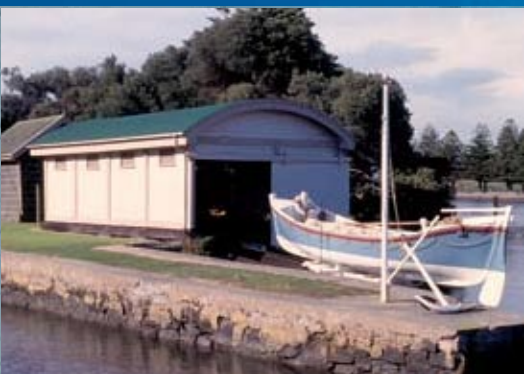


Jetties and Piers



A background history of maritime infrastructure in Victoria

Prepared by Jill Barnard

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Department of Planning
and Community Development



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About the author

Historian Jill Barnard was contracted by the Heritage Council of Victoria in 2003 to work with Heritage Victoria's Maritime Heritage Unit on a thematic history of maritime infrastructure in Victoria.

Jill Barnard is an accredited member of the Professional Historians Association (Vic) Inc. Her research projects have spanned a diverse range of interests, including heritage, child welfare and maritime infrastructure in Victoria. Previous publications by Jill include *Welcome and Farewell – The Story of Station Pier* (with Sonia Jennings) and *Holding on to Hope A History of the Founding Agencies of MacKillop Family Services* (with Karen Twigg). Jill is a member of the Living Histories team of professional historians.



Foreword

While Victoria's maritime heritage is typically associated with shipwrecks, our coastline is also rich in infrastructure that has made a significant contribution to the State's economic and social development. Until now, the history of these breakwaters, rocket sheds, sea baths, pile lights, jetties and piers has remained largely untold.

This absorbing thematic study will be invaluable for those interested in completing the picture. Funded by the Heritage Council of Victoria and supervised by Heritage Victoria, the study traces the development of our maritime infrastructure across the State. It unlocks the stories associated with the physical fabric to provide readers with a greater understanding of the breadth of Victoria's maritime inheritance.

The very 'working' nature of our maritime heritage also means much has been altered over the years. Some infrastructure has disappeared altogether. This study contains valuable clues about where to look for, and how to understand, any remaining physical evidence.

Although some of the sites described are already included on the Victorian Heritage Register, this project will also help to identify others of potential cultural significance, providing a valuable context for comparative assessment.

We expect this study will be a trusted, even indispensable, resource and hope you enjoy its insights into our maritime past.

Chris Gallagher
Chair, Heritage Council of Victoria

Ray Tonkin
Executive Director, Heritage Victoria

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This study was initiated in 2003 by the Maritime Heritage Unit of Heritage Victoria to provide a thematic background history to an extensive maritime infrastructure site inventory by maritime archaeologist, Brad Duncan. I am indebted to Brad as a colleague and contributor to the study and for detailed information related to many sites. I am also grateful to Peter Harvey who coordinated the project and Patrick Miller, Jeremy Smith and Frances O'Neill who provided welcome guidance. Cassandra Philippou also provided advice, editorial assistance and guidance with image selection.

Preface

Sitting outside a glassy café at New Quay, in Melbourne's Docklands, it is hard to imagine what the Port of Melbourne has looked like in all of its previous incarnations. Like many of Victoria's maritime or marine precincts, the Port of Melbourne has undergone almost continuous evolution since Europeans first settled here in the mid-1830s. Enormous amounts of money have been invested in altering maritime infrastructure to meet the changing demands of an expanding population and economy and technological advances that rendered some infrastructure redundant. Disasters such as storms, floods and fires have also altered the face of Victoria's maritime infrastructure, as has human error in the siting or construction of structures.

Because maritime infrastructure is on the 'edge' of the state, it has often been overlooked in state or regional historical or heritage studies. Yet it has played, and continues to play, a crucial role in the development of Victoria's society and economy, while the delights of the coastline have had an ever more important part in Victorians' social and recreational life. Apart from maritime enthusiasts, however, few historians have paid attention to the history of Victoria's maritime sites. Even published local and community histories often contain scant information about jetties, piers and fishermen's sheds, unless they are located in a distinctly maritime precinct, such as Williamstown.

The aim of this report is to trace the development of maritime infrastructure across the state since European settlement and to place this development within the context of Victoria's history. The work is intended as a broad background study and readers may be disappointed that more space has not been allocated to particular sites or regions.

Ironically, primary sources of information about maritime infrastructure sometimes provide too much information for a background history such as this. The reports of the Melbourne Harbor Trust Commissioners, for instance, or the records of the Public Works Department, describe in detail the various works performed on particular sites over time. While this is a boon to researchers following one particular site, it makes the task of compiling a general background history of maritime infrastructure difficult. There are still many gaps in this background history. Aspects of the development of the theme

of recreation, for instance, could still be explored in much greater detail.

Another limitation of this background history was imposed by the thematic approach. In the first place, for the very earliest decades of Victoria's European development, when private initiative and government efforts combined to establish facilities and then struggled to keep up with the demands of the chaotic goldrush years, it was almost impossible to divide infrastructure development in a thematic way. Primitive navigational aids, rough jetties and wharves served government and private purposes and were used by immigrants, merchants, fishermen and postal services and customs officers. Geographic accidents, such as the existence of natural harbours, the depth of water and the safety of coastal approaches dictated landing places and the sites of settlement. The geological formation of the Victorian coastline directed the siting of defence installations and navigational aids. In this draft I have attempted to rectify this problem by dealing with the 1830s-1850s period chronologically, without overt reference to themes, before moving on to a thematic approach after the 1850s period, using the Australian Historic Themes developed by the Australian Heritage Commission. Moving from a chronological to a thematic approach has obvious problems, as it is difficult for the reader to simply follow particular sites or themes through from the beginnings of European settlement to the present day.

Another problem with the thematic approach is that many infrastructure sites can be linked to a number of themes, as layers of use over time have changed their function, or as they have been adapted to serve a number of purposes. This is perhaps particularly the case with sites such as jetties, many of which now largely have a recreational focus, but may have originally been constructed to help 'settlers on the land' move their produce or move people from one part of Victoria to another. Though I have tried to cover particular sites within the context of the theme for which they were originally built, this is not always successful. Some sites have been mentioned in the context of numerous themes. Furthermore, it has sometimes been difficult to ascertain the central purpose behind a particular site or piece of infrastructure. This is particularly true of jetties and piers, especially in regional areas. Because the sea provided such an important transport and communication

link for much of Victoria for such a long time, it is not always easy to neatly box these sites into 'recreation', 'moving people' or 'transporting goods' because they have probably served all of these purposes and others beside. Despite the limitations of the thematic approach, however, it is difficult to think of a better way of approaching such a vast subject. A purely chronological or geographically-based approach would be far too cumbersome.

Finally, it would be hard to find a piece of maritime infrastructure in Victoria that has not been substantially altered over the course of its life. This is only natural when it is considered that much maritime infrastructure is 'working' infrastructure, needing to be repaired, maintained, upgraded and replaced in order to perform its functions properly. The Public Works Department summary contracts books (VPRS 2143) contain page after page of lists of works carried out on jetties, piers and other structures up and down the Victorian coastline. Other public records indicate how much the 'natural' environment has been altered by almost 200 years of dredging, major engineering works and land reclamation. Yet, while pointing to the fact that very little original 'fabric' survives in the twenty-first century, these sources also indicate the importance of maritime infrastructure to Victoria's economic and social development. Furthermore, many infrastructure sites and landscapes are etched into Victorians' individual and collective cultural memories as places where they first came ashore, enjoyed endless summer days, or participated in popular recreational activities. Though the significance of such sites is often less easy to document than that of sites which influenced the economic development of the state, the outpouring of public grief over the destruction of the St Kilda kiosk in 2003 indicates that such 'emotional' significance, though less tangible, is very real.

Within all the limitations, I have tried to present an overview of the development of maritime infrastructure in Victoria. Readers may find that there is too much space allotted to the nineteenth century and to maritime sites around Melbourne at the expense of regional areas of the state. This is probably partly because Melbourne has been by far the most significant port, but also because time to follow all the themes thoroughly through to the present day ran out. Perhaps this report can provide the starting point for further contextual work on Victoria's maritime heritage.

Part One

1800–1850s

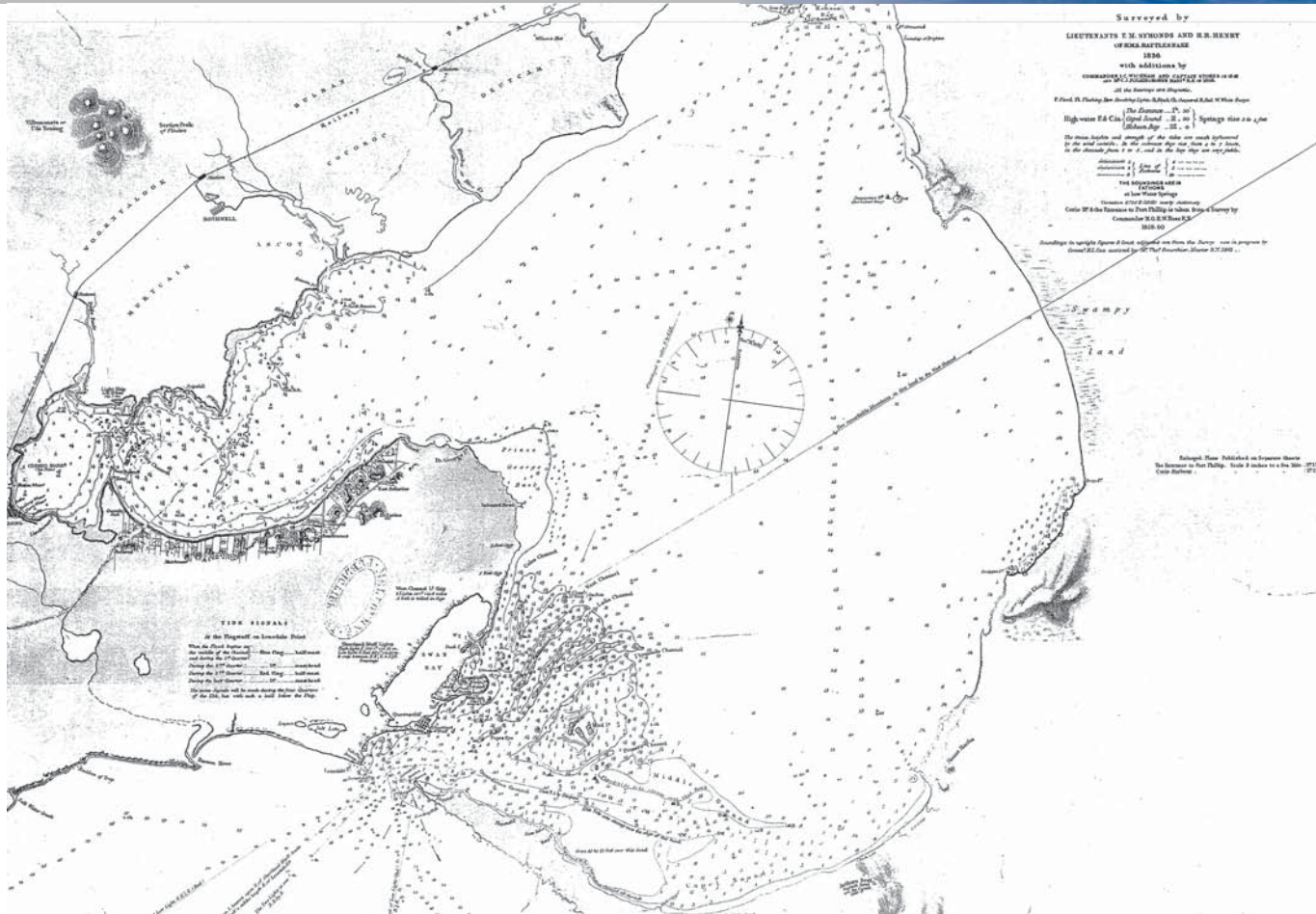


Chart of Port Phillip Bay 1862, based on the first survey of the bay by T.M. Symonds and H.R. Henry on the Rattlesnake in 1836, with additions to 1862. *Map Collection, State Library of Victoria.*

First approaches to Victoria by sea

Indigenous Australians exclusively occupied the territory we now call Victoria for at least 50,000 years before the first non-Aboriginal migrants arrived. Though it is unlikely that these first residents arrived via the Victorian coast, their original journey to the Australian continent is assumed to have involved the sea. The earliest Australians are thought to have ‘island-hopped’ from southeast Asia, in eras when lower sea levels made the journey less hazardous. Whether the movement from island to island was gradual or purposeful is not known. Once they had made their way to what is now Australia, it is thought that, over time, Aboriginal people used coastal routes to spread southward along the continent as far as Tasmania which was, at that time, connected to the mainland.¹

Victorian Aboriginals were able to witness great changes in the coastline. Though geological and climatic changes altered the Victorian landscape many times over hundreds of millions of years, Aboriginals were certainly here to witness the formation of Bass Strait by rising sea-levels about 10,000 years ago.² The *Kurnai* people of Gippsland told of the formation of Bass Strait in a story about their creator, *Mungan-ngaua*, who flooded the land as retribution when he discovered that some women had seen an initiation ceremony.³ *Kulin* people handed down stories of the formation of Port Phillip Bay, with its narrow opening at Port Phillip Heads, about 8,000 years ago.

For many millennia the sea insulated the Aboriginal occupants of Victoria from further encroachments through migration. Though Aboriginal and Torres Strait Islanders of northern Australia had contact with islanders from the north, there is little evidence

to suggest any sea transportation into the southern part of Australia. Despite theories that European explorers might have ventured along the south-east coast of Australia in the sixteenth century, the first documented European contact with the Victorian coast was from James Cook's *Endeavour* in 1770. On 19 April Lieutenant Hicks sighted the promontory on the coast of East Gippsland that was eventually named after him. Cook's exploration of the eastern coast led to the establishment of a British penal settlement at Sydney Cove in 1788, but there was no European knowledge of the Victorian coastline until 1797, when the captain of the *Sydney Cove*, that beached itself on Preservation Island, north east of Tasmania, suspected that there was a channel of water between Tasmania and the mainland. Later that year George Bass sailed partway through Bass Strait. In 1798, Matthew Flinders, in the *Norfolk*, sailed right through the strait, proving that Tasmania (then called Van Diemen's Land) was separate from mainland Australia. Flinders named the strait after George Bass. In 1800 and 1801 the Brig, *Lady Nelson*, investigated the Victorian coastline more thoroughly. The vessel entered Westernport Bay before finding the entrance to Port Phillip Bay. Anchoring off Arthur's Seat, the crew made several short land investigations.

These coastal surveys did not necessarily lead to a rush of European settlement into Victoria. The most important immediate result of the discovery of Bass Strait was that it shortened the voyage for vessels travelling from the northern hemisphere to south east Asia or to the British colony in New South Wales. The accepted route had been to sail in an easterly direction from Capetown then south of Tasmania, before heading north along the east coast of Australia. The discovery of Bass Strait reduced this voyage by at least 700 miles.⁴

Temporary European settlements

There were only temporary British settlements in Victoria between 1801 and 1834. Twice in that period the British Government, motivated by the desire to prevent their imperialist rivals, the French, from claiming territory on Australia's coast, attempted to establish settlements. The first was at Sullivan's Cove, near Sorrento on the Mornington Peninsula. The party of soldiers, convicts and free settlers only remained here a few months, but they constructed Victoria's first maritime infrastructure, a gun battery on the shore. They

also built a long pier, but only to help reload their vessels when the settlement's commander, David Collins, decided to move the party to the Derwent River in Van Diemen's Land (now Tasmania).⁵ The second government settlement in Victoria was also related to defence. Hamilton Hume and William Hovell came overland to explore the country at Port Phillip in 1824. Their description of the fine country they had found rekindled the government's fear that the French would attempt to annex the territory. A small party of twenty soldiers, some convicts and some explorers were despatched to Western Port Bay where they remained at Settlement Point (near present day Corinella) from November 1826 to January 1828. Once again, the group set up batteries to guard the entrance to the bay, but no threats emerged and they returned to Sydney.⁶

Unofficial visitors to the Victorian coast used it as a base from which they plundered the sea. From the late eighteenth century at least, small parties of sealers were based at Sealers Cove on Wilson's Promontory, and in Western Port, on Phillip Island. Others based themselves at Port Fairy or Portland Bay. Here they clubbed and skinned seals in primitive camps, before shipping their fur for sale in Sydney or foreign ports. Crews of whaling ships from as far away as North America chased whales in the southern ocean, harvesting their blubber for oil and their bones for corsets. From the 1820s whalers established bases at Portland Bay and Port Fairy on the Victorian west coast.

Permanent European settlers and their early landing sites

Officially, the area now called Victoria was off-limits. It was the Port Phillip District of the Colony of New South Wales and the British Government refused to sell land within it. But by the mid-1830s, when the available land in Van Diemen's Land and New South Wales was becoming scarce, adventurous and ambitious pastoralists turned their attention to the promising pastures of the Port Phillip District. The first arrivals came by sea from Van Diemen's Land (Tasmania).

The Henty family had arrived in Van Diemen's Land in 1832 hoping to take advantage of free land grants to emigrants. They were disappointed to discover that these grants had been discontinued.⁷ In November 1834 one son, Edmund, crossed Bass Strait to Portland Bay with four other men, some animals and materials with which to build a house. He was later joined by other family members, who began to

build a whaling station and pastoral empire at Portland. In the same year a Vandemonian, John Batman, representing a syndicate called the Port Phillip Association, sailed through Port Phillip Heads in the *Rebecca*. Landing first at Indented Heads, he explored the Bellarine Peninsula and Corio Bay, then sailed to the head of Port Phillip Bay where he anchored off Point Gellibrand (Williamstown). Batman explored the Maribyrnong and Yarra Rivers, before deciding that the latter provided a good site for a village. Negotiating a 'treaty' with the *Wurrundjeri*, which he felt gave his Association a right to all the land between the Yarra and Indented Heads, Batman left some men at Indented Heads and returned to Van Diemen's Land with the news of his purchase. Before he returned another Vandemonian, John Pascoe Fawkner, sent a party across the strait on the schooner, *Enterprise*. Fawkner's party took the *Enterprise* up the Yarra to a place where a rocky ledge across the river (near present-day Queens Street) prevented vessels from proceeding any further. The ledge, which came to be known as the Falls, marked the boundary between fresh and salt water. The action of the freshwater tide as it washed over the falls meant that a large natural basin had been scoured in the river, wide and deep enough to allow small vessels to turn. The crew of the *Enterprise* are said to have created Melbourne's first 'wharf', by cutting down a few trees and fixing them in the mud.⁸ The nucleus of a permanent settlement, a couple of huts, was soon established near this point, where the river provided access to the sea, but also fresh drinking water above the falls.

The Fawkner and Batman parties were soon followed by other eager immigrants, most of them from Van Diemen's Land, though some travelled overland from New South Wales, bringing sheep or cattle. Aspiring pastoralists who arrived at the head of Port Phillip Bay usually landed their stock at the 'landing place' at Point Gellibrand, on a beach now reclaimed as Commonwealth Reserve, Williamstown. There were no sites where vessels drawing deep water could anchor close to the beach, so large vessels anchored in the deep water off Point Gellibrand and transferred sheep by boat to the shore. From here they fanned out with their flocks to the west and north. Newcomers without stock transferred to smaller vessels, such as whaling boats, which conveyed them up the Yarra River to the settlement at the Falls. In these early years some goods may have been transferred by lighter (flat-bottomed boats) to 'the beach' opposite Point Gellibrand (now called Port Melbourne). When William Lonsdale arrived in 1836 he chose

to land his possessions on this beach and have them hauled to the little settlement on the Yarra by prisoners, though he himself travelled up the river to the settlement.⁹

Geelong was another early entry point for squatters and their stock. Some squatters landed their sheep at Cowie's Creek (now Corio) on the north shore of Corio Bay, but most landed them at Point Henry.¹⁰ By 1838 new arrivals could shelter in a hut at Point Henry before pushing on to claim land in the vicinity of Corio Bay. Some settlers arrived by sea in Portland Bay, on Victoria's west coast. In June 1839, 293 Europeans were reported to be at Portland, with more expected from England and Van Diemen's Land.¹¹

The flow of settlers into the district – there were 177 by June 1836¹² – forced the government to officially sanction settlement and to send an army captain, William Lonsdale, to represent government. As he and his successor, Lieutenant-Governor Charles La Trobe, attempted to impose order; the establishment of maritime infrastructure and port-related government services, such as customs offices, were amongst the highest priorities.

The importance of the sea for early Victorian development

It was the land that attracted squatters to the Port Phillip District, but it was the sea that was their route and their lifeline. Along with the ever-growing white population, the sea brought the livestock from which squatters hoped to make their fortunes, along with food, tobacco and alcohol, building material, furniture, clothing and sometimes whole houses. It provided the transport route for exports to Van Diemen's Land, particularly cattle and wool, but also timber, wattle bark, fish and meat. The sea was essential to the spread of white settlement across Victoria. It provided transportation routes for people and goods between isolated parts of the colony. The communication of official orders, laws, government decisions and news from other colonies and from England, all depended on the sea and it was from the sea that the government feared that threats to the colony's security would come.

The importance of sea transport to the young Port Phillip District can be judged by the number of ship arrivals recorded for the first years of settlement. Between 1835 and 1839 338 vessels arrived in Victorian ports, the vast majority of

them at Melbourne. Many of these vessels plied between Van Diemen's Land and Victoria. Some came and went from Sydney and, by 1839 the first vessels to sail directly from Britain had arrived in Port Phillip Bay, bringing the first of some 90,000 immigrants who arrived in the Port Phillip District by 1851. But sea transport was not only essential for the import and export of goods and people. The economic development of the hinterland of the district relied on the sea, while the young, but rapidly-growing settlement at Melbourne relied on the transportation of products from other coastal settlements. Though settlers spread further away from the centres of Melbourne and Geelong in the 1830s and 1840s, the infrastructure to assist overland travel was non-existent. Travelling between Melbourne and the 'country' could be dangerous and arduous when there were no made roads, bridges or punts. For many, coastal transport was the quickest, cheapest and fastest mode of transport. It was also the most convenient way to transfer the produce of local industries, such as timber-felling, wattle bark stripping and vegetables to the growing urban markets in Melbourne. By 1841, 4479 people lived in Melbourne, along with another 600 in Williamstown and South Melbourne and 454 in Geelong.¹³ Their needs for building materials were partially met by limeburners, operating on the Mornington Peninsula near what later became Sorrento, Portsea, Rye and Blairgowrie, and near Geelong. Limestone was burnt in kilns, to produce lime, which was then shipped to Melbourne where it was mixed with sand and water to use as mortar. By 1850 a fleet of fifty lime boats operated between Point Nepean and Melbourne and a little dock was cut into the north bank of the Yarra near Spencer Street to accommodate this fleet.¹⁴ Other building supplies, such as timber, were also harvested on the Mornington Peninsula and moved by sea to Melbourne. Facilities for loading and unloading produce were rough and dangerous. At Mount Martha, for instance, timber was reputedly dumped from clifftops into the water below from where it was loaded onto small boats moored to iron rings attached to rocks.¹⁵

Maritime infrastructure development 1834–1851

Most Victorian shipping arrivals and departures, from the very earliest years, were concentrated on Hobsons Bay, which stretched from a rocky promontory named Point Gellibrand, to

the sand dunes and beaches of present day Port Melbourne, South Melbourne and St Kilda. It was here, near Newport, that the Yarra River entered the sea. By the end of 1836, 87 vessels had arrived in Hobsons Bay (many of them making several crossings between Van Diemen's Land and the Port Phillip District). When William Lonsdale arrived that year, it was to Melbourne, rather than Geelong, Portland or Port Fairy, that he came. Once here, he had to decide between Point Gellibrand or the Yarra settlement as the centre of government business. Point Gellibrand offered better access to the deep water anchorages in the bay, but unfortunately offered no fresh drinking water. The Yarra settlement therefore won.

Surveying Port Phillip Bay

The crew of the *Rattlesnake*, captained by William Hobson, stayed on to survey Port Phillip Bay after conveying Lonsdale to the district. Hobson, reporting on the survey, identified some of the dangers and limitations, as well as the advantages of Port Phillip Bay, for shipping. Being such a large bay, more like an 'inland sea', Port Phillip offered relatively protected water for ships, though the narrow entrance through Port Phillip Heads was very dangerous. Heavy ocean tides running through the entrance caused a barrier when they confronted outgoing tides. Moreover, just inside the heads, shoals and reefs ran out from both Point Lonsdale and Point Nepean, with very narrow channels between them.

Despite Port Phillip Bay's great size, there seemed to be very few good harbours within it. Hobson, like the earlier visitors, favoured the harbour off Point Gellibrand where the water, partly sheltered by the promontory of Point Gellibrand, was deep enough to provide safe anchorages for vessels 1,200 feet off shore. Hobson recommended building wharves at Point Gellibrand for he believed that, though the Yarra settlement would undoubtedly attract population, Point Gellibrand was more suitable for development as a port. A sand bar prevented vessels drawing more than six or seven feet from proceeding past the Yarra's mouth,¹⁶ while mudflats in some sections of the river made it impossible for even smaller vessels to pass each other. William Hobson also liked the deep water harbour at Geelong, which gave easy access to the lush pastures of western Victoria. The problem was that a bar between the outer and inner harbours prevented vessels drawing more than nine feet of water from entering the inner harbour. They had to anchor off Point Henry. Like

Point Gellibrand, Point Henry lacked any obvious source of fresh water, making it ineligible as the site of a settlement. It would take almost until the turn of the twentieth century before the harbour limitations at both Melbourne and Geelong were resolved. In the meantime, the government began to erect infrastructure to cope with immediate requirements.

First government maritime infrastructure

William Hobson was to set down the first navigation instructions for Port Phillip Bay, using natural features such as the You Yangs and Arthur's Seat as leading marks. But he also recommended the installation of some basic port infrastructure in the form of navigational aids –buoys to mark the channels near the entrance to Port Phillip Bay and a lighthouse at Point Nepean, as well as a wharf out to deep water at Point Gellibrand. The buoys were in place by 1837, though all but one had sunk by early 1838. It was not until July 1839 that Captain J.M. Scott was able to report to William Lonsdale that he had laid the replacement buoys down. This was too late for the captain of the who spent three days trying to negotiate a path through the channels and shoals inside the Heads in June 1839.¹⁷

I have the honour to inform you that I have laid down the buoys in the western channel of this port in the following places:

- 1. A red buoy on a shoal called the Pope's Eye on the southern part of it, so as to make a leading mark for the west or south channel, in three fathoms at low water.*
- 2. A small black buoy on the extreme edge of the spit off Swan Point in 2½ fathoms at low water.*
- 3. A white buoy on the westernmost spit of the west sand abreast of Swan Point in 2¾ fathoms at low water.*
- 4. A black buoy on the spit running off from Indented Head and forming the northern entrance to the channel in 2½ fathoms at low water.*
- 5. As the buoys have all been laid on the sands it will be advisable that no vessel should approach them nearer than two cables length.¹⁸*

Pilots and lighthouse at Shortlands Bluff

Mariners familiar with the passage through the Port Phillip Heads were already offering to guide vessels through the narrow passage. In April 1839, however, the government appointed an officially-licensed pilot, who was soon joined by

a colleague. The pilots boarded ships entering or leaving Port Phillip Bay, guiding them through the 'Rip'. Ships' masters paid them for their services. The pilots were based, like the lighthouse, at Shortlands Bluff (later known as Queenscliff), initially living in tents.¹⁹ Though Hobson had suggested Point Nepean as the site for a lighthouse to guide vessels through Port Phillip Heads, other ships' masters who frequented Port Phillip argued for one to be located at Swan Point (renamed Shortlands Bluff by William Hobson) on the western channel that led through the heads. Work was underway by 1838 to assess the size and material that would best serve to build this lighthouse and it was completed between 1841 and 1843.

Jetty and light at Point Gellibrand

By the time that the lighthouse at Shortlands Bluff was completed, other port infrastructure had been started at Point Gellibrand. In 1837 Richard Bourke, the Governor of New South Wales, visited the Port Phillip District. The strategic location of Point Gellibrand, motivated Bourke to instruct Robert Hoddle, the government surveyor, to lay out quays, piers and a town here. Bourke suggested that a navigational light was also needed here, as well as a battery (or small fort) to defend the settlement and shipping. The battery was put off until 1855,²⁰ but by early 1839 a jetty formed 'of huge stones piled up'²¹ and 110 feet in length, was located at the 'landing place' at Williamstown. A similar jetty for Geelong, also in stone, was being planned by 1841.²² An oil-burning 'plain stationary light' on a timber frame was shown at Gellibrand's Point as of August 1st, 1840.²³ By this time a Harbour Master, Captain Charles Lewis, had been appointed, with an office at Williamstown near the light. The Harbour Master had responsibility for all navigation of the bay, including Geelong and Port Phillip Heads.

The context of early government infrastructure

The reason for the settlement of the Port Phillip District by British subjects lay in its usefulness as a source of wool for the growing English market. The development of mechanised textile mills in Britain in the nineteenth century created a demand for raw products, such as fleece, that could not be met by European flocks. The early squatters who flooded



Hobsons Bay and Williams Town,
Port Phillip, circa 1850.
Ham Brothers Engravers.
La Trobe Picture Collection,
State Library of Victoria.

Viewed from Sandridge (Port Melbourne) this engraving shows vessels at anchor in Hobsons Bay and the Gellibrand light at Williamstown in the background. The jetty in the foreground is probably the beginnings of Town Pier.

into the Port Phillip District recognised the chance to make profits by supplying wool, which was easy to transport, to this market. The government recognised its duty to facilitate this trade by imposing order and control on the Port Phillip District, by making the seaway safe for trading vessels and by defending the ports and seaways from attempts to disrupt trade by rival imperialist powers, such as France or Russia. It could also assist the Port Phillip pastoralists by supplying vital labour, in the form of emigrants from the home country. Navigational aids, jetties and wharves would assist settlers to carry out their trade and make it safer for new emigrants arriving from Van Diemen's Land or even from Europe.

But port-related infrastructure was also necessary to assist colonial government to control and harness the productivity of the settlement. The importance of customs collection, for instance, was evidenced by the fact that the first customs employees in the Port Phillip District arrived at the same time as William Lonsdale in 1836. Although their first headquarters was located at the landing place on the Yarra (where a permanent customs house was later established), by the following year the New South Wales Controller of Customs recognised that customs houses were also required at other popular landing places: Williamstown, Sandridge and Geelong. In 1840 Portland also gained a customs office. Customs duties regulated and tabulated the goods imported or exported from the colony. But more importantly, they provided virtually the only government revenue outside of the sale of Crown Land.

The rapid population and economic growth of the Port Phillip District outstripped the government's ability to introduce infrastructure to deal with it. This was partly a problem because Port Phillip was just a distant district of New South Wales. But once Victoria achieved separate government from New South Wales in 1851, the difficulty of providing adequate coastal infrastructure became more acute. In the same year gold was discovered in Victoria. Thousands of people began arriving in the colony, at first from other colonies and then from overseas. The constant arrival of vessels at Victorian ports put immense strain on maritime resources but, due to the chaos into which the colony had been thrown, the Government struggled to adapt Victoria's primitive infrastructure to cope with these new demands. The development of infrastructure that could adequately cope with the traffic into and out of the colony was also influenced by natural obstacles.

Early years of Victorian ports

Problems with the early Port of Melbourne

Williamstown

There were three alternative landing sites in early Melbourne but each of them presented difficulties. Williamstown (known at first as Point Gellibrand) had the advantage of being close to the deep water anchorages in Hobsons Bay. The ships and the early jetty here were sheltered from heavy winds by the curve of Point Gellibrand. But Williamstown lacked any obvious source of fresh water and was several miles from the main settlement on the Yarra, making it very difficult to transfer passengers and cargo overland to the settlement until the Melbourne-Williamstown railway line was built in the 1850s. Williamstown therefore took on the role of being a 'transfer' station, where lighters and other vessels were based to unload larger vessels and ferry people and products up the Yarra or across to the beach at Sandridge. Privately-owned rowboats could be hired to transfer passengers and cargo across Hobsons Bay to the beach at Sandridge. By 1838 the first ferry steamer began offering a service up the Yarra River to Melbourne, but it was not until 1853 that a regular ferry service, offered by the paddle steamer *Comet*, commenced.²⁴

Sandridge (Port Melbourne)

The 'north beach' or Sandridge, offered a landing place that was much closer to Melbourne, being only about two miles overland from the settlement at the Falls. It was for this reason that the Controller of Customs argued in 1837 that a Customs House, along with a wharf and jetty, should be established here, 'on the north-east' side of Hobsons Bay, a spot 'convenient to the shipping, and within a reasonable distance of Melbourne where the merchants and traders will probably fix their residences and warehouses'.²⁵ But strong south-westerly winds often made the water here too choppy for safe landings. Nevertheless, the first assisted immigrants from Britain were transferred from the *David Clark* to this beach and then walked along a well-used track to Melbourne. Robert Hoddle, Melbourne's first surveyor, was amongst those who saw the possibilities of Sandridge, planning a pier and railway line connecting the beach to the Yarra Settlement in 1838.²⁶ Though nothing immediately came of this plan, one immigrant



Approach to Melbourne from Abattoir, 1857. J. Tingle engraving. *La Trobe Picture Collection, State Library of Victoria.*

The Melbourne abattoirs were located on the Yarra downstream from Melbourne from 1851 until they were moved to the banks of the Maribyrnong in the late 1850s. The difficulties of navigating the Yarra are demonstrated in this engraving.



Hobson's Bay from the signal staff, Williamstown, 1853. Picture Edmund Thomas.

La Trobe Picture Collection, State Library of Victoria.

Taken from the perspective of the signal staff, from which messages were conveyed from Williamstown via flags to Flagstaff Hill, this 1853 view of Hobsons Bay demonstrates the rapid growth in shipping to Hobsons Bay during the gold rush era. The bluestone lighthouse, completed in 1849 to replace an earlier timber light, was later converted to a time-ball tower, which still stands at Williamstown. The rough stone jetty, which was later extended to become Breakwater Pier, was used to land convict labourers from the prison hulks moored just offshore.

to the district, Wilbraham F. Liardet, installed his own private infrastructure, constructing a hotel and pier on the 'beach' in 1839-1840. Liardet won the contract to convey mail from vessels to the Yarra settlement, and claimed that, in addition to many passengers, Customs and Police boats made use of his jetty.²⁷ While many early travellers recalled travelling up the Yarra when they first arrived in the Port Phillip District, clearly many passengers alighted at Sandridge and, possibly because it was cheaper, assisted immigrants may have been more likely to come ashore here than on the Yarra. Early in 1849 the government called for tenders for timber to construct a jetty at Sandridge. A small pier, capable of serving four to six ships, it was intended for use mainly by passengers and not for handling heavy goods.²⁸ It became known as the Town Pier.

The Yarra

As the Controller of Customs had predicted, the Yarra, near the Falls, was favoured by merchants as the site for unloading

cargo. Early vessels using the Yarra tied up at the 'stakes' that had been driven into the mud by the crew of the *Enterprise*. Work began on a government wharf in 1841, but was still continuing the next year.²⁹ In the meantime, Captain George Ward Cole built a private wharf, 45 feet long and 110 feet deep, between King and Spencer Street.³⁰ This was at least partially in place when Georgiana McCrae arrived in the colony in March 1841. Despite the existence of these and another private wharf, Raleigh's wharf, wharfage space was clearly in short supply even in the 1840s, when some newcomers to Melbourne described being landed 'in the mud' on their arrival in the colony. By the 1850s the river was choked with traffic. When William Kelly arrived in 1853 it took nearly two hours for a steamer to transport him from Hobsons Bay to Melbourne. 'When at our destination, the boat was made fast to a weather-worn stake ... We managed to land somehow without leaving our boots as hostages in the mud.'³¹ It was not only passengers who were being landed in the mud.

'The north bank of the Yarra, at that time, from the falls down to the slaughter-houses, was a slough of dark mud in a state of liquidity, only a very few degrees removed from that of the river, and along it the entire distance was a line of lighters and intercolonial vessels, four deep, discharging promiscuously into the mire bales of soft goods, delicate boxes of dry goods, cases of brandy, barrels of flour, packages of Glenfield's patent starchand a hundred-and-one other and sundry articles , piled up in mountains in the muck, of which the "dry goods" not unfrequently constituted the lower stratum or foundation.'

Though Governor Bourke had decided that the permanent Customs House should be located at Williamstown, by late 1837 the Controller of Customs had convinced him that, as the Yarra settlement was where merchants were most likely to reside, this was where the permanent Customs House, along with a bonded warehouse should be. By the early 1840s merchants had begun to build warehouses in the streets adjacent to the wharf area and most cargo was transferred from ships to lighters in Hobsons Bay and ferried up the river to be unloaded.

Geelong

Geelong's population grew more slowly than Melbourne's in the 1840s. Yet, by 1850 the government had erected three jetties at Geelong in Corio Bay: Stony Pier, the Yarra Street Pier and the Moorabool Street Pier.³² Plans were in hand to dredge a ship channel through the sand bar at Point Henry to the inner harbour, but this was not achieved until 1861, when a channel with a depth of eighteen feet was dredged.³³ While the sand-bar hampered water traffic, Geelong was also disadvantaged by the fact that it was not declared a free warehousing port until 1848. Until then, any imports bound for Geelong had to first pass through the Port of Melbourne. Yet, by the late 1840s, Geelong's connection to the pastoral western district meant that more exports left the district via Geelong than via Melbourne.³⁴

Portland

Far more vessels visited Portland than Geelong in the 1830s. Portland Bay offered a deep harbour that was comparatively calm, except when gales swept in from the relatively unprotected southwest, but ships were forced to anchor offshore. Not only had the Hentys based themselves here from 1834, but there was already a substantial whaling station. Marten Syme records vessels arriving and departing from here from 1828, bringing in sealers and their supplies, and then

whalers. After 1835 vessels were bringing in livestock and supplies and leaving Portland Bay with oil, wool, whalebone and potatoes. By 1841 emigrants were arriving at Portland Bay. In 1846 a government jetty, of 500 feet, was constructed. Extensions soon after included a double rail track on the pier.³⁵ But the pier, apparently, did not extend into deep enough water for large vessels to come alongside and lighters still had to be used to ferry goods from ship to shore.

Port Albert

European settlement of Gippsland was much slower than the rest of the state. Partly this can be attributed to the lack of any accessible coastal entry points to Gippsland. The earliest pastoralists in the Gippsland area came overland from eastern New South Wales. While parts of Gippsland looked promising for pastoralists, it was necessary to find a coastal outlet from which products could be exported and supplies brought in. The great swamp at Koo-Wee-Rup made land access via Melbourne difficult, while the high country in the east made it difficult to move products to New South Wales. Pastoralist Angus MacMillan made several attempts to find a land route through to the coast at Corner Inlet between 1839 and 1841. He was finally successful in 1841 and was soon after followed by explorer Count Paul Strezlecki. Coincidentally, in January 1841, the steamer *Clonmel*, en route from Sydney, was grounded at Corner Inlet. Though a disastrous occurrence for the owners and passengers, the event proved that there was at least a potential port here. The government surveyed a town, Albert Town, now known as Port Albert, and declared it to be Gippsland's Port in 1842. But the first port facilities here, including a jetty constructed in 1846, were privately-built.

Early coastal lights

Port Phillip residents, ships' crews, visitors and representatives of the government were well-aware of the shortcomings and dangers of the Victorian coastline and harbours. Though navigational lights and buoys had been erected at Port Phillip Heads and Hobsons Bay, the approaches to Port Phillip Bay, through Bass Strait and along the Victorian coastline, were fraught with danger. In the west, vessels had to negotiate a path between Cape Otway and islands such as King Island. Strong winds and unfamiliarity with currents could spell doom for ships unfamiliar with the territory. The eastern entrance, between Wilsons Promontory and the Kent Group of Islands was equally dangerous.

In 1835 a convict ship, the *Neva*, was wrecked on King Island, with 300 lives lost. Though a New South Wales Parliamentary Committee recommended that a light be placed on King Island, there were several more wrecks in the vicinity before the tragic loss of the immigrant ship, the *Cataraqui*, with 414 souls, in 1845. The wreck of the *Cataraqui* was seen as compelling evidence of the pressing need for a lighthouse at Cape Otway. But the building of a lighthouse was further delayed by the search for a route over which building supplies and workmen could be conveyed to the rugged and remote cape. It was not until 1848 that the Cape Otway lighthouse began operating. Although a parliamentary committee had recommended four additional coastal lights for Bass Strait, none of these were operating before the 1850s.

Projected harbor and port improvements

As early as the 1840s it was recognised that more permanent work would be needed to make the Port Phillip District's ports more accessible. The government contracted to have a dredging machine constructed to make both the Yarra River and the Geelong harbour navigable for larger vessels. The natural 'basin' at the falls in Melbourne was deepened and Henry Ginn, the Colonial Architect, authorised surveys of both the Melbourne and Geelong harbours. By 1851 Ginn, along with the Colonial Engineer and the Melbourne Town surveyor, had made recommendations about improving port access to the centre of Melbourne. There were a number of suggestions of how this could be done: either with a canal cut through from the bay to Melbourne, by straightening the tortuous course of the Yarra above its junction with the Maribyrnong River or with railway lines connecting Melbourne with piers at Sandridge and Williamstown. The canal was the most popular scheme, but before a decision was made on which of these improvements might be carried out, and even before the dredge was finished, the discovery of gold in Victoria threw the young society into turmoil.

The impact of gold discoveries in the 1850s

In July 1851 Victoria was declared a separate colony from New South Wales. A few weeks later, gold was discovered near the Yarra River and then in central Victoria, initiating a period of madness in the new colony as men flocked to seek their fortunes, first from across Victoria, then interstate and,

by 1852, from overseas. Between 1851 and 1861 584,000 people migrated to Victoria, most by sea.³⁶

This huge influx of immigrants obviously impacted on the colony's maritime infrastructure, greatly increasing traffic into Victorian ports, straining existing facilities and making the expansion of facilities an urgent necessity. The increased population also created a demand for all manner of goods that could not be manufactured in Victoria and had to be imported.³⁷ Harbour facilities, such as jetties, wharves and navigational aids were clearly inadequate to cope with the increased shipping. In addition, the greater influx of goods and passengers necessitated the creation of other kinds of infrastructure, such as expanded customs houses and associated sheds, headquarters for water police at major ports, immigration depots and barracks, increased accommodation for harbour masters, coastal pilots and their staff and ship repair facilities. But the shortage of labour, occasioned by the fact that almost all able-bodied men fled their jobs to seek gold, meant that finishing, or even beginning construction work on a range of projects was difficult. Even the steam dredge that had been begun in the 1840s was not finished by 1853.³⁸ The labour problem was eased after 1854, when disillusioned gold seekers began to drift back to Melbourne or Geelong in search of other employment, but the government also had to resort to using prisoners' labour for some maritime building projects. The prisoners were housed in a number of hulks moored off Point Gellibrand.

The labour shortage, combined with the need to provide a range of public works needed to administer the colony, meant that large projects, such as the proposed canal linking Hobsons Bay to the Melbourne wharves, were placed on hold.³⁹ Instead, a Select Committee of the Legislative Council recommended that wharves be erected running parallel to the coast at Williamstown, along with a stone breakwater at Point Gellibrand. As well as this, pile wharves, running out from the jetties already existing at Geelong, were recommended.⁴⁰ Existing jetties and wharves were extended and extra jetties were constructed at the major ports: Melbourne, Geelong, Port Albert and Portland. At Williamstown the old pier was extended, the Anne Street Pier was constructed and attempts were made to begin a breakwater pier, by building onto an existing stone jetty used to land convicts from hulks moored off Point Gellibrand. It was not until 1860, however, that this work got under way. In addition a Harbour Master's Office, Water Police Quarters and a patent slip were built, along with

additions to the lighthouse.⁴¹ Other ports, such as Port Fairy and Warrnambool gained their first government-constructed infrastructure during this decade. As well as jetties and piers, navigational aids and life-saving equipment such as life boats and rocket sheds helped to make these ports safer. Gold rush immigration and trade not only stimulated the growth of existing ports, but helped to develop other water-transport systems, such as that on the Gippsland Lakes. Another effect of the gold rushes on the shape of Victoria's coastal infrastructure was the impetus to construct infrastructure to protect the busy trade of the port of Melbourne. Batteries were erected at Point Gellibrand and the 'beach' (present-day Middle Park) in 1855⁴² and Select Committees on the Defence of the Colony continued to investigate adequate defences throughout the 1850s. Work began on the Queenscliff Battery in 1859.

Victoria's growing population stimulated the demand, not only for imported goods, but also locally-produced products, such as firewood, lime, timber, building stone, fish, vegetables, meat and grain. Jetties or piers were built at several coastal locations, such as Mornington, Frankston, Portarlington, Hastings and Welshpool, to improve the transportation of such produce in the 1850s. At St Kilda, a growing suburb, a pier helped with bringing building materials into the locality, while also offering a route for Prahran firewood cutters to transport their produce to central Melbourne.

Along with the labour shortage of the early 1850s, there was also often a shortage of suitable materials for constructing port infrastructure, delaying projects while materials were imported from Van Diemen's Land or from Europe. Sometimes pre-existing private facilities were leased or purchased for government purposes. At Sandridge, for instance, the government purchased private premises from Patrick Hayes to serve as a Customs Office and quarters for Tide Officers in 1854.⁴³ Much of the infrastructure constructed during this period very soon needed to be extended, added to or improved. Some hastily-constructed infrastructure proved to have been placed in the wrong place. The first government jetty at Port Fairy, for instance, which was built in 1856, was built in shallow water. It was not used and was eventually allowed to disintegrate.⁴⁴

Some infrastructure development of the 1850s was carried out by private companies. St Kilda's first pier, which was destroyed soon after its construction in 1853, was built by the St Kilda Pier and Jetty Company. Three other projects were the work

of private railway companies. In August 1852 the Melbourne and Hobson's Bay Railway Company was formed to build a pier at Sandridge, together with a railway line connecting it to Melbourne. When officially opened in 1854 the line became Australia's first public steam railway. The pier, known as Railway Pier and replaced by Station Pier in the 1920s, was less than 600 feet long, but extensions in the 1850s and early 1860s brought it up to 2,171 feet by 1862. Another private railway company, the Melbourne, Mount Alexander and Murray River Railway Company, also formed in 1852, began constructing a railway line from Spencer St, Melbourne, across the Maribyrnong River to Footscray and then parallel to the Yarra to terminate at Williamstown. The company's aim was to build a railway line connecting the Murray River trade with Melbourne to enable produce from the Riverina district to be easily exported. The company began by letting a contract for a pier at Williamstown, before the first sod for the railway line was turned at Point Gellibrand in June 1854. Before the line between Melbourne and Williamstown was finished, the company's financial difficulties prompted the Victorian Government to take over the project. The Melbourne-Williamstown line was soon put into service carrying railway equipment imported from Britain and unloaded at the Railway Pier at Williamstown (now called Gellibrand Pier). The equipment was used to continue the construction of the Melbourne-Bendigo line. The Victorian Railways Department also took over the pier and railway line built by another private company, the Geelong and Melbourne Railway Company in 1857. This company's railway pier was located on the site of what is now known as Cunningham Pier, Geelong.

The gold rushes of the 1850s changed Victoria into a far more complex society, with a population concentrated in large centres throughout the goldfield's regions as well as in Melbourne and Geelong. Melbourne had been confirmed as the gateway to the colony, but successive Victorian Governments would attempt to encourage rural settlement throughout the colony. The remainder of this background history will use a thematic approach to trace the development of maritime infrastructure in the colony and then state.