



**HERITAGE
COUNCIL**
OF WESTERN AUSTRALIA

REGISTER OF HERITAGE PLACES

ASSESSMENT DOCUMENTATION

11. ASSESSMENT OF CULTURAL HERITAGE SIGNIFICANCE

The criteria adopted by the Heritage Council in November 1996 have been used to determine the cultural heritage significance of the place.

PRINCIPAL AUSTRALIAN HISTORIC THEME(S)

- 3.8.1 Shipping to and from Australian ports
- 3.8.3 Developing harbour facilities
- 2.5 Promoting settlement
- 8.3 Going on holiday

HERITAGE COUNCIL OF WESTERN AUSTRALIA THEME(S)

- 201 River and sea transport
- 304 Timber industry
- 506 Tourism
- 405 Sport, recreation and entertainment

11.1. AESTHETIC VALUE

Busselton Jetty is aesthetically significant due to its considerable size, scale and the repetitions in its form. When viewed from the eastern and western shorelines, the regularly spaced timber piers of the jetty create a repetitive rhythm that is consistent in its structural form and complements the expanse of seascape into which it extends. (Criterion 1.1)

Busselton Jetty has landmark qualities due to its considerable scale and length, its strong presence in the seascape and its visibility when viewed from the shore. The impressive view of the jetty on the horizon is an aesthetically pleasing and unusual sight. The clear visibility of the jetty when viewed from the air highlights its prominence in Geographe Bay. (Criterion 1.3)

From its original alignment with Queen Street, *Busselton Jetty* has historic and visual links with the commercial centre of the town through to the sea, and is therefore part of a cultural environment that includes the courthouse and the bond store at the junction of Queen Street and Marine Terrace. (Criterion 1.4)

11.2. HISTORIC VALUE

Busselton Jetty was important in the commercial and agricultural development of the Busselton region from the 1860s to the 1970s, as well as in the development of the timber industry of the State. Constructed in nine stages from 1865 to 1960, the jetty was in use for more than a century. Its

role was particularly significant before rail transport arrived in the region. (Criterion 2.1)

The place contributes to an understanding of the development of sea transport in the region as well as the history of European occupation in the area as the jetty was central to the development of the Vasse district. (Criterion 2.2)

Busselton Jetty is significant in the development of the tourism industry of the Busselton locality, as it has served as a tourist attraction for the town since the late 19th century. (Criterion 2.2)

11. 3. SCIENTIFIC VALUE

Busselton Jetty has the potential to be used as a research and teaching site by virtue of the underwater reef and the Under Water Observatory at the sea end of the jetty. This unique marine environment has potential to contribute to the study of the natural history of Geographe Bay. (Criterion 3.1)

11. 4. SOCIAL VALUE

Busselton Jetty is highly valued by the local community for its association with the economic growth and the development of local industries, providing the opportunity for export to national and international markets. It also provided a good source of employment through commercial operations and maintenance of jetty and associated port as well as through tourism. (Criterion 4.1)

Busselton Jetty is highly valued by the local community as evidenced by community efforts to prevent demolition since its closure in 1972 as a shipping facility, and following cyclone damage and lack of maintenance. An extensive clean-up and rebuilding program was organised, along with the formation of a group concerned with ongoing care for the jetty. (Criterion 4.1)

Busselton Jetty is highly valued by the local community as a place of social and recreational activities and interaction since the early 1900s, especially the social activity of promenading along the jetty, popular in the late 19th and early 20th century. (Criterion 4.1)

Busselton Jetty is the site of memorial plaques commemorating local residents. Many of the plaques note that ashes were cast from the jetty into the water, according to the wishes of the deceased. (Criterion 4.1)

Busselton Jetty contributes to the community's sense of place as a landmark structure and a local icon. (Criterion 4.2)

12. DEGREE OF SIGNIFICANCE

12. 1. RARITY

Busselton Jetty is a rare example of a substantially intact timber jetty on the coast of Western Australia. Of the 80 such structures built, modified, extended or replaced in Western Australia between 1832 and 1942 for the purposes of shipping activities, *Busselton Jetty* is one of only three predominantly timber jetty structures that remains completely or substantially intact. (Criterion 5.1)

Busselton Jetty is rare as the longest timber jetty known to have been constructed in the Southern Hemisphere. (Criterion 5.1)

Busselton Jetty is significant in demonstrating the former importance of the commercial shipping industry to the locality, and the way it functioned. (Criterion 5.2)

12. 2 REPRESENTATIVENESS

Busselton Jetty is a good representative example of a maritime jetty used to facilitate the transportation of cargo and passengers from sea vessels to the land. (Criterion 6.1)

12. 3 CONDITION

Following the major refurbishment works undertaken in 2009-2012, the overall condition of *Busselton Jetty* is good.

12. 4. INTEGRITY

Although the Jetty no longer serves its original primary function as a facility for the transportation of cargo and passengers, it still serves its original secondary functions of providing a place for recreational activities such as fishing, strolling and summertime water play, and as a tourist attraction. The railway is in continued use, albeit for tourists instead of cargo. Hence, *Busselton Jetty* maintains elements of its original use and thus its integrity is moderate to high.

12. 5. AUTHENTICITY

As *Busselton Jetty* was in use for shipping for more than one hundred years from 1865 to 1972, and has continued in use for recreational and tourism purposes, most of the fabric of the jetty has been replaced at least once since its construction. Extensive sections of the timber decking have been replaced in concrete and along some sections the timber piles have replaced in steel. The railway lines and some gauges on the Jetty appear to be original. Overall, the authenticity of the place is low to moderate.

13. SUPPORTING EVIDENCE

The documentary and physical evidence have been compiled by Kerry Blair, Nyree Edgecombe, Shannon Keane, Amy Nancarrow, Julia Roberts and Liz Walker – students of the Research Institute for Cultural Heritage at Curtin University with supervision from State Heritage Office staff. Amendments and/or additions by State Heritage Office staff and the Register Committee.

13.1 DOCUMENTARY EVIDENCE

Busselton Jetty, a timber jetty now refurbished in a combination of timber, steel and concrete, with a total length of approximately 1820m, situated at the eastern end of Geographe Bay, was commenced in 1865 for the Port of Vasse as its first cargo handling facility. The jetty was constructed in nine stages from 1865 to 1960. During the lifetime of *Busselton Jetty*, various repairs, strengthening and reconstruction of complete sections have seen the incorporation of both steel and concrete elements, together with new replacement timber elements.¹ In 2003, an Under Water Observatory was constructed towards the northern end of the jetty. Adjacent to *Busselton Jetty*, on its landward side, is a series of parklands, including a small theme park, park esplanade, public oval and tennis courts.

The township of Busselton, which was known as 'Vasse' from early European settlement until 1907, was first taken up by John Bussell in 1832. Bussell was granted 3573 acres of land at Vasse on 13 July 1832 after having spent a brief period of time at Augusta. He described the Vasse area as, 'the most beautiful grant of land in the whole colony'.² His land was about two miles inland from Geographe Bay on the Vasse River and the homestead he built came to be known as 'Cattle Chosen'.³ In April 1834, the rest of the Bussell family arrived at Vasse aboard the *Ellen*.⁴ Captain John Molloy, who had also settled at Augusta, soon followed John Bussell to Vasse and claimed the allotment of land that was adjacent to the Bussells. Molloy's farm was known as 'Fairlawn' and in 1839 he became the first Resident Magistrate for the district that spanned from Augusta to Vasse.⁵

During the early years of European settlement, all supplies to the district arrived by ship at Vasse in Geographe Bay. Until the growth of rail transport in the late 19th century, the Port of Vasse was the settlers' main outlet to the world, both for the necessities of life and communication.⁶ On 24 April 1839, Governor Hutt officially appointed the location in Geographe Bay that was to become the legal place for the loading and unloading of goods for the Vasse Settlement.⁷ That year, a 'Tub', an early form of warning light, was erected on top of a pole at Geographe Bay to serve as a beacon for visiting ships. The

1 BG & E Consulting Engineers, 'Busselton Jetty Structural Assessment Report', prepared for Shire of Busselton, March 2005, p. 4.

2 Shann, E.O.G., *Cattle Chosen*, UWA Press, Perth, 1978, p. 55.

3 *ibid.*

4 Shann, *op. cit.*, p. 59.

5 Carroll, J. 'The Development of Busselton 1832 to 1872', Thesis, Claremont Teachers College, c. 1975, p.3.

6 Royal Western Australia Historical Society, 'Historic Busselton', 1965, p.11.

7 Busselton Historical Society, 'The Busselton Jetty', souvenir pamphlet.

cutter *Black Swan* sailed regularly with produce between Fremantle, Bunbury and Geographe Bay from 1843 to 1851.⁸ The supplies that were brought in by ship were stored in a hut about ten yards from the shore, until such time as they could be collected by the settlers of the area. The early settlers managed for several years without any proper roads and in the absence of roads, they used the Vasse River to travel to the beach to collect their supplies.⁹

American whalers regularly used the area that was to become the Port of Vasse from pre-European settlement of the region through the 19th century. The area was used as both a base for whaling activities and as a point where goods could be traded with the new settlers. In January 1841, seventeen whaling vessels called at the Port of Vasse and the Shipping Report in the 'Perth Gazette' of 5 December 1849 showed that Vasse Port turned over 20 tuns of whale oil, second only in the region to Cheynes (27 tuns).¹⁰

During the early years of European settlement, agriculture was the main activity undertaken in the Vasse district. Wheat, barley, oats, rye and green crops were all attempted. Wheat was the most successful with the number of acres devoted to it increasing from 25 acres in 1838 to 82 acres in 1841. Sheep, goats, cattle, pigs and horses were also raised in the area and stock numbers increased from 144 in 1838 to 1275 in 1842.¹¹ Some of the agricultural produce was exported from the area with shipping records in 1858 showing cargoes of potatoes, onions, beef and turnips.¹²

Early attempts to develop a timber export trade began in the district in the 1830s and 1840s. These attempts were unsuccessful owing to a lack of capital and experience and the difficulties of transporting large jarrah trees.¹³ By the 1850s timber export was again of interest and timber licences were granted in 1850 to Bridges, Chapman, Ker and Bussell.¹⁴ Large timber concessions and special timber licences were provided by the Government to attract timber companies with enough capital to establish operations independent of the existing limited infrastructure. In 1858, prominent local timber entrepreneur Henry Yelverton built the State's first large permanent steam timber mill at Molloy's Ditch, Quindalup. This was linked by tramway to the Quindalup jetty.¹⁵

After a period of some thirty years of settlement at Vasse, the people of the district began to lobby the Government for a jetty to be constructed at Geographe Bay. The need for a jetty at the Port was becoming increasingly evident as numerous vessels were regularly stopping in Geographe Bay and their boats would row back and forth to the shore to offload cargo.¹⁶ Loss of

8 Cummings, D.A. et al, *Port Related Structures on the Coast of Western Australia*, WA Maritime Museum, Fremantle, 1995, p.21.

9 Carroll, op cit, p.4.

10 Jennings, R.J., *Busselton: A Place to Remember 1850-1914*, Success Print, WA, 1999, p.17. N.B.: 20 tuns is approximately 19,000 litres.

11 CSO Records Supp 1, 1838; CSO 1841; CSO, 1842.

12 State Records Office (SRO) Resident Magistrate's Book, Accession No.126.

13 Hartley R.G., *Industry and Infrastructure in Western Australia 1850-1914*, Success Print, Western Australian Division of the Institute of Engineers, Perth, 1995, p.3.

14 Jennings 1999, op. cit., p.23.

15 Hartley, op. cit., p.15.

16 Jennings, R., *Outstation on the Vasse: 1830-50*, Shire of Busselton, WA, 1983, p.154.

Government revenue due to the smuggling of goods was another significant factor that highlighted the need for a jetty. During the 1850s, smuggling became a source of concern for the district, due to the fact that ships could approach the shore of Geographe Bay over a vast area. The presence of a jetty would require ships' captains to off load at a central point, thereby making the administration of customs duty more effective.¹⁷

In 1860, a courthouse and a bond store were established at the junction of Queen Street and Marine Terrace at a cost of £370.¹⁸ The bond store was a warehouse where traded goods were stored for tax assessment purposes.¹⁹ That same year, 17 ships were recorded to have passed through the Port of Vasse.²⁰ In terms of the economy of the region, the strongest requirement for a jetty at Vasse stemmed from the transport needs of the growing timber industry. An article in *The Inquirer and Commercial News* on 18 January 1860, reported that, 'the 'Sultana' left...with a full cargo of excellent timber for the Ceylon market'.²¹ On 8 August 1860, *The Inquirer and Commercial News* wrote that, 'At the Vasse... there is an immense supply of timber... there can be no doubt that the Sussex District is in every respect fitted for becoming the centre of a large timber trade'.²² By 1864, the yearly export value of jarrah and karri had risen to £15,693.²³ If this rapid expansion in the timber industry was to continue, a jetty of substantial length and solid structure was needed to service the operators in the Vasse region.

The request for a jetty at Geographe Bay was formally moved by Henry Yelverton in 1861, who proclaimed that 'the Vasse Port, the first on the coast, needs a jetty'.²⁴ On 22 November 1862, the Resident Magistrate of the district, Joseph S. Harris, recommended the appointment of an assistant tidewaiter because, 'the trade of this port is rapidly increasing'.²⁵ In 1864, tenders were called for the supply of timber for a jetty. Yelverton was awarded the contract at a cost of £25 and he was also awarded £100 for the construction of the jetty that same year.²⁶ Later in 1864, he was paid £80 for further additions to the jetty.²⁷ The jetty, originally known as the Vasse Jetty, was completed in 1865. It was a straight jetty measuring approximately 176m in length and constructed entirely of timber.²⁸ It was built to service the loading of ships carrying timber and livestock and, until the railway was provided, goods were transported along the length of the jetty using horse-drawn wagons.²⁹ According to a 1911 written account, the high water mark of

17 Jennings 1999, op. cit., p.43.

18 Carroll, op. cit., p.10.

19 Bomell R, 23 March 2002, interview with RICH students.

20 SRO Shipping Records, Accession No.114.

21 *The Inquirer and Commercial News*, 4 January 1860.

22 *The Inquirer and Commercial News*, 8 August 1860.

23 Zafer, P., 'History of the Timber Industry of Western Australia', Handwritten Thesis, 1957, p.10.

24 Memo to Gov, 4 June 1861: cited in Jennings 1999, op. cit., p.75.

25 CSR 503/369 R.M. to C.S., 22 November 1862.

26 Carroll, op. cit., p.20.

27 *WA Government Gazette*, 13 September 1864.

28 PWD Plan Number PO8271-1-2, 1911; PWD Plan Number PO8271-1-1, 1962.

29 Shire of Busselton, 'Busselton Jetty – Structural Assessment, Request for Tender', October 2004, p. 8.

the jetty in 1865 was close to the site of 'the present lighthouse'.³⁰ This lighthouse is no longer extant, however, it was situated near the junction of Marine Terrace and Queen Street in Busselton today.³¹

Construction of the jetty at the Port of Vasse played a significant role particularly in the growth of the timber industry in the region. In February 1866, three ships departed from the Port with cargoes of timber. They were the *Lady Alicia*, carrying 163 loads of timber valued at £600, the *Europa* with 141 loads of timber valued at £510 and the *Midas*, who carried various timber loads to the value of £690.³² The timber industry was also boosted by the development of infrastructure in Western Australia in the period 1850 to 1890. During this time, the Government granted several large timber concessions to attract capital from the eastern states and Britain.³³ The timber industry was further helped by the arrival of convicts to Western Australia. The expanded public works programs increased the demand for timber as well as improving the transport infrastructure.³⁴ During the 1860s, new jetties were also constructed at Albany and Bunbury to cater for the exports of timber, wool and sandalwood.³⁵

By the 1870s, facilities at the Port of Vasse were still inadequate. There was concern over the irregularity of communications with Fremantle and the beaching of boats, which was partly due to lack of moorings³⁶, and partly due to the increasing size of commercial ships which found it difficult to berth in the relatively shallow waters of Geographe Bay. Timber loading facilities were now widely dispersed with jetties at Vasse, Quindalup and Wonnerup. There was a steady increase in timber exports until the early 1880s, after which a slump was experienced due to high production costs mainly related to transport costs.³⁷ In the 1870s, steamships were introduced to the Western Australian Colony. These, in theory, were to provide regular shipping between Busselton and Fremantle, however, visits by steamships remained irregular on account of port inadequacies.³⁸ In 1872, the 'Tub' beacon at the Port was replaced by a lighthouse.³⁹ Also in 1872, extensions to the jetty were made by Samuel Rose at a cost of £88 17s 06d, but the Municipal Council considered them to be inadequate.⁴⁰

In 1875, the jetty was lengthened by a further 143.3m by G.H. Knapton and J. Mewett for the sum of £626 14s 0d.⁴¹ Once this addition had been completed, the low water mark at the sea end of the jetty was at a depth of 3.6m. This

30 PWD Plan Number PO8271-1-2, 1911; PWD Plan Number PO8271-1-1, 1962.

31 Bomell R, 23 March 2002, interview with RICH students.

32 SRO Shipping Records, Accession No.114.

33 Hartley, op. cit., p.15.

34 Hartley, op. cit., p.14.

35 ibid.

36 Jennings 1999, op. cit., p.116.

37 Hartley, op. cit., p.16.

38 Jennings 1999, op. cit., p.151-152.

39 Carroll, op. cit., p.20.

40 Jennings 1999, op. cit., p.117.

41 Souvenir of Official Opening of Busselton Jetty, 1911; and Richardson J.W., "The Countryman": cited in Jennings 1999, op. cit., p.320.

end point of the jetty came to be known as the No.1 head.⁴² By 1883, pressure was again being exerted by the local community for extensions to be undertaken to the jetty to counteract silting up along the beach.⁴³ In December 1883, a contract was awarded to Yelverton to extend the existing Vasse Jetty, though the work was delayed due to lack of equipment.⁴⁴

During the 1880s the timber industry of the district was performing well, with vessels loading regularly at the Port.⁴⁵ In 1884, a further 229m of jetty was constructed in order to improve the conditions for shipping at the Port. The contract for these works was secured by Yelverton for £359 0s 6d.⁴⁶

This extension apparently did not improve shipping facilities adequately. In the late 1880s, the timber industry called for further extensions to the jetty. *The Inquirer and Commercial News*, on 1 September 1886, reported that, 'the [timber] stations will receive large orders, more especially if our jetty is extended into deep water so that ships may come alongside to load'.⁴⁷ Then on 20 October 1886, it was reported that, 'great dissatisfaction prevails at the hands of the Government in not sending the plans of the proposed new jetty'.⁴⁸ Three years later in 1887, another 353m of jetty were constructed. In 1890, another small extension of 40m was undertaken and this enabled the completion of the No.2 head. At low tide, the depth of the water at No.2 head was 4.3m.⁴⁹ By 1894, another 35m extension to the jetty was proposed, however, there was public frustration that the proposed addition would not increase the depth of water sufficiently for intercolonial steamers.⁵⁰ So in 1894, the jetty was extended again by 130m and another 150m were added the following year. During 1895-6, the No.3 head of the jetty was completed when a further 261.6m extension was constructed. This provided a new water depth of 6.1m.⁵¹

During the 1880s, the Vasse district began to experience a growth in tourism. In 1881, an official agreement was made to ensure vessels stopped at Vasse for one and a half hours if they had passengers and cargo.⁵² In 1884, *The Inquirer and Commercial News* reported that, 'Busselton has been much enlivened by an influx of several lady visitors'.⁵³ By the turn of the 20th century, Busselton was established as a tourist town and in 1904, it was anticipated to become the leading summer and health resort of the State.⁵⁴ In the Christmas season of 1906, some holidaymakers were unable to find accommodation in the town and so they pitched their camps near the beach underneath the shady peppermint trees. Here there were facilities for bathing,

42 PWD Plan Number PO8271-1-2, 1911; and PWD Plan Number PO8271-1-1, 1962.

43 Jennings 1999, op. cit., p.161.

44 Jennings 1999, op. cit., p.162.

45 Jennings 1999, op. cit., p.168.

46 PWD Plan Number PO8271-1-3, 1911; and PWD Plan Number PO8271-1-1, 1962.

47 *The Inquirer and Commercial News*, 1 September 1886.

48 *The Inquirer and Commercial News*, 20 October 1886.

49 PWD Plan Number PO8271-1-3, 1911; PWD Plan Number PO8271-1-1, 1962.

50 Jennings 1999, op. cit., p.225.

51 PWD Plan Number PO8271-1-3, 1911; PWD Plan Number PO8271-1-1, 1962.

52 CSO 340 C.S. to R.M. 15/181.

53 *The Inquirer and Commercial News*, 13 February 1884.

54 *South Western News*, January 1904: cited in Jennings 1999 op. cit., pp.230-231.

as well as shelter sheds, swings, seesaws and the jetty. All of these facilities were well patronised.⁵⁵ An article in the *West Australian* on 17 November 1909 described Busselton as a delightful holiday resort, with an immense sea front, long stretches of beaches and caves for exploring only a few miles from town.⁵⁶ In 1910, holidaymakers who strolled the full length of the jetty claimed that the walk was as good as an ocean cruise.⁵⁷

1891 to 1910 was a period of economic and demographic transformation in Western Australia. Timber exports increased tenfold and coal was first produced at nearby Collie in 1890, thus providing another export for the Port of Vasse. The residential housing boom that accompanied the Gold Boom of the 1890s led to an increased demand for timber. In the eleven years from 1898 to 1910, timber exports statewide exceeded those of wool.⁵⁸ During this period, timber and dairy produce were the main exports from Busselton.⁵⁹

In April 1907, the length of the jetty was 1344m. Its head was 83.3m in length and 11.6m in breadth.⁶⁰ In October 1907, a thorough test of the jetty was carried out (using a specially constructed steel trolley loaded with 32 tons of steel rails) and weaknesses in the strength of the structure were revealed.⁶¹ In 1908, the jetty was further inspected by an Engineer to determine its safety and capacity for facilitating locomotives and for loading and unloading goods onto vessels. As a result of these tests, one recommendation was made to lengthen the jetty head to 170m, doubling its width and strengthening it, at an estimated cost of £10,423.⁶² The alternative recommendation was to build a skeleton jetty, 'from the east or the shore end of the old jetty, connecting with the middle head and lengthening and widening the top head as in the first scheme'.⁶³ This was the alternative that was recommended by the Engineer at an estimated cost of £12,409.

Clear justification of the long-term financial returns of this proposed project was needed before the request could be made to the Government. Five months later a report was presented to the Government, demonstrating that the timber and dairy industries of the region were developing at such a rate as to justify the expenditure on the jetty.⁶⁴ The project was subsequently approved by the Government and this culminated in the most extensive additions undertaken in the lifetime of the jetty. The works commenced in September 1909 and took two years to complete. A new section of jetty was constructed approximately 166.6m north of the land end of the existing jetty. It commenced at the shoreline and angled to join the existing jetty structure at a junction point just east of No.2 head. The drawings for its construction referred to it as the 'New Approach'. It was 715m in length and it provided a

55 Jennings 1999, op. cit., p.281.

56 *The West Australian*, 17 November 1909: cited in Le Page J. S., *Building a State*, Water Authority of Western Australia, Leederville, 1986, p. 338.

57 Wroth, B. & Vines, F., *A Bunbury to Busselton Sketchbook*, Rigby, Australia, 1975, p.48.

58 Hartley, op. cit., p.46.

59 Jennings 1999, op. cit., p.269.

60 ibid

61 Jennings 1999, op. cit., p.270.

62 *South Western News*, 7 February 1908: cited in Jennings 1999, op cit., p.270.

63 Jennings 1999, op. cit., p.270.

64 *South Western News*, 4 November 1910.

rail link to the existing jetty. Its construction in 1909-11 also extended the rail line across land, linking the 'New Approach' (or the Viaduct or Skeleton Jetty as it later became known) with the road intersection of Marine Terrace and Stanley Road. The extensive 1909-11 works also included strengthening the existing jetty structure between the new jetty junction point (of the existing jetty and the 'New Approach') now called No. 2 head and No. 3 head. This portion of the jetty covered Piers 144.5 to 272.5 inclusive and the strengthening exercise essentially involved driving in extra piles along the existing structure. In addition to this, the existing jetty was also extended a further 603m beyond No.3 head, which until 1911 had been the end point of the jetty.⁶⁵ Of this extension, the final 168m was constructed as a berthing head and at this point the depth of the water was 7.6m at low tide. The contract for these works was won by Mr R. O. Law for £15,491.⁶⁶ This was essentially the last major extension to the length of the jetty, and upon its completion in 1911, the jetty measured 1824m from the shoreline to the end of its new berthing head. At this time, the jetty was purported to be the longest sea jetty in the Southern Hemisphere.⁶⁷

At the completion of this works project, the new improved jetty was opened by Frank Wilson, Premier of Western Australia, on 1 March 1911.⁶⁸ In February 1911, intensive dredging of the harbour was commenced and was completed two months later in May.⁶⁹ The dredging resulted in the harbour being sufficiently wider and deeper to allow safer berthing of larger ships. The following November, extra bollards for berthing vessels at the jetty were installed and mooring buoys placed into position to help secure ships.⁷⁰

Following the extensive improvements to *Busselton Jetty* in 1909-11, social amenities were also added. A pavilion was constructed at the No.1 head and was used for band concerts and other activities.⁷¹ By 3 November 1911, sea baths had also been constructed in the area of water between the original jetty and the new Viaduct.⁷² Deemed the finest bathing area in the State, it was secure against the intrusion of sharks. The length of the baths along the original jetty frontage was 100m with the piling between the two jetties 4m deep and measuring 150m wide.⁷³ The baths also included a platform (16.6m in length and 4.3m in width) on the jetty that accommodated a number of spacious dressing compartments.⁷⁴

In 1913, 70% of felled timber in the region was being exported, but that year the expansion of the timber industry came to a halt. From 1914-18, the war had a detrimental effect on timber exportation due to the wartime shipping shortage. Timber exports once again boomed during the period from the end

65 PWD Plan Number 14520-01-01, 1909.

66 Le Page, op. cit., p.338.

67 PWD Plan Number PO8271-1-2, 1911; PWD Plan Number PO8271-1-1, 1962.

68 PWD Plan Number PO8271-1-2, 1911.

69 *South Western News*, 17 February 1911.

70 *South Western News*, 7 March 1913.

71 Le Page, op. cit., p.339.

72 *South Western News*, 3 November 1911: cited in Jennings 1999, p. 280.

73 Jennings 1999, op. cit., p.280.

74 Le Page, op. cit., photo fig 5.16, p.339.

of World War I up to 1926-27⁷⁵ and it was during this time that the jetty reached its peak usage. In 1923, the crane at the end of the jetty was capable of lifting a capacity of seven tons and coal from Collie could be loaded from trucks at about 50 tons per gang per hour. There was a railway connection to Boyanup Junction and a fortnightly steamship to Bunbury.⁷⁶ Timber exports fell during the Great Depression, along with declining exports of wool, wheat and meat.⁷⁷ Like other Australian country towns, Busselton suffered during the depression until World War II brought some degree of economic recovery. In 1948, the principal exports of the region were timber and dairy produce.⁷⁸ In the 100 years from the 1850s to the 1950s, the timber export trade grew from a few hundred loads to nearly 80,000 loads each year.⁷⁹

In 1951-52, the berthing head at the end of the jetty was widened and in 1960, another small extension, measuring 16m, was undertaken to the end of jetty, taking the total length of the jetty to approximately 1840m.⁸⁰ Improvements and maintenance works were continually undertaken on the jetty during the years of its use as a port. Between 1960 and 1970, all of the existing timber jetties in Western Australia that were still being used for port activities were replaced, supplemented or modified. As *Busselton Jetty* was still in use for shipping purposes until 1972, it is likely that most of the fabric of the jetty was replaced at least once during this period.⁸¹ Electric wiring was also installed as part of the modification process during the 1960s.

During the post-war period, the shipping trade from Busselton gradually declined as improvements and developments at Bunbury Harbour resulted in Bunbury becoming the major port of the Southwest region of Western Australia.⁸² *Busselton Jetty* was closed to shipping in 1972. A proclamation by the Governor, Sir Douglas Kendrew in the Government Gazette on 21 July 1972 announced the official closure of the Port of Busselton.⁸³ After more than 100 years *Busselton Jetty* ceased operation as a shipping facility.

Following the closure of *Busselton Jetty* for commercial shipping and handling activities in 1972, the Government proposed to partially or completely demolish the jetty on two occasions. In both instances, public pressure forced the Government to relent. On the first occasion, following a meeting with the 'Save Our Jetty' group in October 1976, the Busselton Shire Council confirmed that they would seek ownership of *Busselton Jetty* from the Public Works Department. The Shire believed that they were best equipped to manage future tourist growth and other potential business ventures.⁸⁴ The second threat of demolition occurred after 4 April 1978 when Cyclone Alby destroyed much of the oldest section of the jetty (the part of the jetty aligned

75 Hartley, op. cit., p.107.

76 Cummings et al, op. cit., p.21.

77 Hartley, op cit., p.107.

78 Cummings et al, op. cit., p.22.

79 Zafer, op. cit., General Introduction, p.E.

80 PWD Plan Number PO8271-1-1, 1962.

81 Cummings et al, op cit, p.5.

82 ibid.

83 *WA Government Gazette*, 21 July 1972.

84 *Busselton-Margaret River Times*, 7 October 1976, p.3.

with Queen Street). Although this could have signalled an end for the entire structure, it instead galvanised the local community into a massive clean-up effort. With the intention of rebuilding the damaged section, council trucks, privately owned cranes and hundreds of volunteers, including a women's committee that served teas and lunches, worked throughout the day to move the jetty timbers off the beach and to the council yards for storage. This community effort established the nucleus for a preservation society.⁸⁵ The loss of this portion of the jetty resulted in an aesthetic change with the originally straight jetty now having a bent or curved appearance.

In 1987, the Shire of Busselton surveyed its ratepayers regarding the future of *Busselton Jetty*. A resounding 90% of people surveyed considered that the restoration and protection of the jetty was the most important project for the Shire.⁸⁶ Consequently, that same year the Government, rather than demolish the remaining structure, allocated \$500,000 to the Shire of Busselton to stimulate the rebuilding of the jetty.⁸⁷ In October 1987, the 'Busselton Jetty Preservation Committee' was formed to raise funds to conserve the jetty and establish the infrastructure to make it economically viable. Since then, with the assistance of the State and Federal Government funding, it has successfully raised over \$4 million in donations and grants.⁸⁸ The Busselton Shire holds the licence for *Busselton Jetty* from the Western Australian Department of Transport. All major capital works contracts for the jetty are administered by the Shire in compliance with Local Government Act requirements.⁸⁹

To provide an on-going source of funds for the jetty, a kiosk was built in December 1989 at the jetty entry point to facilitate the collection of an entry fee from people using the jetty between 9.00am and 9.00pm. The first major reconstruction of the jetty took place in 1990 at a cost of \$600,000. A further \$100,000 is still required each year for its on-going maintenance.⁹⁰ In 1995, a jetty train service commenced operation on the jetty railway line that had previously been used to transport cargo. For a fee, the train service accommodates up to forty passengers per trip and takes passengers to the end of the jetty and back. The train service provides access for disabled persons and storage space for diving equipment. Its popularity over a five-year period has seen it travel 30,000km and transport 90,000 passengers.⁹¹ Other facilities along the jetty, including lighting for evening use by recreational fishermen, fish cleaning bays, boat landings, shelters and access ladders for swimmers and divers, all contribute to the on-going use of the jetty for recreational purposes.⁹² The extensive length of the jetty also contributes to its on-going viability for recreational use. An article in the *Busselton-*

85 *Busselton Jetty News and Information*, February 2000, p.2.

86 'Busselton Jetty Underwater Observatory', Commonwealth Government Regional Solutions Programme Application, 2002, p.18.

87 Busselton Jetty Environment and Conservation Association, Letter to Hon. Dr G. I. Gallop MLA, 24 October 2001, p.1.

88 Busselton Jetty Environment and Conservation Association, op. cit., p.16.

89 Commonwealth Government Regional Solutions Programme Application, op. cit., p.30.

90 *Busselton Jetty News and Information*, February 2000, p.1.

91 *Busselton Jetty News and Information*, February 2000, p.2.

92 Commonwealth Government Regional Solutions Programme Application, op. cit., p.30.

Margaret River Times on 12 October 2000 titled, 'Busselton Long Jetty Title is Safe' reports that *Busselton Jetty* is still the longest timber jetty in the Southern Hemisphere.⁹³

In December 1999, a fire damaged the Jetty despite the efforts of Shire emergency crews and volunteer fire-fighters to minimise the damage. As the last 150m of the jetty were now isolated because of the fire, proposed plans for the construction of a \$1 million underwater observatory at the jetty were at risk.⁹⁴ In February 2000, the 'Busselton Jetty Environment and Conservation Association Inc.' (formerly 'Busselton Jetty Preservation Committee'), now responsible for conserving and developing the Jetty, confirmed that the interpretative centre would still be built. The intention of the centre was to give visitors a sense of the history of the place and highlight the richness of the marine environment of Geographe Bay. It was proposed that the development would be reminiscent of previous structures that had been erected on the beach adjacent to the jetty for change-rooms, swimming clubs and scout buildings – all of which have since been demolished.⁹⁵ The interpretative centre was opened in January 2001 and the merchandise and jetty memorabilia that are sold at the centre provides a source of income for the 'Busselton Jetty Environment and Conservation Association Inc'. Positioned as an entry and fee paying point for pedestrians and train travellers on the jetty, the interpretive centre has been able to calculate for the first time that more than 200,000 people visit the jetty each year.⁹⁶

Busselton Jetty has been valued by several generations of local residents. For example, the Bovell family have been involved in shipping and maintenance of the Jetty dating back to 1880. Today, Reg Bovell, who is now more than eighty years old, remembers rushing from school to the Jetty to fish for herring using any line available. From 1880 his uncles were shipping agents, then his father from 1901 and later his brother Stewart Bovell. The Hon. William Stewart Bovell (known as Stewart) was elected to the Legislative Assembly as the member for Sussex (later Vasse) on 7 June 1947. He was a Cabinet Minister and retired from parliament on 20 February 1971. Stewart Bovell then became the Agent General to London from March 1971 to March 1974, and on 12 June 1976, he was created a Knight Bachelor. Reg took over shipping duties from his brother Stewart in 1947. Reg Bovell's daily routine still includes a walk to the Jetty to feed the seagulls and he says that, 'If I'm not down at the jetty by five o'clock, a few of them come to my garden to hurry me up.' One of Reg Bovell's most treasured possessions is a plaque with the inscription, 'In appreciation of services to Master Mariners calling at Busselton'.⁹⁷

The 'Busselton Jetty Environment and Conservation Association Inc.' has 70 financial members, all of whom are local residents.⁹⁸ This in itself provides some indication of the significance of the jetty to the local community. The

93 *Busselton-Margaret River Times*, 12 October 2000, p.6.

94 *West Australian*, 13 December, 1999, p.7.

95 *Busselton-Margaret River Times*, 10 February 2000, p.12-13.

96 *Western Fisheries*, Autumn 2001, p.17.

97 *Busselton Jetty News and Information*, February 2000, p.3.

98 Commonwealth Government Regional Solutions Programme Application, op. cit., p.28.

management committee of this association meets on a monthly basis and comprises local volunteers including two Busselton Shire Councillors, the Shire Director of Technical Services and the General Manager of the Cape Naturaliste Tourism Association. The focus of their activities centre around guiding tourism and conservation activities on and around the jetty.

Tourism has become, in the latter decades of the 20th century, a major industry in the South-West region of Western Australia. In 2002, the focus of the jetty was on its viability as a tourist attraction and the proposed development of an underwater observatory at the sea end of the structure. A survey conducted by the 'Busselton Jetty Environment and Conservation Association Inc' in 1996 indicated that 42% of those surveyed supported the construction of the underwater observatory on the jetty. *Busselton Jetty* is already recognised as one of Western Australia's premier scuba diving locations. The combination of the Leeuwin Current and the shade provided by the jetty structure has created a unique marine ecosystem.

In March 2003, the Underwater Observatory planned for the end of the jetty was towed to the site from Jervoise Bay, where the superstructure had been fabricated on a barge. Construction of the observatory was a major engineering feat 'utilising 17 tonnes of reinforced steel in each section and with cast concrete base and walls'.⁹⁹ The observation chamber measured 9.5m in diameter, with eleven windows and was designed to accommodate up to 40 people at one time. The observatory was sunk 8m beneath the surface and anchored to the seabed using seventeen post stressed anchors which were drilled through steel casings into the seabed and then filled with concrete to ensure complete stability. The observatory, which was officially opened on 13 December 2003, cost \$3.6m.¹⁰⁰

There has been some disparity in measuring the length of the jetty over time. Since 2000 the reported total length of the jetty from the high water mark has varied between 1820 and 1841m. The difference between this and the 1911 measurement (1824m) is probably due to significant accretion of the foreshore since the first section was constructed, and with measurements being taken from different starting points.¹⁰¹

Measurements as at July 2003, using the first transportable slab as 'zero', recorded the length of the jetty as follows:¹⁰²

- 65m 4m wide section
- 569m 2.2m wide section
- 86m From the junction where the direction changes, to the first section of concrete, with a width varying from 4m to 8m

⁹⁹ *Intersector Online* Vol 9, No. 25, 19 December 2000, p. 13.

¹⁰⁰ Scourfield, Stephen 'Boardwalk to the Future' in *The West Australian Weekend Extra*, 15 March 2003, p.17.

¹⁰¹ Len Boyling, Executive Officer – Busselton Jetty Environment & Conservation Association (Inc.), e-mail to Clare Schulz, HCWA staff, 22 May 2003, on HCWA File 0423.

¹⁰² The Heritage Council arranged for these measurements to be taken by Kevin Kealley, Construction Supervisor for the jetty, in July 2003.

• 249m	4m wide concrete deck
• 211m	Timber deck
• 413m	Concrete deck
• 133m	12m wide section to the centre of the Underwater Observatory; currently piled with partial decking, but will be 12m wide concrete decking once completed
• 104m	From the center of the Underwater Observatory to the end of the jetty, timber section in poor condition.
• 1830m	Total length.

In 2004, the Shire of Busselton engaged BG & E Consulting Engineers to conduct a structural assessment of *Busselton Jetty* as the structural integrity of particularly the Skeleton Jetty and the most northern (sea) end sections were reaching critical levels. The report was completed in March 2005, and by April the jetty train service was halted, although the jetty was still considered safe for pedestrian traffic. The report also stated that the northern end of the jetty was beyond repair. As part of the report, options for addressing the structural problems of both these sections of *Busselton Jetty* were provided to the Shire of Busselton by BG & E for consideration.¹⁰³

In late 2006, a concept plan for the foreshore revitalisation was released for public comment. A working group consisting of members from the Busselton Shire, Department for Planning and Infrastructure, the South West Development Commission, Tourism WA and Landcorp was formed to guide the process which will look at sites on the Busselton foreshore that could be developed to finance the urgent and ongoing works to the jetty.¹⁰⁴

The issue of funding to conserve *Busselton Jetty* was the subject of election promises in the 2004 and 2008 State and 2007 Federal Government Elections. In November 2008, a \$24m grant from the State Government (administered by the South West Development Commission) was awarded to the Shire of Busselton for major rebuilding and restoration works at *Busselton Jetty*.¹⁰⁵ A further \$1.0 million was allocated by the Busselton Jetty Environment and Conservation Association (BJECA) and \$2.1 million by the Shire of Busselton.¹⁰⁶

In 2009, prior to refurbishment, the *Busselton Jetty* was described as a predominantly timber jetty with a total length of approximately 1840m and a maximum width of 12m. The entry point of the jetty for public access was concrete and was 2m in width for a distance of 566m, until the jetty changed direction at Pier 144. The width of the jetty then expanded to 4m for a distance of 943m, and again to 12m in width for the remaining length of the

¹⁰³ BG & E Consulting Engineers, 'Busselton Jetty Structural Assessment Report', prepared for Shire of Busselton, March 2005.

¹⁰⁴ Palassis Architectss, 'Busselton Jetty: draft conservation plan', Subiaco WA, March 2007, p 23.

¹⁰⁵ Media clippings, HCWA file P00423; Shire of Busselton <http://www.busselton.wa.gov.au>

¹⁰⁶ Busselton Jetty Refurbishment Fact Sheet, Shire of Busselton
<http://121.50.208.46/busselton/jettyupdate.pdf>.

jetty (260m).¹⁰⁷ There was a metal balustrade along the western side of the length of the jetty and there were light poles at regular intervals.

The 2009 description of the jetty recorded the following construction details:
108

For the length of the Jetty, there were groups of six pylons spanning the width which were 450mm in diameter and located at 4.2m intervals. Each pylon was over 12m in length, with roughly 4.5m buried into the sea bed. Located at a height which corresponded roughly with high tide level, were two horizontal timbers (or walings) about 300mm by 150mm in section, fixed one each side of the section pylons by means of a single bolted connection which passed through both walings and the pylon between. Positioned transversely and over the walings were cross braces, 300mm by 150mm in section and aligned above the horizontal. Each cross brace spanned across the width of the six pylons, from directly below the longitudinal decking beams to a point immediately over the walings. Each cross beam was attached to the two pylons that it crossed with a single bolt. Only about 487m out of the total jetty length retained the original style of timber decking, the remainder having been covered and/or replaced with concrete panels. The surviving decking timbers were 250mm wide and 80mm deep, and were laid at right angles to, and fixed to the decking beams by means of iron spikes about 25mm long, with one spike at the end of each decking timber. The northern end of the jetty was inaccessible due to the damage caused by the 1999 fire.

The jetty was closed to public access on April 2009 and in May 2009 a \$27.1m contract for the refurbishment of the jetty was awarded to Marine and Civil Construction Company Pty Ltd.¹⁰⁹ This contract included:

- The complete replacement of approximately 50% of the 1.8km existing Jetty structure (including demolition of approximately 900m of the existing Jetty;
- Temporary dismantling for substantial repairs to the remaining 50% of the Jetty;
- Driving of approx. 200 new timber piles and 108 steel piles predominantly for the new section 900m section;
- Reconstruction of various parts with timber decking to address heritage values'¹¹⁰

The Skeleton Jetty was determined to be in very poor condition and a new section of jetty was constructed on the adjacent alignment, leaving two

107 Description from 2009 Heritage Council assessment. Measurements determined from a drawing obtained from the Busselton Jetty Environment and Conservation Association Inc, titled, 'Busselton Jetty (not to scale)', 16/4/2002. All dimensions approximate.

108 Description from 2009 Heritage Council assessment. All measurements and structural assessments were obtained through the examination of PWD Plan Number P08271-04-01, 1875; PWD Plan Number P03151-01-02, 1896; PWD Plan Number P14520-03-01, 1909; PWD Plan Number P14520-02-01, 1909; PWD Plan Number P14520-01-01, 1909; PWD Plan Number P08271-01-01, 1962.

109 Media clippings, HCWA file P00423.

110 Busselton Jetty Refurbishment Fact Sheet, Shire of Busselton
<http://121.50.208.46/busselton/jettyupdate.pdf>.

sections of the original framework (without decking) as interpretation nodes.¹¹¹

Other works completed as part of the refurbishment included new timber balustrades, fishing/swimming platforms, a disabled access ramp to a low level fishing/swimming platform, seats and fish cleaning stations. The rotunda at the former junction of the Queen Street Jetty and the Skeleton Jetty was demolished.

A separate contract was awarded to Nicole and Alex Mickel for the design, fabrication and installation of a series of shelters, sculptural markers, and heritage information panels and plaques, along the refurbished jetty. In 2012 this project received a high commendation in the Western Australian Heritage Awards, under the category of Outstanding Interpretation Project.

The refurbished *Busselton Jetty* was officially reopened to the public by the Premier of Western Australia, the Hon Colin Barnett, MLA, on 5 February 2011. The jetty train service recommenced in March 2011 and the full scope of conservation and reconstruction works were officially completed in June 2012.¹¹²

In June 2011 funding of \$6.1m was announced for the next stage of works to the waterfront adjacent to the jetty.¹¹³

Signage on the jetty in 2012 states that, following the refurbishment, a survey by the Shire of Busselton has confirmed that the jetty is now 1820m in length, measured from the shore.

13. 2. PHYSICAL EVIDENCE

Busselton Jetty is a timber jetty, now refurbished in a combination of timber, steel and concrete, with a total length of approximately 1820m and a maximum width of 12m, situated at the eastern end of Geographe Bay.

Buildings constructed as part of the use of the jetty for recreational and tourism purposes include the Interpretive Centre at the southern end (2001) and the Underwater Observatory at the northern end (2003).

Siting and Associated Features

Busselton Jetty commences at the shoreline in the general alignment of an extension of Stanley Street and extends into the bay on a north-north-west bearing.

The foreshore, the 580m alignment of the original Queen Street jetty, and the historical, land-based approaches do not form part of the curtilage for the *Busselton Jetty*, but do provide a setting and historical context for the place.

Historically *Busselton Jetty* had two distinct entry points – Queen Street and Stanley Street. Queen Street was the alignment of the original jetty, built in 1865 and extended on a number of occasions in later years. The majority of

111 A third interpretation node was demolished after it was severely damaged when impacted by a barge during a storm in April 2010, HCWA file P00423.

112 Media clippings, HCWA file P00423.

113 Media clippings, HCWA file P00423.

this component of the jetty was demolished following Cyclone Alby in 1978, but remnants are still visible in the waters of the inlet. These remnants are in the form of timber pylons which extend intermittently out from the beach some 18m. The starting point of the original jetty is generally recognised to be about 40m back from the low water mark.

The 1911 railway Viaduct extended from the road intersection of Stanley Street and Marine Terrace and connected with the main jetty structure at Pier 144 (along what was known as the Skeleton Jetty). The current railway line starts some way back from the shore, where there is a railway shed and siding.

To the east and west of the jetty are other small jetties and pile remnants. The foreshore park has open grassed areas with mature Moreton Bay Fig Trees, Norfolk Island Pines, and pedestrian pathways. As at 2012, development in this area includes cafés, the 'Nautical Lady' theme park, public changing rooms, public seating areas and carparks. Other elements in the foreshore include a memorial statue of Nicolas Baudin and an information plaque for the jetty on the old Queen Street alignment.

Jetty

The original jetty was of standard timber pile and timber deck construction, built in nine stages between 1865 and 1911. Refurbishment since the late twentieth century has seen the introduction of concrete slab decking over large sections and the replacement of some of the decayed timber piles in steel (to sections 5 and 10). The 4m wide sections of the jetty are generally supported by paired timber piles linked by cross-bracing, below which there are two horizontal timbers (or walings) fixed one each side of the pylons at approximately high water mark. The steel piles are more widely spaced along the jetty and do not have any cross or horizontal bracing (which makes these sections clearly identifiable in views from the shoreline). The old timber structure supporting the decking has generally been replaced with steel framing.

The first part of the jetty extends in a north-west direction from the shore for approximately 566m and it then changes direction across two bends to a north-north-west alignment. The second bend marks the point where the Skeleton Jetty formed a junction with the original (Queen Street) jetty.

Railway lines (originally associated with the loading of cargo) provide a tourist train service from the Interpretive Centre through to the Underwater Observatory.

Numbers engraved in the top rail of the timber balustrade along the western side of the jetty provide fixed reference points for the features described below (jetty mark 0 locates the first pylon). The numbered sections relate to the different works completed as part of various refurbishments of the jetty in the late twentieth and early twenty-first centuries – resulting in varying fabric and detailing along its length.

Entrance

The entrance to the jetty is now defined by a paved promenade flanked by low limestone block walls along the beachfront. Large shipping bollards

mounted on the ends of the limestone walls mark the point where the jetty decking commences. This area includes a bronze statue called 'Fish Girl' (2011), a plaque for the official opening of the refurbished jetty (5 February 2011) and a reconstruction of a c.1885 Netherton Crane that had previously operated on the jetty (2000-2001).

Section 1

The jetty commences with a 65m long by 4.6m wide, timber decked section that accommodates entrance gates, a ramp and platform for the jetty railway (2011) and an interpretation panel regarding the history and construction of the place.

The timber railings and gates direct visitors to the adjacent Interpretive Centre (2001). This building accommodates a ticket office, retail outlet, gallery, museum and interpretive centre dedicated to the jetty. It is attached to the eastern side of the jetty on its own timber pile foundations and concrete decking. The Interpretive Centre is constructed with weatherboard profile walls and corrugated profile roof sheeting. Externally, it has the appearance of four attached rectangular sheds, of equal size and each with its own gabled roof.

Section 2

Past the Interpretive Centre the former 2.6m wide Skeleton Jetty was largely demolished in 2009-2011, with two sections retained as detached, undecked framework for the purpose of interpretation (located between jetty marks 72 to 80 and 106 to 111).

Adjacent to the former Skeleton Jetty, on its western side, a new 570m long by 4m wide section was constructed on timber pylons. Timber decking extends to jetty mark 20 after which concrete panels have been used. This section includes small projecting bays to accommodate timber seats, a fish cleaning station, diving platform, and rubbish bin. A low level fishing/swimming platform is accessed off the western side (opposite jetty mark 40).

At the northern end of this section the width of the jetty has been extended with a 45m long x 4m wide decked platform on the eastern side. This wider section accommodates an interpretive 'welcome' marker in the form of a weather vane with a furled sail motif on the eastern side (near jetty mark 119) and a curved-back shelter with seating and an interpretive panel on the western side (near jetty mark 123).

A number of panels and stainless steel plaques along section 2 interpret the history and use of the jetty, including the history of the Skeleton Jetty, shipping, recreational use and the destructive force of nature.

Section 3

In 2009-2011 this 82m long section of jetty was fully demolished and a new 4m wide section built on the same alignment with timber piles and concrete panel decking. This section commences near the interpretive panel for 'The Junction', where the original Queen Street jetty intersected with the Skeleton Jetty (between jetty marks 133 and 135).

A series of memorial plaques commemorating local Busselton people who frequented the jetty or died at the jetty have been re-fixed to the centre rail of the new timber balustrade along the western side (between jetty marks 145 and 153). Some of these plaques state that ashes were cast from the jetty to the water, according to the wishes of the deceased.

This section also includes a fish cleaning station and memorial seat (dedicated to Kate Cornwell, 1916-1996). It ends near the interpretive marker for 'Head #2'.

Section 4

This 247m long by 4m wide section of jetty has timber piles and concrete decking that were repaired as part of the 2009-2011 works.

The timber balustrade continues along the western side of the jetty but is discontinued along the eastern side (near jetty mark 156), after which the eastern side is defined by a low timber kerb.

Section 5

In 2009-2011 this 210m long section of jetty was fully demolished and a new 4m wide section built on the same alignment with steel piles and concrete panel decking.

This section has a curved-back shelter with seating (2011), two low-level fishing/swimming platforms (one either side of the jetty), and a small projecting bay with a timber seat. Interpretation plaques reference recreational use of the jetty, including fishing and the Busselton Jetty Swim. The eastern balustrade recommences for a short section adjacent to the fishing platforms.

Section 5 ends near the interpretive marker for 'Head #3'.

Section 6

This 410m long by 4m wide section of jetty has timber piles and concrete decking that were repaired as part of the 2009-2011 works.

This includes a 4m wide, concrete decked extension on the western side (jetty marks 315 to 321) that accommodates an interpretive marker in the form of a weather vane with a boat and oars motif (2011)(near jetty mark 317). On the eastern side of this section is a low level platform that has been named 'Allies Landing' after a former president of the Busselton Jetty Environment Conservation Association, Allie Scott (1912-2002).

Interpretation in this area includes panels and stainless steel plaques referencing the Leeuwin current, sailors, fishermen and jetty anecdotes.

The eastern balustrade recommences at the widened section, then continues through to the end of the jetty.

Section 7

This 121m long section commences at 4m wide and then widens out to 12m wide to accommodate the end of the jetty railway and the approach to the Underwater Observatory. This has timber piles and concrete decking that were repaired as part of the 2009-2011 works, plus a 50m long by 8m wide

section of timber decking to mark the end of the jetty railway. The latter features a ramp and raised platform for the railway terminus (constructed in late 2011) and is bounded on the southern side by a tall, wave-topped, metal fence with gates, which provides a security barrier when the Underwater Observatory is closed. Notices advise that fishing is prohibited beyond this point.

From the southern edge of the 12m wide platform, there is a ramp providing universal access to a low level fishing platform on the western side of the jetty (between jetty marks 349 and 357). Unlike the other timber decked low-level platforms this has open fibreglass mesh decking over the typical steel superstructure and timber piles. At the southern end of this platform there is a timber meteorological platform (near jetty marks 347 to 349).

Interpretation in this area includes a panel referencing 'Head #4' and the use of the jetty during World War II.

Section 8

This 12m wide section accommodates the Underwater Observatory, as completed in 2003. The Observatory building is constructed with weatherboard profile walls and corrugated profile roof sheeting. Externally, it has the appearance of two attached rectangular sheds, of equal size and each with its own gabled roof.

Under the jetty the Observatory extends 8m beneath the surface of the water, with eleven viewing windows at various levels in a 9.5m diameter chamber.

Sections 9 and 10

These sections were largely destroyed by fire in 1999 and, as part of the refurbishment of the jetty in 2009-2012, were reconstructed as a 109m long by 12m wide concrete decked platform. Old timber piles were retained where possible as part of the Underwater Observatory experience, but Section 10 was fully supported on new steel piles.

This section accommodates an interpretive marker in the form of a weather vane with a school of fish motif.

13.3. COMPARATIVE INFORMATION

During the period from 1832 to 1942, at least 80 timber jetty structures were built, modified, extended or replaced on the coast of Western Australia for the purposes of commercial shipping and handling. All of these structures were of a basic design and were generally constructed using Western Australian hardwoods. Of all these timber jetty structures that were built, only three of the structures still remain completely or substantially intact today. A fourth, Bunbury Jetty, is in a deteriorated condition and is no longer substantially intact. It is due for demolition in 2012. All of the other timber shipping jetties on the coast of Western Australia have been demolished. In a few cases, the entire structure has been destroyed, but in a lot of cases, small remnants of each structure are extant at the site.¹¹⁴

¹¹⁴ The Engineering Heritage Panel of the Western Australian Division of the Institute of Engineers Australia, 'Large Timber Structures in WA', 1998, p.4.6-1.

The remaining three substantially intact jetties are *Busselton Jetty*, the *Tanker Jetty* in Esperance and *One Mile Jetty* in Carnarvon. All three structures were originally built and used for transporting cargo from sea vessels to the shore. The jetties at Busselton and Carnarvon have all undergone extensions on more than one occasion.¹¹⁵

The jetty at Carnarvon, also known as the '*One Mile Jetty*', was constructed in 1886 and measured 1600m in length.¹¹⁶

The *Tanker Jetty* in Esperance was constructed significantly later, in 1935, and measured 1044m long.¹¹⁷

Of the three substantially intact jetties, none are being used for their original purpose. However, they represent the major type of maritime timber structure that was used for the transportation of cargo from sea vessels to the shore for the first hundred years or more of the development of Western Australia.¹¹⁸

A search for other significant timber jetties constructed in Australia and the Southern Hemisphere, revealed only one close to the length of *Busselton Jetty*: Port Germein Jetty, South Australia, constructed 1883. Although it also claims to be the longest timber jetty in the Southern Hemisphere in the relevant heritage listings and publicity material, it falls short of *Busselton Jetty*, measuring 1664m.¹¹⁹

13.4. KEY REFERENCES

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Hartley R.G., *Industry and Infrastructure in Western Australia 1829-1940*, Western Australian Division of the Institute of Engineers, Perth, 1995.

Jennings, R.J., *Busselton: A Place to Remember 1850-1914*, Success Print, Western Australia, 1999.

13.5. FURTHER RESEARCH

Oral histories of people who were involved in the operation and maintenance of the jetty and the associated port from 1865 to 1972 may reveal a better understanding of the social history of the place.

Preliminary investigations of early building and engineering journals, together with information provided in the structural assessment report (BG&E, 2005) revealed no special significance of the Jetty's structural engineering. However, an analysis of the original plans by a structural engineer may provide additional details on the engineering significance.

115 'Large Timber Structures in WA', p.4.6-1, 6007, 6009, 6011, 6018.

116 Cummings et al, pp. 39-40; HCWA Documentation 'One Mile Jetty, Carnarvon', Place No. 4566.

117 Cummings et al, op. cit., p. 12.

118 'Large Timber Structures in WA', op. cit., p.4.6-1.

119 Search of Port Germein Jetty on web, including Department for Environment and Heritage, South Australia; Australian Heritage Places Inventory [www.heritage.gov.au]; www.smh.com.au/news/South-Australia/Port-Germein; www.germeinps.sa.edu.au.