RIVER BOAT TRAIL

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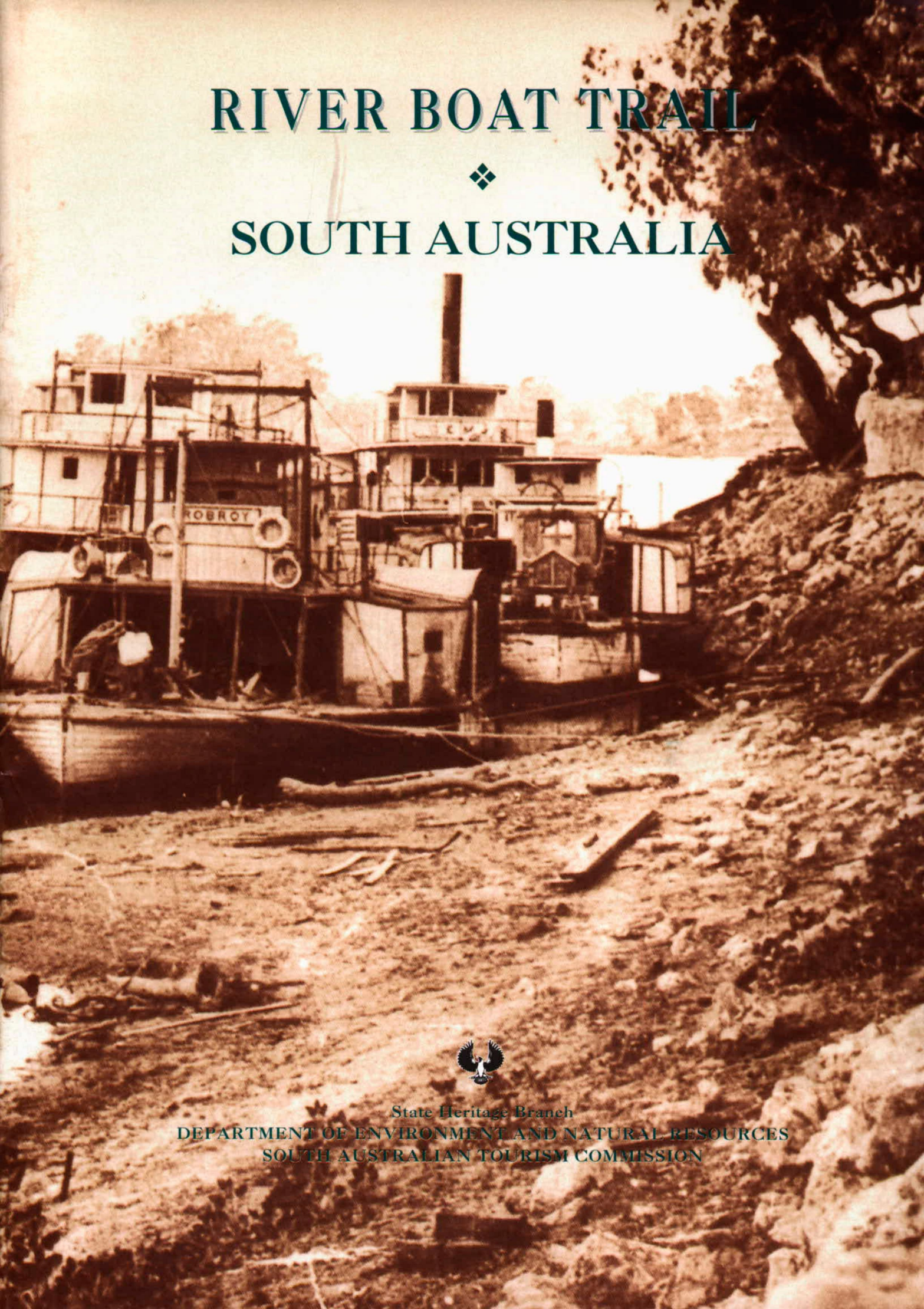
SOUTH AUSTRALIA



State Heritage Branch
DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES
SOUTH AUSTRALIAN TOURISM COMMISSION

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Design by Judi Francis

State Heritage Branch

Department of Environment and Natural Resources

South Australian Tourism Commission

Acknowledgments

District Councils of:

- Port Elliot and Goolwa
- Strathalbyn
- Meningie
- Murray Bridge
- Mannum
- Ridley – Truro
- Morgan
- Waikerie
- Loxton
- Berri
- Paringa

City of Renmark

Steve Moritz and Bob Sexton

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Front Cover: River boats at Morgan, 1915. (Mortlock Library B26156)

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RIVER BOAT TRAIL

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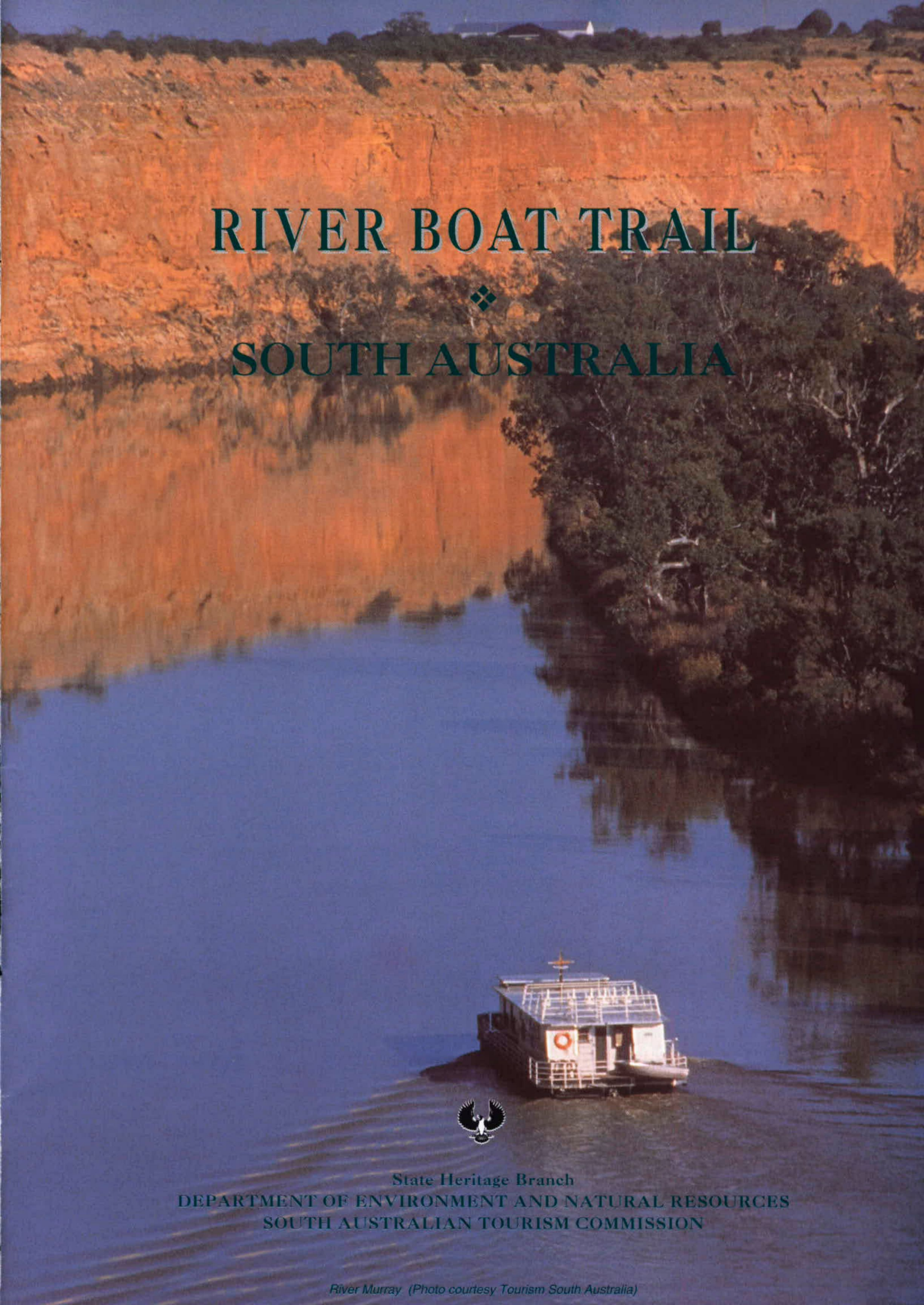

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River Murray (Photo courtesy Tourism South Australia)

Contents

This booklet and the information signs located in eleven towns along the River Murray make up the *River Boat Trail* for the South Australian section of the river. The 'trail' aims to inform users of the river about the type and number of historic sites that still exist along this section of the Murray. All of the sites are either the remains of paddle steamers, barges and other vessels; or buildings, structures and other features related to shipping on the River Murray from the 1850s to the 1940s.

The *River Boat Trail* commences at the lower end of the river and travels upstream. This reflects the history of shipping on the River Murray, as it was in the lower reaches that the first paddle steamers commenced operation. While the 'trail' may not follow a marked route, it does follow a series of historic sites located along the river. Interspersed between the historic sites are weeping willows which are a legacy of the river boat trade. Many of these trees were planted by the river boat owners and captains to mark the main channel. This helped them to navigate at night and during times of flood when vast expanses of water would cover the surrounding flood plains, making it difficult to distinguish the location of the main channel (Kenderdine 1993: 11, 28).

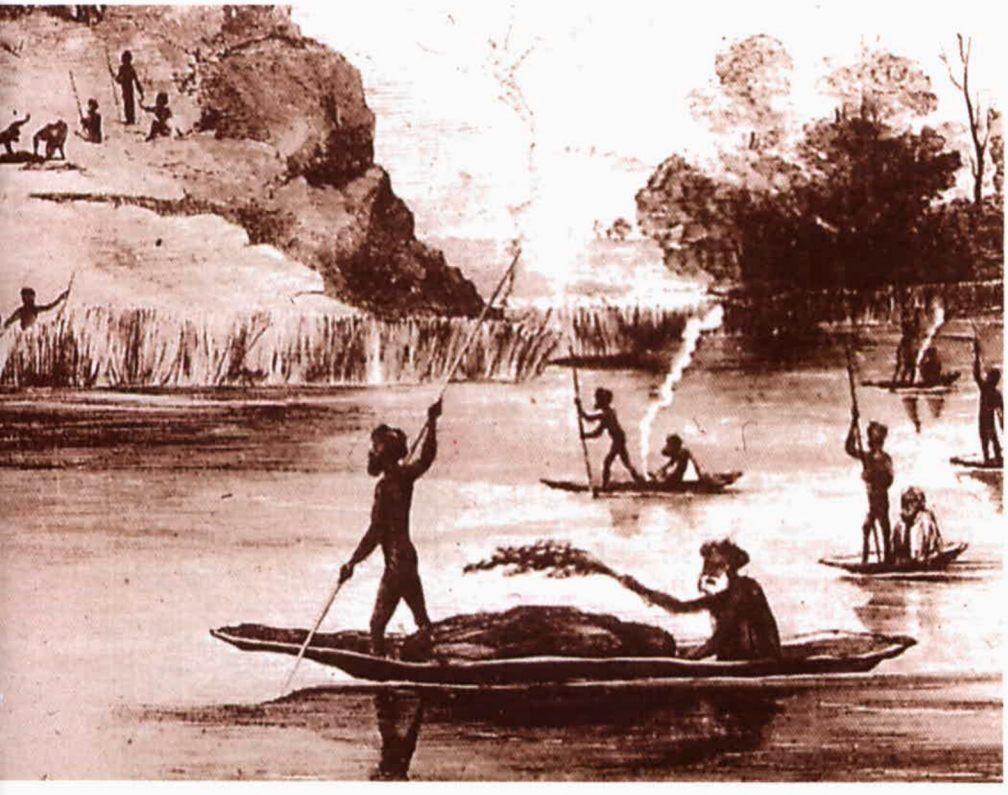
As a result of the popularity of house boats and other forms of boating along the River Murray, many people have the opportunity to appreciate the majesty of a river that meant so much to aboriginal people and to view some of these 'non-indigenous' historic sites. Promotion of the sites in a 'trail' concept should complement this recreational activity and help people to appreciate and enjoy the river's rich cultural heritage.

This booklet is the main interpretive medium for the *River Boat Trail*. In addition eleven information signs have been placed in the regional centres of Goolwa, Milang, Meningie, Murray Bridge, Mannum, Blanchetown, Morgan, Waikerie, Loxton, Berri and Renmark. These signs display some historical information and a map for the adjacent section of the river showing the locations of the historic boats and sites.

The historic boats and sites directly associated with shipping along the River Murray were identified in a survey carried out by Sarah Kenderdine in 1992. They comprise:

- 61 shipwrecks (including both paddle steamers and barges)
- 16 surviving historic vessels
- a lighthouse
- a tree marked by Captain Charles Sturt
- 12 wharves
- 24 jetties and landings;
- 16 ferry landings
- 3 slips
- 2 beam engines
- a chart room
- a dock
- 3 bridges
- 6 locks
- 6 barrages
- graves
- a morgue
- 4 boilers
- a granite quarry used in the construction of locks
- a custom house.

Most of these boats and sites have been described in this booklet and the information signs.



Before steam vessels were introduced onto the River Murray in 1853, Aboriginal people used craft made from the bark of red gum trees to fish and travel the river. Although these craft have disappeared from the river there are many scarred trees along the river that provide evidence of their shape.

Having set out to follow the Murrumbidgee River to its outlet, Captain Charles Sturt explored the Murray and reached Lake Alexandrina in 1830. Sturt's discoveries prompted the British to found the colony of South Australia in 1836. Although it had been hoped that the River Murray might provide a major trade route to and from the interior of Australia, initial attempts to navigate the Murray Mouth were unsuccessful and resulted in the deaths of four of its early explorers including the Chief Justice. However in 1841 the Murray Mouth was successfully navigated by Captain William Pullen, the colony's Marine Surveyor. Further exploration and development of the river was then delayed due to a downturn in the colony's economy during the 1840s and the considerable distance across the ranges between Adelaide and the River Murray.

It was not until the arrival of a new governor, Sir Henry Fox Young, in 1848 that any substantial progress took place. He offered a bonus of £4000 to anyone who could place two iron steamers on the river and successfully navigate the waterway from Goolwa to the junction of the Darling. To assist, the government built a jetty at Goolwa and erected beacons on a stretch of the river between Goolwa and Wellington.

The discovery of gold in Victoria in 1851 also stimulated interest in navigating the River Murray. The idea of using the waterway as a trade route to the goldfields led William and Thomas Randell to construct and launch the first paddle steamer on the River Murray, the *Mary Ann*. (Refer to the section on Mannum, p17, for further details.) On his second attempt to use the *Mary Ann* to take flour and goods upstream to the diggers, William Randell arrived at Swan Hill in September 1853.

The *Mary Ann* was overtaken on this successful voyage to Swan Hill by the paddle steamer *Lady Augusta*, which was owned by Francis Cadell, who went on to set up the River Murray Navigation Company. In 1855 the company imported two vessels in pieces, *Albury* and *Gundagai*, to be reassembled at Goolwa.

By 1857 there were fifteen steamers and barges operating on the river (Kenderdine 1993: 21). The first ocean port linked to the river mouth at Goolwa was Port Elliot. A horse drawn single track railway was built and began operating on 18 May 1854. However, the small bay at Port Elliot soon proved unsuitable for the larger sailing vessels engaged in overseas trade. Seven shipwrecks occurred there up to 1864, when it was abandoned in favour of Victor Harbor. Eventually, the construction of railways linking Melbourne and Adelaide to various river ports including Echuca (Victoria), Morgan, Murray Bridge, Milang and Goolwa put an end to the idea of a sea port near the Murray Mouth.

P.S. Eva *(Godson Collection 36A/26)*

Trade on the river reached its peak during the years from the 1860s to the 1880s, after which the development of rail and road transport brought about a period of gradual decline. The types of cargo carried upstream varied greatly depending on the needs of the settlers along the river and the diggers at the goldfields. Downstream cargo consisted of produce such as wool, wheat, hides, salt and oats. Much of this produce was carried on barges towed or lashed to the sides of the paddle steamers (refer to p 27 for more detail). Passengers embarked on voyages in both directions.

Paddle steamers were in commercial use from 1853 to 1939, at which time the locks were completed and many men left the region to go to war. Over 350 vessels were involved in the trade throughout this period. The 61 'shipwrecks', 16 surviving historic boats and 89 associated land sites located in South Australia are a significant reminder of this important activity.

Many boats still operate commercially along the River Murray. Today, however, these vessels are mainly modern house boats and large passenger ships involved in the tourism industry.

It is important that the remaining boats and sites associated with historic shipping on the River Murray be looked after so that future generations can appreciate this aspect of our past. Many individuals, community groups and district councils are involved in the management and conservation of these

boats and sites, with support from the State and Commonwealth governments. Work currently being carried out includes the restoration of boats and other structures back to their original or former condition, as well as maintenance to safeguard their integrity.

The South Australian Government, through the State Heritage Branch, maintains a program of caring for many of these boats and sites. Some are declared under state legislation as historic sites or historic shipwrecks, which acknowledges their role in South Australia's history and provides a legal protection against any unwarranted interference. Legislation also helps to control the type of restoration work which can be carried out on a boat or site.

By raising public awareness of these boats and sites, the *River Boat Trail* aims to encourage greater appreciation of their value, which will in turn lend support for their conservation. Another goal is to provide some information in an attractive manner and at convenient locations, so that people can enjoy a more rewarding experience when visiting these regions. Fulfilment of these objectives is dependent on support from everyone.

Please avoid interfering in any way with the shipwrecks, historic boats and the land based sites. If you are operating any type of boat near a shipwreck, do this sedately as turbulence could cause damage to the site. Do not take any parts of the shipwrecks or sites as souvenirs, in many cases it is illegal to interfere with these sites. If you are landing anywhere respect both the land owner's rights and the environment.

If you feel there is something more we could do with this trail, or an associated activity, please let us know.

For a more detailed explanation of the conservation requirements of boats and sites, and the history of River Murray shipping there is a list of books on page 35.

THE REGIONS

Goolwa

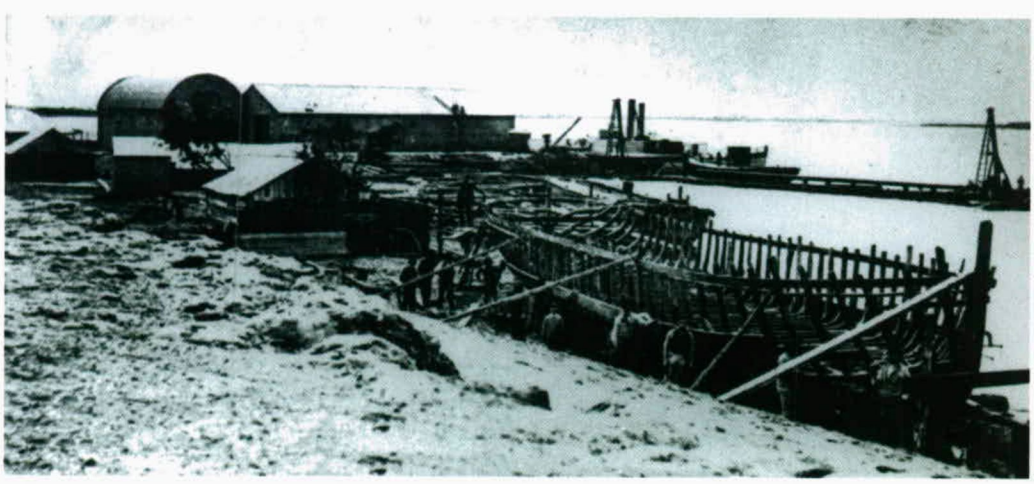
Given the *Mary Ann* called at Goolwa in 1853 to obtain her customs clearance for the first paddle steamer voyage on the River Murray, it is fitting that the *River Boat Trail* commence here.

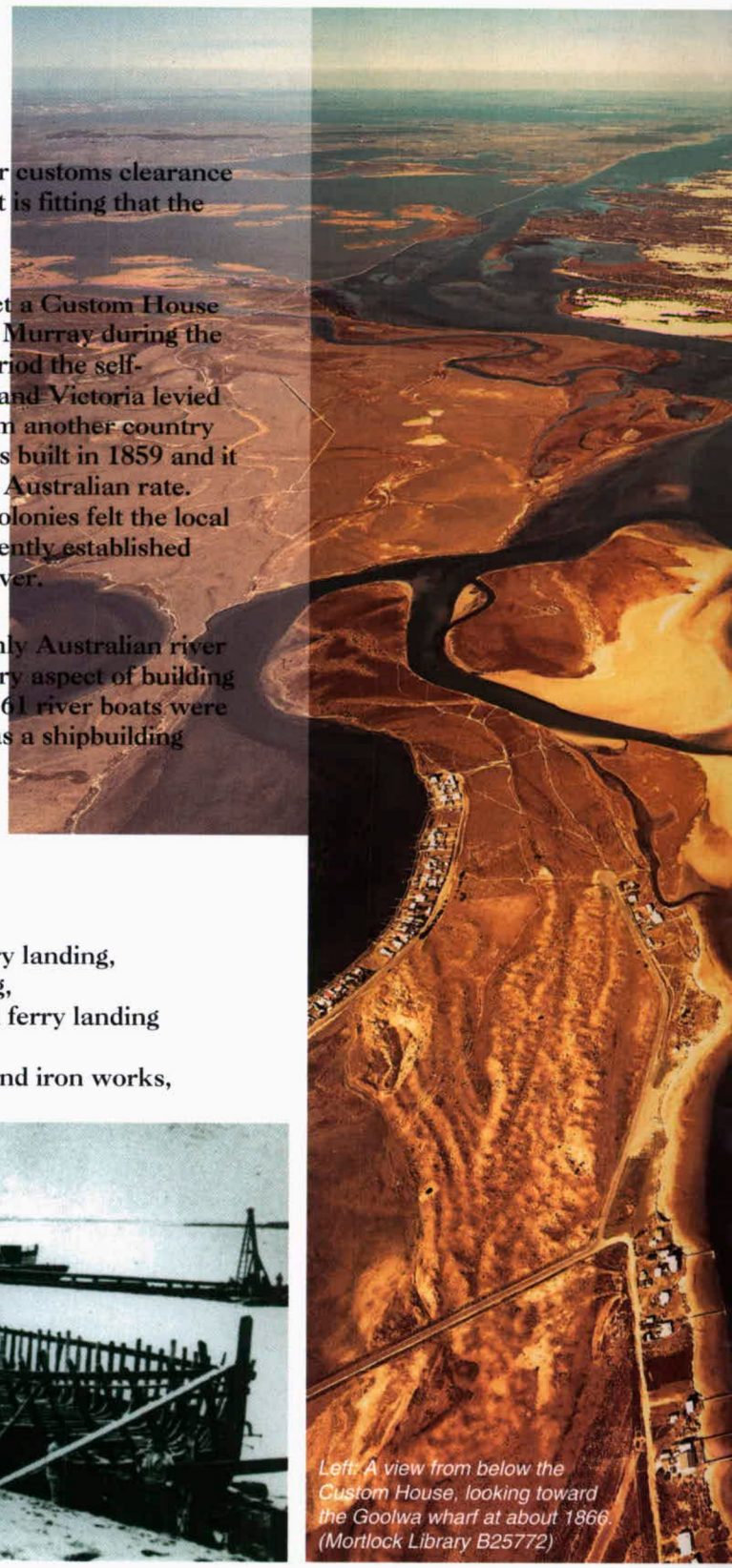
One of the first facilities established on the river was in fact a Custom House at Goolwa. Border customs were a key issue on the River Murray during the busy first fifty years of the river trade. Throughout this period the self-governing colonies of South Australia, New South Wales and Victoria levied customs duties on goods imported into a colony, either from another country or a neighbouring colony. The Goolwa Custom House was built in 1859 and it initially collected duties for the three colonies at the South Australian rate. Within two years this situation had changed as the other colonies felt the local rate was too low. Victoria and New South Wales consequently established their own customs posts adjacent to their sections of the river.

Goolwa boasts another unique feature in that it was the only Australian river port to provide shipbuilding facilities that could handle every aspect of building or repairing river boats-from hull to machinery. A total of 61 river boats were built from 1853 to 1913, and Goolwa was only surpassed as a shipbuilding centre by the Victorian town of Echuca.

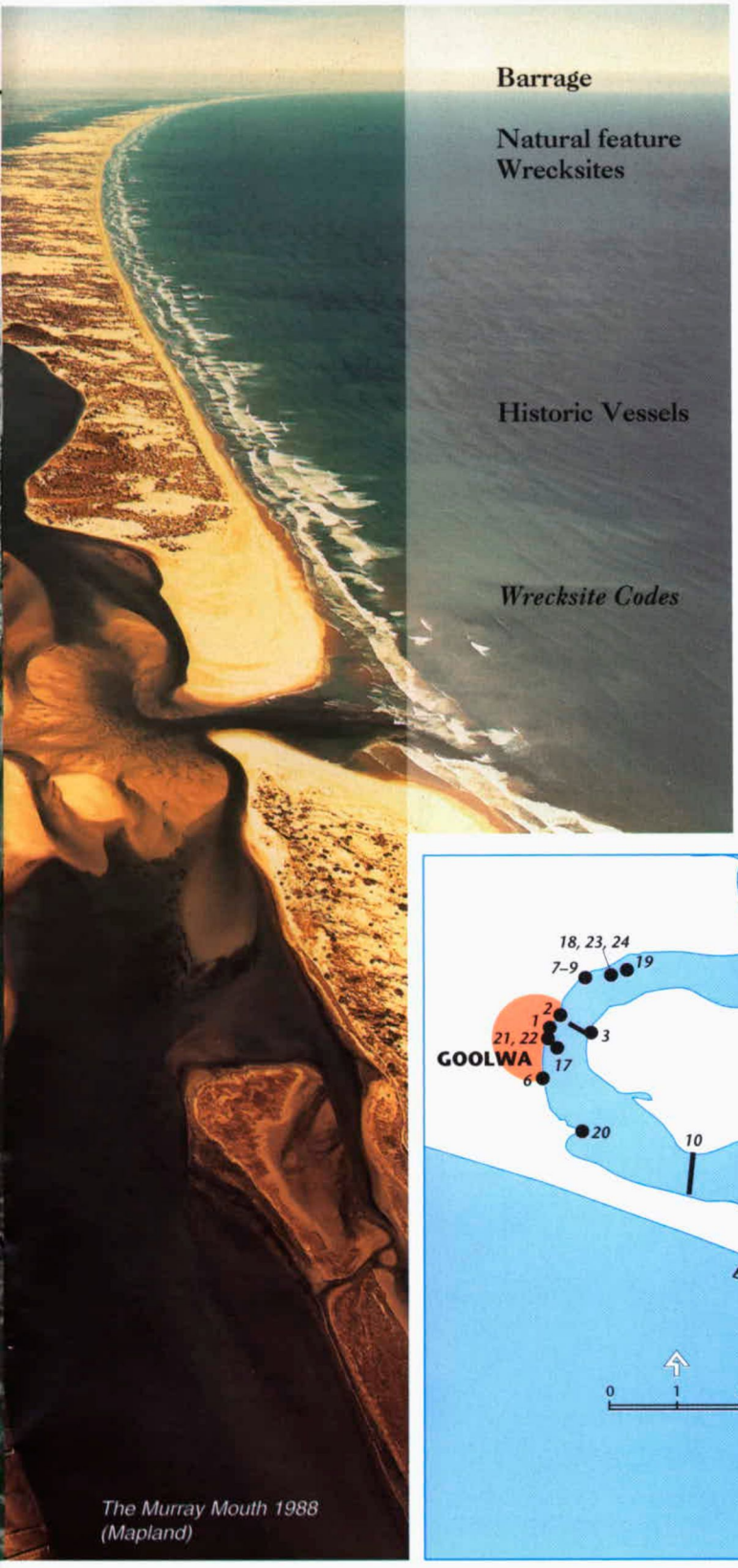
The following boats and sites are located in this region:

Wharf	1	Goolwa wharf
Historic Ferry Landings	2	Goolwa ferry landing,
	3	Hindmarsh Island ferry landing,
	4	Rankines ferry landing,
	5	Riverside complex and ferry landing
Shipbuilding Facilities	6	Armfield's slipway,
	7	Graham's patent slip and iron works,





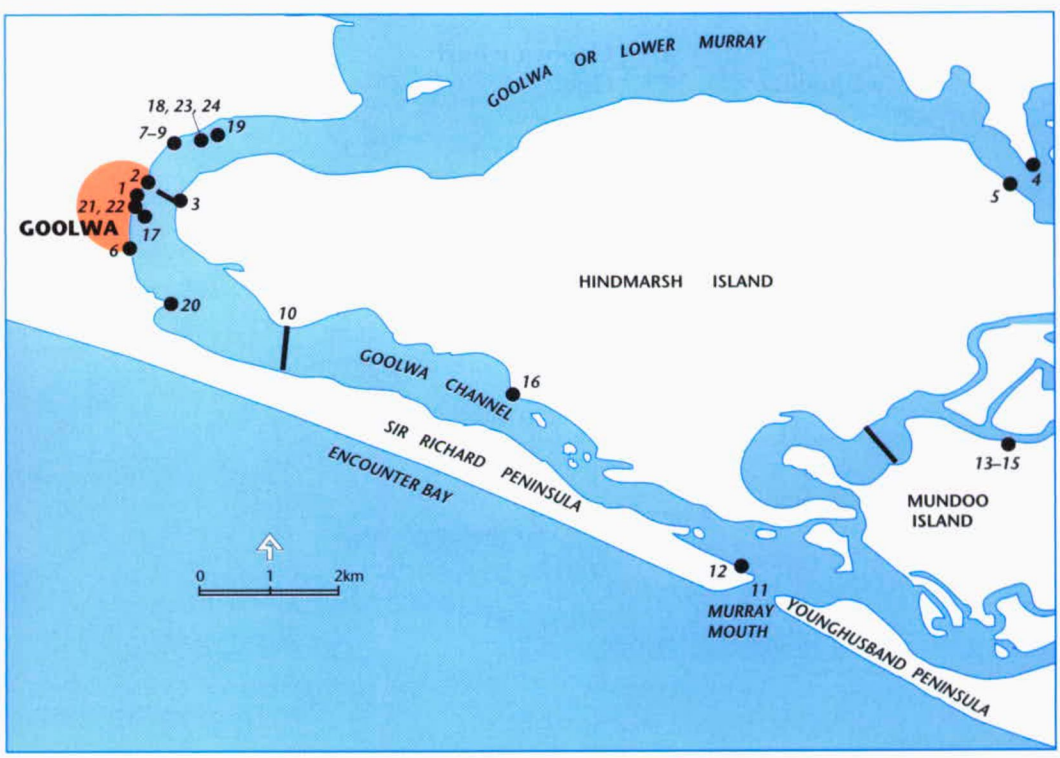
Left: A view from below the Custom House, looking toward the Goolwa wharf at about 1866. (Mortlock Library B25772)



The Murray Mouth 1988
(Mapland)

8 Former chart room,
9 Beam engine
10 Goolwa barrage (western most of the sea barrages)
11 Murray Mouth
12 P.S. *Melbourne* (*S*),
13 *Albert* (*E*),
14 P.S.*Wilcannia* (*E*),
15 the old Narrung punt (*PE*),
16 Showboat *Ada & Clara* (*PE*),
17 P.S. *Renmark* (*S*),
18 *Uranus* (*PE*),
19 *Albion* (*PE*)
20 P.S. *Federal*,
21 P.S. *Oscar W*,
22 *Dart*,
23 P.S. *Captain Sturt*,
24 M.V. *Progress*

(*E*) *Exposed* (*S*) *Submerged* (*PE*) *Part Exposed*



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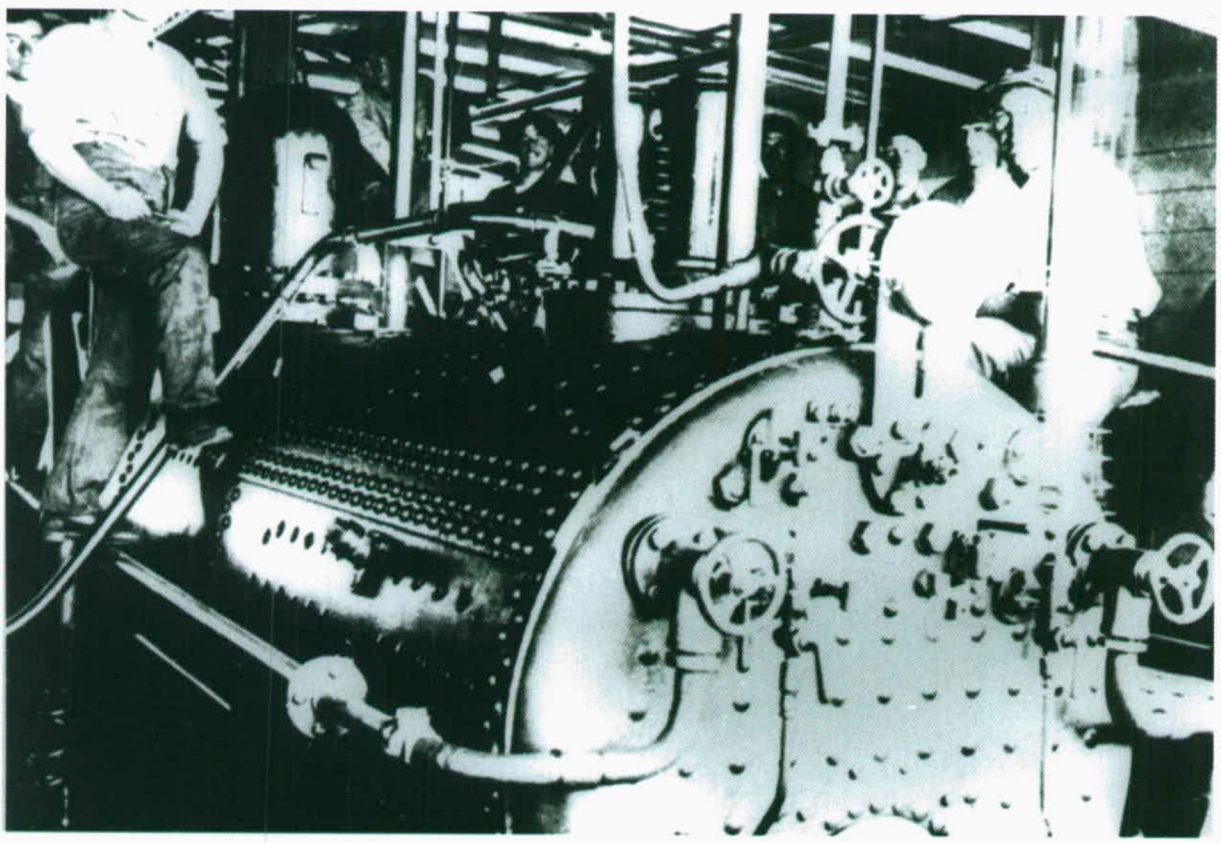
There were a number of people responsible for the construction of the river boats at Goolwa. One of the most active and successful was Abraham Graham. Initially employed as manager of Cadell's River Murray Navigation Company, he went on to become a shipping agent, then owner of the Goolwa Ironworks and Patent Slip.

In 1866 Graham's business card advised that his firm undertook construction of 'steam engines, steam winches, fly wheels, engine boilers, gas fittings, bolts, iron and brass castings'; that 'timber and shipbuilding materials, oils, paints, brushes, etc.' were on sale; and that he was 'contractor for building steam boats, barges, engines, boilers, and all descriptions of ironwork'. One of Graham's many public offices was mayor of the first Goolwa Town Council.



P.S. Renmark's *boiler, 1912.*
(Mortlock Library B50617)

Milang

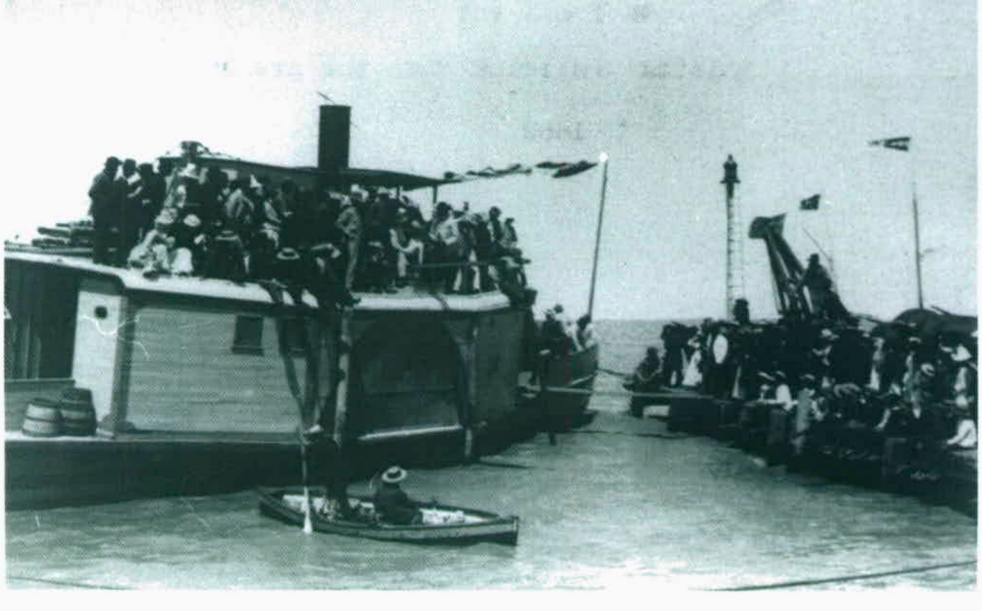
Upstream from Goolwa and situated on the shores of Lake Alexandrina is Milang. Surveyed in 1853, this town was of twofold importance as a port. Not only was Milang a significant point in the river trade operated by the paddle steamers, but it was also the link from which a fleet of small sailing schooners and shallow draught paddle steamers plied lakes Alexandrina and Albert to connect with the land routes that crossed the Coorong to the Victorian goldfields.

At its peak, Milang was a bustling port and business centre responsible for more than half the total River Murray exports from South Australia (Dallwitz and Marsden 1984: 33). The handling and transportation of wool from the Darling and Upper Murray was a key activity. Prior to the completion of rail links to Adelaide in the 1880s, goods were unloaded from the paddle steamers at Milang and were transported by horse and bullock dray to Port Adelaide, from whence they were shipped overseas.

A jetty was built in 1856, and by 1869 it was extended to 711 feet in length due to shallow water and the increasing steamer trade. A hand crane placed on the Milang jetty in 1872 is the oldest of such cranes in South Australia (Kenderdine 1990, 32).

Above: River Boats at the Milang jetty c1900. (Mortlock Library B3122)

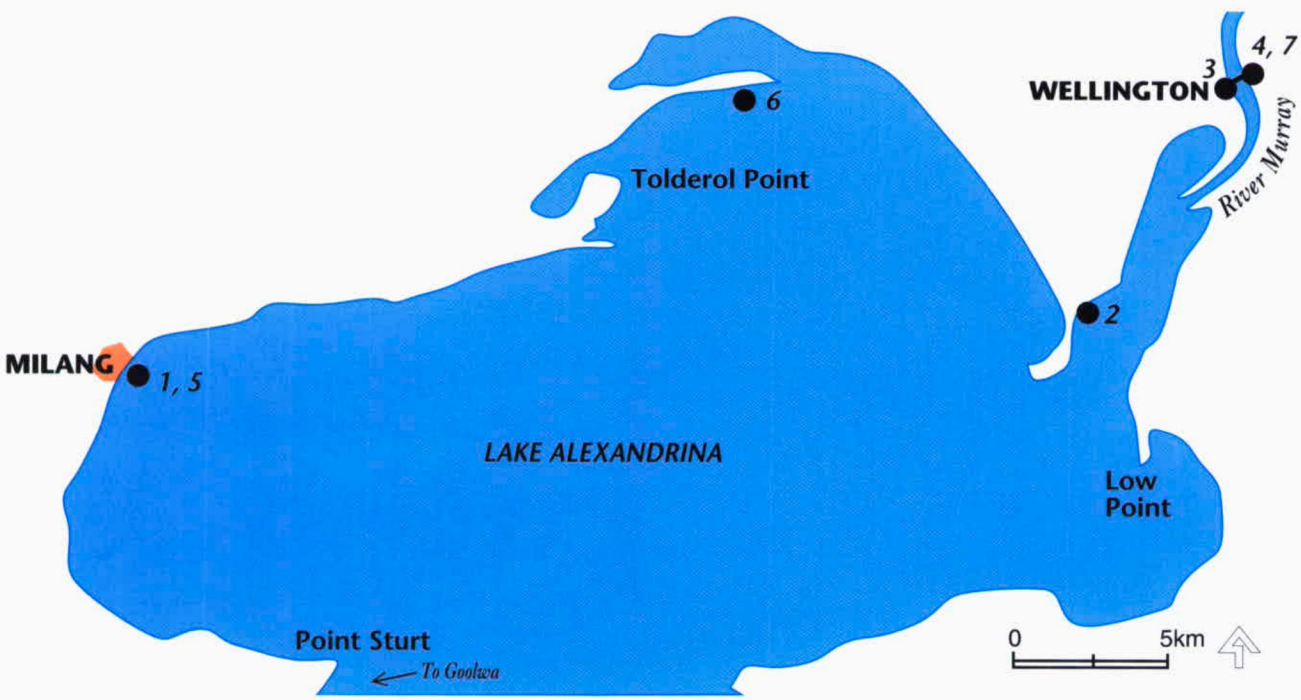
Right: 'Sliding down the greasy pole' Milang 1889. (Mortlock Library B1629)



Wool being transported by horse and bullock drays, c1876 (Mortlock Library B8284)

The following boats and sites are located in this region:

Wharf	1	Milang wharf (jetty) and hand crane
Jetty and Landing	2	Millowar landing ruins
Historic Ferry Landings	3	Wellington ferry road and stone walls,
	4	former Wellington ferry landings (east and west)
Wrecksites	5	P.S. *Invincible* (*E*),
	6	*Mosquito* (*S*),
	7	*Bullfrog* (*S*)
Wrecksite Codes		(*E*) *Exposed* (*S*) *Submerged* (*PE*) *Part Exposed*



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Albert Landseer first started business at Milang in 1860, soon after his arrival from England. It was from these beginnings that the company A.H. Landseer & Co. went on to become merchants, shipowners and agents with branches in many River Murray towns. Landseer's original partner was Mr William Dunk, a carpenter who built a number of steamers at Milang. The ships controlled by the company engaged in local trade on the lower river and lakes, dealing in goods such as galvanised iron, sawn timber and bricks. As the business grew, services were extended further upstream in pursuit of the lucrative wool trade (Parsons 1990: 29).

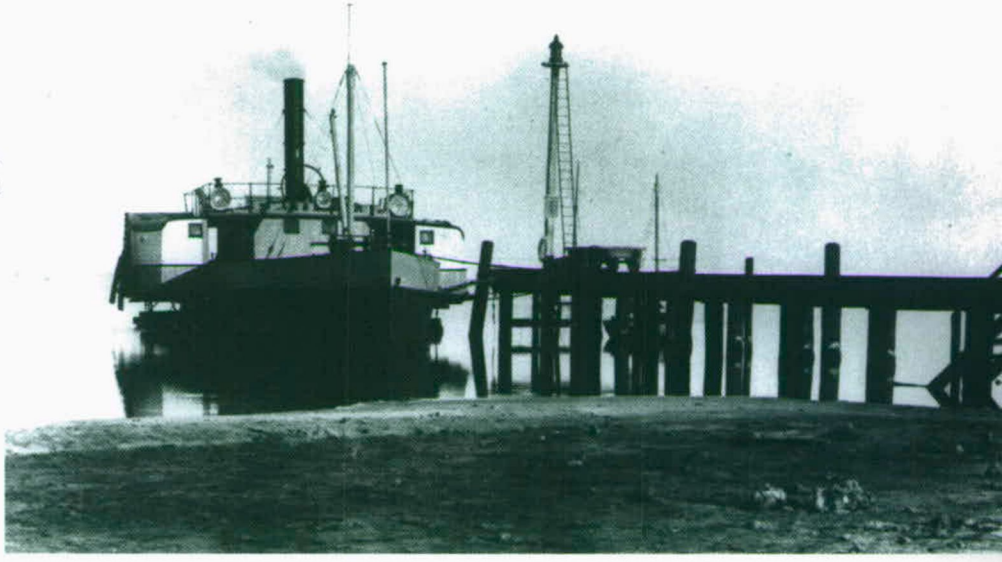
A floating dock (now at Mannum) was built at Milang by Captain Thomas Smith for Landseer and launched in 1873. The original dimensions of this structure, the only one of its type in Australia, were 144 ft long, 40 ft wide and 9 ft deep. At the time it was claimed to be the largest floating dock in the southern hemisphere. However, the river at Milang was not deep enough for the floating dock, which was subsequently sold to Captain Randell and relocated just upstream from the wharf at Mannum.

Main Street of Milang showing Landseer's buildings (Mortlock Library B27584/86)

Meningie

Meningie, a small port situated on Lake Albert, was mainly notable because it had the post office for overland mail. From 1867, it became a link in a land service to the South East and Melbourne. This trip involved a number of changes of transport for those who preferred the rigours of an overland route to the dangers of a coastal sea voyage.

Travellers during the 1870s were carried from Adelaide to Milang, and via steamer to Meningie, from where they travelled on by coach to Naracoorte, and then by a combination of road and railway to Melbourne (Dallwitz & Marsden 1984: 34; Parsons 1990: 36). This traffic ceased with the development of rail and road links between the colonies.



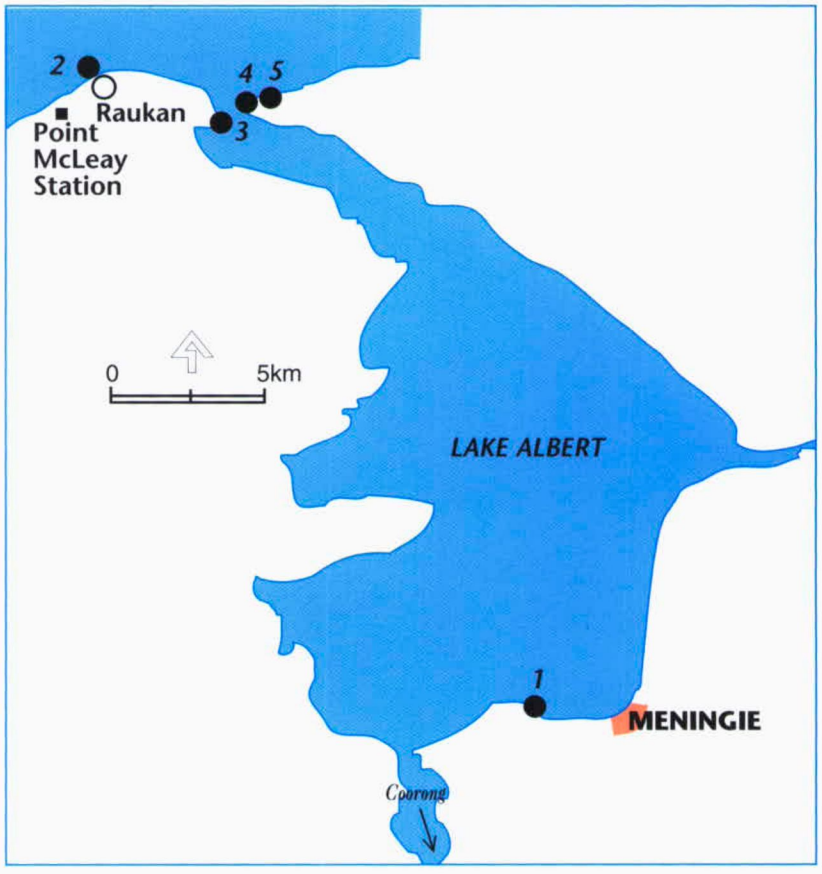
P.S. Jupiter *at Meningie, 1914. (Mortlock Library B23326)*

The following boats and sites are located in this region:

Jetties and Landings
1 Warrengee woolshed and jetty,
2 Point Macleay jetty,
3 Narrung jetty

Lighthouse
4 Point Malcolm lighthouse

Wrecksite
5 F.B. *Waterlilly* (*Submerged*)



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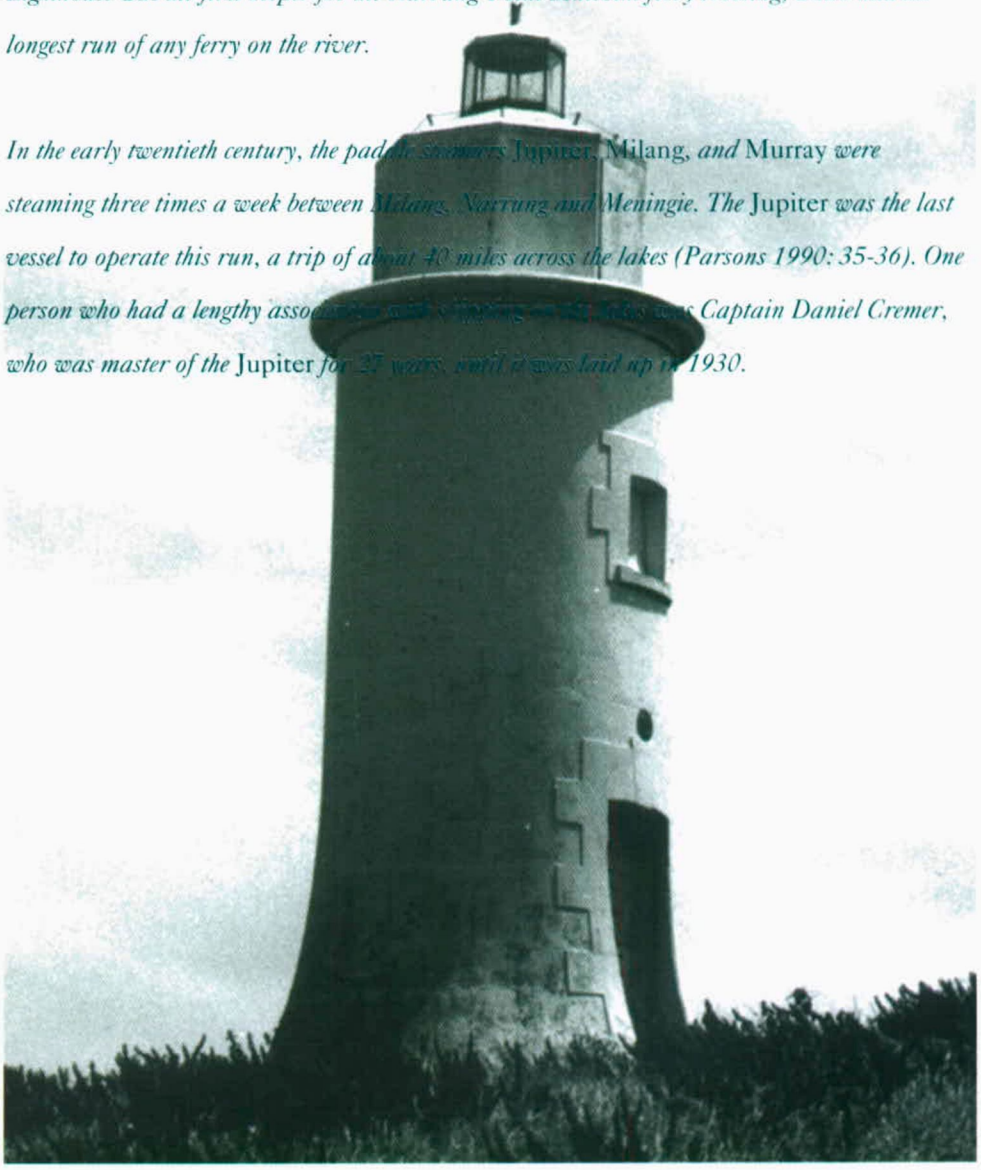
Regular cargo services on the lakes at the entrance to the Murray were first conducted by sailing ships. These then gave way to steam. The extent of Coorong shipping can be gauged by the construction of a small lighthouse overlooking Lake Alexandrina at Point Malcolm, where numerous shipwrecks had occurred. It began operating on 1 February 1878 to guide the vessels travelling from Milang to Meningie, and from Lake Alexandrina to further up the river. The light was visible from ten miles. This was the only lighthouse built on an inland waterway in South Australia (Kenderdine 1993: 102). A woman who lived in the Point Malcolm Lighthouse was the first keeper for the Narrung-Point Malcolm ferry crossing, which had the longest run of any ferry on the river.

In the early twentieth century, the paddle steamers Jupiter, Milang, *and* Murray *were steaming three times a week between Milang, Narrung and Meningie. The* Jupiter *was the last vessel to operate this run, a trip of about 40 miles across the lakes (Parsons 1990: 35-36). One person who had a lengthy association with shipping on the lakes was Captain Daniel Cremer, who was master of the* Jupiter *for 27 years, until it was laid up in 1930.*



Point Malcolm lighthouse, 1992
(Kenderdine, State Heritage Branch)

Murray Bridge

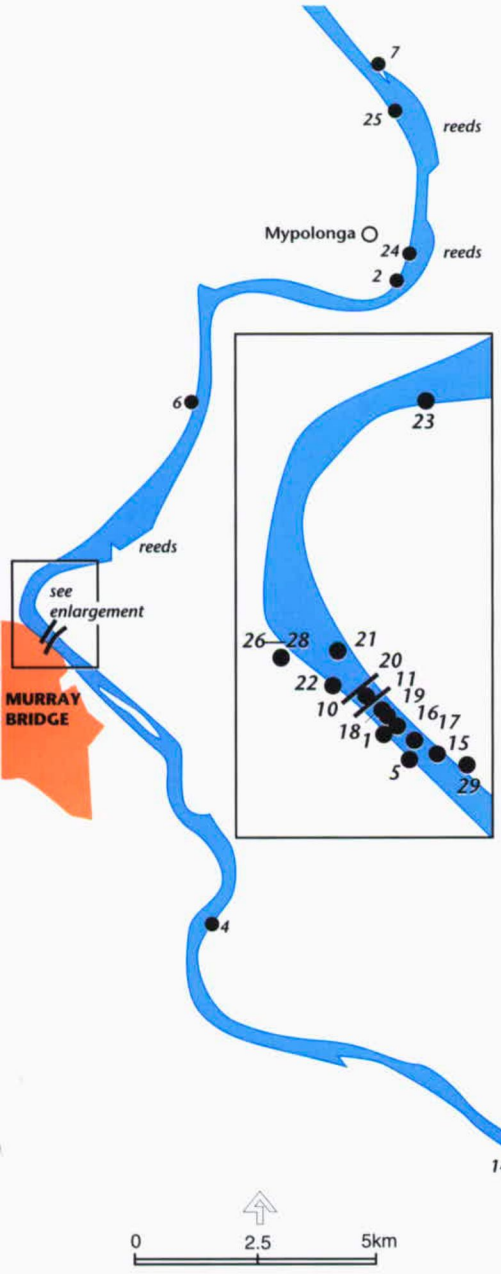
Murray Bridge construction crew, 1876 (Godson Collection, Q series No 8)

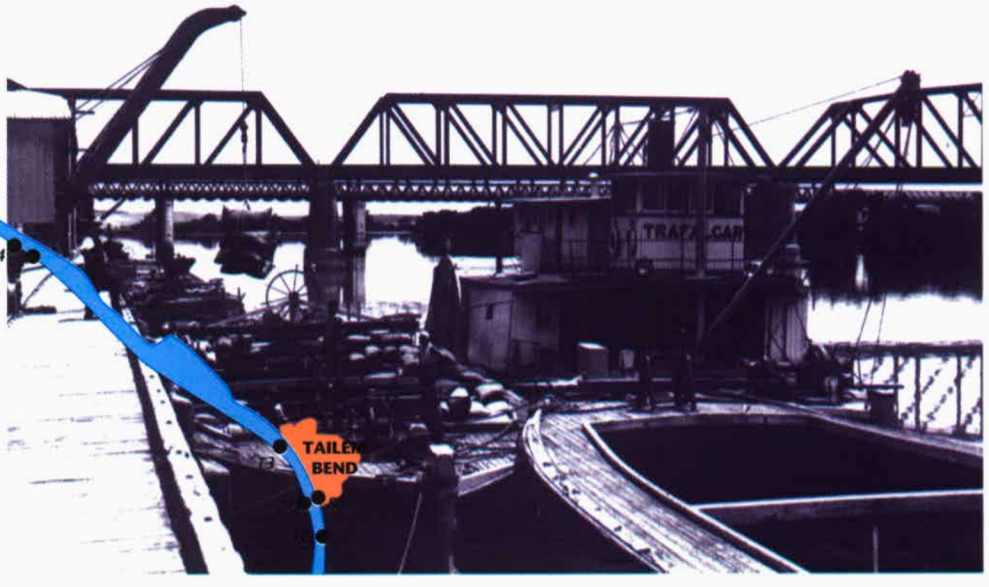
Murray Bridge, or Edwards' Crossing as it was known prior to the opening of the road bridge in 1879, began to develop once it became the first permanent crossing over the River Murray in South Australia. When the railway also crossed the river in the 1880s Murray Bridge boomed, attracting additional business that had previously been carried on in older ports such as Goolwa and Mannum (Kenderdine 1993: 33).

Land reclamation, irrigation and agricultural development transformed the lower Murray in the early years of the twentieth century. As dairy farming developed into a key regional industry, Murray Bridge became an important centre for milk production. A large milk and butter factory was built by Beauchamps in 1914.

The following boats and sites are located in this region:

Wharves	1	Murray Bridge wharf and hand crane,
	2	Mypolonga South wharf,
Jetties and Landings	3	Woods Point landing,
	4	Bell's landing,
	5	Former Beauchamps Milk landing,
	6	Jaensch's landing,
	7	Dickson's landing
Historic Ferry Landings	8	Former Tailem Bend ferry landings and access track,
	9	Former Jervois ferry landing
Historic Bridges	10	Murray Bridge road bridge,
	11	Murray Bridge rail bridge
Wrecksites	12	S.S. *Sunbeam* (*S*),
	13	P.S. *Roma* (*S*),
	14	Unidentified Barge 1 (*PE*),
	15	*Pearl* (*S*),
	16	P.S. *Murrundi* (*S*),
	17	P.S. *William Davies* (*S*),
	18	S.S. *Merle* (*S*),
	19	P.S. *Eva* (*S*),
	20	P.S. *Bejo* (*S*),
	21	*Columbia* (*S*),
	22	*Alfred* (*S*),
	23	P.S. *Tyro* (*S*),
	24	*Bourke* (*S*),
	25	P.S. *Queen* (*S*)





P.S. Trafalgar *and barges at the Murray Bridge wharf c1920 (Mortlock Library B9235)*

Historic Vessels	26 Derrick, 27 Barge, 28 P.S.*Colonel*, 29 *Ukee*
Wrecksite Codes	*(E) Exposed (S) Submerged (PE) Part Exposed*

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With the establishment of the milk factory at Murray Bridge, milk was collected by boat from the dairies situated along the surrounding river flats. As the industry grew, conventional paddle steamers were replaced by a small fleet of motor launches owned by the Beauchamps Milk Factory, and Farmers Union.

These milk boats soon took over the trade, calling twice daily to pick up milk cans from landings such as Long Flat, Woods Point and Mypolonga. They also delivered mail and groceries to the farms along the river banks, stopping frequently at small jetties which were often less than a mile apart. Milk boats such as the Cooperation, *the* Loyalty, *the* Progress *and the* Union *operated until around 1948. These craft were usually about 40 feet in length , very beamy and had a wooden canopy to protect the milk from the sun. One of the milk boats, the* Progress, *is now located at the Goolwa marina and boatbuilding yard (Kenderdine 1993: 55-67, 294; Parsons 1990: 36, 92).*

Milk boat Loyalty *at landing (Godson Collection 140A/15)*

P.S. Marion *(EWS Berri)*

Mannum

It was from Noa No Landing, two miles north of Mannum, that William Randell launched the first paddle steamer on the River Murray, the *Mary Ann*. Following the success of an initial voyage in 1853, Randell moved his base to Mannum which soon became a centre for ship building and river transport. In the 1850s and 1860s up to 20 000 bales of wool were unloaded at Mannum each season. Produce would then be transported by horse teams to Port Adelaide.

Randell built a fleet of river steamers including the *Ariel, Corowa, Nil Desperandum, Waradgery* and the *Bunyip*. To assist his shipbuilding operations Randell purchased a floating dry dock, originally owned by Landseer and located at Milang. This dock was transported to Mannum and is now known as Randell's Graving Dock. It remained in commercial use until 1927 when it was still servicing the paddle steamer *Marion*. From 1963 the *Marion* has been sitting in the dock and used as a museum although it will soon be back to steaming along the river.

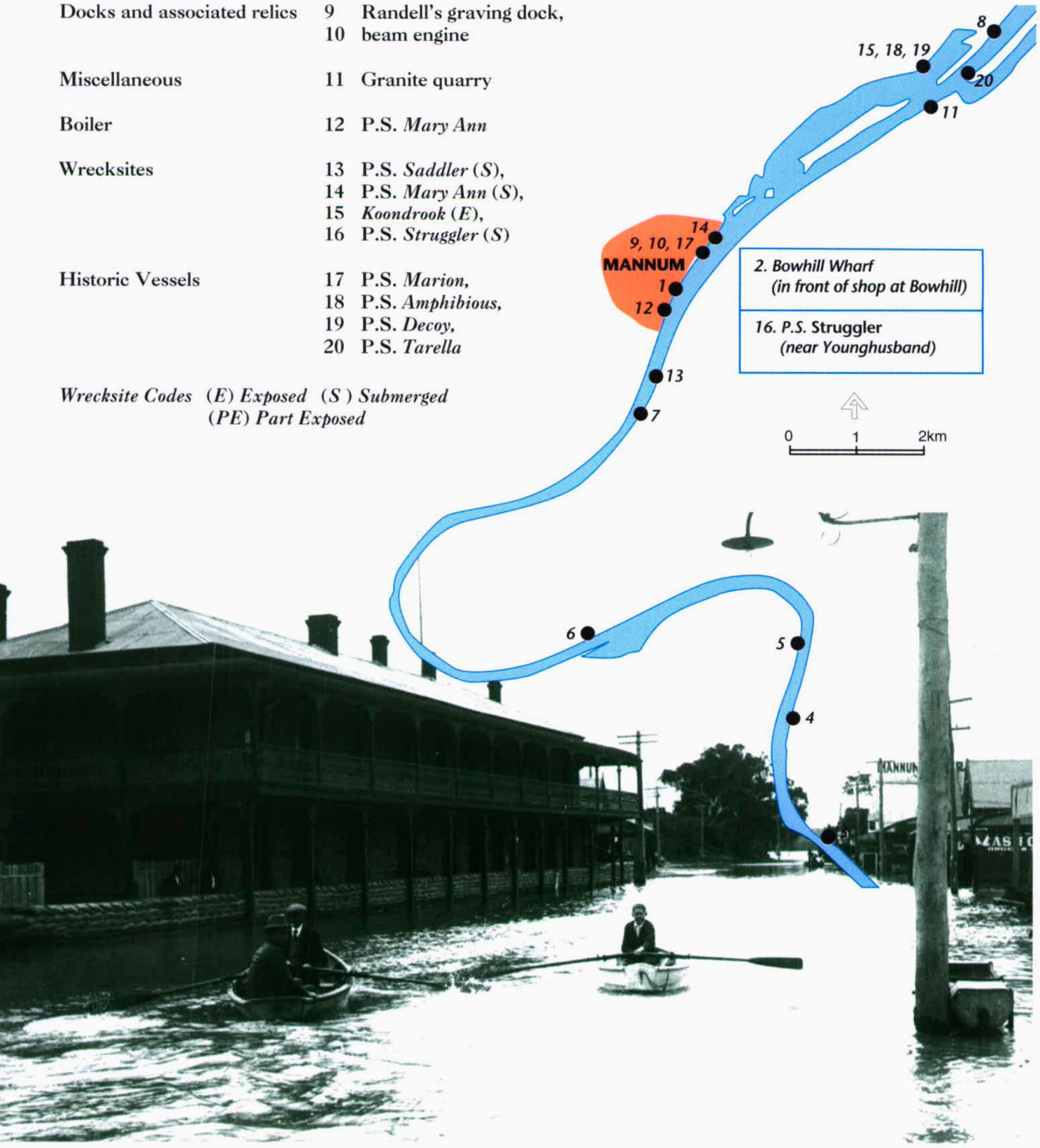
Randell eventually relinquished his interests in the steamer trade and returned to Gumeracha. Mannum, however, continued to thrive with Captain Arnold buying the dock from Randell in 1911 and subsequently developing his own fleet of vessels. In 1918, Arnold built the *Mannum* , the largest steamer constructed in South Australia (Bevan & Vaughan 1978: 14, 37-39). This vessel could handle a total load of well over 1000 tons, with its barges, and still make three or four miles an hour against the current (Drage & Page 1976: 154).

The following boats and sites are located in this region:

Wharves	1	Shearer's wharf site,
	2	Bowhill wharf
Jetties and Landings	3	Pompoota landing,
	4	Granny Mac's landing,
	5	Snakey Point landing,
	6	Wall Flat landing,
	7	Ponde landing,
	8	Noa No landing,

Docks and associated relics	9	Randell's graving dock,
	10	beam engine
Miscellaneous	11	Granite quarry
Boiler	12	P.S. *Mary Ann*
Wrecksites	13	P.S. *Saddler* (*S*),
	14	P.S. *Mary Ann* (*S*),
	15	*Koondrook* (*E*),
	16	P.S. *Struggler* (*S*)
Historic Vessels	17	P.S. *Marion*,
	18	P.S. *Amphibious*,
	19	P.S. *Decoy*,
	20	P.S. *Tarella*

Wrecksite Codes (*E*) *Exposed* (*S*) *Submerged*
(*PE*) *Part Exposed*



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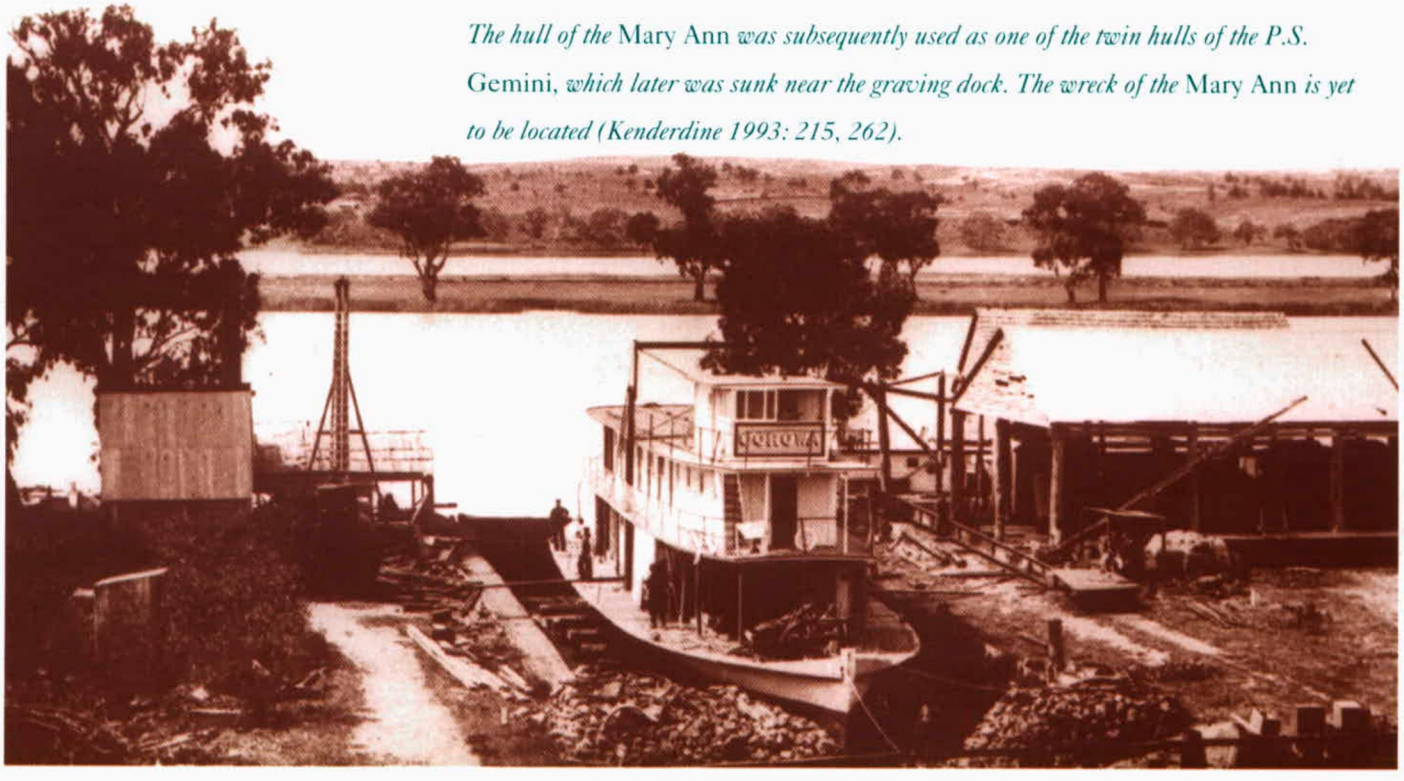
William Randell and his family, farmers and flour millers from Gumeracha, were inspired by the Victorian goldrush to build a steamer so that they could transport flour and other provisions up the river to the diggings. With the help of a local blacksmith they constructed a 55-foot timber hull and boiler. These components were then carted by bullock teams to Mannum, where they were assembled on the riverbank and the Adelaide-built engine installed. The end result, built at a cost of £1800, was the Mary Ann *which the Randells named in honour of their mother (Parsons 1986: 55).*

On 25 March 1853, after an initial run to Goolwa to obtain a customs clearance, the Mary Ann *headed up river towards Swan Hill. Laden with a cargo of 112 bags of flour, 24 bags of bran, 5 bags of biscuits, 69 bags of sugar, 21 boxes of tea, 4 cases of sundries and 400 lbs of tobacco, the steamer reached a point about 30 miles below Lake Bonney (Linn 1988: 73-4; Parsons 1990: 16) where low water on a sand bar blocked progress. Encouraged by the successful trial of the steamer, Randell mounted another voyage once the river level was high enough and the* Mary Ann *eventually arrived at Swan Hill on 17 September 1853.*

The hull of the Mary Ann *was subsequently used as one of the twin hulls of the P.S.* Gemini, *which later was sunk near the graving dock. The wreck of the* Mary Ann *is yet to be located (Kenderdine 1993: 215, 262).*

Left: Flooding at Mannum 1931 (Mortlock Library B6166)

Below: P.S. Corowa *in Randell's Graving Dock, c 1880 (Mortlock Library B9962)*



Blanchetown

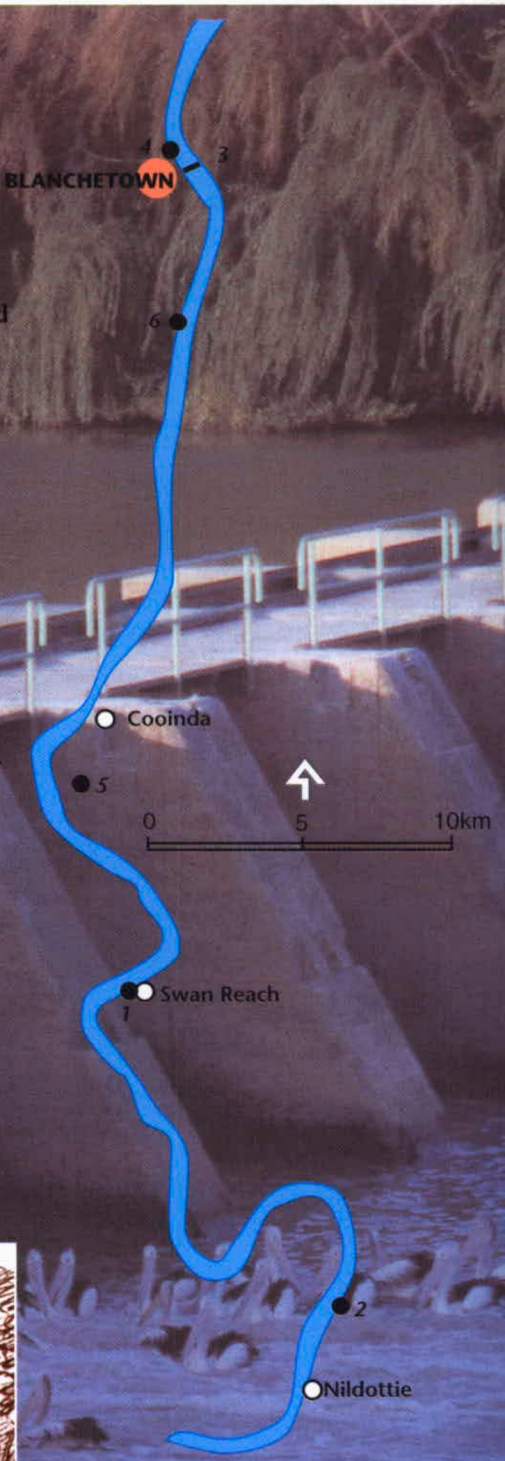
Lock 1, named the W R Randell Lock, is located at Blanchetown and is the start of the River Murray lock and weir system. It is the head of the deeper-water section of the river while the barrages at the Murray Mouth were constructed to exclude salt water from the lakes. Completed in 1922, it was the first of nine locks built below the junction of the Murray and the Darling rivers. Some 60 000 tons of stone were used in its construction.

The first attempt to coordinate the management and development of the inland river system occurred in 1863 when the River Murray was the subject of an intercolonial conference held between New South Wales, Victoria and South Australia. About the only outcome of this conference was the resolution that ' the commerce, population and wealth of Australia can be largely increased by rendering navigable and otherwise utilising the great rivers of the interior...' (Eaton 1945: 8).

Although the subsequent opening up of trade and irrigation along the Murray made it more and more obvious that a coordinated approach to the sharing of water resources was needed, intercolonial rivalries led to irreconcilable conflict for the remainder of the century. It was only after federation that agreement was finally reached under the River Murray Waters Agreement signed in 1917. With this agreement and the formation of the River Murray Commission, work was started on the construction of a series of barrages and weirs with the aim of harnessing the Murray and ensuring a reliable supply of water, locks being provided to maintain navigation.

The following boats and sites are located in this region:

Wharf	1	Swan Reach wharf
Jetty and landing	2	Greenaway landing
Lock	3	Lock 1-W.R. Randell lock
Miscellaneous	4	Custom House
Wrecksites	5	Unidentified Punt 1 (*Part Exposed*),
	6	*Water Witch* (*Submerged*)



Colour: Lock 1 - W.R. Randell Lock, 1981 (Wetlands, Murray Darling Basin Branch)

Left: Eyre's first station on the Murray, March 1842 [showing the Waterwitch*] (Art Gallery of SA)*

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The Water Witch, *the wreck of which is located six kilometres south of Blanchetown at Moorundie, is of dual significance as the first vessel to sail through the Murray Mouth, and as the oldest historic wreck located on the river. The* Water Witch *was built in Hobart Town in 1835, and after coming to South Australia was purchased in 1839 by the colonial government and employed as a surveying cutter by Captain William Pullen, the colony's first Marine Surveyor. In this capacity the 25-ton vessel made several voyages of discovery, assisting Edward John Eyre in his explorations by taking supplies to the head of Spencer Gulf and later as far west as Fowlers Bay.*

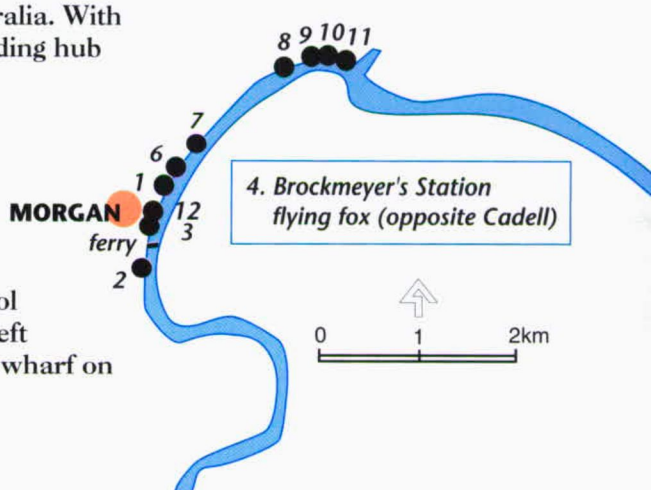
In May 1841, Pullen sailed the Water Witch *through the Murray Mouth, accomplishing this feat in an effort to prove that vessels with 'a six foot draught may pass either in or out with any tide at any time' (Linn 1988: 19). Later the same year with the appointment of a new governor, George Grey, and a reduction in expenditure for further survey work, the* Water Witch *was transferred upstream to Eyre's station at Moorundie. It sank there at its moorings in December 1842.*

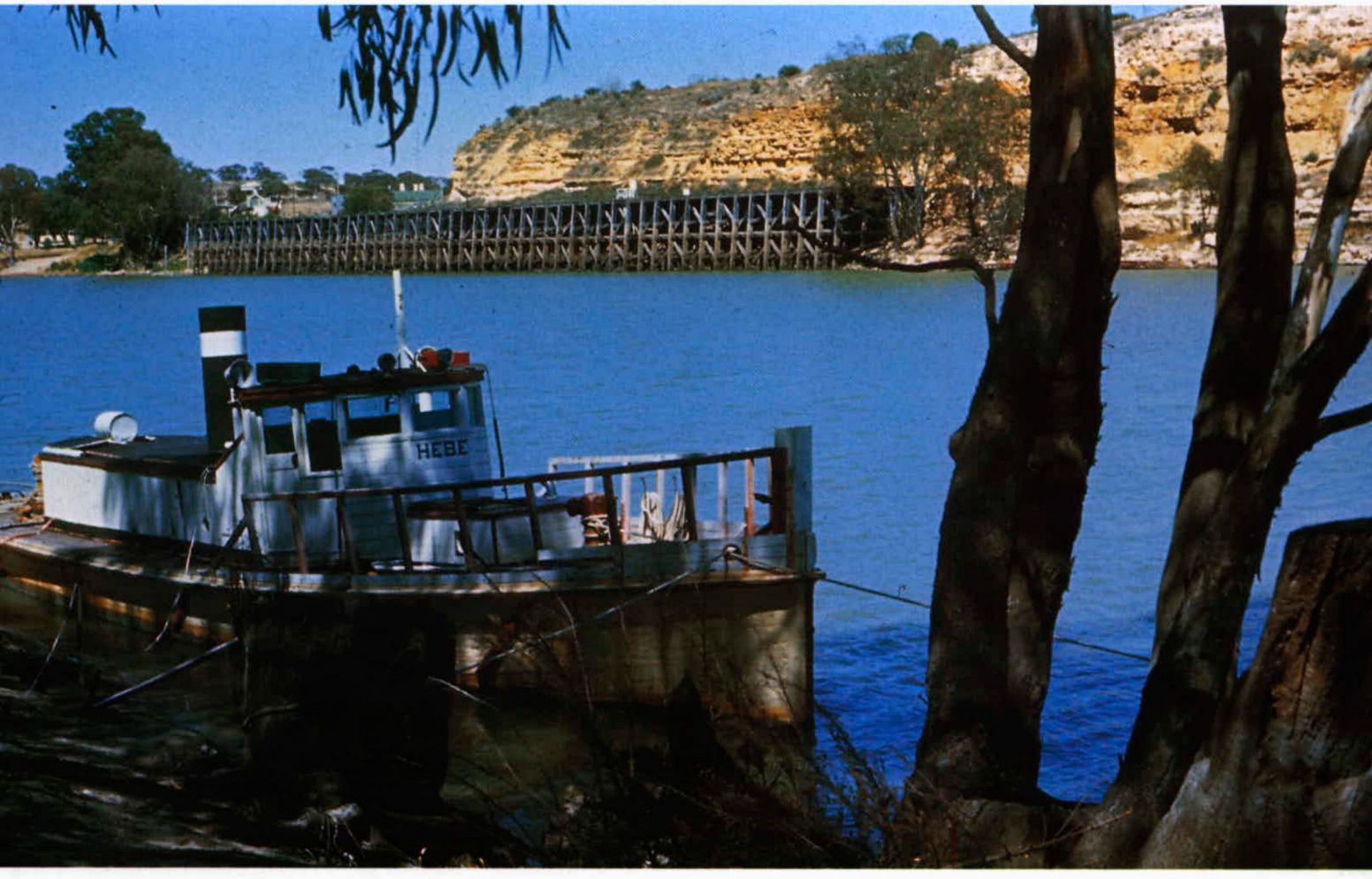
The Water Witch *was selected for archaeological investigation in 1982 and some of the recovered artefacts are now on display at the Goolwa branch of the National Trust. Most of the hull structure remains on the river bed and the site has been declared under the* Historic Shipwrecks Act 1981 *(South Australia). As well as being a tangible link with the early exploration of South Australia, the remains of the* Water Witch *provide valuable insights into early Australian-built cutters (Jeffery 1987: 1-3; Jeffery 1992: 1-6) .*

Morgan

Known as North West Bend, the Great Bend or the Great Elbow, Morgan originally was the point at which overlanders with their stock would leave the river and strike south-west towards Adelaide. The township which was proclaimed in 1878 was once one of the busiest river ports in Australia. With the opening of the railway line via Kapunda, Morgan became a trading hub second only in the colony to Port Adelaide itself.

In an attempt to recapture some of the trade which had been diverted to Melbourne following the opening of the Echuca railway in 1864, the South Australian government built a huge wharf at Morgan. In its heyday during the 1880s, long queues of steamers would line up awaiting their turn to unload, while more than six trains a day were coming and going to Adelaide. Wool was the main export. Steamers carrying mail and passengers also left for Wentworth. The Morgan wharf is the largest remaining timber wharf on the river in South Australia (Kenderdine 1993: 40).





Above: Hebe *opposite the Morgan Wharf (Wetlands, Murray Darling Basin Branch)*

Left: River boats at Morgan, 1915 (Mortlock Library B26156)

The following boats and sites are located in this region:

Wharf	1	Morgan wharf and hand crane
Shipbuilding facility	2	Murray Shipping's slipway
Miscellaneous	3	Former Morgan morgue,
	4	Brockmeyer's Station flying fox and wool chute
Wrecksites	5	S.S. *Swallow* (*S*),
	6	*Crowie* (*PE*),
	7	P.S. *Corowa* (*PE*),
	8	Unidentified Barge 2 (*S*),
	9	*Annie* (*PE*),
	10	*Ormond* (*PE*),
	11	*Loxton* (*PE*)
Historic Vessel	12	*Mayflower*
Wrecksite Codes		*(E) Exposed (S) Submerged (PE) Part Exposed*

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The P.S. Corowa, *an iron stern-wheel paddle steamer built in 1868, was purchased by William Randell in 1876. Once described as one of the fastest boats of its class, the* Corowa *was reported derelict in 1944, located 200 yards above the Morgan wharf (Parsons 1990: 54). The vessel lies seven metres from the bank and part of the triple rudders is visible above the waterline. The following excerpt from William Randell's Log Book for the Steamer* Corowa *provides an insight into the rigours of a typical fortnight aboard a paddle steamer as it travelled from Milang to Pyap Reach (near Loxton) in March 1881 (Pawsey 1993: 34-35).*

Friday 18th:	Finished taking in Hay and Chaff and started for Mannum.
Saturday 19th:	Arrived at Mannum. Took in balance of 50 tons Flour, Fruit etc.
Monday 21st:	Arrived at Morgan. Wood taken on from starting at Mannum – 23 tons, £5.10.0. 8 3/4 tons wood @ 4/6 £1.19.4, and 19 tons Brot's @ 4/- = £3.16.0.
Wednesday 23rd:	Have 200 tons cargo in Boat and 3 Barges.
Thursday 24th:	Stopped for the night aground in Encounter Reach – expect plenty of heaving tomorrow.
Friday 25th:	Dropped back a few hundred yards and tried another crossing. Had to haul over – took till 4 p.m. Started and got around the point above Encounter Reach.
Saturday 26th:	Cut a little wood after daylight. 6.10 Started. 8.10 Passed Pooginook. 10 Got aground below Hart's Island. Took till dark getting steamer and Barges over first crossing.
Sunday 27th:	Steamed up reach soon after daylight, but stuck immediately. Hauled over to lower end of Island...Took till dark getting Boat and Barges across.
Monday 28th:	Made an attempt to steam up inside of Island...but Barges got aground in starting – had to have the assistance of ropes all the way up.
Wednesday 30th:	Started about 6...Stopped lower end of Pyap Reach – found *Jane Eliza* and *Industry* with barges, occupying the channel.
Thursday 31st:	Waiting all day for *Jane Eliza* to get out of the road.

P.S. Corowa *(Godson Collection 52A/20)*

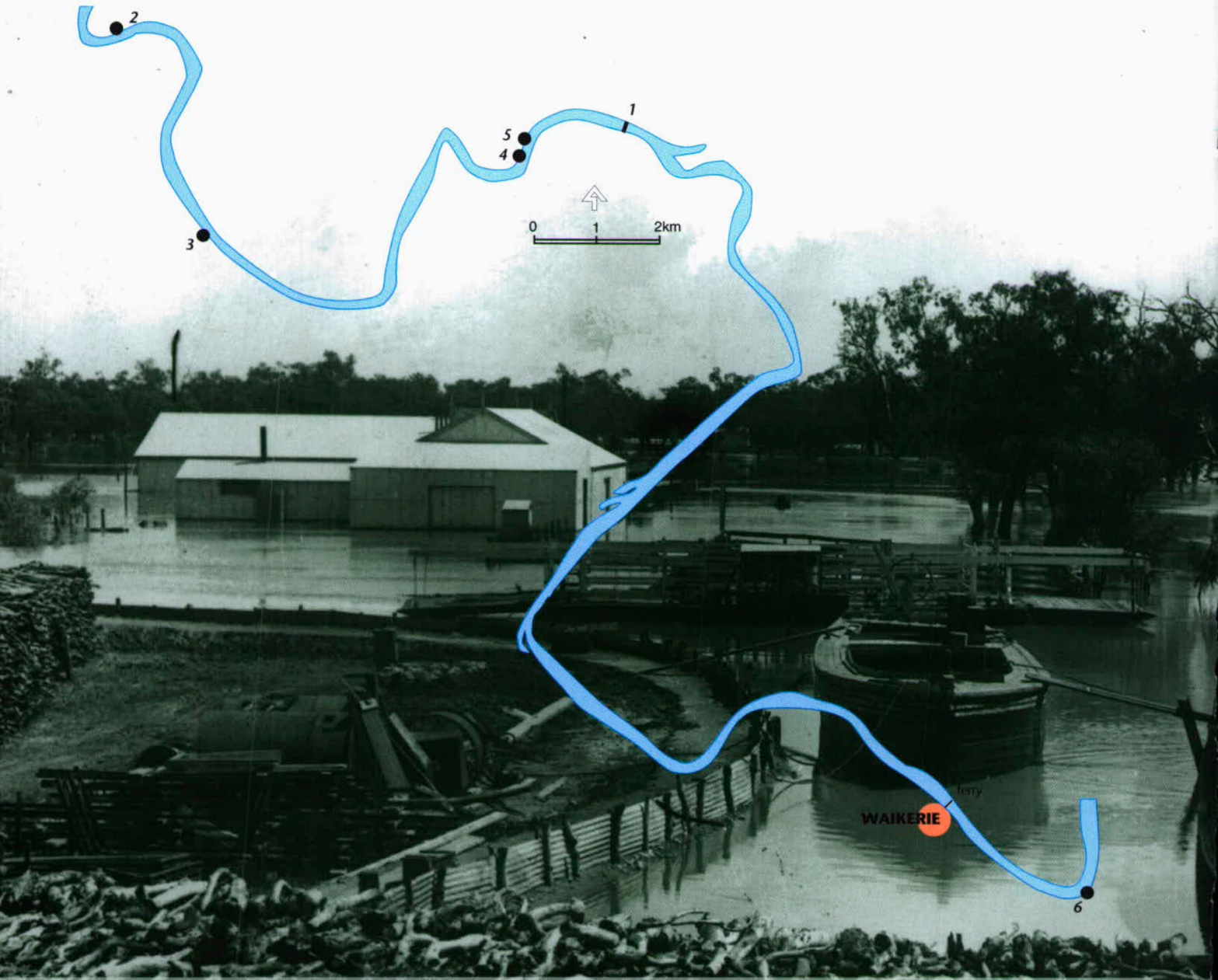
Waikerie

Waikerie was one of various 'village settlements' instigated by the South Australian government to open up land along the Murray. Under this scheme the first settlers arrived in 1894. While they cleared their land, the government supplied these 'blockers' with rations of tea, sugar, flour and meat which were dispensed from Morgan (Drage & Page 1976: 12).

Lock and Weir 2 is located here, at the 225-mile mark from the Murray Mouth. Work on the construction of this lock and weir commenced in 1924 and was completed in 1928. Building of the locks and weirs brought about a temporary revival in the river trade during the twenties and thirties. Steamers and barges were then in great demand by the lock builders to ferry stone to the construction sites.

Some vessels were used almost exclusively for this trade. One of these was the River Murray Commission's *Captain Sturt*, a huge stern wheel steamer capable of shifting 150 tons of crushed granite. Another was the P.S. *Mannum* originally built for the coastal trade, but used by Captain Arnold on the river when he obtained the contract to deliver all the granite from quarries just north of Mannum to Lock 1 at Blanchetown (Kenderdine 1993: 119, 130).

Captain Sturt *pushing barges (B. Barnes Collection)*



The following boats and sites are located in this region:

Lock	1	Lock and weir 2
Wrecksites	2	Unidentified Punt 2 (*S*),
	3	P.S. *City of Oxford* (*S*),
	4	*Cobar* (*PE*),
	5	P.S. *William R. Randell* (*PE*),
	6	P.S. *J. G. Arnold* (*S*)
Wrecksite Codes	*(E) Exposed (S) Submerged (PE) Part Exposed*	

P.S. Merle at Waikerie during 1917 flood (EWS Berri)

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The wreck of the composite side-wheel paddle steamer the William R. Randell *is located near Waikerie, just over a kilometre below Lock 2, where it was sunk in the 1939 flood (Parsons 1990: 128). One of the paddle steamer's wheels is usually visible above the waterline, and the vessel's engines and boiler are located in situ. The paddle steamer traditionally used the* Cobar *as a barge and the wreck of this vessel is situated very close to the* William R. Randell *(Kenderdine 1993: 268-269).*

Much of the cargo carried on the Murray was carried by barges, which were pushed by, towed by, or lashed to the sides of the steamers. These workhorses of the river were capable of transporting loads of up to 1700 bales of wool and one barge could double the amount of cargo a steamer could convey on a trip. The Crowie, *which is wrecked at Morgan, was the largest river barge ever constructed, measuring 150 feet long and 30 feet wide. Deck cargoes of wool were carried in a pyramid shape and even distribution of the load was critical. Otherwise these heavily laden vessels could list to one side.*

The design of most barges was basic, giving the required strength to the vessel while allowing the overall weight to be kept down. This was crucial in order to minimise the draught; a prime consideration given that vessels needed to operate in times of reduced river flow. Barges consisted of an empty hull with several large holds separated by a series of bulkheads. The wheel stage was raised as the cargo was built up, so that the helmsman would sit high on a stack of wool bales or other produce (Kenderdine 1993:170-172). Each barge had its own rudder and wheel, and a good barge master needed not only to keep the vessel away from the banks and overhanging trees, but also to anticipate the actions of the steamer skipper as the convoy rounded the sharp bends of the Murray.

Loxton

Travelling upstream from Waikerie, paddle steamers rounded Overland Corner beyond which the river was renowned for its treacherous hairpin bends and narrow channels. In times of low water steamers often scraped 'the gravel' as they passed over sandy shallows.

Lock 3 was constructed on the river below Kingston-on-Murray. Originally Lock 4 was to have been built at Habel's Landing, just below Loxton, until it was realised that this location would allow water to escape round the lock through Craig's Creek, now known as Katarapko Creek. As a result the plans were altered and Lock 4 was placed upstream, just below Berri. The entrance to Katarapko Creek was notorious because of a clay shelf running almost a third of the way across the river.

The following boats and sites are located in this region:

Lock
1 Lock and weir 3

Wrecksites
2 P.S. *Vesta* (*S*),
3 *Derrick 1*(*S*),
4 P.S. *Jolly Miller* (*S*),
5 Unidentified Punt 3 (*PE*)

Wrecksite Codes
(E) Exposed (S) Submerged (PE) Part Exposed

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The Jolly Miller, *which is wrecked at Pyap some six miles down stream from Loxton, was the first iron steamer constructed in South Australia from raw material, as distinct from those imported in sections and reassembled. It was built at Goolwa by Hooker and Curson in 1866, departing on its maiden voyage in June of the same year. The vessel was appropriately named the* Jolly Miller, *as it had been ordered by William Basham, the miller at Port Elliot.*

According to its register, the Jolly Miller *was built with one deck, a round stern and of clinker construction. It measured 93 tons gross and 83 tons net, on dimensions of 90.7 feet in length, 18.5 feet in breadth and 5.7 feet in depth, and was propelled by a sixteen horsepower horizontal steam engine. Aboard was sleeping accommodation for six men in the forecastle, three sets of four berths for women in the aft, as well as a main cabin and two officers' cabins.*

The steamer was of a very light draught, not exceeding two feet when loaded with 50 tons of cargo. This was of vital importance in navigating the river shallows. The hull was subdivided into eight watertight compartments by three athwartship bulkheads and another bulkhead running from stem to stern (Kenderdine 1993: 266-267).

In 1869 the Jolly Miller *was impounded for illegal hawking. During the first fifty years of the river trade 'hawking ships' plied the river selling stores to isolated settlements along the way. The complications of border customs prompted some of the captains of the vessels to evade colonial duties and engage in illegal trade.*

Left: Lock 3, 1984
(Wetlands, Murray Darling Basin Branch)

Below: P.S. Queen *and* Bourke *c 1900*
(Mortlock Library B28215)

Berri

Construction of the fourth lock and weir on the South Australian section of the Murray was completed downstream from Berri in 1929. Prior to the building of the locks and weirs, the depth of the River Murray fluctuated with the seasons. At times, such as during the 1914 drought, the river was so low that the flow was reduced to a small stream. For the paddle steamers this meant that more time was spent heaving as opposed to steaming, as described in William Randell's Log Book for the Steamer *Corowa*.

Originally it had been hoped that locks 3 to 7 would create a six foot channel all the way from Morgan to Mildura. This did not prove to be the case, and steamers continued to be hauled over sandpatches and mudflats during periods of low water. This was achieved by securing wire ropes to trees, which were then used to drag boats and barges across the shallows.

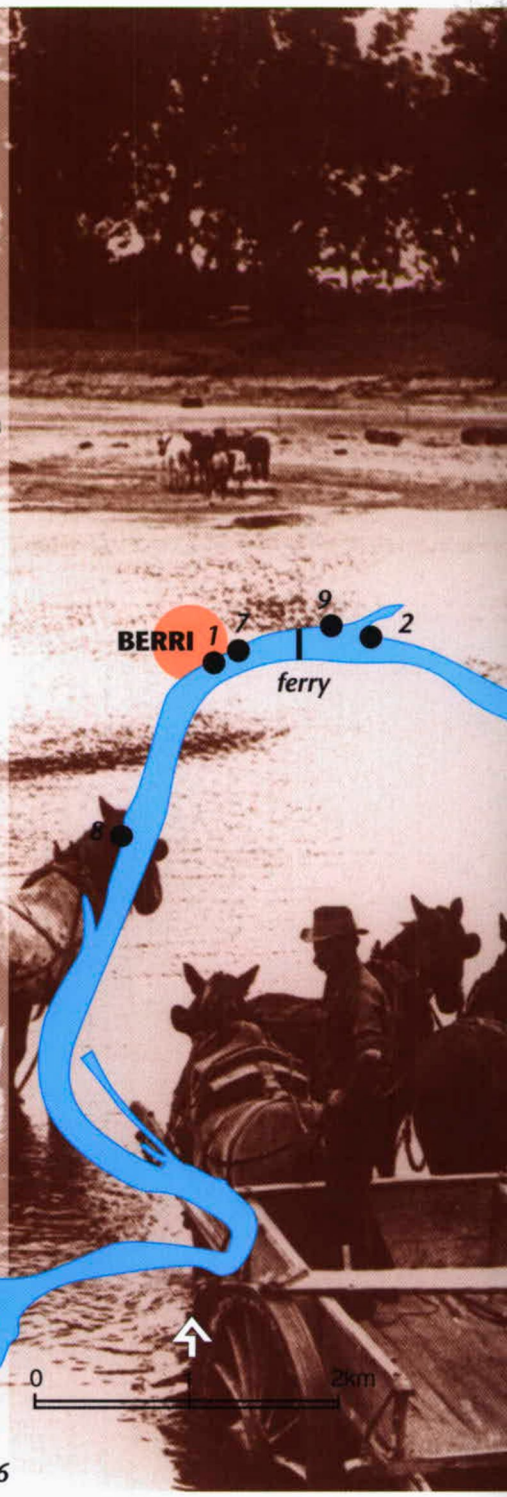
In other attempts to navigate the river, cargo was often unloaded and reloaded from larger to smaller vessels which drew less water. Sometimes a paddle steamer was able to proceed downstream when the skipper could persuade the lockmaster to release enough water to raise the river level sufficiently.

Transportation of the river by steamers and the large passenger ships during the 1990s still requires water to be released from some weirs on occasions.

The following boats and sites are located in this region:

Jetties and Landings	1	Main Berri landing
	2	Secondary Berri landing
Lock	3	Lock and weir 4
Wrecksites	4	P.S. *Renella* (*S*),
	5	*Achilles* (*PE*),
	6	*Ajax* (*PE*),
	7	*Undaunted* (*S*),
	8	P.S. *Ventura II* (*S*)
Historic Vessel	9	P.S. *Roy*

Wrecksite Codes
(E) Exposed (S) Submerged (PE) Part Exposed



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William Drage, who spent most of his life on steamboats working his way up from deckhand to master and who steered the Marion *on its final voyage from Berri to Mannum in 1963, recalls a number of 'heaving' episodes along the Renmark to Loxton stretch of the river. One of them involved the* Marion *on the Morgan–Mildura run in the late thirties, when he describes struggling through 'teacupfuls' of water:*

The situation was particularly bad below Lock No 4. The Marion *was drawing three feet ten inches, and the channel at that point rarely contained more than two feet ten inches. So we had to run wire lines up the river, and make the* Marion *heave herself bodily over the bar* (Drage & Page 1976: 195-196)

Above: P.S. Marion *(EWS Berri)*

Left: The River at low water c1914
(Mortlock Library B28215)

Renmark - Paringa

Renmark was founded in 1887 after a joint agreement between the Chaffey brothers and the South Australian colonial government. It is the oldest irrigation settlement in Australia. At one stage in Renmark's development the Chaffey brothers purchased the former Goolwa ironworks and transferred them to the town, presumably with plans to establish a shipyard and repair facilities downstream from Echuca. Any such plans were abandoned with the subsequent collapse of the Chaffey empire (Parsons 1990: 38). For a number of years steamers docked at the Renmark wharf to collect boxes of dried sultanas, currents and raisins. These were then unloaded at Morgan and transported to Adelaide by train.

Originally it had been hoped that the lock system would create a waterway which was navigable all year round and so boost the river trade. However, shipping on the river began to decline with the construction of government-subsidised railways. These diverted trade away from the paddle steamers by offering a cheaper rate of cartage (Kenderdine 1993: 25, 121). Remaining trade dwindled with the Depression and the development of roads. It soon became cheaper and more convenient to truck produce directly from growers to markets.

Ultimately, the main contribution of the locks was to irrigation, as is attested today by the orchards of citrus, stone fruit and grapes that surround Renmark and the other Riverland towns.

The following boats and sites are located in this region:

Blazed tree	1	Captain Sturt's blaze
Historic bridge	2	Paringa bridge
Locks	3	Lock and weir 5,
	4	Simpson Newland lock (No. 6)
Miscellaneous	5	P.S. *Bunyip* passenger graves,
	6	Custom House
Boilers	7	P.S. *Jane Eliza* boiler,
	8	P.S. *Captain Sturt* boiler (2 tubes)
Wrecksites	9	P.S. *Milang* (*S*),
	10	*Jessie* (*S*),
	11	P.S. *Kelvin* (*PE*),

12 Chowilla punt 1(*PE*),
13 Chowilla punt 2 (*PE*),
14 P.S. *Bunyip* (*S*),
15 *Albermarle* (*PE*),
16 *Wardell* (*PE*)

Historic Vessels

17 P.S. *Industry*
18 *Argo*

Wrecksite Codes
(E) Exposed (S) Submerged (PE) Part Exposed

Left: Sturt's blaze
(Wetlands, Murray Darling Basin Branch)

Below Left: Opening of the Renmark/Paringa Railway Bridge 1927
(Mortlock Library B3963)

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On display in Renmark is the paddle steamer Industry, *which has been restored and is now fully operational and used as a floating museum. This vessel was commissioned in 1911 as a work boat for South Australia's Engineering and Water Supply Department. It was used for lock repairs, dredging and 'snagging'.*

Captain Francis Cadell had been the first to call upon the colonial government to ensure that the river was kept clear of obstacles. As a result a number of vessels were built for this purpose over the years. Snagging boats played a vital role in keeping the river channels open for traffic. They did this by fishing for and retrieving fallen logs which drifted downstream. Logs were capable not only of blocking the waterway, but could also puncture the hull of a steamer.

P.S. Industry, *1990*
(Wetlands, Murray Darling Basin Branch)

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