely removed any elements of wreckage that may have survived in those areas. It is possible, however, that remains of vessels wrecked on the natural reef between Muttonbird Island and the mainland prior to the construction of the northern breakwater survive buried underneath the 1970s reclamation in the north-eastern part of the boat harbour.

Of particular note is anecdotal evidence, provided by Heritage NSW, that copper sheathed timber wreckage has previously been observed near the entrance to the boat harbour and marina area. This could represent disturbed wreckage from a 19th century built timber hulled vessel – possibly *Carry Well* or *Belmore*, or another unknown wreck.

Overall, there is a moderate potential for shipwreck remains to be scattered throughout the southern part of Coffs Harbour, with a moderate to high potential in the area from the jetty north to the inner boat harbour and the western end of Muttonbird Island.

5 SIGNIFICANCE ASSESSMENT

5.1 Significance criteria

An assessment of heritage significance seeks to understand and establish the importance or value that a place, site or item may have to certain groups, communities, and the general public at large. The process of significance assessment in Australia was established by the Australia ICOMOS Burra Charter, which defines cultural significance as “aesthetic, historic, scientific, social or spiritual value for past, present or future generations.” This value may be contained in the fabric of the item, its setting and relationship to other items, the response that the item stimulates in those who value it now, or the meaning of that item to contemporary society.

Accurate assessment of the cultural significance of sites, places and items is an essential component of the NSW heritage assessment and planning process. A clear determination of a site's significance allows informed planning decisions to be made for place, in addition to ensuring that their heritage values are maintained, enhanced, or at least minimally affected by development.

Assessments of significance in NSW are made by applying a standard set of evaluation criteria developed by the Heritage Council of NSW in 1999 and gazetted following amendments to the *Heritage Act 1977*. These criteria are as follows:

- a. *An item is important in the course or pattern of NSW's cultural or natural history (or the cultural or natural history of the local area);*
- b. *An item has strong or special associations with the life or works of a person, or group of persons, of importance in NSW' cultural or natural history (or the cultural or natural history of the local area);*
- c. *An item is important in demonstrating aesthetic characteristics and/or a high degree of creative or technical achievement in NSW (or the local area);*
- d. *An item has strong or special associations with a particular community or cultural group in NSW (or the local area) for social, cultural or spiritual reasons;*
- e. *An item has potential to yield information that will contribute to an understanding of NSW's cultural or natural history (or the cultural or natural history of the local area);*
- f. *An item possesses uncommon, rare or endangered aspects of NSW's cultural or natural history (or the cultural or natural history of the local area);*
- g. *An item is important in demonstrating the principal characteristics of a class of NSW's (or local area's) cultural or natural places; or cultural and natural environments.*

A prescribed set of significance evaluation criteria specifically relating to underwater cultural heritage are also contained within the UCH Rules established by legislative instrument in accordance with the UCH Act. These criteria should be applied in the assessment of significance of any protected, or potentially protected underwater cultural heritage as defined under the UCH Act:

- (a) *the significance of the article in the course, evolution or pattern of history;*
- (b) *the significance of the article in relation to its potential to yield information contributing to an understanding of history, technological accomplishments or social developments;*
- (c) *the significance of the article in its potential to yield information about the composition and history of cultural remains and associated natural phenomena through examination of physical, chemical or biological processes;*
- (d) *the significance of the article in representing or contributing to technical or creative accomplishments during a particular period;*
- (e) *the significance of the article through its association with a community in contemporary Australia for social, cultural or spiritual reasons;*
- (f) *the significance of the article for its potential to contribute to public education;*
- (g) *the significance of the article in possessing rare, endangered or uncommon aspects of history;*
- (h) *the significance of the article in demonstrating the characteristics of a class of cultural articles.*

5.2 Known maritime heritage & archaeological sites

5.2.1 Coffs Harbour jetty

The following significance assessment is adapted from the NSW State Heritage Register listing for Coffs Harbour Jetty (SHR #02040) and the NSW State Heritage Inventory entry for Coffs Harbour Jetty (Heritage Item ID 1360231) based on data provided by Coffs Harbour City Council.

a. *An item is important in the course or pattern of NSW's cultural or natural history*

The Coffs Harbour Jetty is of state heritage significance as the longest coastal timber jetty built by the Harbours and Rivers Section of the NSW Public Works department in the 19th century to service the coastal shipping network in NSW. During this period, the shipping network was extensive and it was the dominant form of transporting people and goods along the NSW coast. The construction of the Coffs Harbour Jetty in 1892, which became the most heavily utilised port on the north coast during the 20th century, contributed to the settlement and development of the northern region of NSW.

The Coffs Harbour Jetty is of high local significance in demonstrating the development of Coffs Harbour from a small timber-getting outpost to a major North Coast shipping port. The jetty was a major impetus to the growth of Coffs Harbour and was in use for over 70 years.

The jetty forms a group with other major government projects which, over several decades, reshaped the natural coastal landform and created the harbour we see today (the two breakwalls, the jetty itself, and the North Coast rail line). The construction of the jetty allowed for the growth of Coffs Harbour and explains the subsequent road and rail development, inland town development and the status that Coffs Harbour acquired as a major shipping, commercial and economic centre on the North coast. The jetty is inextricable from the history and identity of Coffs Harbour itself. It survives as the last government-built jetty in NSW from the late nineteenth century, built to facilitate coastal shipping between Sydney and Brisbane. Other jetties built at the same time at Woolgoolga, Byron Bay, Port Stephens have been demolished.

b. *An item has strong or special associations with the life or works of a person, or group of persons, of importance in NSW's cultural or natural history*

The Coffs Harbour Jetty is of local heritage significance as a surviving example of the work of the Harbours and Rivers Section of the NSW Public Works department, which designed and constructed government jetties, wharves and infrastructure throughout NSW to support the coastal shipping network in the mid-to-late 19th century.

c. *An item is important in demonstrating aesthetic characteristics and/or a high degree of creative or technical achievement in NSW*

The Coffs Harbour Jetty is of state heritage significance for the technical significance of its timber construction and maintenance over its 80 year operational life (1892-1973). Constructed entirely of timber with metal fixings, the construction of the Coffs Harbour Jetty reflects the engineering knowledge of the late 19th century which understood that the application of different timber species would bring different qualities to the structure within its marine environment - such as ironbark (capwales, girders, braces, headstocks) which has load-bearing capacity and is fire resistant, and turpentine (piles) which has a hard grain and is fire and pest resistant. The ongoing maintenance of the Coffs Harbour Jetty, particularly during its operational life, also demonstrates changes and growth in the engineering industry and the evolution of timber repair methods in NSW.

Coffs Harbour Jetty is of high local significance as a local landmark and symbol of Coffs Harbour's industrial past. It is also a well-loved tourist attraction and one of the most visited and photographed building in Coffs Harbour. It is an important component of Coffs Harbour's sense of identity.

d. *An item has strong or special associations with a particular community or cultural group in NSW for social, cultural or spiritual reasons*

The Coffs Harbour Jetty is of local heritage significance for its social value to the people of the Coffs Harbour region. The jetty has social significance for the descendants of the workers involved in the construction and operation of the jetty and for the descendants of the those who arrived or departed Coffs Harbour from the jetty. Today, the Coffs Harbour Jetty is a local landmark and is of social significance to those who value or utilise the structure.

Its status as one of the major tourist attractions in Coffs Harbour means that the jetty is of high social significance to both local and visitors to Coffs Harbour.

e. *An item has potential to yield information that will contribute to an understanding of NSW's cultural or natural history*

The Coffs Harbour Jetty is of local heritage significance for its potential to yield information that will contribute to an understanding of NSW's cultural or natural history. As the jetty underwent maintenance, repairs and modifications during its operational life, the fabric of the jetty is no longer original and, therefore, its potential for research and yielding new information at a state level is considered to be limited. There is potential for archaeological investigation of the ocean bed in the vicinity of the jetty to reveal an understanding of the operation and activities of the jetty and this may be of local heritage significance to the Coffs Harbour region and community.

Coffs Harbour jetty is of high local significance in having potential to reveal information about the construction of nineteenth century timber jetties, shipping activity generally, changes over time to cargo handling and crane technology and the importance of both shipping and rail transport to the development of the North Coast.

f. *An item possesses uncommon, rare or endangered aspects of NSW's cultural or natural history*

The Coffs Harbour Jetty is of state heritage significance as the only remaining large timber ocean jetty in NSW dating from the 19th century. The coast of NSW had an extensive network of ports for the transportation of passengers and goods but many of the jetty and wharf structures and associated infrastructure have been lost or substantially altered. The retention of the Coffs Harbour Jetty, and the retention of its timber materiality, is rare in NSW.

g. *An item is important in demonstrating the principal characteristics of a class of NSW's cultural or natural places; or cultural and natural environments*

The Coffs Harbour Jetty is of state heritage significance as a representative example of a surviving timber ocean jetty which once formed part of an extensive coastal shipping network in NSW. Timber was a common material used in the construction of government coastal infrastructure in the 19th century and the retention of the timber materiality of the Coffs Harbour Jetty, in its entirety, reflects its state heritage significance as a representative example of coastal infrastructure from the key period of shipping transportation in NSW.

Due to the rugged environmental and marine conditions, many developments, repairs and replacement of fabric occurred at the Coffs Harbour Jetty during and after its active use. The maintenance of the alignment and use of similar timbers with metal fixings has retained the integrity of the original structure.

Coffs Harbour Jetty has a good level of integrity and is a good representative example of a government jetty built to service the major NSW coastal shipping routes and is of high local significance. Similar jetties were built at Woolgoolga, Port Stephens and Byron Bay.

Statement of Significance

NSW Public Works department in the 19th century during a key period of shipping transportation in NSW. A rare and representative example of a surviving timber ocean jetty which once formed part of the extensive coastal network, the Coffs Harbour Jetty is of state heritage significance for the technical significance of its timber construction and maintenance over its 80 year operational life (1892-1973). The ongoing maintenance of the Coffs Harbour Jetty, particularly during its operational life, and the retention of its entirely timber materiality also demonstrates changes and growth in the engineering industry and the evolution of timber repair methods in NSW.

Coffs Harbour Jetty is of high local significance as the last surviving government-built jetty in NSW from the late nineteenth century, built to facilitate coastal shipping between Sydney and Brisbane. It is of high local significance in demonstrating the development of Coffs Harbour from a small timber-getting outpost to a major North Coast shipping port.

It forms a group with other major government projects which, over several decades, reshaped the natural coastal landform and created the harbour we see today (the two breakwalls, the jetty itself, and the North Coast rail line). The jetty is inextricable from the history and identity of Coffs Harbour itself.

Of high local significance as a landmark and symbol of Coffs Harbour's industrial past. It is also a well-loved tourist attraction and one of the most visited and photographed building in Coffs Harbour. Its status as one of the major tourist attractions in Coffs Harbour means that the jetty is of high social significance to both local and visitors to Coffs Harbour.

5.2.2 *Buried timber trestle rail bridge (archaeology)*

The following significance assessment is from the NSW State Heritage Inventory entry for the buried timber trestle rail bridge (archaeology) based on records provided by Coffs Harbour City Council (Heritage ID No. 1360005; LEP #18).

a. *An item is important in the course or pattern of NSW's cultural or natural history (or the cultural or natural history of the local area)*

The buried timber trestle rail bridge at South Coff Headland is of local significance as a surviving and integral part of the original infrastructure of the large-scale harbour reclamation works that were undertaken in Coffs Harbour between 1913 and 1939. The works involved the earlier constructed timber jetty, two harbour breakwalls, a reclamation wall along the harbour foreshore, the timber trestle bridge and the associated rail lines used in the construction of the breakwalls and for later regular maintenance. These works drastically re-shaped the physical form of Coffs Harbour's coastline and created the man-made harbour we see today. These works, and the North Coast Railway, were largely responsible for the growth and development of Coffs Harbour itself. The trestle rail bridge was built between 1913-1915 and progressively filled in as part of the works until completely buried by 1928 and today forms part of the land bridge between the former South Coff Island and the mainland.

The buried timber trestle rail bridge is also significant as a rare example of a standard timber rail underbridge built by PWD until 1935, of which few remain in NSW.

All surviving buildings and remnants of the PWD harbour construction works are important in demonstrating this critical phase of Coffs Harbour's past history as a busy, shipping port and are essential to understanding how Coffs Harbour was created.

b. *An item has strong or special associations with the life or works of a person, or group of persons, of importance in NSW's cultural or natural history (or the cultural or natural history of the local area)*

N/A

- c. *An item is important in demonstrating aesthetic characteristics and/or a high degree of creative or technical achievement in NSW (or the local area)*

N/A

- d. *An item has strong or special associations with a particular community or cultural group in NSW (or the local area) for social, cultural or spiritual reasons*

Of high local significance. Knowledge of, and curiosity about, Coffs Harbour's harbour formation works, the breakwater rail lines and the earlier privately-built timber tramlines are an important aspect of Coffs Harbour's sense of identity. They evoke a now-defunct industrial past and their period of operation (1917-1970s) is still within living memory.

The story of how Coffs Harbour foreshore came to be continues to exert a powerful sentimental and romantic appeal over Coffs Harbour residents, and the buried timber trestle bridge is a well-known and highly esteemed part of those early capital works.

- e. *An item has potential to yield information that will contribute to an understanding of NSW's cultural or natural history (or the cultural or natural history of the local area)*

Of high local significance having some potential to reveal information about timber trestle rail underbridge construction. Has high archaeological potential as a surviving and integral part of the original infrastructure of the large-scale harbour reclamation works.

- f. *An item possesses uncommon, rare or endangered aspects of NSW's cultural or natural history (or the cultural or natural history of the local area)*

Of high local significance. Potentially rare example of a standard timber rail underbridge built by PWD until 1935. Two similar timber rail underbridge survive in the LGA on the former Glenreagh-Dorrigo branch line and several similar rail overbridge also survive. Timber trestle rail underbridge are increasingly rare within NSW and survive mainly on disused and former branch lines.

- g. *An item is important in demonstrating the principal characteristics of a class of NSW's (or local area's) cultural or natural places, or cultural and natural environments*

Likely to be good representative example of the standard timber trestle rail underbridge built by PWD until 1935 and of high local significance.

Statement of Significance

The buried timber trestle rail bridge at South Coff Headland is of high local significance as a surviving and integral part of the original infrastructure of the large-scale harbour reclamation works that were undertaken in Coffs Harbour between 1913 and 1939. The trestle rail bridge was built between 1913-1915 and progressively filled in as part of the works until completely buried by 1928 and today forms part of the land bridge between the former South Coff Island and the mainland. The buried timber trestle rail bridge is also significant as an example of a standard timber rail underbridge built by PWD until 1935, of which few remain in NSW.

All surviving buildings and remnants of the PWD harbour construction works are important in demonstrating this critical phase of Coffs Harbour's past history as a busy, shipping port and are essential to understanding how Coffs Harbour was created. The buried timber trestle bridge is of high social significance as a well-known and highly esteemed part of those early capital works.

5.3 Potential maritime archaeological sites & deposits

The following sections provide summary assessments of the predicted significance of potential maritime archaeological sites and deposits within the Coffs Harbour maritime assessment area. It is important to note that these assessments are indicative only as the occurrence, nature, and condition of the potential maritime archaeological resource is not known.

5.3.1 *Structural remains & deposits associated with Coffs Harbour jetty*

<p>a. <i>An item is important in the course or pattern of cultural or natural history</i></p>	<p>Coffs Harbour jetty was a vital element in the settlement and development of the Coffs Harbour region from a small timber-getting outpost in the late 19th century to the busiest north coast shipping port and transport hub throughout the early to mid 20th century. The jetty was also the longest coastal timber jetty designed by Harbours and Rivers, NSW Department of Public Works during the 19th century, and was further extended and widened during the early to mid 20th century to meet increasing shipping traffic and cargo handling demands. The mid 20th century extensions were demolished during refurbishment of the jetty in 1996-1997, and now only survive as potential archaeological remains.</p>
<p>b. <i>An item has strong or special associations with the life or works of a person, or group of persons, of importance in cultural or natural history</i></p>	<p>Coffs Harbour jetty has strong associations with the 19th and 20th century work of Harbours and Rivers, NSW Department of Public Works.</p>
<p>c. <i>An item is important in demonstrating aesthetic characteristics and/or a high degree of creative or technical achievement</i></p>	<p>Coffs Harbour jetty demonstrates technical significance in the engineering knowledge, design, timber construction, and modification – including widening, lengthening, and strengthening – over its long operational life from the late 19th century to the latter 20th century. The ongoing repair and maintenance of the jetty demonstrates changes and growth in the engineering industry and the evolution of timber construction and repair methods in NSW. Structural remains of the jetty – in particular the potential high number of timber pile remains – distinctly demonstrates the need for high maintenance of timber jetties and the level of effort and work put into sustaining Coffs Harbour jetty as an operational asset.</p>
<p>d. <i>An item has strong or special associations with a particular community or cultural group for social, cultural or spiritual reasons</i></p>	<p>Coffs Harbour jetty has strong social value to the both local residents of the Coffs Harbour region and tourists and visitors alike; with special significance for the descendants of the workers involved in the construction and operation of the jetty and for the descendants of the those who arrived or departed Coffs Harbour from the jetty.</p>

<p>e. <i>An item has potential to yield information that will contribute to an understanding of cultural or natural history</i></p>	<p>Surviving archaeological remains and deposits associated with Coffs Harbour jetty have high research potential and could contribute significant understanding of the history of Coffs Harbour.</p> <p>Surviving structural remains of the jetty have the potential to contribute information regarding the construction, repair, and maintenance of 19th century timber jetties, and the development 20th century construction, repair, and maintenance techniques in the jetty expansions and modifications. Artefact deposits associated with the operation of the jetty from the late 19th to latter 20th centuries have potential to reveal information regarding the range of cultural activities carried out at the jetty – from use of the jetty for its primary purposes of mooring of vessels, cargo storage, handling, loading and unloading, and passenger transport, to additional uses of the jetty for social and recreational purposes. Such artefact deposits also have the potential to provide a view of the lifestyles and material culture of the range of people who used or visited the jetty, and the wider role the jetty played in the cultural activities and day to day lives of the Coffs Harbour settlement over time.</p>
<p>f. <i>An item possesses uncommon, rare or endangered aspects of cultural or natural history</i></p>	<p>N/A</p>
<p>g. <i>An item is important in demonstrating the principal characteristics of a class of cultural or natural places; or cultural and natural environments.</i></p>	<p>N/A</p>

Potential structural remains and deposits associated with Coffs Harbour jetty are assessed to be of **local heritage significance**.

5.3.2 **Structural remains and deposits associated with vessel moorings**

<p>a. <i>An item is important in the course or pattern of cultural or natural history</i></p>	<p>Vessel mooring facilities were a key element in the development of maritime infrastructure and shipping activities in Coffs Harbour. The jetty moorings were vital in servicing cargo and passenger vessels visiting Coffs Harbour, providing secure mooring for safe loading and unloading at the jetty, and for vessels waiting to approach during periods of high shipping traffic. The small vessel moorings provided dedicated anchorage areas and facilitated the establishment and development of the Coffs Harbour commercial fishing fleet.</p>
<p>b. <i>An item has strong or special associations with the life or works of a person, or group of persons, of importance in cultural or natural history</i></p>	<p>N/A</p>
<p>c. <i>An item is important in demonstrating aesthetic characteristics and/or a high degree of creative or technical achievement</i></p>	<p>Potential structural remains of vessels moorings may demonstrate technical developments in mooring equipment throughout the late 19th to latter 20th century, including the evolution of mooring anchors and set up of mooring anchor and / or block and chain systems.</p>

d. <i>An item has strong or special associations with a particular community or cultural group for social, cultural or spiritual reasons</i>	Archaeological remains associated with historical vessel moorings in Coffs Harbour may have cultural and social significance to local Coffs Harbour residents, in particular descendants of jetty workers, cargo and passenger shipping crews, and commercial fishing fleet.
e. <i>An item has potential to yield information that will contribute to an understanding of cultural or natural history</i>	Archaeological remains and deposits associated with historical vessel moorings in Coffs Harbour jetty could contribute to the understanding of the operation of shipping and mooring facilities in the harbour – in particular, the location, distribution, and layout of mooring and anchorage areas. Artefact deposits derived from vessels at the moorings also have research potential to yield information regarding shipping activities and a wider view of the lifestyles and material culture of people using the harbour throughout the late 19 th to latter 20 th centuries.
f. <i>An item possesses uncommon, rare or endangered aspects of cultural or natural history</i>	N/A
g. <i>An item is important in demonstrating the principal characteristics of a class of cultural or natural places; or cultural and natural environments.</i>	N/A

Potential structural remains and deposits associated with Coffs Harbour vessel moorings are assessed to be of **local heritage significance**.

5.3.3 Shipwrecks

5.3.3.1 Coastal cargo vessels wrecked in 1860s & 1890s

(a) <i>the significance of the article in relation to its potential to yield information contributing to an understanding of history, technological accomplishments or social developments</i>	The wrecks of the two cargo vessels lost in the 1860s-1890s have the potential to contribute information to the historical and technical developments of coastal shipping, trade, and cargo handling and transfer in Coffs Harbour throughout the mid to late 19 th century – from both the earliest period of timber getting in the Coffs Harbour region, prior to the construction of the Coffs Harbour jetty when timber cargo had to be rafted out to vessels waiting in deeper water (<i>Carry Well</i> wrecked in 1866), and the earliest years of the Coffs Harbour jetty (<i>Belmore</i> wrecked in 1893).
(b) <i>the significance of the article in its potential to yield information about the composition and history of cultural remains and associated natural phenomena through examination of physical, chemical or biological processes</i>	N/A
(c) <i>the significance of the article in representing or contributing to technical or creative accomplishments during a particular period</i>	N/A

(d) <i>the significance of the article through its association with a community in contemporary Australia for social, cultural or spiritual reasons</i>	The wrecks of <i>Carry Well</i> and <i>Belmore</i> are likely to hold social and cultural significance to the Coffs Harbour local and regional community.
(e) <i>the significance of the article for its potential to contribute to public education</i>	The wrecks of <i>Carry Well</i> and <i>Belmore</i> have a potential to contribute to public education regarding the long history of shipping in Coffs Harbour, the evolution of different types of coastal cargo vessels utilising the harbour, and the dangerous nature of the harbour and disastrous effects of storm events, particularly prior to the construction of the Coffs Harbour breakwaters.
(f) <i>the significance of the article in possessing rare, endangered or uncommon aspects of history</i>	Whilst several shipwreck events have occurred in Coffs Harbour since the mid 19 th century, none of the wreck sites or elements of wreckage have been identified. Any surviving remains of <i>Carry Well</i> and <i>Belmore</i> would thus represent rare and uncommon sites; with additional rarity in only two 19 th century wrecks are known to have occurred in Coffs Harbour.
(g) <i>the significance of the article in demonstrating the characteristics of a class of cultural articles</i>	N/A

Potential remains of shipwrecks *Carry Well* and *Belmore* are assessed to be of **local heritage significance**.

5.3.3.2 Fishing vessels wrecked in 1910s-1940s

(b) <i>the significance of the article in relation to its potential to yield information contributing to an understanding of history, technological accomplishments or social developments</i>	The wrecks of the thirteen fishing vessels lost during the 1910s-1940s have the potential to contribute information to the historical evolution of the uses and shipping activities within Coffs Harbour and the early development of the local and regional commercial fishing industry and fleet.
(c) <i>the significance of the article in its potential to yield information about the composition and history of cultural remains and associated natural phenomena through examination of physical, chemical or biological processes</i>	N/A
(d) <i>the significance of the article in representing or contributing to technical or creative accomplishments during a particular period</i>	N/A
(e) <i>the significance of the article through its association with a community in contemporary Australia for social, cultural or spiritual reasons</i>	The wrecks of the thirteen fishing vessels are likely to hold social and cultural significance to the Coffs Harbour local and regional community. In particular, the <i>Wanderer</i> wreck is likely to hold special significance to descendants of local fishermen and owners of the fishing vessels, and descendants of the crew member, Henry John Whear, who was killed during the wrecking event.

(f) <i>the significance of the article for its potential to contribute to public education</i>	The wrecks of the thirteen fishing vessels have a potential to contribute to public education regarding the early development of the fishing industry in Coffs Harbour, and the dangerous nature of the harbour and disastrous effects of storm events, particularly prior to the construction of the Coffs Harbour breakwaters.
(g) <i>the significance of the article in possessing rare, endangered or uncommon aspects of history</i>	Whilst several shipwreck events have occurred in Coffs Harbour since the mid 19 th century, none of the wreck sites or elements of wreckage have been identified. Any surviving remains of the fifteen fishing vessels would thus represent rare and uncommon sites.
(h) <i>the significance of the article in demonstrating the characteristics of a class of cultural articles</i>	N/A

Potential remains of shipwrecks of the fishing vessels lost during the 1910s-1940s are assessed to be of **local heritage significance**.

6 MARITIME ARCHAEOLOGICAL SENSITIVITY

Based on desktop archival research, examination of maritime archaeological potential, and significance assessment, various broad areas of maritime archaeological sensitivity across the Coffs Harbour maritime archaeological assessment study area have been identified, ranging from minimal sensitivity to high sensitivity. The sensitivity rankings are described in Table 6.1 below and the broad areas of sensitivity are depicted in an indicative maritime archaeological sensitivity map in Figure 6.1 overleaf. This maritime archaeology sensitivity map should be used as a general guide for future planning and development within Coffs Harbour.

Sensitivity ranking	Description
High sensitivity	Areas of the seabed that contain known maritime archaeological resources of local and State heritage significance, and / or have a high potential to contain concentrated and high density maritime archaeological resources of local heritage significance – particularly structural remains and artefact deposits associated with the use and operation of Coffs Harbour Jetty, losses and discards from vessels, and wreckage from vessels lost whilst moored alongside the jetty.
Moderate to high sensitivity	Areas of the seabed that have a moderate to high potential to contain both discrete and scattered maritime archaeological resources of local heritage significance – particularly structural remains and artefact deposits associated with Coffs Harbour jetty moorings and small vessel moorings, losses and discards from vessels, and wreckage from vessels lost whilst moored in the northern part of Coffs Harbour and wrecked on the reef between Muttonbird Island and the mainland, against the northern breakwater, and / or along the northern end of Jetty Beach.
Moderate sensitivity	Areas of the seabed that have a moderate potential to contain maritime archaeological resources of local heritage significance – particularly dispersed elements of wreckage from vessels lost against the southern retaining wall and at unknown locations along Jetty Beach.
Low sensitivity	Areas of the seabed that have low potential to contain dispersed and low density maritime archaeological resources of local heritage significance – such as scattered wreckage elements or incidental losses / discards from vessels.
Minimal sensitivity	Areas of the seabed that have been subject to substantial latter 20 th century disturbance via excavation and dredging and are likely to have nil to very low potential to contain maritime archaeological resources.

Table 6.1: Ranking and definition of areas of maritime archaeological sensitivity within the Coffs Harbour maritime archaeological assessment study area.



Figure 6.1: Areas of maritime archaeological sensitivity within Coffs Harbour maritime archaeological assessment study area (outlined in red).

7 MARITIME HERITAGE CONSTRAINTS

7.1 Rezoning & proposed future development

The State Assessed Planning Proposal involves amendment of the planning framework to enable the revitalisation of the Coffs Harbour Jetty Foreshore. It is envisaged that a range of land uses will be supported within the Precinct, with a mix of commercial, retail, tourism, residential and tourist accommodation, recreation and community / cultural uses. The proposed land uses are also intended to allow and facilitate the continued operation of the working harbour. To achieve this, a range of amendments to the *Coffs Harbour LEP 2013* “Land Zoning Map,” “Additional Permitted Uses Map” and “Height of Buildings Map” are proposed across the Precinct.

The State Assessed Planning Proposal is supported by an Illustrative Masterplan that presents a potential development outcome that could be realised within the Precinct. The Illustrative Masterplan is broadly organised across six sub-precincts that will each have a distinct character and function.

Only two of the proposed rezoning areas and Illustrative Masterplan sub-precincts fall within the maritime archaeological assessment study area; Corambirra Point and the Marina – see Figures 7.1 and 7.2. The North Park, Jetty Hub, Activity Hub, and Foreshore Parklands Illustrative Masterplan sub-precincts are outside the maritime archaeological assessment area and have no maritime archaeological constraints.



Figure 7.1: Proposed rezoning areas (outlined in green) in relation to the maritime archaeological assessment study area (outlined in red).

The proposed planning amendments within the Corambirra Point and Marina sub-precincts are:

- **Corambirra Point**

Land use zoning –

- Exclude land in part of the Corambirra Point sub-precinct from the RE2 Private Recreation and RE1 Public Recreation zone and include it in the MU1 Mixed Use zone.
- Exclude the southern headland area outside of the Corambirra Point sub-precinct from the SP2 Infrastructure (Tourism, Marine, Wharf and Boating Facilities) zone and include it in the SP1 Special Uses (Culture, Community and Recreation) zone.

Additional permitted uses –

- Minor amendments to the boundary of the existing additional permitted use '4' along the inner western boundary to capture the entire headland area.

Height of buildings –

- Increase maximum building height in the Corambirra Point sub-precinct from 8.5m to 15.5m.
- Remove permissive maximum building heights between 8.5m and 22m in the southern headland area outside of the Corambirra Point sub-precinct. In areas zoned RE1 Public Recreation, apply a maximum height of 5.4m consistent with the rest of the parkland.

- **The Marina**

Additional permitted uses –

- Inclusion of part of the Marina sub-precinct zoned W4 Working Waterfront within a new additional permitted use reference number to provide additional flexibility for the operators working within the Marina and assist in facilitating future renewal. Specifically, office premises are intended to be permitted with consent.

Height of buildings –

- Increase maximum building height in part of the Marina sub-precinct from 11m to 15.5m.

As shown in Figure 7.1, an area of proposed rezoning within the Foreshore Parklands sub-precinct, located just beyond the maritime archaeological assessment area, extends over the base of the Coffs Harbour Jetty. This proposed rezoning involves the following planning amendments in land use zoning only:

- Exclude land in the Foreshore Parklands sub-precinct abutting the Jetty from the SP2 Infrastructure (Tourism, Marine, Wharf and Boating Facilities) zone and include it in the RE1 Public Recreation zone.

Proposed development under the Illustrative Masterplan within the Corambirra Point and Marina sub-precincts is as follows (see Figure 7.2):

- **Corambirra Point –**

Development of a new regional tourist destination on the site of the former Deep Sea Fishing Club (see Figure 7.2), including publicly accessible cafes and restaurants, a function space, activity centre, and tourist accommodation.

- **The Marina –**

Revitalisation of the active marina to accommodate local marine based businesses that reflect their regional importance, with development proposed to an area of the north-western marina hardstand containing existing buildings including shops and restaurants (see Figure 7.2).



Figure 7.2: Illustrative Masterplan sub-precincts (in white) in relation to the maritime archaeological assessment area (in red).

The proposed development area within the Corrambirra Point sub-precinct falls outside the maritime archaeological assessment area (see Figure 7.2) and does not have any maritime heritage or archaeological constraints.

The proposed development area within the Marina sub-precinct falls extends over an area of the seabed assessed to have moderate to high maritime archaeological sensitivity – see Figure 7.3.



Figure 7.3: Marina sub-precinct proposed development area (outlined in yellow) in relation to areas of maritime archaeological sensitivity within the maritime archaeological assessment area (outlined in red).

This desktop maritime archaeological assessment has determined that this area of the seabed has a moderate to high potential to contain wreckage from vessels lost whilst moored in Coffs Harbour and wrecked on the reef between Muttonbird Island and the mainland (prior to the construction of the northern breakwater), against the northern breakwater, or along the northern end of Jetty Beach; including *Carry Well* (1866), *Belmore* (1893), *Alfred* (1914), *Wee Kitty* (1914), four fishing vessels (names unknown) in 1934 and one fishing vessel (name unknown) in 1948. Such wreckage may include sections of timber hull, ferrous frames and fittings, engines, propellers, ferrous and copper alloy fastenings, chains, and anchors, and would be located underneath the land reclamation laid down during the 1970s boat harbour construction. All surviving remains of any of these shipwrecks are afforded automatic protection under both the Commonwealth *Underwater Cultural Heritage Act 2018* (UCH At 2018) and the NSW *Heritage Act 1977* (see Annex A).

It is important to note that this assessed level of maritime archaeological sensitivity relates to the seabed underneath the existing marina hardstand and reclaimed land laid down during the construction of the Coffs Harbour boat harbour in the 1970s.

Under the Illustrative Masterplan, proposed development within the Marina sub-precinct involves the modification and expansion of buildings on and above the existing hardstand and reclaimed land. As such, the risk to potential maritime archaeological resources buried on the seabed beneath the reclaimed land can be considered to be low.

Nonetheless, in the event that development that may disturb the former seabed is proposed within the Marina sub-precinct – such as excavation into the reclaimed land for building foundations or underground services etc. – a maritime archaeological impact assessment and maritime heritage management plan should be prepared by a suitably qualified maritime archaeologist prior to works commencing. Such assessment should address all potential direct and indirect impacts to maritime heritage associated with the proposed development works, provide appropriate mitigation measures and management recommendations to minimise heritage impact in accordance with recognised underwater cultural heritage guidelines and principles (see Annex A), and outline statutory obligations such as requirements for permits under the UCH Act 2018 and the NSW *Heritage Act 1977*.

Finally, in the event that any potential disturbance in areas of maritime archaeological sensitivity is proposed in future development activities under the Illustrative Masterplan, the following controls must be undertaken in accordance with Heritage NSW requirements:

- If potential maritime heritage items are identified within the proposal area, then a Maritime Statement of Heritage Impact (MSOHI) must be undertaken to assess the potential impacts to maritime heritage items or relics;
- If any significant maritime heritage items or relics are likely to be disturbed as part of the proposal, then a Maritime Archaeological Research Design and Excavation Methodology (MARDEM) must be undertaken to assess the nature, extent and significance of any Underwater Cultural Heritage or maritime heritage items or relics that may exist within the proposal area, and;
- All works pertaining to maritime or underwater cultural heritage items or relics must be undertaken by a suitably experienced and qualified maritime archaeologist as defined under the Australasian Institute for Maritime Archaeology (AIMA) Code of Ethics.

7.2 Summary

The following table provides a summary of maritime heritage and archaeological risks and constraints associated with the State Assessed Planning Proposal and potential future development of the Coffs Harbour Jetty Foreshore Precinct under the Illustrative Masterplan.

Illustrative Masterplan Sub-Precinct	Maritime archaeological sensitivity	Re-zoning constraints	Potential development risk	Potential development constraints
The Marina	Area of the former seabed of moderate to high maritime archaeological sensitivity with a potential to contain remains of shipwrecks protected under the Commonwealth <i>UCH Act 2018</i> and the NSW <i>Heritage Act 1977</i> .	No	Low	A maritime archaeological impact assessment and maritime heritage management plan should be prepared for any proposed development works that may disturb the former seabed beneath the existing marina hardstand and reclaimed land in this area. Such an assessment should be undertaken by a qualified maritime archaeologist, address all potential impacts, provide appropriate mitigation measures and management recommendations to minimise heritage impact in accordance with recognised underwater cultural heritage guidelines and principles, and outline statutory obligations such as approvals under the <i>UCH Act 2018</i> and the NSW <i>Heritage Act 1977</i> .
North Park	N/A	N/A	N/A	N/A
Jetty Hub	N/A	N/A	N/A	N/A
Activity Hub & Village Green	N/A	N/A	N/A	N/A
Corambirra Point	Area of former seabed of high maritime archaeological sensitivity associated with the buried timber trestle rail bridge listed as a heritage item in <i>Coffs Harbour LEP 2013</i> .	No	No - proposed development beyond area of maritime archaeological sensitivity.	N/A
Foreshore Parklands	N/A	N/A		N/A

Table 7.1: Summary of maritime heritage and archaeological risks and constraints associated with rezoning application and Illustrative Masterplan.

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ANNEX A – MARITIME HERITAGE STATUTORY PROTECTION & NON-STATUTORY GUIDELINES

Statutory protection

Commonwealth Underwater Cultural Heritage Act 2018 (UCH Act)

The Commonwealth *Underwater Cultural Heritage Act 2018* (UCH Act) (replacing the *Historic Shipwrecks Act 1976*) provides for the protection, conservation, and management of Australia's historic shipwrecks, sunken aircraft, and other types of underwater cultural heritage. The Act is also designed to enable the cooperative implementation of national and international maritime heritage responsibilities, and to promote public awareness, understanding, appreciation, and appropriate use of Australia's underwater cultural heritage.

Under Part 1, Division 2 of the UCH Act, underwater cultural heritage is defined as “any trace of human existence that has a cultural, historical or archaeological character; and is located under water.” Traces of human existence are considered to be located under water whether they are located partially or totally under water, and whether they are under water periodically or continuously.

The Commonwealth Department of Climate Change, Energy, the Environment and Water (DCCEEW) is responsible for administering the UCH Act. The jurisdiction of the UCH Act includes all Commonwealth waters and all Australian waters as defined under Section 11 of the Act and extends to Australian external territories. The Coffs Harbour maritime study area falls within “Australian waters,” extending from the low water mark and including:

- (a) *any waters on the landward side of the territorial sea of Australia that are not within the limits of a State; and*
- (b) *the territorial sea of Australia; and*
- (c) *the sea above the continental shelf of Australia; and*
- (d) *the seabed and subsoil beneath any such sea or waters.*

Under Section 16 of the UCH Act, the following types of UCH are automatically protected within Australian waters, regardless of whether the existence or location of the UCH is known, or has been removed from Australian waters:

- (a) *all remains of vessels that have been in Australian waters for at least 75 years*
- (b) *every article that is associated with a vessel, or the remains of a vessel, and that has been in Australian waters for at least 75 years*

An article is defined as “associated with” a vessel, aircraft, or other vehicle (Section 10) if the article:

- (a) *appears to have formed part of the vessel, aircraft or other vehicle, or;*
- (b) *appears to have been installed or carried on the vessel, aircraft or other vehicle, or;*
- (c) *is remains of humans or animals that appear to have been on board the vessel, aircraft or other vehicle, or;*
- (d) *appears to have been constructed or used by a person associated with a vessel.*

Section 17 of the UCH Act further provides that other types of UCH may be protected via Ministerial declaration subject to discovery, notification, and the Minister being satisfied that the UCH is of heritage significance. Provisional declarations under Section 19 of the UCH Act can also be made to provide temporary protection to certain types of UCH until its heritage significance can be properly assessed. The types of UCH that may be declared as protected include:

1. *The remains of a vessel – if the article is in, or has been removed from, Australian waters;*
2. *An article associated with a vessel, or the remains of a vessel – if the article is in, or has been removed from, Australian waters;*

Under Section 20 of the UCH Act, the Minister may also, by legislative instrument, declare an area containing protected UCH to be a protected zone, and specify prohibitions or limitations on access to, and activities within, the protected zone. Under Section 20(4) of the Act, a declared protected zone:

- (a) *must not be outside the outer limits of Australian waters; and*
- (b) *may consist of sea, or partly of sea and partly of land; and*
- (c) *may include the airspace above the area, extending to such height above the surface of the sea or land as is specified in the declaration; and*
- (d) *to the extent the area consists of the surface of any sea--includes the waters beneath the area, the seabed beneath that sea and the subsoil of the seabed.*

It is an offence, under Section 30 of the UCH Act, to engage in conduct that has, will have, or is likely to have an adverse impact on protected UCH without a permit granted under the Act. Section 30(2) of the UCH Act specifies that conduct is considered to have an adverse impact on protected UCH if the conduct:

- (a) *directly or indirectly physically disturbs or otherwise damages the protected underwater cultural heritage; or*
- (b) *causes the removal of the protected underwater cultural heritage from waters or from its archaeological context.*

Unpermitted adverse impact to protected UCH constitutes an offence under the UCH Act and may lead to criminal investigation and legal action under the UCH Act, the *Criminal Code Act 1995* and the *Regulatory Powers Act 2014*.

The UCH Act also requires, under Section 40 of the Act, that a person must notify the Minister of the discovery of UCH if:

- (a) *a person finds an article of underwater cultural heritage; and*
- (b) *the article is in Australian waters; and*
- (c) *the article appears to be of an archaeological character.*

A written notification must be provided within 21 days of discovery and include a detailed description and specific location of the UCH. Failure to notify the discovery of suspected UCH within the statutory timeframe constitutes an offence under the UCH Act and may lead to investigation and legal action under the UCH Act, the *Criminal Code Act 1995*, and the *Regulatory Powers Act 2014*.

Under Sections 31-39 of the UCH Act, the possession, custody, and control of protected UCH, and the supply, import, or export of protected Australian UCH, are prohibited without a permit. Unpermitted actions as defined under these sections constitutes an offence under the UCH Act and may lead to criminal investigation and legal action under the UCH Act, the *Criminal Code Act 1995*, and the *Regulatory Powers Act 2014*.

Actions directed at protected UCH are subject to a permitting regime under Section 23 of the UCH Act. Section 23 permits are subject to various conditions depending on the nature of the permit and the proposed action, and can be varied, transferred, or revoked, as per Sections 24-28 of the Act.

Underwater Cultural Heritage Rules 2018 (UCH Rules)

In December 2018, the Minister for Environment established the *Underwater Cultural Heritage Rules 2018* (UCH Rules) by legislative instrument in accordance with Section 61 of the UCH Act. The UCH Rules came into force on 1 July 2019.

The purpose of the UCH Rules is to prescribe certain matters under the UCH Act, including:

- (a) *criteria relating to heritage significance under Section 22 of the Act;*

- (b) *matters the Minister must have regard to in deciding whether to grant a permit under Subsection 23(4) of the Act;*
- (c) *other matters that must be specified in permits under Subsection 23(5) of the Act, and;*
- (d) *matters the Minister must have regard to in deciding whether to vary a permit under Subsection 25(3) of the Act.*

Australasian Underwater Cultural Heritage Database (AUCHD)

The Australasian Underwater Cultural Heritage Database (AUCHD), which has been developed under the AUCHP, is the statutory register of protected UCH under the UCH Act and provides a portal for proponents to submit notifications and permit applications as required under the UCH Act. The AUCHD is also a research tool containing archaeological, historical, and spatial information about UCH sites throughout Australia, Oceania, and Southeast Asia, including records of associated artefacts.

NSW Heritage Act 1977 (amended 1999)

The NSW *Heritage Act 1977* is the primary piece of State legislation affording protection to all items of non-indigenous environmental heritage (natural and cultural) in NSW. Under the Act, “items of environmental heritage” include places, buildings, works, relics, moveable objects and precincts identified as significant based on historical, scientific, cultural, social, archaeological, architectural, natural or aesthetic values. Items of heritage identified as having State significance are listed on the NSW State Heritage Register (SHR) and are afforded automatic protection against any activities that may damage the item or affect its heritage significance under the Act.

State Heritage Register

The State Heritage Register (SHR) is established and maintained under the *Heritage Act 1977* and identifies heritage places, areas, and objects of particular importance to the state of NSW.

Under Section 57 of the Act, when listing on the SHR applies to a place, building, work, relic, moveable object, precinct, or land, it is an offence to undertake any of the following activities without prior approval granted by the NSW Heritage Council under Subdivision 1 of Division 3 of the Act (Section 60 permit):

- (a) *demolish the building or work,*
- (b) *damage or despoil the place, precinct or land, or any part of the place, precinct or land,*
- (c) *move, damage or destroy the relic or moveable object,*
- (d) *excavate any land for the purpose of exposing or moving the relic,*
- (e) *carry out any development in relation to the land on which the building, work or relic is situated, the land that comprises the place, or land within the precinct,*
- (f) *alter the building, work, relic or moveable object,*
- (g) *display any notice or advertisement on the place, building, work, relic, moveable object or land, or in the precinct,*
- (h) *damage or destroy any tree or other vegetation on or remove any tree or other vegetation from the place, precinct or land.*

Exemptions are available for minor work and maintenance work that would not adversely affect the significance of the item in accordance with Section 57(2) of the Act. Some exemptions may require prior notification and written approval from the Heritage Council of NSW.

Conservation Management Plans

Under Section 38A of the *Heritage Act 1977*, the Heritage Council may endorse a conservation management plan for an item listed on the SHR. Section 38A defines a conservation management plan as a document that:

- (a) *identifies the State heritage significance of an item, and*

- (b) sets out policies and strategies for the retention of that significance, and*
- (c) is prepared in accordance with the guidelines for the preparation of conservation management plans (if any) publicly issued from time to time by the Heritage Council.*

A conservation plan was prepared by NSW Public Works for the Coffs Harbour jetty in 1994 to inform the consideration of various proposed options for redevelopment of the jetty and provide a guideline for documentation of all future works, including jetty maintenance:

Boyd, N., Kass, T., J. Singh, & V. Sicari. 1994. *Coffs Harbour Jetty Conservation Plan*. Heritage Group, State Projects, NSW Public Works.

This conservation plan was prepared prior to the listing of the Coffs Harbour jetty on the SHR, however, continues to serve as a useful reference and guidance document.

Relics provision and protection

In addition to places and objects listed on the State Heritage Register, various cultural heritage sites, items, and archaeological features and deposits are afforded automatic protection under the relics provisions of the *Heritage Act 1977*. Section 4 of the Act defines “relics” as any item that:

- (a) relates to the settlement of the area that comprises New South Wales, not being Aboriginal settlement; and,*
- (b) is of State or local heritage significance.*

Sections 139 to 145 of the Act prevent the disturbance or excavation of any land if there is a reasonable cause to suspect that a relic will be discovered, exposed, moved, damaged, or destroyed, unless an excavation permit has been issued by the Heritage Council of NSW. The type of permit that is required depends on whether the relic or relics have been listed on the State Heritage Register. An application for an excavation permit must be supported by an Archaeological Research Design and Archaeological Assessment prepared in accordance with the NSW Heritage Division archaeological guidelines.

Under Section 146 of the *Heritage Act 1977*, a person who is aware or believes that they have discovered or located a relic (in any circumstances, and whether or not the person has been issued with a permit), must:

- (a) within a reasonable time after he or she first becomes aware or believes that he or she has discovered or located that relic, notify the Heritage Council of the location of the relic, unless he or she believes on reasonable grounds that the Heritage Council is aware of the location of the relic, and*
- (b) within the period required by the Heritage Council, furnish the Heritage Council with such information concerning the relic as the Heritage Council may reasonably require.*

Historic shipwrecks protection

Under Section 51 of the *Heritage Act 1977*, it is an offence to move, damage or destroy any shipwreck otherwise than in accordance with an historic shipwrecks permit.

An “historic shipwreck” is defined under Section 47 of the Act as *the remains of any ship (including any articles associated with the ship) --*

- (a) that have been situated in State waters, or otherwise within the limits of the State, for 75 years or more, or*
- (b) that are the subject of a historic shipwrecks protection order.*

A reference to an article being “associated” with a ship includes a reference to

- (a) any article that appears to have formed part of the ship, and*
- (b) any article that appears to have been installed on, or carried in, the ship, and*
- (c) any article that appears to have been constructed or used by a person associated with the ship.*

A reference to any remains of a ship, or any article associated with a ship, being “situated in State waters” includes a reference to any such remains or article--

- (a) being situated in, or forming part of, the land beneath those waters, or*
- (b) being situated in, or forming part of, a reef in those waters.*

Finally, a “ship” is defined as “any navigable vessel.”

NSW Environmental Planning and Assessment Act 1979

The *Environmental Planning and Assessment Act 1979* (EP&A Act) establishes the framework for cultural heritage values to be formally assessed in the land use planning and development consent process. The EP&A Act requires that environmental impacts are considered prior to land development; this includes impacts on cultural heritage items and places as well as archaeological sites and deposits.

The EP&A Act also requires that Local Governments prepare planning instruments (such as Local Environmental Plans and Development Control Plans) in accordance with the Act to provide guidance on the level of environmental assessment required. The Coffs Harbour maritime study area falls within the boundaries of the *Coffs Harbour Local Environmental Plan (LEP) 2013*.

Coffs Harbour Local Environmental Plan (LEP) 2013

One of the stated particular aims of the *Coffs Harbour LEP 2013* is “to encourage responsible and sustainable management and conservation of Coffs Harbour City’s natural environment, built environment and cultural heritage.” “Heritage items” are defined within the LEP (Clause 1.4) as a “building, work, place, relic, tree, object or archaeological site the location and nature of which is described in Schedule 5.

Regulation 5.10 of the *Coffs Harbour LEP 2013* provides protection for heritage items as listed in Schedule 5, with the key objectives being:

- (a) to conserve the environmental heritage of Coffs Harbour,*
- (b) to conserve the heritage significance of heritage items and heritage conservation areas, including associated fabric, settings and views,*
- (c) to conserve archaeological sites,*
- (d) to conserve Aboriginal objects and Aboriginal places of heritage significance.*

Under Regulation 5.10, development consent is required for any of the following --

- (a) demolishing or moving any of the following or altering the exterior of any of the following (including, in the case of a building, making changes to its detail, fabric, finish or appearance)--*

- (i) a heritage item,*
- (ii) an Aboriginal object,*
- (iii) a building, work, relic or tree within a heritage conservation area.*

- (b) altering a heritage item that is a building by making structural changes to its interior or by making changes to anything inside the item that is specified in Schedule 5 in relation to the item,*

- (c) disturbing or excavating an archaeological site while knowing, or having reasonable cause to suspect, that the disturbance or excavation will or is likely to result in a relic being discovered, exposed, moved, damaged or destroyed,*

- (d) disturbing or excavating an Aboriginal place of heritage significance,*

- (e) erecting a building on land--*

- (i) on which a heritage item is located or that is within a heritage conservation area, or*
- (ii) on which an Aboriginal object is located or that is within an Aboriginal place of heritage significance,*

- (f) subdividing land--*

- (i) on which a heritage item is located or that is within a heritage conservation area, or*
- (ii) on which an Aboriginal object is located or that is within an Aboriginal place of heritage significance.*

Non-statutory listings

Register of the National Estate

The Register of the National Estate (RNE) is a non-statutory listing of natural and cultural heritage places that are considered special to Australians and worth keeping for the future. The register was initiated by the Australian Heritage Commission in 1976 and now contains over 13,000 places across Australia. The RNE is now maintained by the Australian Heritage Council, however, in 2006, the *Environment Protection and Biodiversity Conservation Act 1999*, and the *Australian Heritage Council Act 2003* were amended to, among other things, stop changes to the RNE. The Australian Heritage Council can no longer add to, alter, or remove all or part of a place from an RNE listing.

Listing on the RNE was a way of identifying and providing information on Australia's heritage places and publicly confirmed their value to the community. Places on the RNE may be protected under appropriate State, Territory and Local Government heritage legislation and under an agreement between the Commonwealth and States and Territories it is intended those registered places will be considered for inclusion in appropriate Commonwealth, State / Territory heritage lists. Registered places can also be protected under the EPBC Act if they are also included in another Commonwealth statutory heritage list. However, the act of listing a place on the RNE does not constitute automatic legal protection. Notwithstanding, the RNE is widely recognised as an authoritative compilation of the heritage significance of many of Australia's natural and cultural places and is still considered by planning agencies when decisions regarding development and conservation are being determined.

National Trust (NSW) Register

The National Trust (NSW) is a community-based charity organisation, established in 1946 to safeguard the natural, built and cultural heritage of NSW. The Trust maintains and operates many of Australia's most significant heritage properties and places a pivotal role on many liaison committees with government departments, councils, developers and other community organisation.

The National Trust maintains a Register of landscapes, townscapes, buildings, industrial sites, cemeteries and other items or places that the Trust determines have cultural significance and are worthy of conservation. The Trust's Register is intended to perform an advisory and educational role. The listing of a place in the Register, known as "classification" has no legal force however, like the Register of the National Estate, it is widely recognised as an authoritative statement of the cultural significance of a place.

Maritime heritage management principles

UNESCO Convention on the Protection of Underwater Cultural Heritage 2001

The United Nations Educational, Scientific and Cultural Organisation (UNESCO) *Convention on the Protection of Underwater Cultural Heritage 2001* (2001 UNESCO Convention) is an international treaty that was developed to provide a common framework for member States on how to better identify, research, and protect underwater heritage whilst ensuring its preservation and sustainability. The Convention consists of a main text that sets out basic principles for the protection of underwater cultural heritage and provides a detailed State cooperation system, and an Annex that outlines widely recognised practical rules for the treatment and research of underwater cultural heritage. The 2001 UNESCO Convention entered into force in 2009.

The Australian Government supported the principles and drafting of the 2001 UNESCO Convention and is currently considering ratification of the Convention in accordance with requirements under Australia's *Treaty Making Guidelines*.

The UCH Act 2018 broadly aligns with the 2001 UNESCO Convention's guiding principles and adopts the Convention's definitions. To ensure compliance with the UCH Act, all actions directed

at UCH should be designed, executed, and reported on in accordance with the 2001 UNESCO Convention Annex Rules and the *Manual for Activities Directed at Underwater Cultural Heritage*.

Under Article 1 of the 2001 UNESCO Convention, UCH is defined as:

All traces of human existence having a cultural, historical or archaeological character which have been partially or totally under water, periodically or continuously, for at least 100 years such as:

- (i) sites, structures, buildings, artefacts and human remains, together with their archaeological and natural context;*
- (ii) vessels, aircraft, other vehicles or any part thereof, their cargo or other contents, together with their archaeological and natural context; and*
- (iii) objects of prehistoric character.*

The general principles concerning activities directed at UCH as contained in the Annex of the 2001 UNESCO Convention are:

- Rule 1.** *The protection of underwater cultural heritage through in situ preservation shall be considered as the first option. Accordingly, activities directed at underwater cultural heritage shall be authorized in a manner consistent with the protection of that heritage, and subject to that requirement may be authorized for the purpose of making a significant contribution to protection or knowledge or enhancement of underwater cultural heritage.*
- Rule 2.** *The commercial exploitation of underwater cultural heritage for trade or speculation or its irretrievable dispersal is fundamentally incompatible with the protection and proper management of underwater cultural heritage. Underwater cultural heritage shall not be traded, sold, bought, or bartered as commercial goods.*
- Rule 3.** *Activities directed at underwater cultural heritage shall not adversely affect the underwater cultural heritage more than is necessary for the objectives of the project.*
- Rule 4.** *Activities directed at underwater cultural heritage must use non-destructive techniques and survey methods in preference to recovery of objects. If excavation or recovery is necessary for the purpose of scientific studies or for the ultimate protection of the underwater cultural heritage, the methods and techniques used must be as non-destructive as possible and contribute to the preservation of the remains.*
- Rule 5.** *Activities directed at underwater cultural heritage shall avoid the unnecessary disturbance of human remains or venerated sites.*
- Rule 6.** *Activities directed at underwater cultural heritage shall be strictly regulated to ensure proper recording of cultural, historical and archaeological information.*
- Rule 7.** *Public access to in situ underwater cultural heritage shall be promoted, except where such access is incompatible with protection and management.*
- Rule 8.** *International cooperation in the conduct of activities directed at underwater cultural heritage shall be encouraged in order to further the effective exchange or use of archaeologists and other relevant professionals.*

Manual for Activities directed at Underwater Cultural Heritage 2013

The *Manual for Activities directed at Underwater Cultural Heritage*¹⁵³ is a comprehensive and detailed guide to the Annex of the UNESCO 2001 Convention. The Manual was prepared by UNESCO in conjunction with an international team of renowned underwater archaeologists and is fully endorsed by the Scientific and Technical Advisory Body of the 2001 UNESCO Convention.

The Manual is designed to assist specialists and decision-makers understand *The Rules Concerning Activities Directed at Underwater Cultural Heritage* contained in the Annex of the Convention, and to facilitate practical and efficient application of the Rules. It is intended for use as a reference tool by stakeholders and partners involved the management and protection of UCH, and by persons responsible for training courses in underwater archaeology.

¹⁵³ Maarleveld, T., U. Guérin, & B. Egger (eds.). 2013. *Manual for Activities directed at Underwater Cultural Heritage: Guidelines to the Annex of the UNESCO 2001 Convention*. UNESCO, Paris, France.

Australia ICOMOS Charter for Places of Cultural Heritage Significance 2013; the Burra Charter

The Australia International Council on Monuments and Sites (ICOMOS) *Charter for Places of Cultural Significance 2013*; the Burra Charter, was first adopted at the historic mining town of Burra, South Australia in 1979, and has been periodically revised and updated, with the current version adopted by Australia ICOMOS in October 2013.

The Burra Charter sets a standard of best practice for those who provide advice, make decisions about, or undertake works to places of cultural significance, and maintains that places of cultural significance must be conserved for present and future generations in accordance with the principle of inter-generational equity. The standards and principles of the Burra Charter can be applied to all types of places of cultural significance including natural, First Nations, and historic places with cultural values.

Under Article 1 of the Burra Charter, the following definitions apply:

- *Place means a geographically defined area. It may include elements, objects, spaces, and views. Place may have tangible and intangible dimensions.*
- *Cultural significance means aesthetic, historic, scientific, social or spiritual value for past, present or future generations. Cultural significance is embodied in the place itself, its fabric, setting, use, associations, meanings, records, related places and related objects. Places may have a range of values for different individuals or groups.*
- *Conservation means all the processes of looking after a place so as to retain its cultural significance.*

The main concepts of the Burra Charter are outlined in the Conservation Principles section, which are further developed in the Conservation Processes and Conservation Practice sections. The key conservation principles and Burra Charter process are as follows:

Article 2. Conservation and management

- 2.1 *Places of cultural significance should be conserved.*
- 2.2 *The aim of conservation is to retain the cultural significance of a place.*
- 2.3 *Conservation is an integral part of good management of places of cultural significance.*
- 2.4 *Places of cultural significance should be safeguarded and not put at risk or left in a vulnerable state.*

Article 3. Cautious approach

- 3.1 *Conservation is based on a respect for the existing fabric, use, associations and meanings. It requires a cautious approach of changing as much as necessary but as little as possible.*

Article 6. Burra Charter Process

- 6.1 *The cultural significance of a place and other issues affecting its future are best understood by a sequence of collecting and analysing information before making decisions. Understanding cultural significance comes first, then development of policy and finally management of the place in accordance with the policy. This is the Burra Charter Process.*
- 6.2 *Policy for managing a place must be based on an understanding of its cultural significance.*
- 6.3 *Policy development should also include consideration of other factors affecting the future of a place such as the owner's needs, resources, external constraints and its physical condition.*
- 6.4 *In developing an effective policy, different ways to retain cultural significance and address other factors may need to be explored.*
- 6.5 *Changes in circumstances, or new information or perspectives, may require reiteration of part or all of the Burra Charter Process.*

Coffs Harbour Jetty Conservation Plan (1994)

The Coffs Harbour Jetty Conservation Plan¹⁵⁴ referred to in the NSW SHR heritage listing for the jetty, also contains a series of recommended conservation policies to guide the development of long term use, care and maintenance of Coffs Harbour Jetty in order that its cultural significance is retained and enhanced but not diminished. Four of these policies are relevant to maritime archaeological remains and deposits associated with Coffs Harbour jetty:

- Policy 76 *In any future works, adequate time, financial and staff resources shall be set aside for archaeological monitoring, for the purpose of recording and retrieving any archaeological relics.*
- Policy 77 *The current philosophy regarding the conservation of archaeological remains is that they are best conserved by remaining undisturbed.*
- Policy 78 *In the case of the buried section of the jetty exposure of the structural members would speed up the decay process. The best method of conservation of this section of the jetty is for it to remain buried.*
- Policy 79 *Archaeological monitoring should be undertaken if redevelopment proposals will result in the loss of deposits both on the sea bed or under the approaches to the Jetty. An archaeologist should be engaged to provide advice regarding the impact of any proposals prior to the completion of documentation. Discussions should also be held with the Heritage Branch of the Department of Planning regarding the level of monitoring required.*

¹⁵⁴ Boyd, N., Kass, T., J. Singh, & V. Sicari. 1994. *Coffs Harbour Jetty Conservation Plan*. Heritage Group, State Projects, NSW Public Works.