



Local Port of Barwon Heads (LPoBH) Safety and Environment Management Plan (SEMP)



**Version 16
9 October 2026**

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*Revisions of the SEMP will be distributed to organisations noted in 'Part 10 – SEMP Distribution (Page 25)'

Approval:

The following people are responsible for signing-off on the content of this document. Signatures may be physical or in a scanned electronic format:

<u>Name</u>	<u>Title</u>	<u>Signature</u>	<u>Date</u>
Gareth Smith	Chief Executive Officer		09/10/2026

CONTENTS

Part 1 – Summary **Page No.**

1.1	Aim of the Safety and Environment Management Plan	5
1.2	Safety and Environment Values Statement	5
1.3	Description of the Local Port	5
1.4	Key Activities	5
1.5	Significant Hazards/Risks & Prevention and Reduction Measures	6
1.6	Tenants, Licensees and Service Providers	6
1.7	Overview of the SEMP process	7
1.8	Local Port Contact Persons	7

Part 2 – Introduction

2.1	Local Port authorisation	9
2.2	Local Port Functions	9
2.3	Local Port of Barwon Heads Safety and Environment Policy	10
2.4	Key Performance Indicators and Annual Report	10

Part 3 – Description of Local Port & Activity

3.1	Areas Applicable to this Management Plan	12
3.2	Local Port Operations and Activities	12
3.3	Key Tenancies and Relationships within the Local Port	13
3.4	Marine Pests, Blue Green Algae, Fish Kill	14
3.5	Water Quality	14
3.6	Marine Pollution	14
3.7	Dangerous goods and hazardous materials storage facilities	14
3.8	Local Port Activity Table	15

Part 4 – Organisation Structure

4.1	Internal	17
4.2	External Relationships	17
4.3	Persons responsible for Safety & Environment Management	18

Part 5 – Risk Assessment

5.1	Risk Assessment Framework	18
5.2	Risk Assessment Process	19
5.3	Risk Registers	19

Part 6 - Risk Treatment and Management

6.1	Significant Hazard Control Register	19
6.2	Interaction with Emergency Management	21

Part 7 – Implementation, Review and Revision

7.1	Implementation Procedures for Management Plan	22
7.2	Process for involvement of tenants, licensees and service providers in development and implementation	22
7.3	Documentation and implementation systems	23
7.4	Local Port Incident Register	23

Part 8 – Stakeholder Consultation

Part 9 – SEMP Endorsement

Part 10 – SEMP Distribution

APPENDICES

Appendix 1	Gazetted LPoBH Boundary, Victorian Government Gazette	25
Appendix 2	LPoBH - General Arrangement Plan	26
Appendix 3	Definitions	27
Appendix 4	Risk Assessment	28
Appendix 5	Safety Hazard Risk Register	34
Appendix 6	Environment Risk Register	38
Appendix 7	Regulatory Compliance	41
Appendix 8	Related Documentation	42
Appendix 9	Port of Barwon Heads – Signage Inspection Template	43
Appendix 10	LPoBH Navigation Aid - Light Inspection Report	44
Appendix 11	Port of Barwon Heads - Incident Report Form	45, 46

Part 1 - Summary

1.1 Aim of the Safety and Environment Management Plan

Barwon Coast Committee of Management Inc. (BCCM) intends to utilise this plan as a management tool to systematically examine the full scope of activities in the local port and to ensure that all significant safety and environment risks are identified and controlled.

1.2 Safety and Environment Values Statement

The operation and management of the Local Port of Barwon Heads is to be conducted in such a manner to ensure the safety and wellbeing of all local port users and to ensure that local port activities do not adversely impact on the environment of the local port or adjacent waters.

1.3 Description of the Local Port

The area that is covered by this Safety and Environment Management Plan (SEMP) is defined by the water extent boundary as published in the government gazette, G26 1 July 1999 page 1563 for the Designated Port of Barwon Heads, Marine Act 1988 (described in Appendix 1). See also the local port map in Appendix 2.

Key features are the Barwon River and the local port's proximity to the Lake Connewarre State Game Reserve (a Ramsar site) and Barwon Bluff Marine Sanctuary.

1.4 Key Activities

The Local Port of Barwon Heads is home to water related activities including both recreational and commercial boating. Recreational boating is the major activity within the local port. A limited number of commercial fishing and charter boats utilise the local port. Water Based Activity (WBA) tour operators are a recognised increasing commercial activity licenced independently by BCCM.

The local port waters are popular for recreational activities including; swimming, fishing, sailing, canoeing, paddle boarding and promenading. Patrol flagged beach areas by life-saving services are provided at two locations. Coast Watch Marine Rescue Squad Ocean Grove operates to serve the boating community.

1.5 Significant Hazards/Risks and Prevention and Reduction Measures

Risk	Consequence	Likelihood	Residual risk rating	Controls
Swimming (interaction with vessels)	4	C	High	-5 knot limit, licensing, random - Police presence, signage at boat ramp accesses
Navigation Aid Maintenance	5	D	High	-Monthly observations for light operation, -Scheduled maintenance, -Implementation of STV AtoN Standard
Sailing	3	C	High	-Restricted access, -Sailing Association manage events, -Safety messaging & signage
Jumping or Diving off Jetties or Bridges	4	D	High	-Signage and user education -Strategic ladder placement -Police Enforcement
Provision of Navigable Channel	4	E	High	-Regular Hydrographic Surveys -Navigational Aid placement.

1.6 Tenants, Licensees and Service Providers

Barwon Coast administers commercial activity leases and crown land leases within the Local Port of Barwon Heads.

The local port contains three jetty structures and swing mooring zones found in Zones 1 and 2. Mooring Zone 1 sits south of the Barwon Heads pedestrian bridge and Mooring Zone 2 sits north of the Ozone Jetty. There are limited moorings in Mooring Zone 1, vessels moored in this area generally access the Bass Strait. Mooring Zone 2 is for vessels less than 6 metres. Vessels in Mooring Zone 2 are for recreational use within local port waters.

Seasonal hire businesses operate within local port waters. School groups are taught sea kayaking, canoeing and stand up paddle boarding by approved operators. The Barwon Heads Sailing Association conducts club competitions in the local port waters north of the Barwon Heads road bridge.

Parks Victoria and the City of Greater Geelong provide services that enable the boating community access to the waters of the local port through the facilities of the Barwon Heads boat ramp and Ocean Grove boat ramp and adjoining car and boat trailer parking areas.

1.7 Overview of the SEMP Process

Considering the size and responsibilities of the local port, it was considered appropriate that the port manager carry out most of the risk identification and control mechanisms associated with the production of the Local Port of Barwon Heads SEMP.

The identification of risks and hazards was based on the local port activity map which lists the possible uses of the local port.

The impact of the identified risks and hazards was assessed using a risk assessment process based on the Australian Standard Risk Analysis Process and includes a matrix drawn from the *Ministerial Guidelines: Port Safety and Environment Management Plans*.

Risks, especially those identified as high and very high, are examined through periodic reviews, outlining both the current and possible required controls necessary to minimise risk.

The port manager or delegate undertakes an annual review of the SEMP and reports as necessary to Barwon Coast Committee of Management Inc in regard to the plan. An external and independent review of the SEMP is also undertaken every three years, the last being in March 2025.

Barwon Coast and the City of Greater Geelong jointly fund a Life Saving Victoria (LSV) paid lifeguard service at Ocean Grove Main Beach 15W (mid December to mid February) and Barwon Coast at Ocean Grove Spit 18W (26th Dec to 26th Jan). The Ocean Grove SLSC provides a patrol beach service with volunteers at Ocean Grove Main Beach from the last weekend in November until Easter Monday on Saturdays after 1pm, Sundays and public holidays. LSV have introduced a Personal Water Craft (PWC) patrolling service along the coastline for the peak summer holiday, this includes the Barwon river mouth. Although outside the port area, Thirteenth Beach SLSC provides volunteer beach patrols from November to April, operating on Saturdays (1pm-4pm) and Sundays (10am-4pm), with daily patrolled swimming areas and red and yellow flags from 26 December to 26 January, including public holidays, between 10am and 6pm.

1.8 Local Port Contact Persons

Port Manager – Chief Executive Officer
Operations Manager– General Manager Operations
Operations and Compliancy - Port and Geospatial Coordinator

Postal address

Barwon Coast Committee of Management
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Barwon Heads VIC 3227

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Part 2 – Introduction

In early 2000 the Minister for Ports announced that Professor Bill Russell was to undertake a review of Victorian port reform. The subsequent report, *The Next Wave of Port Reform in Victoria 2001*, recommended a number of changes aimed at improving the efficiency of Victorian ports. The Government's response to the Russell Report was to commit to a range of actions across aspects of port management including safety and environment management.

The *Port Services Act 1995* (now *Port Management Act 1995*) was amended in 2003 and included in part 6A the requirement for port managers to prepare Safety Management Plans and Environment Management Plans. The Local Port of Barwon Heads prepared both together in this Safety and Environment Management Plan (SEMP).

The SEMP's were written to be working documents, identifying all significant risks involved in the spectrum of local port activities and detailing the local port's actions to control them. This enables smoother integration of the different safety and environment regulatory regimes that currently apply.

The Department of Transport and Planning on behalf of the State oversight the Local Port and have established a management service agreement for the local port. Barwon Coast Committee of Management Inc. agreed to a 4year/9month management agreement with an annual appropriation, the Committee's CEO is the port manager for the Local Port of Barwon Heads and the daily operation of the local port is overseen by delegated staff.

The *Ministerial Guidelines: Port Safety and Environment Management Plans* were revised in November 2012 and required the addition of Key Performance Indicators (KPIs) and an annual SEMP Report from the port manager. These additional tools enable DTP to better monitor local port management's performance on safety and environment matters.

The SEMP is an active document for regular review and audited externally every three years to assess the extent to which the implementation of this management plan achieved the safety and environment planning objectives set out in the *Port Management Act 1995*. The Local Port of Barwon Heads has undergone external audits in 2008, 2013, 2016, 2019, 2022 and 2025.

Throughout the process, the Local Port of Barwon Heads has taken reasonable steps to involve the range of stakeholders in the SEMP implementation. Broad participation of organisations is a key element in the successful development and implementation of the SEMP's objectives.

2.1 Local Port Authorisation

Barwon Coast Committee of Management Incorporated has entered into a 4year/9month management agreement with the Department of Transport and Planning for the management of the Local Port of Barwon Heads. Under this agreement, Barwon Coast is appointed as port manager for the period commencing 2 January 2024 and ending 30 September 2028.

Barwon Coast Committee of Management Incorporated is appointed as the waterway manager for the waters of the Local Port of Barwon Heads by Safe Transport Victoria, for a four-year period.

2.2 Local Port functions

Barwon Coast Committee of Management Inc. is appointed under the *Port Management Act 1995*, to be the port manager for the Local Port of Barwon Heads and under this Act, [Part 2A – Local Ports, clause 44A] has the following functions:

- To manage the operations of the port, particularly with respect to shipping and boating activities in the port, with a view to ensuring that those operations are carried out safely, efficiently and effectively.
- To provide, develop and maintain port facilities, including wharves, jetties, slipways, breakwaters, moorings, buildings and vehicle parks.
- To provide, develop and maintain navigational aids in accordance with relevant standards developed by Safe Transport Victoria and the Australian Maritime Safety Authority (AMSA).
- To carry out the functions and powers of a local authority in respect of any State waters within the port.
- To provide, develop and maintain navigational channels in accordance with any relevant standards developed by Safe Transport Victoria.
- To manage the operations of the port, and the construction and operation of port facilities and navigation channels in a manner that minimises the risk of environmental damage.
- To participate in the control of marine and land pollution in the port as a relevant statutory authority under the Victorian component of the National Plan to Combat Pollution of the Sea by Oil and Other Noxious and Hazardous Substances.
- To allocate and manage moorings and berths in the port.
- To exercise any other functions of the port manager of a local port under the *Port Management Act* or any other Act and
- To undertake dredging as per Section 44E of the *Port Management Act 1995*.

The *Port Management (Local Ports) Regulations 2015* enables port management the power to authorise activities such as:

- Setting aside areas for certain purposes
- Fuelling operations
- Activities on or adjacent to navigation aids
- Discharge of explosives or fireworks
- Vehicle access to designated areas
- Special events e.g., triathlons, yachting and community events and the like
- Electrical installations on port structures and
- Mooring and berthing of vessels in local port waters.

2.3 Local Port of Barwon Heads Safety and Environment Policy

Barwon Coast aims to holistically manage the coastal area for which it is responsible and for the local port within that area, this responds to the principles of Integrated Coastal Zone Management. It is committed to operating the Local Port of Barwon Heads in a safe and environmentally sustainable manner to respect the principle of intergenerational equity.

Barwon Coast will seek to continually improve their safety and environment management being cognizant of policies, objectives and best practices of Government and like management authorities.

Barwon Coast management of the local port will demonstrate a commitment to:

- A healthy and safe workplace / location,
- Recognize and remove hazards,
- Prevent or minimize impacts to the environment,
- Communicate and educate,
- Utilise resources efficiently and minimize waste.

The Local Port of Barwon Heads also recognises the safety and environment planning objectives stated in the *Port Management Act 1995* S91CA. The objectives are:

- promoting improvements in safety and environmental outcomes at Victoria's ports
- promoting and facilitating the development, maintenance and implementation of systems that enable compliance with the various safety and environmental duties that apply to the operation of the port and
- promoting an integrated and systematic approach to risk management in relation to the operation of the port.

2.4 Key Performance Indicators and Annual Report

The *Ministerial Guidelines: Port Safety and Environment Management Plans* were revised late in 2012 and required the addition of Key Performance Indicators (KPIs) from the port managers. The KPIs are used by the port managers to assess the extent to which implementation of the management plan achieves the safety and environment management planning objectives set out in section 91CA of the *Port Management Act 1995*.

The overall effectiveness of the KPIs and the SEMP in achieving the safety and environment management performance outcomes is assessed in an annual SEMP report to the Minister and any other bodies prescribed by the regulations as directed by the *Port Management Act 1995* S91HB.

The KPIs for the Local Port of Barwon Heads are:

Item	KPI	Management Strategy
1	Navigation lights to meet TSV-STV standard for navigational light operation Category 1 and 2 – 99.8% and 99% availability objective.	3 monthly on-water and/or land-based light inspections. - Notification from port users of any light outages. - Light outages to be repaired as soon as conditions allow.
2	Maintain aids to navigation structures to STV standards.	- Undertake annual on-water condition assessments - Meet STV AtoN Standard guidelines
3	Public lighting on jetties – functioning 90% of the time or greater	- Monthly inspection of light operation. - Annual inspection of fixed electrical lighting. - Notification from public of any issues.
4	Issue of Notice to Mariners (NtM's)	- Promptly issue NTM as required. - Ensure annual currency of NtM's.
5	Maintain navigable channel	3 monthly on-water inspections. - Consultation with waterway users. - Notification from public. - Undertake hydrographic surveys every two years.
6	Monthly inspection of assets for preventative maintenance works.	- Ensure signage is legible. - Carry out inspection and complete checklist. - Program significant works in future budgets.
7	Timely completion of incident report – within one month.	- Update incident register, once aware. - Prepare incident report. - Carry out appropriate rectification measures
8	Compliance of mooring site hire, documentation and annual checks.	- Moorings installed by accredited mooring installers - Annual mooring condition inspection report to be supplied with mooring site hire renewal application for all moorings south of Barwon Heads bridge. - Proof of vessel insurance to be provided with all mooring site hire.
9	Future major upgrade works of port infrastructure to take into account the future potential effects of climate change.	- Consider climate change impact with special attention to all major projects. - Utilise data from Local Coastal Hazard Assessment.
10	Port and Boat Ramp Signage to be clear and legible.	Condition inspection report to be conducted every three years.
11	Maintain Jetties	- Condition assessments to be conducted every three years. - Ongoing maintenance program based on condition assessments.
12	Waste Bins	- Emptied Weekly. - Monthly Inspection.

Part 3 – Description of Local Port & Activity

3.1 Area Applicable to this Management Plan

The area that is covered by this Safety and Environment Plan is within the boundary of the gazetted local port (Appendices 1 & 2).

The Local Port of Barwon Heads covers the Barwon River, downstream of Sheepwash Road Barwon Heads to the River's mouth. The local port also extends 200m seaward from the low tide line between Hodgson St, Ocean Grove (to the east) and Golf Links Rd, Barwon Heads (to the west).

The local port contains three timber jetty structures, Main Jetty, Ozone Jetty and The Heads Restaurant. These structures are popular with recreational fishermen, visitors and restaurant users. The main jetty is also used for the occasional berthing of recreational and commercial vessels.

Some of the above structures may be affected by heritage overlays, therefore appropriate organisations should be contacted in the event of any planned works. It should also be noted that SS Orungal wreck sits just outside port waters in the Bass Strait and is covered under the 'Historic Shipwrecks Act 1976/ Underwater Cultural Heritage Act 2018/ Heritage Act 1995'.

Principal boat ramp access points are Minah St-Barwon Heads-Barwon Coast, Pelican Ct-Barwon Heads-Parks Victoria and Ocean Grove-Boat Ramp-COGG.

Key environment features of the local port and surrounding area are the Lake Connewarre State Game Reserve, which is a Ramsar site, this is a high-level indicator for environment protection particularly for wader birds and the Barwon Bluff Marine Sanctuary. Both are the management responsibility of Parks Victoria. The Barwon River is home to both mangrove and seagrass ecosystems important habitat for fish breeding.

3.2 Local Port Operations and Activities

The Barwon Coast Committee of Management Inc. manages the Local Port of Barwon Heads being particularly aware that the river waters provide for a range of community passive recreation activities and boater use. The local Port of Barwon Heads is a designated 5 knot speed limit port.

The maintenance of the local port's navigation aids, navigable channel and port infrastructure are the responsibility of Barwon Coast. Additionally, Barwon Coast is also responsible for swing mooring site management and hire.

Local port consultation with other agencies is essential for beneficial local port management, relevant agencies include DTP, Safe Transport Victoria, Water Police, Parks Victoria, City of Greater Geelong, Victorian Fisheries Authority, Agriculture Victoria, Better Boating Victoria and Department of Energy, Environment and Climate Action (DEECA).

The local port has both recreational and commercial activities. There is currently one commercial fisherman operating out of Barwon Heads accessing the Bass Strait.

A variety of passive recreational activities occur within the local port, there are also active competition events. Many recreational vessels: powerboats, PWCs, sailing vessels, canoes, sea-kayaks, paddleboards use the local port, where required vessels mostly operate within the 5 knot speed control. The Barwon Heads Sailing Association organises and conducts competitions on the river north of the Bridge.

The jetties are frequented by recreational fishermen and used for promenading. Swimming and water recreation are key activities that occur within the local port waters. Tuition in sea kayak use and training of surf lifesaving club members also occur.

3.3 Key Tenancies and Relationships within the Local Port

Tenants in the local port are the swing mooring site hirers, two types are recognised.

Licences are issued by BCCM under DEECA's Tour Operator's Policy for Water Based Activity providers who operate from the shore and utilise the local port waters such as surfboard riders, stand up paddle boarders, sea kayakers and canoe use and hire.

The Barwon Heads Sailing Association is a good neighbour in that they assist in the monitoring of small vessels moored in the allowed swing moorings area north of Ozone Rd. The Sailing Association leases a storeroom from BCCM located in a local heritage listed latrine / boatshed on the west bank of the Barwon River. The building also houses a public toilet. Competition event and training activities of the Sailing Association take place within local port waters, required 5 knot exemption is obtained for certain state boating rules.

Parks Victoria is responsible for the management of the Barwon Bluff Marine Sanctuary (declared under the *National Parks Act*) and the Lake Connemara State Game Reserve (declared under the *Wildlife Act*). Parks Victoria manages two boat ramps in the River Parade area of Barwon Heads. These allow access to local port waters for the general community.

The waters of the local port overlay the two significant natural reserves named above where Parks Victoria manages the land, riverbed and seabed including the intertidal zone. The significant environment values for wildlife are recognised.

Barwon Coast has gained consent from Parks Victoria for the small craft swing mooring area located north of Ozone Rd.

The City of Greater Geelong is responsible for the management of the Ocean Grove boat ramp, allowing access to local port waters. There is also a beach launching area near this boat ramp, riverbed is understood to be managed by Parks Victoria.

The BCCM also manages the majority of adjacent foreshore to the local port waters. The joint responsibility creates minimal conflict in management between the local port and the foreshore. BCCM is the lessor of a site in the general footprint of the former fishermen's cooperative for a food and beverage premise (Crown Land (Reserves) Act

1978, Section 17D lease). The waters of the local port extend into the lease area fluctuating with tide levels.

Water safety for the community is supported by the Coast Watch Marine Rescue Squad Ocean Grove, Life Saving Victoria and their affiliate club the Ocean Grove Surf Life Saving Club.

3.4 Marine Pests, Blue Green Algae, Fish Kill

Local Port management is aware of other authorities, planning and responses for healthy environment management activities in regard to marine pests, blue green algae and fish kill and participates in meetings, seminars and courses in relation to these issues.

3.5 Water Quality

Water quality within the local port is monitored by EPA, Barwon Coast, Parks Victoria, Barwon Water and community volunteers in collaboration with the Corangamite Catchment Management Authority.

3.6 Marine Pollution

The local port lies within the response area of the Port Phillip Region for level one incident response control by Department of Transport and Planning under the State Maritime Emergency (non-search and rescue) Plan.

The Local Port maintains a small spill response kit contained in a 240l cart behind the Lobster Pot in front of the Education Room.

Previously training has been provided by the Oil Spill Response Company Australia, (ORCA) and the Australian Marine Oil Spill Centre (AMOSOC).

3.7 Dangerous goods and hazardous materials storage facilities

There are no dangerous good or hazardous material storage facilities within the Local Port of Barwon Heads' boundary.

When required, refuelling of vessels is completed by mobile refuelling equipment of less than 20 litres in volume. Trailable vessels are refuelled off site.

3.8 Local Port Activity Table

The following table lists all the activities that occur within the local port. The activities are divided into five different zones within the local port to identify where activities crossover. This process will aid in the identification of responsibilities and control options. The table also identifies the responsibilities of the port manager within the different zones. The other agencies involved with the management of the zone are also included.

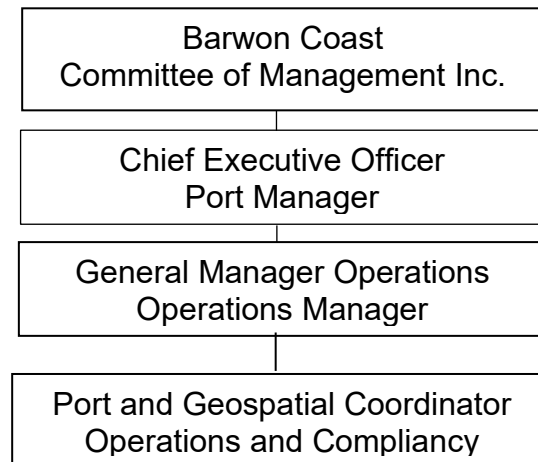
1.OUTSIDE LOCAL PORT WATERS Approaching or leaving local port waters.	2. IN LOCAL PORT WATERS Approaching or leaving the berth, within the River, leaving/entering the River mouth.	3. TRANSFER FROM LOCAL PORT WATER TO LOCAL PORT LAND AT THE BERTH (or Vice Versa)	4. ON LOCAL PORT LAND	5. TRANSFER TO OR FROM LOCAL PORT LAND
Recreational • fishing • power boating • jet skiing • sailing • canoeing / sea kayaking • swimming • wind surfing • surfing • kite surfing • snorkelling • surf lifesaving (carnivals) • sailing club operations • waste disposal • sailing boat racing • event management	Recreational • fishing • power boating • jet skiing • sailing • canoeing / sea kayaking • diving / jumping (off jetty) • swimming • wind surfing • surfing • kite surfing • snorkelling • surf lifesaving (carnivals) • boat launching / retrieval • anchoring • swing mooring use • sailing club operations • owner DIY vessel maintenance • waste disposal • sailing boat racing • competitions / events • stand up paddle boarding	Recreational • fishing • jet skiing • sailing • canoeing / sea kayaking • diving / jumping (off jetty) • wind surfing • surfing • cycling (on jetty) • kite surfing • snorkelling • surf lifesaving (carnivals) • boat launching/retrieval • sailing club operations • owner DIY vessel maintenance • waste disposal • fuelling (not from a fixed installation) • washing of various craft	Recreational • fishing • cycling • promenading (on jetty) • boat launching/retrieval	Recreational • cycling • promenading • vehicle movement

1. OUTSIDE LOCAL PORT WATERS Approaching or leaving local port waters.	2. IN LOCAL PORT WATERS Approaching or leaving the berth, within the River, leaving/entering the River mouth.	3. TRANSFER FROM LOCAL PORT WATER TO LOCAL PORT LAND AT THE BERTH (or Vice Versa)	4. ON LOCAL PORT LAND	5. TRANSFER TO OR FROM LOCAL PORT LAND
Commercial - licensed tour operators - activity providers - waste disposal - charter / commercial fishing - nav aid maintenance - clearance of flotsam & jetsam - pollution & oil spill response	Commercial - boat / canoe hire - boat launching / retrieval - anchoring - swing moorings - vessel salvage - owner DIY vessel maintenance - waste disposal - charter / commercial fishing - contractor activities (i.e. jetty or nav aid maintenance) - mooring maintenance - nav aid maintenance - clearance of flotsam & jetsam - pollution & oil spill response	Commercial - boat / canoe hire - boat launching / retrieval - vessel salvage - owner DIY vessel maintenance - waste disposal - fuelling (not from a fixed installation) - washing of various craft - vehicle operations & movement - charter / commercial fishing - fish loading/unloading - contractor activities (i.e. jetty or nav aid maintenance) - jetty maintenance (i.e. empty bins) - mooring maintenance - retaining wall maintenance - clearance of flotsam & jetsam - pollution & oil spill response	Commercial - boat launching / retrieval - vehicle operations & movement - charter / commercial fishing - fish loading / unloading - contractor activities (i.e. jetty or nav aid maintenance) - jetty maintenance (i.e. empty bins) - clearance of flotsam & jetsam - pollution & oil spill response	Commercial - vehicle operations & movement - charter / commercial fishing
Port Management Authority - navigation aids maintenance and upgrade - blue green algae management - marine pests - stormwater management	Port Management Authority - navigation aids maintenance and upgrade - jetty maintenance - oil spill response - emergency management - water sampling - marine pests	Port Management Authority - jetty access - maintenance works - water sampling	Port Management Authority - public access management - signage - jetty management and access	Port Management Authority - general access - maintenance vehicle access
Other Agency's Activities - Parks Victoria - DEECA - DTP - Ag. Vic - VFA - Safe Transport Victoria - EPA - Surf Life Saving Club - Police - City of Greater Geelong	Other Agency's Activities - Parks Victoria - DEECA - Ag. Vic - VFA - Safe Transport Victoria - EPA - Surf Life Saving Club - Police	Other Agency's Activities - Parks Victoria - DTP - DEECA - VFA - Ag. Vic. - Safe Transport Victoria - Surf Life Saving Club - Police	Other Agency's Activities - Parks Victoria - DTP - DEECA - VFA - Safe Transport Victoria - EPA - Police - City of Greater Geelong	Other Agency's Activities - Parks Victoria - DTP - DEECA - VFA - Safe Transport Victoria - Police - City of Greater Geelong

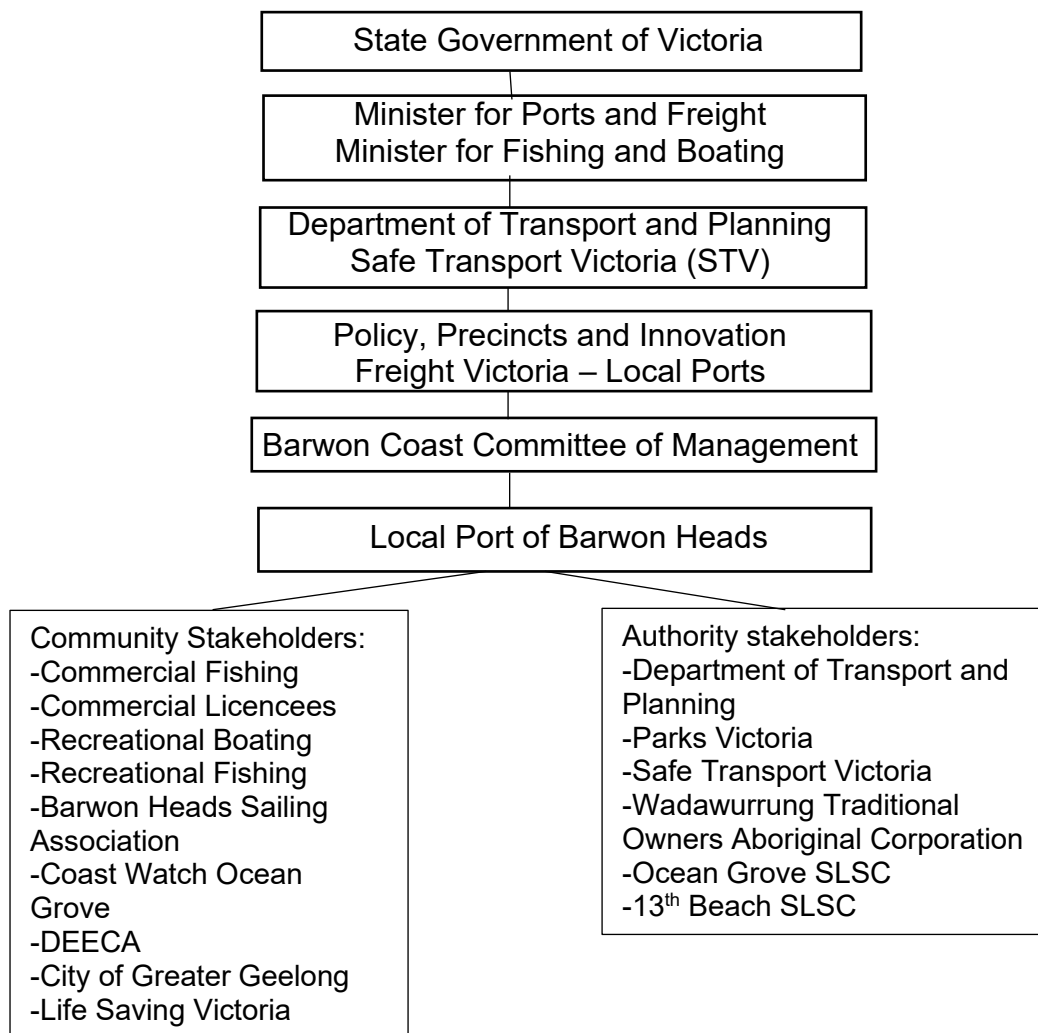
Part 4 – Organisation Structure

4.1 Internal

The following chart represents the Local Port organisation structure



4.2 External Relationships



4.3 Persons Responsible for Safety and Environment Management

The community of users have a responsibility for safety and environment protection of the local port, the users include commercial operators, recreational boaters, fisher, sailor's, licensees, contractors, agencies, and visitors.

The SEMP is recognised as a 'living document' which will be responsive to inputs for improvement to guide and inform effective approaches to meet the challenges and needs of local port management.

Barwon Coast Committee of Management Inc. will be responsible for the implementation of this plan. The local port officer, under delegation, will carry out the implementation process. The implementation is supported through the budget program arrangements with Department of Transport and Planning.

Part 5 – Risk Assessment

Effective management of safety hazards and impacts to the environment and their associated risks involves a structured and systematic approach to analysing and assessing risk which enables controls to be targeted to provide efficient, cost-effective solutions which achieve the desired and acceptable safety environment protection outcomes.

5.1 Risk Assessment Framework

The development of the local port's risk assessment framework was based on the application of the following Australian-New Zealand and International Standards:

- *AS/NZS ISO 31000:2018, Risk Management – Guidelines*
- *AS/NZS ISO 45001:2018 Occupational health and safety management systems – Requirements with guidance for use.*
- *AS/NZS ISO 14001:2016 Environmental management systems – Requirements with guidance for use.*
- *AS/NZS ISO 14004:2018 Environmental management systems – General guidelines on implementation..*

The framework is the underlying basis of that used by Barwon Coast for risk assessment throughout their jurisdiction. There is broad alignment of the application of the principles of risk management with maturity of SEMP activity.

A list of definitions is set out in Appendix to assist the reader with relevant risk related terms.

5.2 Risk Assessment Process

The risk assessment process involves a thorough and systematic identification of all actual or potential safety hazards, and environmental aspects and their associated impacts, arising from Port activities. Each hazard and aspect are then risk-rated using a risk assessment matrix. Risk mitigation controls are developed to reduce risks to acceptable levels. The risk assessment process is described in further detail in Appendix III.

A review of all risks is to be conducted annually as part of the annual review of the SEMP, and if there is a major change in the nature of an activity conducted at the port and significant new hazards or impacts are identified or introduced.

5.3 Risk Registers

Following the detailed process described above and in Appendix III, a safety hazard risk register, an environmental aspects risk register has been developed and are attached at Appendices IV and V respectively. Risks are rated twice, before controls (known as “inherent risk”) and after the controls are in place i.e. “residual risk”. All inherent risks above “Low” must be controlled to reduce the risk to an acceptable level.

The registers document all significant land and water-based activities that are conducted within the port, including those undertaken by tenants, licensees and service providers, and further identify and risk-rate the associated safety hazards and environmental aspects and their impacts.

Part 6 – Risk Treatment and Management

6.1 Significant Hazard Control Register

All high and very high risk outcomes are deemed as significant and therefore must be further examined.

The following table outlines those activities with significant residual risk i.e. remained at high or very high after controls are in place. The table also examines the current control measures associated with the risk and outlines any further controls that may be required. Time frames for the implementation of proposed new controls and the responsible person for the implementation of these controls are also outlined.

In assessing control measures, the concept of a ‘hierarchy of controls’ has been considered. The hierarchy of controls recognises that different types of controls have different effectiveness and/or reliability. For new or additional controls, where reasonable and practicable, upper hierarchy controls will be favoured. It is also important to note available resources and funding also influence the hierarchy on control selected to minimise the risk.

The hierarchy of controls includes:

1. Elimination I
2. Substitution (S)
3. Isolation (I)
4. Engineering Controls (EC)
5. Administrative Controls (A)
6. Personal Protective Equipment (PPE)

In the table below, the hierarchy of control for both the existing and additional controls is indicated next to the control in brackets.

Activity	Inherent Risk	Current Controls	Required Control	Residual Risk	Time frame/ targets	Responsible person	Monitoring of control measures
Sailing	High	-5 knot limit in local port waters (EC) -Navigational Aids in place (EC) -Licencing of operators (A) -Signage and user education (EC)	-Signage and user education. -Liaison with port stakeholders , in particular Barwon Heads sailing Association	High	Ongoing	Port Manager	Port Manager / community feedback
Jumping or Diving off Jetties or Bridges	High	-Signage and user education (EC) -Strategic ladder placement (EC)	-Life buoys where practical (EC) -Police enforcement (A)	High	Ongoing	Port Manager	Port Manager / community feedback
Swimming (interaction with vessels - drowning)	High	-5 knot limit in local port waters (EC) -Cautionary signage at boat ramps (EC)	-Annual review of STV standards (EC)	High	-5 knot signage in place	Port Manager / TSV	Port Manager / community feedback
Navigational Aid Operation/ Maintenance	High	-Notice to Mariners system in place for advising mariners, agencies and the public regarding navigational aid maintenance and replacement. -5 knot signs in place (EC) -SWMS's performed by contractor for maintenance (A)	-3 monthly on water and land based navigation aid light inspections	Medium	Ongoing	Port Manager	Port Manager

6.2 Interaction with Emergency Management

The Barwon Coast Committee of Management Inc. is continuing to work on an Emergency Management Plan for its overall role. This plan will be developed to include the operations and activities within the Local Port of Barwon Heads. The plan is to be based upon recognized risk management principles to meet our commitment to the safety, wellbeing and welfare of the community, port users and commercial operators.

Appropriate contact regimes and responsibilities are documented in regard to emergency service authorities' roles in incidents that may occur within the local port, e.g. Victorian Water Police and Life Saving Victoria in a water incident.

BCCM's management area and the local port lie within the municipal area of the City of Greater Geelong and their emergency management plan will be referenced so that BCCM's emergency management plan is consistent in application and operation.

The local port waters overlay important natural areas managed by Parks Victoria i.e. the Marine Sanctuary and Wildlife Reserve. Awareness will be developed of Parks Victoria's emergency management references for these areas.

The Local Port of Barwon Head's Safety and Environment Management Plan is reviewed annually. The Barwon Coast Reserves Emergency Management Plan was finalised late 2025 and is reviewed annually.

The Local Port of Barwon Heads Emergency Management Plan is in place. The significant residual risks, boating accidents and drowning, are included in the local port's Emergency Management Plan.

Part 7 – Implementation, Review and Revision

The Local Port Safety and Environment Plan is reviewed annually by the Port Manager or Port Officer and the review reported as required to Barwon Coast Committee of Management Inc.

The annual review by the port manager will address the following:

- Port General Arrangement Plan – (Appendix 2, page 27) to be updated annually).
- If new activities have been undertaken in the port, a risk assessment on the hazards associated with the activity will be completed.
- Progress in implementing of risk reduction measures (Part 5, page 18,19) will be updated.
- Adequacy and performance of current controls (Part 5, page 18,19) will be assessed annually.

Additional reviews will be considered whenever any of the following occur:

- Capital works within the local port exceeding \$1,000,000 and
- Change in nature, scale and extent of major activities within the local port (this may include a new tenant or stakeholder becoming involved at the local port).

If the port manager considers that the content and implications of the plan are significantly changed, the plan will be circulated for further consultation. The primary stakeholders outlined in Part 8 will be consulted during a review of the plan. If a new tenant or stakeholder becomes involved in the local port, they will be added to the list of key stakeholders for consultation.

Licensees, service providers and the public will be encouraged to participate in reviews of the plan as per the Barwon Coast communication and engagement protocols in development.

A copy of the plan will be made available at the Barwon Coast Committee of Management Inc. Office and on the Barwon Coast website.

When significant amendments are required, document holders listed in Part 10 will be emailed a copy of the revised plan.

Local Port management engages an external, third-party to audit the plan triennially every three years. This audit provides an independent assessment of the plan, drawing attention to any areas of concern and/or opportunities for improvement. The plan is amended to reflect any changes. The local port has undergone such audits in 2008, 2013, 2016, 2019, 2022 and 2025.

Following any major revision of the plan, BCCM will formally endorse the plan (as per Part 9).

7.1 Implementation Procedures for Management Plan

Annual Budget preparation and priorities will reflect costs for risk and control issues raised within the Plan.

Control measures will be prioritised according to the assessment outlined in the Plan. The activities that were assessed as very high and high will be the focus of upcoming works in accordance with the timeframes outlined in Part 6.

If additional funding is required to implement these control measures, the Committee will apply for funds in the annual budget process with the Department of Transport and Planning and Better Boating Victoria.

7.2 Process for involvement of tenants, licensees and service providers in development and implementation

When future arrangements are made concerning a tenant agreement and licensee renewals, the issues and risks raised in this plan will be incorporated into any new agreements. The level of incorporation of the plan into a new agreement and/or license will be dependent upon the activity undertaken and the possible risk involved. The plan will be used as a reference to determine any associated risks with the tenant's activities.

7.3 Documentation and implementation systems

Project reports are completed when works are carried out at the local port. Scheduled inspection reports are completed on the local port infrastructure, including navigation aids.

7.4 Local Port Incident Register

Incidents are reported to the port manager as soon as possible after the event. Any major incident is reported to Department of Transport and Planning within 24 hours.

Details of all incidents reported are retained by the BCCM and the Department's file system for future reference.

Part 8 – Stakeholder Consultation

The Local Port of Barwon Heads SEMP was originally produced with the consultation of Barwon Coast Committee of Management Inc.'s senior staff and DEECA

Both the Environmental Protection Agency (EPA) and WorkCover Victoria (now WorkSafe Victoria) were consulted regarding the production of the local port's SEMP.

Safe Transport Victoria (STV) and Department of Transport and Planning are also government authorities for consultation.

As well as the primary stakeholders listed below DEECA, WorkSafe and the EPA also had the opportunity to make comment on the Local Port of Barwon Heads' SEMP prior to its initial certification. Considering the size and operations undertaken at the local port, the groups mentioned were considered appropriate for consultation.

There is a strong relationship between Parks Victoria and BCCM due to overlapping roles and responsibilities within the local port. Parks Victoria staff are available to assist port management when needed.

Other important stakeholders are Safe Transport Victoria the Water Police and Victorian Fisheries Authority (VFA) who have significant roles in ensuring user compliance of regulated behaviour on the waterway as well as overarching education and licensing roles.

Regarding marine rescue, Coast Watch Marine Rescue Squad Ocean Grove and Life Saving Victoria and affiliate Clubs under the auspices of Emergency Management Victoria and direction of the Water Police for marine search and rescue.

Department of Transport and Planning, oversight of response to marine pollution, notably regarding oil spill incidents coordinating support through regional response, State Maritime Emergencies (non-search & rescue) Sub Plan.

There is a neighbour relationship with City of Greater Geelong in whose municipality the local port lies, a significant point of access to the local port waters is managed by the City and they can offer support through their emergency management plan.

A relationship exists with the Corangamite Catchment Management Authority, such as the citizen science Estuary Watch program and their statutory role under floodway management.

Barwon Water has a relationship under the State Blue-green Algae plan as a local co-ordinator.

Primary stakeholders:

- Department of Transport and Planning
- Parks Victoria
- Environment Protection Authority
- WorkSafe
- Safe Transport Victoria
- City of Greater Geelong
- Coast Watch Marine Rescue Squad, Ocean Grove
- Barwon Heads Sailing Association
- DEECA
- Life Saving Victoria
- Ocean Grove Surf Life Saving Club
- 13th Beach Surf Life Saving Club

Part 9 – SEMP Endorsement

Barwon Coast's CEO as delegated port manager will advise Barwon Coast Committee of Management Inc. on details of the operation of the local port and the local port's SEMP as required.

This Local Port of Barwon Heads Safety and Environment Management Plan is ended by:

Chief Executive Officer (Port Manager)
Barwon Coast Committee of Management Inc.

Name Gareth Smith

Signature



Part 10 – SEMP Distribution

A copy of the Plan will be available for viewing at the Barwon Coast Committee of Management's office at Barwon Heads Caravan Park, Ewing Blyth Drive, Barwon Heads.

The port manager will hold a copy of the Plan.

An electronic copy will be available on the Barwon Coast [website:www.barwoncoast.com.au](http://www.barwoncoast.com.au)

The following agencies, organisations and stakeholders have also been provided with a copy of this plan:

- DTP
- DEECA
- Work Safe
- Environment Protection Authority
- Parks Victoria
- City of Greater Geelong
- Coast Watch Marine Rescue Squad, Ocean Grove
- Barwon Heads Sailing Association
- Life Saving Victoria
- Ocean Grove Surf Life Saving Club
- 13th Beach Surf Life Saving Club

Appendix 1 – Gazetted Port of Barwon Heads Boundary

Victorian Government Gazette G21 1st July 1999 pg 1563

PART A

Crown Allotments 17, 18 and 19, Parish of Connewarre.

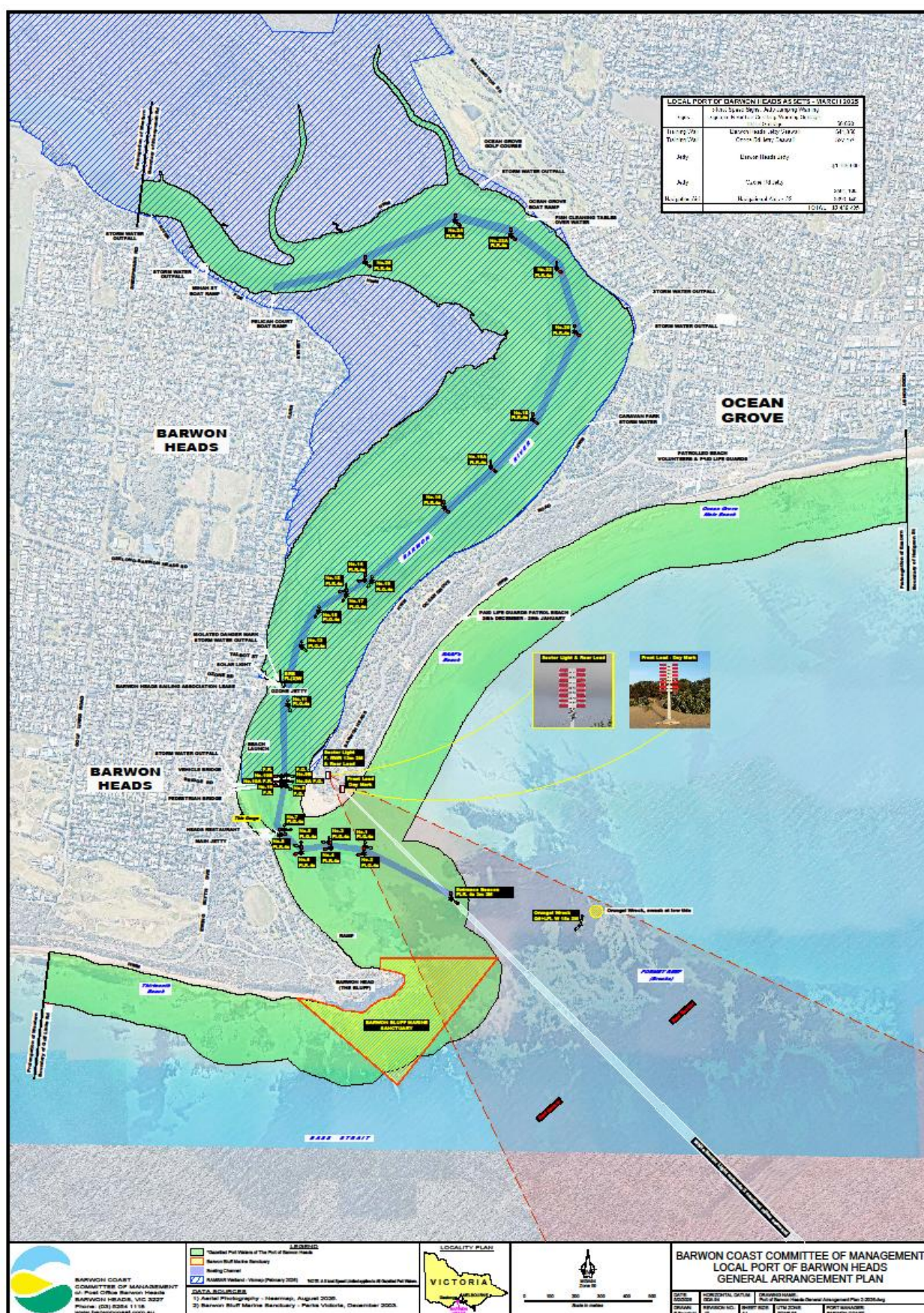
PART B

The waters of Bass Strait lying seaward of the mouth of the Barwon River to a distance of 200 metres from the low water mark, which lie eastward of a line being the prolongation of the western boundary of Golf Links Road and westward of a line being the prolongation of the eastern boundary of Hodgson Street.

PART C

The waters of the Barwon River and the navigable creeks and lakes connected with the river which lie eastward and southward of a line being the prolongation of the Western Boundary of Sheepwash Road.

Appendix 2 – Local Port of Barwon Heads - General Arrangement Plan



Appendix 3 – Definitions

Consequence

The outcome of an event expressed qualitatively or quantitatively, being a loss, injury, disadvantage or gain. There may be a range of possible outcomes associated with an event.

Event

An incident or situation which occurs in a particular place during a particular time interval.

Environment

Surroundings in which an organisation operates, including air, water, land and natural resources, flora and fauna, humans and their interaction.

Environmental Aspect

Element of an organisation's activities, products or services that can interact with the environment.

Environmental Impact

Any change to the environment, whether adverse or beneficial, wholly or partially resulting from an organisation's activities, products or services.

Frequency

A measure of the rate of occurrence of an event expressed as the number of occurrences of an event in a given time.

Likelihood

Used as a qualitative description of probability or frequency.

Probability

The likelihood of a specific event or outcome measured by the ratio of specific events or outcomes to the total number of possible events or outcomes.

Risk

The chance of something happening that will have an impact upon objectives. It is measured in terms of consequence and likelihood.

Risk Management

The culture, processes and structures that are directed towards the effective management of potential opportunities and adverse effects.

Risk Management Process

The systematic process of management policies, procedures and practices as applied to the tasks of establishing the context, identifying, analysing, evaluating, treating, monitoring and communicating risk.

Safety Hazard

A source or a situation with a potential to cause harm or loss in terms of human injury or ill-health, damage to property, damage to the environment, or a combination of these.

Safety Hazard and Environmental Impact Risk Assessment

Overall process of identifying activities, products or services and estimating the magnitude and significance of risk and deciding what actions will be taken.

Appendix 4 – Risk Assessment

Effective management of environmental impacts to the safety and environment of the local and their associated risks involves a structured and systematic approach to analysing and assessing risk which enables controls to be targeted to provide efficient, cost-effective solutions which achieve the desired environmental outcomes.

Risk Assessment Framework

Risk assessment describes the overall process or method used to:

- a. Identify hazards and risk factors that have the potential to cause harm (hazard identification).
- b. Analyse and evaluate the risk associated with that hazard (risk analysis, and risk evaluation).
- c. Determine appropriate ways to eliminate the hazard, or control the risk when the hazard cannot be eliminated (risk control).

Safety and environmental risks are identified through a systematic process of examining all Port-related activities, operations and processes that are undertaken within the Port area. Identification is most thoroughly achieved by involving people with knowledge, expertise and experience in those activities and operations and their impacts on human safety and the environment. All stakeholders have a role to play in assisting the risk assessment process.

Once identified, each hazard or risk is analysed and evaluated. By definition, the level of risk of a hazard or environmental impact is the product of its likelihood of occurring, and the consequence(s) if it does occur. A commonly used analysis method is to evaluate the likelihood of a hazard occurring on a 5-step scale (Tables 2 and 4 below), where the steps range from Rare to Almost Certain. A 5-step scale is also used for consequence (Tables 1 and 3), where the steps range from Insignificant to Catastrophic.

A risk assessment matrix (Table 5 below) is then used to generate a risk rating (**Low, Moderate, High, Extreme**), based on agreed levels of likelihood and consequence for each safety hazard and environmental impact. Low risks fall into an acceptable level of risk category though these are monitored and periodically reviewed to ensure they remain acceptable.

Management focus is placed on **Moderate, High** and **Extreme** risks, which are deemed to be significant. A hierarchy of controls is used to minimise risk. These include elimination, substitution, engineering controls, administrative controls and personal protective equipment (PPE).

The risk assessment process involves Barwon Coast management, staff and stakeholders taking a unified approach towards relating safety hazards and environmental impacts to applicable consequence and likelihood descriptors to finally obtain a level of risk. Working examples of how this is achieved are set out below.

Risk Assessment Process

The risk assessment process involves comparing the level of risk found during the analysis process with previously established risk criteria. Each risk will be expressed as a value of Very High, High, Medium or Low risk. The outputs of this process will create a prioritised list of risks (or risk register) that require further action. Focus will be placed on Very High and High risks that are deemed to be significant. Low and Medium risks may fall into an acceptable level of risk category. These risks will require monitoring and periodic review to ensure they remain acceptable. A review of all risks is to be conducted annually or earlier if there is a major change in the nature of activity conducted at the port.

Barwon Coast Committee of Management Inc. has established the following risk qualitative measures to assess the impacts associated with key activities, products and services within the local port. The consequence and likelihood qualitative descriptors were presented to the DEECA, Environment Protection Agency, Department of Transport and Planning and Parks Victoria for comment and approval.

Table 1 sets out standard consequence levels (Insignificant → Catastrophic) used in Safety and Environment Management Plans to assess port-related hazards under section 91G of the Port Management Act 1995

Table 1 - Safety Hazards Consequence Descriptors

1-Insignificant	2-Minor	3-Moderate	4-Major	5-Catastrophic
First-aid only; no lost time	Medical treatment injury; short lost time	Serious injury requiring hospitalisation	Single life-threatening injury or permanent disability	Fatality or multiple serious injuries
Minor, short-term localised impact	Localised impact requiring clean-up; no lasting harm	Measurable environmental harm; recovery within months	Long-term environmental harm; recovery over years	Irreversible or widespread environmental damage
Minimal damage; no operational delay	Minor repair; short operational delay	Significant damage; operational disruption	Major asset loss; prolonged operational shutdown	Destruction of critical assets; long-term port disruption
No regulatory breach; negligible stakeholder concern	Minor non-compliance; local concern	Reportable non-compliance; negative media	Major regulatory action; sustained negative media	Loss of licence/approval; severe public and government response

Table 2 - Safety Hazard Likelihood Descriptors

	A	B	C	D	E
Indicative frequency	Almost certain 1 or more incidents in 1 month	Likely 1 or more incidents in 1 year	Moderate 1 or more incidents in 5 years	Unlikely 1 or more incidents in 10 years	Rare 1 or more incidents in 100 years
General definition	Is expected to occur in most circumstances	Will probably occur in most circumstances	Should occur some time	Could occur at some time	May occur at some time but only in exceptional circumstances

Table 3 - Environmental Impact Consequence Descriptors

DESCRIPTOR	ENVIRONMENT Coastal assets, natural environment
Insignificant requires senior management awareness	-Negligible impact, contained locally -Recovery under 1 year -Single site
Minor requires limited senior management attention	-Limited impact with harm -Recovery within 5 years -Single township or locality
Moderate requires considerable CEO attention and Committee escalation.	-Moderate effect -Recovery within 10 years -Impacts municipality or multiple localities
Major requires significant CEO attention and Committee escalation	-Major effect, large scale -Recovery within 20 years -Region or multiple municipalities
Critical requires immediate and extensive CEO attention and effort. Chair escalation and committee oversight.	-Serious effect -Permanent with no change of recovery or more then 20 years -State or multiple regional directorates

Table 4 - Environmental Impact Likelihood Descriptors

	A	B	C	D	E
Indicative frequency	Almost certain 1 or more incidents in 1 month	Likely 1 or more incidents in 1 year	Moderate 1 or more incidents in 5 years	Unlikely 1 or more incidents in 10 years	Rare 1 or more incidents in 100 years
General definition	Is expected to occur in most circumstances	Will probably occur in most circumstances	Should occur some time	Could occur at some time	May occur at some time but only in exceptional circumstances

Table 5 - Risk Assessment Matrix

		Consequence				
Likelihood		1	2	3	4	5
	A	MEDIUM	HIGH	HIGH	VERY HIGH	VERY HIGH
	B	MEDIUM	MEDIUM	HIGH	HIGH	VERY HIGH
	C	LOW	MEDIUM	HIGH	HIGH	HIGH
	D	LOW	LOW	MEDIUM	MEDIUM	HIGH
	E	LOW	LOW	MEDIUM	MEDIUM	HIGH

Key Outcomes

Very High (Significant)

Immediate action required

High (Significant)

Detailed research and management planning required

Medium

Management responsibility must be specified

Low

Management by routine procedures

Safety Hazard Risk Assessment Example:

The example activity “boat operations” can involve many safety hazards. One safety hazard includes the scenario of the boat operator slipping, tripping or falling into the water.

To assess the level of risk for this safety hazard one would firstly match it to the most relevant and practical consequence descriptor category from Table 1 above. During this process many questions and scenarios may be raised that will add to the determination. In this case they may include: what would generally be the outcome if someone fell off a boat and entered the water? Would the person

survive? Would they be conscious? Is there always a second person on the boat to assist or raise the alarm?

During this process, it is important to maintain an objective viewpoint. One critical point is to ensure that safety hazards are assessed without controls (i.e. inherent risk). Assessing with controls undervalues the risk. Controls are processes, systems and mechanical devices that are put in place to prevent or reduce the severity of the safety hazard. In our case, sample safety hazard controls may include training and lifejackets. Controls themselves come with inherent risks and should be evaluated for their effectiveness over time and not at this stage.

Therefore, as part of the assessment, one must assume a worst-case scenario that the person is not trained for the situation and did not wear a lifejacket.

Therefore, under these circumstances, the person may die. This may classify the consequence as major (4).

The next step is to identify the likelihood of this safety hazard occurring. This is done by choosing the appropriate definition listed in Table 2 and further asking: what is the likelihood of this occurring? Have there been any past incidents and/or near misses?
An example for the likelihood of this occurring may be Unlikely (D) as records show that this has occurred in the last ten years.

Extrapolating from Table 5, a consequence of 4 and a likelihood of D will intersect and give us **Moderate** risk outcome, meaning management controls and procedures must be in place. All moderate, high and extreme risk outcomes will be deemed as significant and therefore must incorporate management planning, controls (documented and/or otherwise) and actions.

Environment Hazard Risk Assessment Example:

The example activity of “boat operations” can also involve many environmental impacts. Examples include the contamination of soil, water or air which may originate from the spillage of fuel during fuelling or if the boat’s fuel tank ruptures or leaks.

To assess the level of (inherent) risk for this environmental impact one would firstly match it to the most relevant and practical consequence descriptor category from Table 3 above. During this process many questions and scenarios may be raised that will add to the determination. In this case they may include: The size of the spill? What would generally be the outcome if fuel leaked from the boat or the pump? Would it pollute not only the water but also the nearby beach or the air? Would it affect fish, birds or even humans? Is the area affected of international, national or state significance?

During this process, it is important to maintain an objective viewpoint. Again, one critical point is to ensure that the environmental impacts are assessed without controls as assessing with controls undervalues the risk. In this case, environmental impact controls may include training, containment devices, fuel cut-off switches and valves. Controls themselves come with inherent risks and should be evaluated for their effectiveness over time and not at this stage.

Therefore, as part of the assessment one must assume a worst-case scenario, that the person is not trained for the situation, the fuel could not be contained, there is no fuel

isolation switch in sight and 100 litres of diesel fuel entered the waters of a National Park. Depending on the size of the fuel spill (in our case <100 litres), humans may not be directly affected but other organisms such as endangered or threatened fish and birds possibly will, even though the impacts are localised and short term, the spill occurred in a National Park and authorities (e.g. EPA and Parks Victoria) will need to be contacted immediately. This may classify the consequence as Catastrophic (5).

The next step is to identify the likelihood of this environmental impact occurring. Choosing the appropriate definition listed in Table 4 and further asking what would be the likelihood of this occurring? Have there been any past incidents and/or near misses?

An example for the likelihood of this occurring may be unlikely (D), as records show a spill of this type has occurred once in the last ten to twenty years.

From Table 5, a consequence of 5 and a likelihood of D will intersect and give us a **Moderate** risk outcome. All moderate, high and extreme risk outcomes will be deemed as significant and therefore must incorporate management planning, controls (documented and/or otherwise) and actions. If the above scenario did not occur in a National Park but rather in open coastal waters with some distance from significant areas, then the consequence attained may be 3. With likelihood unchanged at D, a **Moderate** risk outcome is again achieved. As before Moderate risk outcomes are classified as significant and must be managed appropriately to prevent these risks from escalating.

Appendix 5 – Safety Hazard Risk Register

The following table documents all the safety risks, land and water-based, that have been identified within the local port boundary. The activity Table in Part 3 was used to identify risks within the local port.

Appendix 4 also outlines the methodology used in determining the risk rating for each activity listed. Risks are rated twice, before controls and after the controls are in place, i.e. residual risk.

Ref No.	Activity	Hazards and Risks	Consequenc	Likelihood	Risk Rating	Controls	Consequenc	Likelihood	Risk Rating
SAFETY			Before controls			After controls			
1	Fishing (from boat)	-Vessel capsize, excessive swell, inclement weather, operator inexperience and/or error. -Swamping of vessel, excessive swell, inclement weather, operator inexperience and/or error.	4	D	M	-5 knots limit in port waters -Navigational aids in place -Licencing of operators	4	D	M
			4	D	M		4	D	M
2	Fishing (from pier)	-Fall into water – shallow water, lack of experience -Casting injury to people on jetty	2	D	L	-Signage & user education	2	D	L
			2	D	L		2	D	L
3	Fishing (from riverbank/surf)	-Fall into water, inclement weather, lack of experience -Dragged into surf, inclement weather, excessive swell	1	E	L	-Signage & user education	1	E	L
			1	E	L		1	E	L
4	Power Boating	-Grounding or swamping of vessel – excessive swell, inclement weather -Collision with another vessel or infrastructure or swimmer -Deficient defective or no safety equipment	4	D	M	-5 knots limit in port waters -Navigational aids in place -Licencing of operators -Registration of craft -Signage & user education	4	D	M
			4	E	M		4	E	M
			4	D	M		4	E	M
5	Personal Water Craft (PWC) Operation	-Collision with another vessel or infrastructure -Collision with a person, swimmer -Deficient defective or no safety equipment	3	D	M	-5 knots limit in port waters -Navigational aids in place -Licencing of operators -Registration of craft	3	D	M
			4	D	M		4	D	M
			3	D	M		3	D	M
6	Sailing	-Collision, capsize or grounding of vessel -Strong currents, inclement weather, lack of experience or knowledge	2	C	M	-5 knots limit in port waters -Navigational aids in place -Licencing of operators -Signage & user education	2	D	M
			3	C	H		3	C	H

7	Canoeing/Sea Kayaking	-Capsize or swamping of vessel, excessive swell, current, inclement weather -Lack of experience or knowledge, no safety equipment	2	C	M	-Signage & user education -Familiarisation with STV safety guidelines	2	C	M
			2	C	M		2	C	M
8	Jumping or Diving off Jetties	-Collision with a swimmer -Injury or death due to diving in shallow water	4	D	H	-Signage & user education -Life buoys where practical -Strategic ladder placement -Police enforcement	4	D	H
			4	D	H		4	D	H
9	Swimming	-Collision, interaction with vessels -Inclement weather, excessive swell, strong currents	4	C	H	-Signage & user education -5 knots limit in port waters -Navigational aids in place	2	C	H
			4	D	M		4	D	M
10	Wind and Kite Surfing	-Collision with vessel -Collision with swimmers -Fall off vessel, inclement weather, excessive swell	2	D	L	-Signage & user education -5 knots limit in port waters -Navigational aids in place	2	D	L
			2	D	L		2	D	L
			2	D	L		2	D	L
11	Surfing	-Person hit by own board – dumped -Excessive swell, strong currents, lack of knowledge or experience	2	C	M	-Signage & user education -5 knots limit in port waters -Navigational aids in place	2	C	M
			2	C	M		2	C	M
12	Snorkelling	-Injury from protrusions on jetty, pylons, rock ledges -Jumped on from people jumping off jetty -Injury associated with fisherman on jetty	3	D	M	-Signage & user education -5 knots limit in port waters -Navigational aids in place	3	D	M
			4	D	M		4	D	M
			3	D	M		3	D	M
13	Organised Sporting Events	-Collision with support vessels/swimmers -Extreme weather – strong currents, excessive heat	2	D	L	-Signage & user education -5 knots limit in port waters -Navigational aids in place -Traffic management -Issue of Notice to Mariners -Events advertised on Barwon Coast website.	2	D	L
			3	D	M		3	D	M
14	Walking on Jetty	-Slip, trip or fall -Injury associated with fisherman on jetty	3	E	M	-Signage & user education	3	E	M
			2	D	L		2	D	L
15	Boat, Canoe, Kayak and Stand Up Paddle Board hire	-Collision with vessel/person -Capsize, swamping of vessel, excessive swell, inclement weather	3	D	M	-Signage & user education -5 knots limit in port waters -Navigational aids in place -Hire company to provide safety briefing	3	D	M
			2	C	M		2	C	M
16	Boat Launching / Retrieval	-Injury, crush, strain whilst launching retrieving vessel	2	C	M	-Signage & user education -Boat ramp to be cleaned of algae and weed regularly -Scheduled inspection and maintenance program	2	C	M

17	Anchoring	-Collision associated with anchor drag -Retrieval, personal strain	3	D	M	-User education and training -Training in correct anchor retrieval technique	3	D	M
			3	D	M		3	D	M
18	Swing Moorings	-Failure of mooring, collision with vessel/people	2	C	M	-Moorings installed by accredited installers -Scheduled inspection and maintenance program	2	C	M
19	Sailing Club Operations	-Injury, carrying equipment -Injury, storing equipment in shed -Placing markers, inclement weather, strong currents	3	D	M	-User education and training -Training of Sailing Club Members	3	D	M
			2	D	L		2	D	L
			2	C	M		2	C	M
20	Waste Disposal	-Exposure to contaminants	3	E	M	-Signage & user education -Provision of waste bins -Regular port inspections	3	E	M
21	Fuelling (not from a fixed installation)	-Spillage, exposure to contaminants -Explosion or fire	3	E	M	-Bunkering permit -Regular port inspections -User education and training	3	E	M
			3	E	M		3	E	M
22	Washing of Craft	-Exposure to contaminants	2	E	L	-Signage & user education -Washing of craft at boat owners home or off site cleaning facility.	2	E	L
23	Vehicle Operations and Movement	-Collision with pedestrians	3	E	M	-Signage & user education	3	E	M
24	Charter/Commercial Fishing	-Strong currents, inclement weather, lack of experience or knowledge -Deficient, defective or no safety equipment -Collision with other vessels, swimmers or infrastructure	4	D	M	-5 knots limit in port waters -Navigational aids in place -Commercial Licencing and Registration of operators	4	D	M
			4	D	M		4	D	M
			4	D	M		4	D	M
25	Port Contractor Activities	-Slip, trip or fall -Equipment failure	4	E	M	-Compliance with national OH&S work practices	3	E	M
			3	E	M		4	E	M
26	Mooring Maintenance	-Diving, inclement weather, strong currents -Collision with vessels of breakaway vessel	3	E	M	-Annual condition inspection reports -Regular maintenance regime	3	E	M
			2	D	L		2	D	L
27	Port Infrastructure Maintenance	-Injury associated with lifting -Slip, trip or fall	3	E	M	-Scheduled inspection and maintenance program	3	E	M
			3	E	M		3	E	M
28	Navigation Aid Operation /Maintenance	-Capsize, swamping of vessel, excessive swell, inclement weather -Deficient, defective aids to navigation	5	D	H	-Scheduled inspection and maintenance program -Monthly light inspection	4	E	M
			5	D	H		4	D	M

29	Clearance of Flotsam & Jetsam	-Slip, trip or fall -Creation of obstacles (e.g. lodge in sand bars, spits) – navigation hazard	2	E	L	-Signage & user education -Provision of waste bins -Regular port inspections	2	E	L
			3	D	M		3	D	M
30	Pollution Response	-Exposure to contaminants	3	D	M	-EPA Guidelines	2	E	L
31	Sailboat Racing (BHSA)	-Collision with vessel/person -Strong currents, inclement weather, lack of experience or knowledge -Deficient or defective safety equipment	4	D	M	-Navigational aids in place	4	D	M
			3	D	M	-Notice to Mariners in place	3	D	M
			3	D	M	-Training of BHSA members	3	D	M
32	Provision of Navigable Channel	-Grounding of vessel, inclement weather, inadequate navigation aids	4	E	H	-Regular Hydrographic Surveys -Navigational Aid placement.	4	E	H

Appendix 6 – Environment Risk Register

The following table documents all the environment risks, land and water-based, that have been identified within the local port boundary.

The activity table in Part 3 was used to identify risks within the local port.

Appendix 4 also outlines the methodology used in determining the risk rating for each activity listed. Risks are rated twice, before controls and after the controls are in place, i.e. residual risk.

ENVIRONMENT			Before controls				After controls		
Ref No.	Activity	Hazards and risks	Consequen	Likelihood	Risk Rating	Controls	Consequen	Likelihood	Risk Rating
33	Fishing (general waste, litter)	-General waste, entanglement by fauna -General waste, ingestion by fauna	2	C	M	-Signage & user education	2	C	M
			2	C	M	-Provision of waste bins -Regular port inspections	2	C	M
34	Boating	-Wake & wash, erosion of river banks -Oil and fuel leak, contamination of beach, water, soil	2	C	M	-5 knots limit in port waters	2	D	L
			2	C	M	-Navigational aids in place -Licencing of operators -Registration of craft	2	D	L
35	Oil spill	-Spill Contamination of beach, water, oil from sea	3	D	M	-Signage & user education -Report to EPA	2	D	L
36	Beach Activities	-General waste, contamination of beaches, water, soil	2	D	L	-Signage & user education -Provision of waste bins	1	D	L
37	Organised Sporting Events	-General waste, contamination of beaches, water, soil	2	D	L	-Signage & user education -5 knots limit in port waters -Navigational aids in place -Traffic management -Issue of Notice to Mariners -Events advertised on Barwon Coast website.	1	D	L

38	Promenading	-General waste, contamination of beaches, water, soil	2	D	L	-Signage & user education Traffic management -Advisory signage -Pedestrian barriers	1	D	L
39	Swing Moorings	-Mechanical damage to seabed and benthic flora	1	C	L	-Installation of moorings to be only undertaken by accredited mooring installers	1	C	L
40	Waste Disposal	-Inappropriate disposal of industrial waste, contamination of beach, water, soil	1	C	L	-Signage & user education -Provision of waste bins -Regular port inspections	1	C	L
41	Vessel Collision	-Spill contamination of beach, water, soil	2	C	M	-5 knots limit in port waters -Navigational aids in place -Licencing of operators -Registration of craft	1	D	L
42	Maintenance Work	-General waste – contamination of beaches, water, soil -Spill contamination of beach, water, soil	1	C	L	-Compliance with national OH&S work practices -Regular port Inspections	1	D	L
			1	C	L		1	D	L
43	Fuelling (not fixed)	-Spill contamination of beach, water, soil	1	C	L	-Bunkering permit -Regular port inspections -User education and training	1	C	L
44	Marine Pests	-Loss of biodiversity	3	D	M	-Signage & user education -Clean vessels with fresh water to eliminate pests at juvenile growth stages that are invisible to the eye	3	D	M
45	Ship Litter	-General waste, contamination of beaches, water, soil -General waste, entanglement by fauna -General waste, ingestion by fauna	2	D	L	-Compliance with national OH&S work practices -Compliance with AMSA guidelines	2	D	L
			2	D	L		2	D	L
			2	D	L		2	D	L
46	Storm water run-off and site food beverage waste disposal and spills	-Inappropriate disposal of kitchen waste, contamination of beach and water	1	B	M	-Regular port inspections -Adherence to Victorian Department of Health and EPA guidelines	1	D	L
47	Storm water flow and litter outfall into River	-Storm water discharge from adjoining residential and commercial areas impact the river water quality	1	B	M	-Regular port inspections -Check for blockages	1	D	L
48	Blue green algae (BGA)	Toxin in water, skin contact irritation, ingestion illness	2	D	L	-Regular port inspections -Water quality testing if BGA observed	2	D	L

49	Sand Drift over Barwon Heads Vehicle and Pedestrian Bridge	-Danger to motor vehicles, cyclists and pedestrians. Motor vehicles and cyclists may have to drive around sand drift and cross over onto oncoming traffic. Pedestrians may trip and fall.	3	B	M	-Monitor sand movement -Contact VicRoads if excessive sand builds up for removal.	1	D	L
50	Fish Cleaning Tables – Ocean Grove Boat Ramp	-Attraction of unwanted species such as sharks, seals, rays and birds. -Wildlife becomes reliant on fish scrap food supply. -Sharks, seals and rays pose a danger to swimmers, stand up paddle boards and kayakers/canoers. -Seals on land pose risk to public	2	A	M	-Signage & user education -Provision of waste bins	1	A	M

Appendix 7 - Regulatory Compliance

Key safety and environmental legal and other requirements with which Port management must comply are set out in Barwon Coasts Legal Compliance Register. The Register is reviewed annually.

The main Victorian legislation covering safety and environment matters with which port managers must comply is:

- ☐ Port Management Act 1995
- ☐ Port Management (Local Ports) Regulations 2015
- ☐ Occupational Health and Safety Act 2004
- ☐ Occupational Health and Safety Legislation 2017
- ☐ Dangerous Goods Act 1985
- ☐ Emergency Management Act 2013
- ☐ Environment Protection Act 1970 and Environment Protection (Amendment) Act, 2018
- ☐ Marine and Coastal Act 2018
- ☐ Marine Safety Act 2010
- ☐ Marine (Drug, Alcohol and Pollution Control) Act 1988 (Vic)
- ☐ Pollution of Waters by Oil and Noxious Substances Act 1986

Refer to <https://www.legislation.vic.gov.au/> website to access the relevant Victorian acts and regulations.

Appendix 8 – Related Documentation

Reports, Plans

1. Barwon Coast Risk Framework, 2025
2. Barwon Coast Foreshore Master Plan, 2026-2041
3. Local Port of Barwon Heads Emergency Management Plan, 2026
4. Local Port of Barwon Heads Business Plans, 2021-2026
5. Barwon Coast Corporate Plan, 2026-2029
6. Barwon Coast Foreshore Coastal Hazard Exposure, 2026
7. Barwon Coast Reserves EMP, 2026

Procedures, Policies

1. Barwon Coast Work Health and Safety policy, 2021
2. Victorian Blue-Green Algae Circular-Algal Management Framework, 2018
3. Barwon Coast Delegations Policy and Register

Appendix 9

Port of Barwon Heads – Signage Inspection Template

Port of Barwon Heads Signage Inspection	
Type of Sign:	Boat Ramp
Description of Sign	Pelican Court Boat Ramp
Location of Sign:	Northern end of Pelican Court, Barwon Heads (-38.26543402720733, 144.4965563438325)
Condition of Sign:	Good
Recommendations/Comments:	Inspection required in 12months.
Photo:	

Appendix 10

Barwon River Navigation Aid - Light Inspection Report - Version 8.0

Inspected by:			Date inspected:	
Signed:			Time inspected:	
Nav Aid	Location	Colour	Operational ✓ X	Comments
Sector	Sector Light	White & Red		
Entrance	Entrance beacon	Red		
1	Starboard - Beacon	Green		
2	Port - Beacon	Red		
3	South of sector light - Beacon	Green		
4	South of sector light - Beacon	Red		
5	South of At the Heads Restaurant - Beacon	Green		
6	South of At the Heads Restaurant - Beacon	Red		
7	Starboard Beacon	Green		
8	Beacon-Main Jetty (SW Corner)	Red		
9	South side of pedestrian bridge - Strip Light	Green		
10	South side of pedestrian bridge - Strip Light	Red		
9A	South side of road bridge - on Bridge	Green		
10A	South side of road bridge - on Bridge	Red		
9B	North side of road bridge - Strip Light	Green		
10B	North side of road bridge - Strip Light	Red		
11	South of Ozone Jetty-Beacon	Green		
12	In line with Geelong Road East - Beacon	Red		
13	North of Talbot Street Barwon Heads - Beacon	Green		
14	North of Geelong Road East - Beacon	Red		
15	South of Geelong Road East - Beacon	Green		
16	South of Southern entrance to Riverview - Beacon	Red		
16A	South of Southern entrance to Riverview - Beacon	Red		
17	Starboard - Beacon	Green		
18	North of Southern entrance to Riverview - Beacon	Red		
19	Starboard - Beacon	Green		
20	In line with Whitton Street Ocean Grove - Beacon	Red		
22	In line with Parker Street Ocean Grove - Beacon	Red		
22A	South West of Ocean Grove Boat Ramp	Red		
24	North of Ocean Grove boat ramp - Beacon	Red		
26	South of Pelican Court boat ramp - Beacon	Red		

Appendix 11

Port of Barwon Heads - Incident Report Form



Incident Details Date and time of incident: Location of incident: Incident description: No. of people onboard: Incident cause: Incident reported by: Type of Vessel-Registration Number/Skipper Details:	
What happened, what steps were taken when responding and what was the outcome	
Environmental Damage	
Details and approximate value of property damage	
Witness to Incident	

Person responsible for incident response	
Actions instigated	
Marine / other bodies at scene	
Report completed by Name & Title: Signature:	