Transport for NSW

Operational Environmental Management Plan

December 2024

NSW GOVERNMENT

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Acknowledgement of Country

Transport acknowledges the Bidjigal and Gweagal clans who traditionally occupied Kamay (Botany Bay). We pay our respects to Elders past and present and celebrate the diversity of Aboriginal people and their ongoing cultures and connections to the lands and waters of NSW.

Many of the transport routes we use today – from rail lines, to roads, to water crossings – follow the traditional Songlines, trade routes and ceremonial paths in Country that our nation's First Peoples followed for tens of thousands of years.

Transport is committed to honouring Aboriginal peoples' cultural and spiritual connections to the lands, waters and seas and their rich contribution to society.

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Document control

Versions

Version	Amendment notes
Draft V1	Address Transport comments
Draft V2	Address Transport comments
Draft V3	Address ER comments
Draft V4	Address Ports Authority (inclusive of Harbour Master) comments
Final 1.0	Finalised and lodged with ER Endorsement letter to DPHI (Oct 2024)
Final 1.1	Updated to address DPHI review (Dec 2024)

Definitions

Term	Definition
AIS	Automatic Identification System
AMSA	Australian Maritime Safety Authority
ANZECC	Australian and New Zealand Environment and Conservation Council
ARMCANZ	Agriculture and Resource Management Council of Australia and New Zealand
AS	Australian Standards
AS/NZS	Australian/New Zealand Standards
CCS	Community Communication Strategy
CoA	Condition of Approval
DAWE	Australian Department of Agriculture, Water and the Environment
DPE	NSW Department of Planning and Environment (now DPHI)
DPHI	Department of Planning, Housing, and Infrastructure
DPI	NSW Department of Primary Industries
DPIE	NSW Department of Planning, Industry and Environment (now DPHI)
EIS	Environmental Impact Statement – Kamay Ferry Wharves (June, 2021)
EMS	Environmental Management System
EP&A Act	*Environmental Planning and Assessment Act 1979*
EPA	NSW Environment Protection Authority
EPBC Act	Australian Government *Environmental Protection and Biodiversity Conservation Act 1999* Referral (2020/8825) and environmental assessments under the EPBC Act
ER	Environmental Representative
ESMP	Emergency Spill Management Plan
ISO	International Organisation for Standardisation
KFW	Kamay Ferry Wharf

Term	Definition
MARPOL	International Convention for the Prevention of Pollution from Ships
MBOS	Marine Biodiversity Offset Strategy
McoA	NSW Minister's Conditions of Approval
MIRP	MBOS Implementation Reference Panel
NHL	National Heritage Listings
NPWS	National Parks and Wildlife Service
NSW	New South Wales
OEMP	Operational Environmental Management Plan
OMBIAR	Operational Maritime Biodiversity Impact Assessment Report
OMRMP	Operational Maritime Risk Management Plan
ONR	Operational Noise Review
ONCR	Operational Noise Compliance Report
PA system	Public address system
POEO Act	NSW *Protection of the Environment Operations Act 1997*
REMM	Revised Environmental Management Measure(s) as outlined in the project RtS documentation.
RtS	Kamay Ferry Wharves Response to Submissions Report (October, 2021)
SAR	Site Auditor Report
SAS	Site Auditor Statement
SDS	Safety Data Sheets
SSI	State significant infrastructure
Stage 1	Wharf Operation Only
Stage 2	Ferry Services
Transport	Transport for New South Wales (TfNSW)
UDLP	Urban Design and Landscape Plan

Term	Definition
VTMP	Vessel Traffic Management Plan
VTS	Vessel Traffic Service
WEMP	Water Efficiency Management Plan

1. Introduction

Transport for New South Wales (Transport) has obtained approval (SSI-10049) to replace the previous ferry wharves at La Perouse and Kurnell in Botany Bay (the Project). This approval endorsed the construction and operation of two new wharves, each designed to accommodate ferries up to 40 metres and commercial and recreational vessels up to 20 metres, along with shelters, seating, signage, and lighting.

This Operational Environmental Management Plan (OEMP) has been prepared in accordance with the Ministers Conditions of Approval (MCoA), the Revised Environmental Management Measures (REMMs), and the EPBC Conditions of Approval (CoA).

Construction of the Project started in July 2023 and is expected to be completed by late 2024.

The operational components will be rolled out in two stages:

- Stage 1: wharf operation
- Stage 2: ferry operations

The Staging Report, available on the project webpage, outlines the applicability of each of the project COA for each stage.

The OEMP applies to both operational stages, however this version is focussed on only Stage 1 as Stage 2 is subject to the outcomes of an EOI. This Stage 1 OEMP provides information on potential environmental impacts including to water quality, waste, traffic, air quality, noise, vibration, and biodiversity and how these will be managed and mitigated to protect the environment and sensitive receivers. The OEMP would be updated to capture stage 2 after a ferry operator is appointed.

1.1 Purpose

This OEMP addresses the requirements of MCoA D1 to D4 of the Kamay Ferry Wharves Planning Approval (SSI-10049) as presented below in Table 1-1. The OEMP outlines how the project will meet these conditions during the operational stages.

DPHI will be notified of the status of the project prior to the commencement of each stage of operation, as per MCoA D3 and D4.

Once Transport engages a ferry operator, the OEMP will be revised and resubmitted to DPHI. This updated submission will include specific policies and procedures concerning Stage 2 of the ferry connection operation.

Table 1-1: Staging – Minister's Conditions of Approval

Condition	Requirement	Sections or documents where addressed
D1	An OEMP must be prepared having regard to the Environmental Management Plan Guideline for Infrastructure Projects (Department of Planning, Industry and Environment, 2020). The OEMP must detail how the performance outcomes, commitments and mitigation measures made and identified in the documents listed in Condition A1, including hours of operation, will be implemented, and achieved during operation. Condition D1 does not apply if Condition D2 of this approval applies.	This OEMP. Section 6.2 Operational environmental management. Section 7 Monitoring and reporting.

Condition	Requirement	Sections or documents where addressed
D2	An OEMP is not required for the SSI if the Proponent has an Environmental Management System (EMS) or equivalent as agreed with the Planning Secretary, and demonstrates, to the satisfaction of the Planning Secretary, that through the EMS or equivalent: (a) the performance outcomes, commitments and mitigation measures, made and identified in the documents listed in Condition Al, including hours of operation, and specified relevant terms of this approval can be achieved; (b) issues identified through ongoing risk analysis can be managed; and (c) procedures are in place for rectifying any non-compliance with this approval identified during compliance auditing, incident management or any other time during operation.	Stage 1 operations are governed by this OEMP, while Stage 2 requires the ferry service operator to implement an ISO 14001-compliant EMS. Section 5.1 Environmental management system
D3	The OEMP or EMS, or equivalent as agreed with the Planning Secretary, must be submitted to the Planning Secretary for information no later than **one month** before the commencement of operation.	This OEMP will be submitted to the Planning Secretary for information no later than one month before the commencement of each stage of operation.
D4	The OEMP or EMS, or equivalent as agreed with the Planning Secretary, as submitted to the Planning Secretary, and amended from time-to-time, must be implemented for the duration of operation and the OEMP or EMS or equivalent must be made publicly available before the commencement of operation.	This OEMP will be implemented for the duration of operation and be made publicly available on the project website before the commencement of operation.
EPBC Part A-8	The approval holder must prepare, in consultation with the department, an Operational Environmental Management Plan (OEMP) to avoid, mitigate and manage impacts on protected matters during operation. The OEMP must be informed by the contamination documentation.	This OEMP. Section 6.2.6 Soil, Water & Contamination

1.2 Scope and objectives

This OEMP provides an overview of potential environmental impacts of the Project during its operational phase. It also describes the management and mitigation measures to protect the environment and sensitive receivers and how potential adverse environmental impacts will be minimised.

The operations of the Project must be carried out in accordance with this OEMP, with the document being approved by the Planning Secretary.

The objective of this OEMP is to:

- Provide an overview of the operation of the wharves

- Describe the relevant legislation, policies, guidelines, and standards that apply and influence the environmental management principles and procedures to be used
- Identify key operational environmental management issues
- Provide a means of implementing appropriate mitigation measures for the key environmental issues, refer to the individual subplans in the appendices
- Provide a working environmental management tool to follow during the operational stage
- Define roles and responsibilities
- Provide a guide for the interaction with relevant Government authorities and other relevant stakeholders, including the community
- Provide standard operating procedures for the management of the site and key environmental issues
- Provide a basis for monitoring, reporting, and maintaining compliance.

As a live document, the OEMP will undergo regular reviews and its management strategies and control measures will be updated accordingly. These revisions will account for operational team modifications, site-specific results, any non-conformities, and insights from inspections, meetings, and audits.

The current revision of the OEMP is intended to address Stage 1 (wharf operation) requirements only. The OEMP will be updated to address Stage 2 (ferry operation) requirements when the ferry service becomes operational.

1.3 Supporting documentation

A series of documents and environmental management plans have been developed to support the wharf construction and operational stages. These plans are provided as Appendices or hyperlinks (if available) and are as follows:

- Operational Marine Biodiversity Impact Assessment Report (OMBIAR)
- Operation Maritime Risk Management Plan (OMRMP)
- Vessel Traffic Management Plan (VTMP)
- Community Communication Strategy (CCS)
- Urban Design and Landscape Plan (UDLP).

The Vessel Traffic Management Plan (VTMP) and Operation Maritime Risk Management Plan (OMRMP) will be updated to address Stage 2 requirements. In addition, the following will be developed for Stage 2:

- Operational Marine Biodiversity Impact Assessment Report (OMBIAR)
- Operational Noise Compliance Report (ONCR)
- Operational Noise Review (ONR).

1.4 Consultation and notification

To ensure compliance with the planning conditions during the operational phase of the Project, both the OEMP and OEMP Subplans are informed by agency consultation processes as outlined in Table 1-2. This table details the specific requirements and relevant agencies consulted for the development of the OEMP and respective subplans across the applicable stages of the Project, including both Stage 1 - Wharf Operation and Stage 2 – ferry operations .

Table 1-2: MCoA consultation and notification requirements

Condition	Requirement	Plan	Applicable Stage		Relevant agency
			Stage 1	Stage 2	
E11	The Proponent must consult DPI Fisheries regarding proposed ferry swept path/navigation channels for approach, departure and manoeuvring areas for all traffic using the wharves. The swept path navigation channel with DPI Fisheries' consultation response must be submitted to the Planning Secretary no later than one month before the commencement of operation.	OMBIAR VTMP OMRMP	X	✓	DPI Fisheries
E52	Prior to the commencement of ferry operation, the Proponent must prepare an ONR to confirm noise control measures that would be implemented for the operation of the SSI. The ONR must be prepared in consultation with relevant Council(s) and must confirm the operational noise predictions based on the final vessel selection.	ONR	X	✓	Randwick City Council Sutherland Shire Council
E86	Prior to the commencement of operation of the SSI, an OMRMP must be prepared by a suitably qualified person, in consultation with the Harbor Master.	OMRMP	✓	✓	Harbor Master
E87	The Proponent must prepare a VTMP in consultation with Port Authority of NSW that identifies priority to sea going ships and protocols for interactions between different vessel types to aid with the safe operation of ferry vessels associated with the SSI.	VTMP	✓	✓	Port Authority of NSW

2. Project description

2.1 Background

This Project is recognised as a priority under the Kamay Botany Bay National Park Plan of Management (Department of Planning, Industry and Environment (DPE), 2020) and associated Master Plan to deliver improved visitor amenity and access, provide new experiences and acknowledge the diversity of stories associated with place. The Project also supports the Kamay 2020 Project, which commemorates 250 years since the encounter between Aboriginal Australians and the crew of the *HMB Endeavour*.

The new wharves will create a water connection between La Perouse and Kurnell and provide a valuable recreational resource for the community. They will allow for future ferry access between La Perouse and Kurnell and provide temporary berthing for recreational and commercial vessels, such as whale watching vessels. The Project recognises the rich culture and ongoing importance of the area to Aboriginal peoples. Feedback from the community and stories of Country have helped guide the design.

The reinstatement of the wharves is considered transport infrastructure and is located on Crown Land managed by NSW National Parks and Wildlife Service (NPWS) at Kurnell, and Randwick City Council at La Perouse.

The project has been delivered by Transport, separate to the rest of the Kamay National Park Kurnell Master Plan, which is to be delivered by NPWS.

2.2 Site overview

The Project is located at La Perouse and Kurnell on either side of the ocean entrance to Botany Bay (Kamay), stretching over Randwick City and Sutherland Shire local government areas (LGAs). Both sites are in the Kamay Botany Bay National Park (the National Park), about 14 kilometres south of the Sydney central business district (CBD). Other major land uses around Botany Bay include the Sydney (Kingsford Smith) Airport, Port Botany, and the suburbs of Brighton Le-Sands and Kurnell (see Figure 2-1).

The wharf at La Perouse has a ‘dog-leg’ design. It extends around 104 metres from the shoreline into the bay. The berthing area runs adjacent to the shoreline and is around 80 metres in length. The total length of the structure is around 184 metres. The wharf at Kurnell extends about 224 metres from the shoreline.

Key features of the Project included:

- Demolition of the existing viewing platform at Kurnell
- Construction of temporary ancillary works including access roads, compound areas, stockpiles, fencing and temporary building platforms (including a temporary causeway at both sites and a temporary steel jetty at Kurnell)
- Relocation of swing moorings at La Perouse
- Construction of two wharves on piles, one at La Perouse and one at Kurnell that will include:
  - A berth for ferries (to cater for ferries up to 40 metres in length)
  - A multi-user berth for commercial and recreational vessels (to cater for vessels up to 20 metres long)

  - Sheltered waiting areas and associated furniture located on the wharves
  - Signage and lighting
- Landside paving and landscaping at the entrance to the wharves
- New footpaths connecting the entrance of the wharves to the existing footpaths
- Reconfiguration of existing car parking areas at La Perouse to increase the number of spaces, and associated footpath changes to accommodate these additional car parking spaces
- Bicycle racks near the La Perouse wharf
- Installation of utilities to service the wharves including power and water.

Figure 2-2 and Figure 2-3 show the location of the Project and key features.

Figure 2-1: Project location – regional context

Figure 2-2: Key features of the project (La Perouse overview)

Figure 2-3: Key features of the project (Kurnell overview)

2.3 Stage 1 - Wharf operation

Stage 1 will focus on the operational functionality of the multi-user wharves prior to the introduction of a ferry connection. The wharves will be open to the public, facilitating a range of waterborne activities including berthing for commercial vessels such as tour boats, fishing charters, and private recreational vessels. The aim is to support local tourism, businesses and provide safer community access to the water.

2.3.1 Vessel and berthing operations

The wharves have been designed and constructed to accommodate a range of vessel sizes to ensure versatility in use. Commercial and recreational berths can support vessels up to 20-metres in length. Each wharf allocates one side of the berthing areas for recreational and commercial vessel use (refer to Figure 2-4 and Figure 2-5).

Key features of the berthing areas include:

1) Berth structure: The end of each wharf (the berth structure) is designed as a multi-user space, with one side allocated for recreational and commercial boat users.
2) Waiting area: Both wharf structures contain a waiting area as close to the berth structure as possible.
3) Approach jetty: The approach jetties allow for people to move in both directions and includes areas for seating, railings, and lighting.
4) Entrance: The entrance to the wharves from the land integrates and grounds the wharves to the National Park context. It includes seating to foster interactions with the public and a formal entrance in the visitor's journey to the ferry and the National Park.

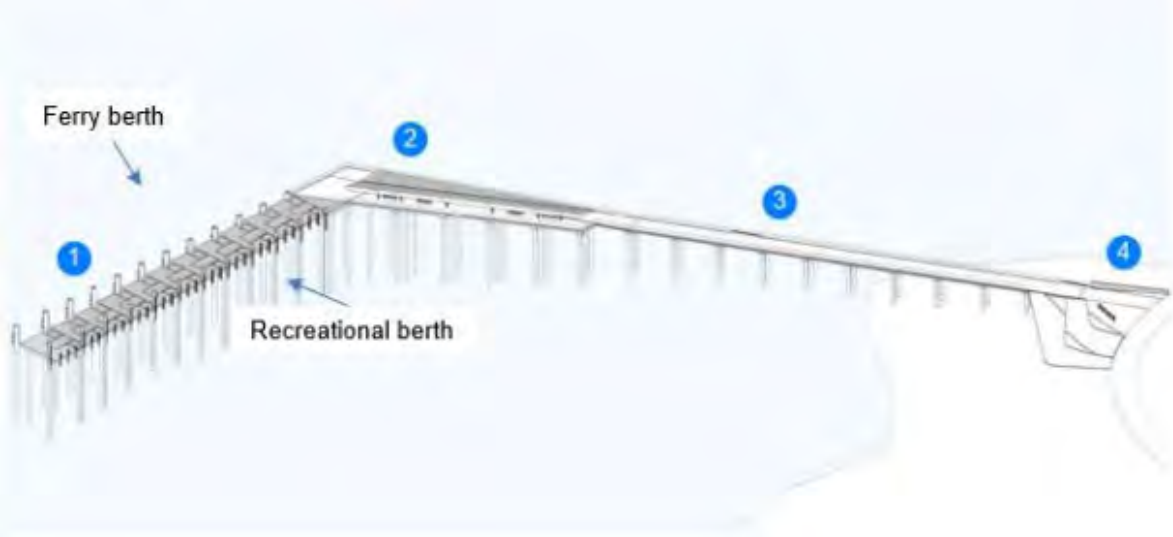


Figure 2-4: La Perouse wharf design features

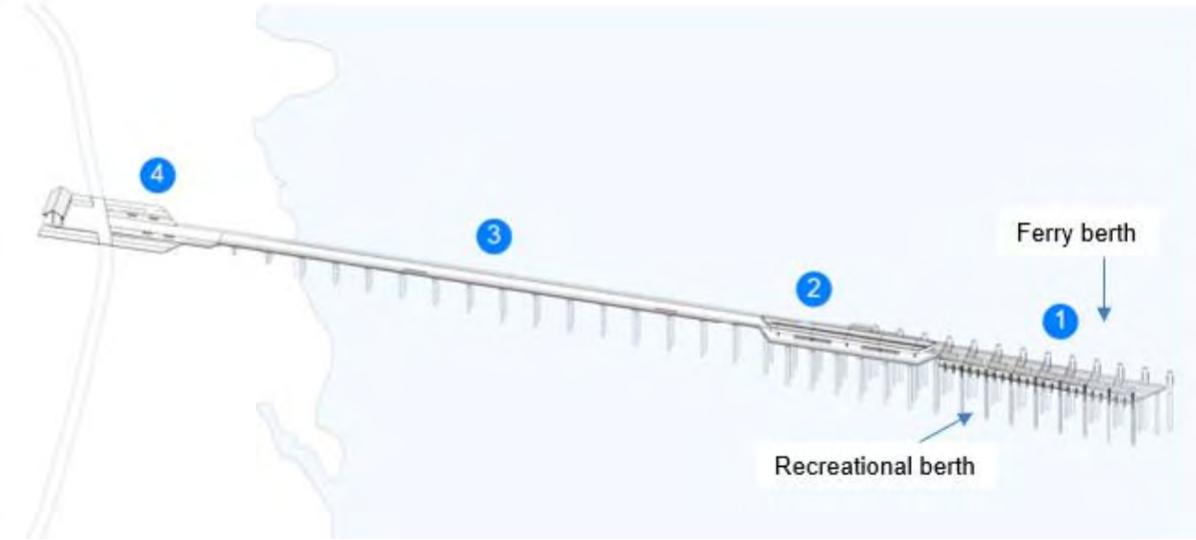


Figure 2-5: Kurnell wharf design features

To ensure the safe and functional operation of the wharves, distinct zones for different vessel types will be clearly marked through signage to mitigate any potential conflicts. These operational guidelines will delineate specific areas for various activities with measures such as no-anchoring zones to guide recreational vessels away from shallow areas. Additionally, fishing will be allowed on the wharves and swimmers will have access to the rocky shoreline beneath the approach jetty, provided they steer clear of the berthing areas designated for recreational, commercial and ferry vessels.

Operational restrictions to control approaching, berthing, and departing from the wharves will be enforced for all vessels using the wharves to limit scour. These measures will be agreed in consultation with Port Authority NSW, including Harbour Master, and DPI as per section 1.4 above. All marine vessel operators will be required to comply with the Transport Boating Handbook, which outlines measures for protecting the environment and avoiding pollution of waterways.

3. Planning

Operation of the Project is required to comply with all relevant legislation, permits, licences and development approvals that apply to the Project. This section provides an overview of the environmental planning and statutory context for the operation of the Project. It also describes the Project's operations in the context of Transport's corporate Environment and Sustainability Policy.

Compliance to applicable regulatory requirements concerning the operations of the Project will be achieved through:

- Identifying and accessing legal and other requirements which are directly applicable to the organisation
- Consulting and involving relevant government agencies
- Communicating relevant information regarding legal and other requirements (internally within Transport)
- (Periodic) auditing, reviewing, and upgrading company systems, management plans and supporting documentation
- Providing relevant training to people involved in the wharf operations.

3.1 Infrastructure approval

The Project was declared State significant infrastructure (SSI) by the NSW Minister for Planning. Transport prepared an environmental impact statement (EIS), dated June 2021. The EIS identified a range of environmental, social, and planning issues associated with the construction and operation of the Project and proposed measures to mitigate and manage those potential impacts.

On 12 January 2021, Commonwealth DCCEEW determined the Project to be a 'controlled action' under sections 18 and 18A of the Australian Government *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). This determination was due to the likelihood that the Project could have a significant impact on listed threatened species, communities, and National Heritage Listings (NHL).

Following notification, the Department confirmed the Project would be assessed under Schedule 1 NSW Assessment Bilateral Agreement (12 January 2021).

The EIS was publicly exhibited between 14 July 2021 and 11 August 2021. Following public exhibition, submissions from stakeholders were received and addressed by Transport in a submissions report (RtS) dated October 2021, which was lodged with the now DPHI.

The Project has been assessed by DPHI in accordance with the NSW *Environmental Planning and Assessment Act 1979* (EP&A Act). The Project was approved by the NSW Minister for Planning on 21 July 2022, subject to MCoAs. The planning approval applies to both stages of construction and operation.

On 6 March 2023, under subsection 130(1), section 133 and section 134 of the EPBC Act, the Project received approval, subject to conditions (CoA), for the reinstatement and operation of two public ferry wharves and associated infrastructure at La Perouse and Kurnell.

Transport sought to modify the approval for the Project, relating to correct the inconsistencies, typographical and cross-referencing errors, and include a reporting timeframe for Condition E106.

A Modification Report for MOD 1 was prepared and lodged on 16 November 2023 by Transport. The Modification was determined by the NSW Minister for Planning 13 December 2023, subject to modified MCoAs

This OEMP has been developed in accordance with specific requirements as prescribed in EIS, RtS, MCoA, CoA, and REMMs. The EIS, MCoA, and modifications can be viewed on the project documents webpage.

3.2 Relevant regulatory instruments

Table 3-1 below outlines relevant regulatory instruments that are applicable to both Stage 1, operation of the wharves, and Stage 2, commencement of ferry operations.

Table 3-1: Relevant regulatory instruments

Obligations	Applicable requirements
International/national	
AS 1940: 2017 The storage and handling of flammable and combustible liquids	AS 1940:2017 is a standard that governs the storage and handling of flammable and combustible liquids, such as petrol, diesel, oil, and solvents. It outlines specific requirements for: • **Installation of Tanks:** Details the standards for the safe installation of storage tanks. • **Signage:** Mandates appropriate signage to identify hazards associated with stored materials. • **Bunding:** Requires containment systems to prevent leaks and spills from spreading. • **Spill Control Equipment:** Specifies the equipment needed to manage and mitigate spills effectively. AS 1940:2017 ensures that any facilities storing or handling flammable and combustible liquids comply with safety standards to prevent accidents and environmental damage, ensuring a safe operational environment.
Navigation Act 2012	The *Navigation Act 2012* is designed to enhance maritime safety, regulate seafarer actions, and protect the marine environment in Australian waters. Specifically, the Act: • Ensures international ship and seafarer safety standards are met. • Protects the marine environment by regulating actions related to pollution and ship operations. • Applies these standards and protections within the jurisdiction of Australian waters, impacting all maritime operations, including those at the Kamay Ferry Wharves project. This Act provides a regulatory framework for the Project that ensures all maritime activities, including those related to ferry operations, are conducted safely and in an environmentally sustainable manner, adhering to both national and international maritime safety and environmental standards.
Marine Safety (Domestic Commercial Vessel) National Law Act 2012	The *Marine Safety (Domestic Commercial Vessel) National Law Act 2012* establishes national standards for the safety and operation of for domestic commercial vessels, and includes: • **Safety Standards:** The act enforces rigorous safety protocols for domestic commercial vessels to protect all on-board and maintain operational integrity. • **Operation Regulations:** It mandates operational procedures that ensure safety and environmental compliance, crucial for ferry services which are integral to the Kamay Ferry Wharves.

Obligations	Applicable requirements
	• **Compliance and Enforcement:** The act provides mechanisms for monitoring and enforcement to ensure that vessels comply with national safety standards. • **Crew and Passenger Duties:** Specifies the responsibilities of crew members and passengers to uphold safety measures, essential for maintaining a safe maritime environment. This framework ensures that the domestic commercial vessels operating within the Kamay Ferry Wharves project adhere to high standards of safety and operational efficiency. Under this Act, a domestic commercial vessel is defined under this act as a vessel used in commercial, governmental, or research activities.
Australian Government Environment Protection and Biodiversity Conservation Act 1999	The Australian Government *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) specifically regulates activities that may significantly impact listed threatened species, migratory species, and marine species. This framework ensures that the operations at the Kamay Ferry Wharves project meet stringent environmental protection criteria, safeguarding the biodiversity of the region while complying with national conservation objectives.
Protection of the Sea (Prevention of Pollution from Ships) Act 1983	The *Protection of the Sea (Prevention of Pollution from Ships) Act 1983* imposes strict measures to safeguard marine environments from pollution emanating from ships, essential for maintaining the ecological integrity of marine ecosystems. The Act includes: • **Prohibition of Discharge:** It strictly prohibits the discharge of sewage and garbage into the sea, ensuring marine ecosystems around ferry operations are protected from pollution. • **Garbage Management:** Ships must maintain a garbage management plan and carry a garbage record book on board, which must be retained for at least one year, to track and manage waste effectively. • **Documentation Requirements:** Ships are required to document and manage waste according to stringent regulations, ensuring compliance and accountability in marine pollution management. These regulations ensure that the Kamay Ferry Wharves project adheres to stringent environmental protocols, which include detailed tracking and management of waste on ships to prevent marine pollution effectively.
International Convention for the Prevention of Pollution from Ships (MARPOL, 1973)	The International Convention for the Prevention of Pollution from Ships (MARPOL) comprises regulations designed to prevent pollution from ships, both from accidental incidents and routine operations. In Australia, MARPOL is enforced through the *Protection of the Sea (Prevention of Pollution from Ships) Act 1983* and the *Navigation Act 2012*, with the Australian Maritime Safety Authority (AMSA) overseeing its administration. This ensures that maritime activities, including those at the Kamay Ferry Wharves project, comply with stringent international standards for environmental protection.
State NSW	
Marine Pollution Regulation 2024	The objective of the Act is to safeguard the marine and coastal environment of NSW from pollution caused by ships. To achieve this, the Act establishes various Marine Orders aimed at preventing pollution, including: • Part 2 for oil: Mandates shipboard oil pollution emergency plans and the maintenance of oil record books to manage and document oil handling operations.

Obligations	Applicable requirements
	• Part 3 for noxious liquid substances: Requires ships to manage noxious liquid substances according to international conventions, with detailed requirements for emergency plans and cargo record keeping. • Part 4 for packaged harmful substances: Enforces the management of harmful substances in packaged form according to international standards, ensuring proper handling and documentation. • Part 5 for sewage: Regulates the discharge of sewage and greywater from vessels, specifying treatment standards and system requirements to prevent pollution. • Part 6 for garbage: Governs the management of ship-generated garbage, requiring record keeping and adherence to a garbage management plan to prevent marine pollution. It also prohibits the discharge of untreated sewage into navigable waters. Moreover, the Act mandates that any reportable transfer operation incident must be promptly reported through the quickest means available to the Australian Maritime Safety Authority (AMSA), a Port Corporation, or Transport. Under this regulation, a reportable transfer operation incident is defined as any discharge of a pollutant into State waters either from a land-based location during a transfer operation, or from equipment or a purpose-built pipeline used in, or in connection with, a transfer operation, regardless of whether the discharge occurs during the operation itself. This does not include discharges occurring on the landward side of the first isolating valve on land of the equipment or pipeline. The Act is applicable to the Kamay Ferry Wharves project as it mandates compliance with environmental standards for the prevention of ship-sourced pollution, including sewage and oil, which are critical in the operation and maintenance of ferry services.
Biodiversity Conservation Regulation 2017	The Biodiversity Conservation Regulation 2017 sets specific proximity regulations to protect marine mammals, requiring vessels and individuals to maintain certain distances to minimise disturbances.
Biodiversity Conservation Act 2016	The *Biodiversity Conservation Act 2016* makes it an offense to harm, trade, or move any member of a threatened species, ecological community, or protected plants and animals. This act plays a crucial role in regulating the interactions with natural habitats and species, ensuring that all activities, including the operation of recreational and ferry vessels at Kamay Ferry Wharves, do not negatively impact protected biodiversity

Marine Pollution Act 2012	The Marine Pollution Regulation 2024 enforces strict measures to protect State Waters from ship-based pollution, mandating compliance through a series of operational and documentation requirements:
	• **Discharge Prohibitions:** The regulation explicitly prohibits the discharge of:
	  • Oil (Part 3),
	  • Noxious liquids (Part 4),
	  • Harmful substances in packaged form (Part 5),
	  • Sewage (Part 6),
	  • Garbage (Part 7),
	  • Materials from transfer operations (Part 8), from ships into State Waters.

Obligations	Applicable requirements
	• **Record Keeping:** The owner, charterer, manager, or operator of a ship must maintain detailed records of all transfer operations, ensuring transparency and accountability. • **Garbage Management Plan:** Ships are required to develop and document a garbage management plan in compliance with specified regulations, aiming to systematise waste handling onboard. • **Placards and Documentation:** Ships must display placards that detail garbage disposal requirements and are also required to keep a garbage record book onboard, logging all garbage management activities. **Definitions:** • **Transfer Operation:** Defined as any activity involved in the preparation, commencement, continuation, or termination of the transfer of oil or noxious liquid substances in any form to or from a ship or land. This excludes transfers of oil cargo at sea between oil tankers with a gross tonnage of 150 or more, regulated under Chapter 8 of Annex I of MARPOL. • **Ship:** Any vessel capable of being used on or in water, primarily employed for transporting passengers or cargo for hire or reward. These regulations ensure that maritime operations at Kamay Ferry Wharves do not compromise the ecological integrity of State Waters.
Waste Avoidance and Resource Recovery Act 2001	The *Waste Avoidance and Resource Recovery Act 2001* is designed to enhance waste management practices in New South Wales by promoting the principles of waste avoidance, resource recovery, and efficient resource utilisation: • **Waste Avoidance:** Encourages practices that prevent the generation of waste within industries, including maritime operations such as those at Kamay Ferry Wharves. • **Resource Recovery:** Supports initiatives to recover and reuse resources from waste materials, aligning with sustainable environmental practices. • **Efficient Resource Use:** Advocates for more efficient use of resources across all sectors, helping to reduce environmental footprints and promote sustainability. For the Kamay Ferry Wharves project, this Act ensures that operations not only minimise waste generation but also incorporate resource recovery processes.
Marine Safety Act 1998 and Marine Safety Regulation 2015	The *Marine Safety Act 1998 and Marine Safety Regulation 2015* provide for the safe operation of vessels in ports and other waterways, as well as provide a framework for the enforcement of marine legislation.
Protection of the Environment Operations Act 1997	The *Protection of the Environment Operations Act 1997* establishes comprehensive regulations aimed at preventing pollution in all its forms — water, air, land, and noise — and managing the disposal of hazardous waste. Specifically, it includes: • **Prohibition of Pollution:** The Act prohibits the discharge of pollutants into water, air, or land, including specific prohibitions against sewage discharge into the sea and unlawful disposal of waste. • **Environmental Offenses:** Establishes offenses related to chemical spills, leaks, littering, and unlawful disposal of waste. • **Duty to Notify:** Requires responsible parties to notify the NSW Environmental Protection Authority (EPA) and other relevant

Obligations	Applicable requirements
	regulators of pollution incidents that cause or threaten significant harm to the environment. • **Safety Data Sheets (SDS):** Mandates that SDS be obtained and made accessible for hazardous substances, ensuring safety information is readily available to employees potentially exposed to these substances. • **Labelling Requirements:** States that containers holding chemical substances must be clearly labelled to inform of the contents and associated hazards.
Ports and Maritime Administration Act 1995	An Act to establish statutory State owned corporations to operate the State's port facilities in the major ports; to transfer waterways management and other marine safety functions to the Minister; to enable Transport for NSW to exercise those waterways management functions; and for other purposes.
NSW Fisheries Management Act 1994	Relates to conservation of fish stocks, key fish habitats, threatened species, ecological communities, and marine vegetation.
National Parks and Wildlife Act 1974	The *National Parks and Wildlife Act 1974* plays a crucial role in the conservation of wildlife and habitats within New South Wales, particularly relevant to operations such as the Kamay Ferry Wharves project near natural reserves like Kamay National Park. This Act includes: **Conservation of Wildlife:** Mandates protections for native species and their habitats, ensuring that activities such as ferry operations do not disrupt local wildlife or degrade natural environments. **Protection of Habitats:** Requires that any operation in or near national parks, such as ferry operations, must adhere to strict guidelines to prevent damage to these protected areas. **Regulatory Compliance:** Ensures that all activities within or adjacent to national parks comply with environmental standards set to preserve biodiversity and natural landscapes. This Act ensures that ferry operations are conducted in a manner that respects the ecological significance of Kamay National Park.

4. Communication protocols

The protocols for key communication and engagement activities during the first 12 months after the completion of construction and operational phase of the Kamay Ferry Wharves Project will adhere to the guidelines set forth in the approved Community Communication Strategy (CCS). The CCS provides a mechanism for communication about operation of the Project with the community, relevant councils and government agencies and includes a Complaints Management System to manage how the Project responds to, resolves and records complaints.

In Stage 1, Transport will undertake the following responsibilities as outlined in the CCS.

- Ensure compliance with statutory requirements and this Plan through continual auditing and evaluation of CCS
- Support Transport with the resolution of complaints as required and ensuring close out
- Review potential and emerging risks, issues, and concerns, including liaising with stakeholders as required, and recommending options for their resolution/mitigation.
- Manage Government and agency stakeholder relationships within the operational scope and local area
- Manage approval of communication for distribution to the public
- Implement the CCS to at least 12 months after the completion of construction.

The communication strategy for Stage 2 (ferry operation) will be outlined in future revisions of this OEMP when the ferry service is operational .

Communication and engagement post 12 months of operation will transition to Transport's standard maritime operational communication processes.

4.1 Project phone info line, enquires email and database

Stakeholders and the community will be encouraged to contact the Project via the following channels as listed on the Transport Kamay Ferry Wharves webpage.

Table 4-1: Project phone, email, and postal address details

Channel	Address/number
Email	kamayferrywharves@transport.nsw.gov.au
Phone	1800 718 556 (toll free)
Post	Kamay Ferry Wharves Project, Transport's Community and Place team, PO Box K659, Haymarket, NSW 1240

The 1800 number, email, and Consultation Manager database (used to record community/stakeholder contact) will be managed by Transport from the start of Stage 1 to 12-months after the opening date. Transport will manage any enquiries and complaints during the operation of the wharves.

This information will be accessible to all in the community regardless of age, ethnicity, disability, or literacy level.

The project email address will also be used for the proactive delivery of community updates. SMSs may also be used to advise stakeholders about specific impacts relevant to them if it has

been identified as a preferred form of contact by stakeholders. The approved CCS can be found on the project documents webpage..

4.2 Complaints management

Transport will continue to utilise the Complaints Management System established during the construction phase in accordance with the requirements of MCoA B7.

All community enquiries and complaints related to the operation activities will be referred to the 24-hour information line (1800 718 556), postal address, website and/or email address for receipt of complaints and enquiries.

Records of all complaints received will include the following details:

- date and time of the complaint
- method by which the complaint was made
- any personal details of the complainant (the CCS provides details of privacy protection), t or, if no such details were provided, a note to that effect
- the nature of the complaint
- means by which the complaint was addressed and whether resolution was reached, with or without mediation
- action taken in relation to the complaint and any follow up
- if no action taken, reasons why.

This information will be included in the Complaints Register managed by Transport within the Complaints Management System. The Complaints Register must be provided to the Planning Secretary upon request, within the timeframe stated in the request..

Time frames for responding to complaints and enquiries is included in Table 10 within the CCS.

Details of complaints management for post 12 months of operation, and Stage 2, will be incorporated into future revisions of the OEMP when the ferry service becomes operational.

4.3 Local/state/federal government engagement

All enquiries from elected representatives (including local, State, federal Government representatives) will be responded to by the Transport Community and Place Team.

4.4 Media

All media enquires will be responded to by Transport Media Unit. Transport will exercise control over the publication of media releases/statements related to the Project.

Regarding Stage 2, the ferry operator will be required to obtain prior approval from Transport's Community and Place Team before releasing information to or engaging with the media.

4.5 Branding

All public-facing documentation and collateral will use Transport branding. Any Transport-branded material must be approved in writing by Transport Community and Place Team before publishing/distribution.

5. Environmental management

5.1 Environmental management system

Stage 1 of operations is governed by this OEMP.

5.2 Environmental policy

Stage 1 operations will adhere to the Transport's Environment and Sustainability Policy and align with the objectives of Transport Sustainability Plan.

5.3 Roles and responsibilities

All personnel undertaking operational activities at the site are responsible for the implementation of this OEMP and have the responsibility to stop works if there is potential for a safety or environmental incident to occur.

Table 5-1. Key roles and responsibilities

Role (or equivalent)	Responsibility	Applicable Stage	
		Stage 1	Stage 2
Transport (Safety, Policy, Environment and Regulation)	Oversee the implementation of the OEMP. Maintain and communicate this OEMP across the Marine operations. Ensure compliance with Environmental Regulations. Coordinate environmental assessments and monitoring. Ensure environmental documentation is maintained. Manage training for staff related to environmental considerations and the OEMP. Ongoing review in conjunction with operational staff, environmental management performance, compliance, and reporting.	✓	✓
Transport (Maritime)	Manage and optimise vessel traffic and ensure safe maritime operations. Ensure operational activities comply with environmental requirements by implementing environmental policies and procedures and complying with this OEMP. Monitor and report on environmental performance metrics. Improve performance and efficiency across various functions. Procure necessary materials and resources for smooth operations. Ensure compliance with legal regulations. Oversee maintenance of wharf assets and facilities. Optimise resource allocation for cost-effectiveness. Coordinate port services, including berthing and vessel operations. Train staff in various aspects of wharf operations. Develop and maintain OEMP Compliance Checklist	✓	✓

Role (or equivalent)	Responsibility	Applicable Stage	
		Stage 1	Stage 2
Transport (Safety, Policy, Environment and Regulation)	Ensure WHS documentation is maintained (ie. policies and procedures), are current and all staff have access to them. Respond promptly to incidents, accidents, near misses and maintain records. Conduct health and safety risk assessments for wharf activities. Identify potential hazards related to machinery, equipment, and processes. Implement measures to mitigate risks and enhance safety. Develop and update safety policies and procedures specific to wharf operations. Ensure compliance with legal requirements and industry standards. Train staff on safety protocol and emergency procedures. Investigate incidents to determine root causes and prevent recurrence. Maintain accurate records of incidents and corrective actions. Coordinate emergency drills and evacuation procedures. Collaborate with emergency services and local authorities. Educate staff on emergency response plans. Monitor safety performance and key performance indicators (KPIs). Identify areas for improvement and implement corrective actions. Promote a safety culture through training and communication.	✓	✓
Transport (Maritime)	Ensure safe and efficient operations of the wharf. Conduct regular maintenance of facilities, infrastructure, and equipment. Monitor routine activities at the wharf, including vessel arrivals and departures. Enforce safety protocols for personnel and vessels. Identify potential hazards, security breaches, or unsafe practices. Coordinate emergency responses during incidents such as spills, fires, or accidents. Inspect the condition of wharf structures and berthing facilities. Report any signs of wear, damage, or deterioration. Collaborate with maintenance teams to address repairs promptly. Monitor environmental practices, especially during fuelling, ballast water exchange, and waste disposal. Ensure compliance with environmental regulations and pollution prevention measures. Report any spills, leaks, or unauthorised discharges.	✓	✓

Role (or equivalent)	Responsibility	Applicable Stage	
		Stage 1	Stage 2
	Communicate with vessel operators, port authorities, and other stakeholders. Coordinate vessel movements, berthing, and cargo handling schedules. Provide timely updates to relevant parties regarding operational status. Implement and complete OEMP Compliance Checklist		
Transport, Community and Stakeholder Engagement	Facilitate communication between the port authority and nearby residents, businesses, and community groups. Organise public meetings, workshops, and information sessions to address concerns and share updates. Listen to community feedback and relay it to relevant stakeholders. Collaborate with local councils, environmental agencies, and community organisations. Promote transparency and trust by sharing relevant information. Educate the community about Transport's environmental practices and initiatives. Raise awareness of pollution prevention measures, habitat protection, and sustainability efforts. Respond to community inquiries related to environmental impacts. Coordinate community awareness programs on emergency response plans. Ensure residents understand evacuation procedures and safety protocols. Collaborate with emergency services during drills and actual incidents. Promote social initiatives such as job creation, education, and community development. Address any social concerns arising from wharf activities. Advocate for responsible practices that benefit both Transport and the community.	✓	X
All Staff	Comply with the OEMP Reporting all environmental hazards and risks to Transport Environment Manager. Reporting all incidents with the potential of resulting in environmental impact. Attend induction and other environmental training as required. Follow environmental, incident response and emergency procedures.	✓	✓
Transport (Maritime) and Contractors	Full compliance with this OEMP and other environmental supporting documents relevant to current activities and work descriptions Identifying environmental risks of their work activities on site	✓	✓

Role (or equivalent)	Responsibility	Applicable Stage	
		Stage 1	Stage 2
	Implement control measures to effectively mitigate environmental risks. Attend induction training as required. Know and follow incident response and emergency procedures. Report environmental incidents immediately without delay to Transport. Complying with the OEMP and all environmental management policies, standards and procedures.		

5.4 Training and competence

General awareness training will be conducted by Transport for all employees and contractors involved in both stages of the ferry wharves' operation. This training will be part of the site induction process and will be supplemented with refresher courses as needed throughout the duration of the Project. Environmental elements of general awareness training will include:

- Importance of conformance with Transport's Environment and Sustainability Policy and obligations associated with environmental management
- Compliance with the requirements of regulations and their requirements listed under section 3.2 of this OEMP with emphasis on the need for employees to report any releases, polluted discharge, or airborne pollutants
- Environmental issues and associated impacts of the Project's operation under section 6 of this OEMP
- Environmental controls for each potential environmental issue (air pollution, water quality, erosion etc.) under section 6 of this OEMP
- Management subplans relevant to the works being undertaken such as the Marine Biodiversity Offset Strategy (MBOS), Operational Marine Biodiversity Impact Assessment (OMBIAR), Vessel Traffic Management Plan (VTMP) and Operational Maritime Risk Assessment (OMRA)
- Incident triggers, notification procedures and corrective action procedures under Transport's Environmental Incident Procedure, section 5 and section 7 of this OEMP
- Review of the NSW Coastal Waters Marine Pollution Plan as per section 5 of this OEMP
- Significant actual and potential environmental impacts of each person's work activities and the environmental benefits of improved performance as per section 5, 6 and 7 of this OEMP.

The ferry operator engaged for Stage 2 will need to further develop and implement specific training and competency verification methods for all ferry staff and operations.

5.5 Incident management, reporting, and investigation

In the event of an environmental incident during Stage 1, Transport will follow the TfNSW Environmental Incident Procedure, adhere to the NSW Coastal Waters Marine Pollution Plan,

comply with relevant provisions of the NSW POEO Act 1997 and complete necessary notifications as outlined in Table 5-2.

Transport will take responsibility for managing the incident, with the support of any necessary additional resources to contain the incident and prevent further environmental harm. Each incident will be thoroughly investigated by Transport to identify the root causes and to implement remedial or corrective actions to prevent recurrence.

For stage 2, the engaged ferry operator will be required to adopt and implement an incident procedure that aligns with Transport established protocols and is approved by Transport. The ferry operator will be responsible for managing environmental incidents, containing them, and preventing further harm. Transport will oversee the investigation of all incidents to determine their causes and ensure that appropriate corrective actions are taken to avoid future occurrences.

The table below outlines the relevant notification requirements applicable to regulators. It includes specific triggers for reporting, the responsible parties for each stage of the operation, and the appropriate regulatory bodies that must be notified in the event of an incident.

During Stage 1, Transport will notify the applicable regulator (where relevant) of incidents that require notification.

For Stage 2, the ferry operator will be responsible for notifying Transport and the relevant regulators of reportable incidents.

Table 5-2. Incident reporting and notifications

Regulator	Requirement
DPHI	[DPHI] must be notified immediately after the Transport becomes aware of an incident as defined in the MCoA A42. The notification must identify the SSI (including the application number and the name of the SSI if it has one) and set out the location and nature of the incident. Subsequent notification must be given, and reports submitted in accordance with the requirements set out in MCoA A43, included below. A written incident notification addressing the requirements set out below must be submitted to the Department via the Major Projects website within seven days after the Proponent becomes aware of an incident. Written notification of an incident must: • Identify the SSI and application number • Provide details of the incident (date, time, location, a brief description of what occurred and why it is classified as an incident) • Identify how the incident was detected • Identify when the proponent became aware of the incident • Identify any actual or potential non-compliance with terms of the approval • Describe what immediate steps were taken in relation to the incident • Identify further action that will be taken in relation to the incident • Identify a project contact for further communication regarding the incident. In accordance with MCoA A43, within 30 days of the date on which the incident occurred or as otherwise agreed to by the Planning Secretary, the Proponent must provide the Planning Secretary and any relevant public authorities (as determined by the Planning Secretary) with a detailed report on the incident addressing all requirements below, and such further reports as may be requested. The Incident Report must include: • A summary of the incident

Regulator	Requirement
	• Outcomes of an incident investigation, including identification of the cause of the incident • Details of the corrective and preventative actions that have been, or will be, implemented to address the incident and prevent recurrence • Details of any communication with other stakeholders regarding the incident.
DCCEEW	In accordance with (EPBC)-CoA 31, DCCEEW must be notified by Transport in writing of any incident, defined as any event which has the potential to, or does, impact on one or more protected matter(s) other than as authorised by the approval, or non-compliance. The notification must be given within two business days of becoming aware of the incident or non-compliance. The notification must specify: • Any condition which is or may be in breach • A short description of the incident • The location (including co-ordinates), date, and time of the incident. In the event the exact information cannot be provided, provide the best information available.
EPA	The EPA will be notified of any pollution incidents on or around the site via the EPA Environment Line (telephone 131 555) in accordance with Part 5.7 of the NSW *Protection of the Environment Operations Act 1997*. The circumstances where this will take place are where: • It involves actual or potential harm to the health or safety of human beings or to ecosystems that is not trivial, or • It results in actual or potential loss or property damage of an amount, or amounts in aggregate, exceeding $10,000 (or such other amount as is prescribed by the regulations).
Other	Other Agencies may need to be notified in the event of an incident are: • Emergency Services • Local Councils • Port of NSW Authority • DPI Fisheries – in the event of a marine fauna incident. Refer to Transport's Environmental Incident Procedure for triggers. • NPWS – in the event of a terrestrial fauna incident. Refer to Transport's Environmental Incident Procedure for triggers.

5.6 Pollution incident response plan

This NSW Coastal Waters Marine Pollution Plan describes the strategic emergency management arrangements for marine oil or chemical spills in Coastal Waters and maritime incidents, such as groundings, collisions, disabled vessel, or vessel on fire, with potential to create an oil or chemical spill into Coastal Waters.

The OEMP will adopt the comprehensive framework provided by the NSW Coastal Waters Marine Pollution Plan. This includes the detailed response protocols for handling maritime environmental emergencies, such as oil or chemical spills within NSW coastal waters. The Plan outlines specific procedures for incident notification, initial assessment, and the subsequent actions required to manage and mitigate environmental impacts effectively. For the Kamay Ferry Wharves Project, similar stringent measures will be implemented to ensure rapid response capabilities. These measures will include the development of site-specific response strategies, regular training for all personnel on environmental management procedures, and ensuring all necessary resources and equipment are readily available to address potential incidents swiftly.

In Stage 1, Transport will be responsible for adhering to NSW Coastal Waters Marine Pollution Plan, which includes notifying relevant regulators and mobilising resources to mitigate any environmental harm.

For Stage 2, the responsibility will shift to the engaged ferry operator, who must develop and maintain a compliant procedure approved by Transport. This plan will include specific training for all personnel on incident management, the use of environmental protection equipment, and procedures for working with regulatory bodies to ensure a coordinated and effective response.

5.6.1 Emergency Spill Management Plan

The NSW Coastal Waters Marine Pollution Plan (MPP) adequately fulfills the requirements of an Emergency Spill Management Plan (ESMP) for this project, eliminating the need for a separate ESMP. The MPP provides comprehensive and specific guidance for marine environments, surpassing the content requirements outlined in the Code of Practice for Water Management (NSW Roads and Traffic Authority, 1999) and relevant NSW EPA guidelines. It includes clear spill response protocols, detailed EPA involvement procedures, and aligns with overarching national plans. The MPP is routinely updated and well-understood by boating safety officers, ensuring its relevance and effectiveness. By adopting the MPP, we satisfy the ESMP requirement while benefiting from a more robust, marine-specific framework that includes detailed response protocols for various maritime environmental emergencies. This approach ensures compliance with regulatory standards and provides a comprehensive strategy for incident notification, assessment, and mitigation of environmental impacts in coastal waters.

5.7 Vessel traffic management plan (VTMP)

The purpose of this Vessel Traffic Management Plan (VTMP) is to enhance marine safety and navigation for the Kamay Ferry Wharves at La Perouse and Kurnell in Botany Bay. It provides guidance for vessel operations, prioritizing sea-going ships and establishing protocols for interactions between different vessel types, including ferries associated with the wharves. The VTMP aims to ensure safe and efficient maritime traffic flow while complying with relevant marine legislation. It outlines rules for ferry operations, recreational use, and commercial vessels, addressing aspects such as communications, speed limits, and berthing procedures. This plan is designed to be implemented in stages, coinciding with the opening of the wharves for public use and the commissioning of ferry operations, and has been developed based on consultation outcomes with NSW Port Authority and Harbour Master. The VTMP is attached as Appendix B – Vessel traffic management plan.

5.8 Operational maritime risk management plan (OMRMP)

The purpose of the Operational Maritime Risk Management Plan (OMRMP) is to identify, assess, and mitigate maritime risks associated with the operation of the Kamay Ferry Wharves. This plan has been in consultation with the Harbor Master and addresses key risks identified in the vessel navigation risk register. These include potential conflicts between ferry/commercial vessels and seagoing ships, increased recreational vessel traffic, interactions with angling vessels, dive/snorkeling activities near the wharves, and proximity to existing moorings. The OMRMP outlines specific mitigation strategies such as developing vessel traffic management protocols, conducting education campaigns for various user groups, implementing appropriate signage, and ensuring proper training for vessel crews. The OMRMP is attached as Appendix C – Operational maritime risk management plan

5.9 Operational Marine Biodiversity Impact Assessment Report (OMBIAR)

Transport will conduct an OMBIAR to analyze the effects on marine biodiversity after 12 months of ferry wharf operation. This report will be submitted to the MBOS Implementation Reference Panel for review within six months following the 12-month operational period. It will include before-and-after monitoring data on all seagrass species, White's Seahorse populations, and habitats affected by ferry wharf structures and associated vessel activities. The OMBIAR will also inform the review of the MBOS no later than six months after its submission to the MBOS Implementation Reference Panel.

During the development of the OMBIAR, Transport will consult with DPI Fisheries regarding proposed ferry swept path/navigation channels for approach, departure, and maneuvering areas for all traffic using the wharves. The finalised navigation plan, along with DPI Fisheries' consultation response, must be submitted to the Planning Secretary no later than one month before the commencement of operation. An outline of the OMBIAR is provided in Appendix D – Operational marine biodiversity impact assessment (ToC).

5.10 Operational Noise Review (ONR)

Prior to the commencement of ferry operation, Transport will prepare an ONR to confirm noise control measures that would be implemented for the stage 2 of operation of the SSI. A summary of the ONR will be included in future revisions of this OEMP once it is completed.

5.11 Marine Biodiversity Offset Strategy (MBOS)

The Marine Biodiversity Offset Strategy (MBOS) for the Kamay Ferry Wharves Project outlines comprehensive measures to mitigate the unavoidable impacts on marine biodiversity, particularly focusing on seagrass habitats and the habitat of the endangered White's Seahorse. Developed in collaboration with local stakeholders, including the La Perouse Local Aboriginal Land Council and various government agencies, the MBOS commits to enhancing and protecting marine life through direct restoration activities and the creation of artificial habitats.

Under both stages of operation, Transport will monitor the outcomes of the MBOS for seagrass meadows and White's Seahorse habitat. Transport will prepare a Marine Biodiversity Offset Report (MBOR) as part of the compliance reporting until at least the 10th anniversary of the commencement of the action, unless otherwise agreed to in writing by the Minister. The contents of the MBOR are detailed in section 7 Monitoring and reporting.

5.12 Urban Design and Landscape Plan (UDLP)

Transport will continue to undertake the ongoing maintenance and operational costs of urban design, open space, landscaping, and recreational items and work implemented under the SSI approval. Transport will retain responsibility for these assets until satisfactory arrangements are made to transfer them to the relevant authority. Transport will maintain these items and work according to the design standards set in the Urban Design and Landscape Plan (UDLP) until their transfer. Transport will notify the Planning Secretary of the asset transfer date to the relevant authority.

Any plant loss during the maintenance period will be replaced with the same species, unless a suitably qualified person determines that a different species is more suitable for the location. Additionally, management and routine maintenance for design elements and landscaping work, including weed management will be undertaken by Transport, to ensure the success of the design and landscape outcomes for the lifespan of the SSI.

5.13 Transport Signage Strategy

The signage strategy will be prepared in accordance with standard policy documents.

6. Implementation

This section addresses the key risks and environmental performance issues associated with the operation of the Project and the environmental controls established to manage the key risks.

6.1 Operational environmental aspects and impacts

The key potential environmental aspects and impacts that will require management during the operation of the Project are listed below and form the basis of the environmental risk assessment.

The key operational aspects across both stages as identified within the EIS, are:

- Marine biodiversity
- Traffic and transport
- Landscape character and visual amenity
- Noise and vibration
- Soils, water, and contamination
- Waste
- Hazard and risk.

As part of this OEMP, a risk assessment has been undertaken to ensure that the outcomes of the environmental assessment, CoA, MCoA, and any other site investigations are effectively translated into the Project's operation. The risk assessment process utilised is based on the Australian Standard, (AS/NZS 4360:2004) Risk Management and (ISO14001), which uses qualitative measures to estimate the consequence or impact of an event, along with the estimate of likelihood. Each risk was assessed as being low (L), medium (M) or high (H) in terms of both consequence and likelihood. The Risk Analysis Matrix shown in Table 6-1 was applied to assess the priority of the various hazards identified.

The outcomes of the risk assessment are attached as Appendix A.

Table 6-1. Risk Analysis Matrix

Likeli-hood	Consequences				
	Insign-ificant	Minor	Moder-ate	Major	Catas-trophic
Almost Certain	L	M	H	H	H
Likely	L	M	H	H	H
Moderate	L	M	H	H	H
Unlikely	L	L	L	M	H
Rare	L	L	L	M	M

6.2 Operational environmental management activities

The following section outlines the environmental management activities and measures that must be implemented or adhered to during operations. Each environmental management issue is

addressed individually, focusing on specific environmental objectives, key issues, and the measures required to achieve these objectives.

Furthermore, an activity-specific OEMP Compliance Checklist should be developed by Transport Environment Manager at the commencement of operation of the wharves and implemented by the boating surveillance officer. This checklist can be used during operation activities to ensure and document compliance with the environmental management measures detailed in the subsequent sections.

6.2.1 Marine biodiversity

Vessel traffic movements may continue to directly and indirectly impact marine species once the Project is operational. The wharves would shade habitat for periods of the day, while the wharves may affect sediment movement along both shorelines. Propeller wash from the operational ferries and other vessels using the wharves may also create a scour channel which may harm, destroy, or expose nearby habitat, affecting its condition and health.

Table 6-2. Operational management marine biodiversity

Operational Management Criteria	Applicability	
	Stage 1	Stage 2
Key Environmental Performance Objectives		
To protect the environment, including the conservation of threatened and other species of native animals and plants, ecological communities, and their habitats.	✓	✓
Key Environmental Issues		
Shading impacts would restrict light and cause fragmentation of seagrass	✓	✓
Loss of habitat for threatened fauna, including White's Seahorses due to decreased foraging habitat and increased exposure to predators	✓	✓
Increased risk of injury and death of marine species from vessel strikes	✓	✓
Impacts on seagrass from propeller wash	✓	✓
Environmental Action and Management Measures		
MB5: Implement biosecurity management measures applicable and relevant to the project in accordance with relevant NSW DPI Fisheries policies and procedures and National biofouling management guidelines for marinas, slipways, boat maintenance and recreational boating facilities (DAWE, 2021).	✓	✓
Approved Facilities: Require vessel washing to occur at approved slipways or wash bays equipped with waste containment and wastewater control systems to minimise risk of spread of biosecurity risks	✓	✓
Routine asset maintenance and reporting: Routine maintenance of maritime assets to include inspection and prompt reporting of any identified marine biosecurity risks to DPIRD Fisheries in accordance with the National biofouling management guidelines for marinas, slipways, boat maintenance and recreational boating facilities (DAWE, 2021).	✓	✓
MB6: Establish suitable navigation channels to avoid areas of listed species habitat, including: • Watts Reef (likely Black Rockcod habitat) • Large TEC seagrass meadow of *Posidonia Australis* La Perouse • Avoid accessing near reef habitat • No access over patch of *Posidonia Australis* to the east of the wharf.	-	✓

Operational Management Criteria	Applicability	
	Stage 1	Stage 2
MB8: Where possible, areas of known Black Rockcod habitat will be identified in detailed design and avoided during construction and within the ferry swept path during operation.	-	✓ (partial)
MB9: Establish areas of no wash zones in consultation with Port Authority NSW, NSW DPI Fisheries and Transport at: • La Perouse to minimise wash effects on the coastal subtidal and intertidal reef areas • Watts Reef near Kurnell to minimise wash effects on the subtidal habitat on the reef • Near both wharves to minimise excess wash from the ferry and recreational vessel access.	✓	✓
MB10: A Marine Biodiversity Offset Strategy (MBOS) will be prepared in consultation with NSW DPI Fisheries. As a minimum the MBOS will include: • Pre and post construction seagrass monitoring program to validate construction impacts. • A seagrass translocation and rehabilitation plan • Investigation of other offset opportunities which may include artificial marine fauna habitat such as seahorse habitat structures, environmentally friendly moorings or research trials on environmentally friendly moorings.	✓ (partial)	✓ (partial)
E11: Prior to the commencement of ferry services, and to avoid and / or mitigate potential impacts on marine biodiversity including but not limited to Black Rockcod (*Epinephelus daemelil*), the Proponent must consult DPI Fisheries regarding proposed ferry swept path/navigation channels for approach, departure and manoeuvring areas for all traffic using the wharves. The swept path navigation channel with DPI Fisheries' consultation response must be submitted to the Planning Secretary no later than one month before the commencement of operation.	-	✓
E16: Prior to the commencement of pre-construction seagrass transplantation, the Proponent must establish a MBOS Implementation Reference Panel to review data collected, including from the marine biodiversity monitoring as required by Condition E 13, recommend changes to the MBOS if required, and review the Operational Impact Assessment Report (see CoA E20). The MIRP must comprise representatives from the Proponent, DPI Fisheries-Coastal Systems, DPI Fisheries-Marine Research, DAWE, and DPIE Planning and Assessment, and include a suitably qualified, experienced, and independent scientist. The MBOS Implementation Reference Panel must be operational for the life of the MBOS or as agreed by the Planning Secretary.	✓ (partial)	✓ (partial)
E17: The MBOS must have an operational life of no less than ten (10) years from the date of MBOS approval, unless otherwise agreed by the Planning Secretary.	✓	✓
E18: The MBOS may be reviewed and updated during its operational life as required and recommended by the MBOS Implementation Reference Panel. At least 50 per cent of the MBOS funding must be allocated to the restoration and rehabilitation of Posidonia australis and Zostera seagrass beds in consultation with the MBOS Implementation Reference Panel.	✓	✓
E20: An Operational Impact Assessment Report must be prepared on impacts to marine biodiversity following 12 months of the full operation of the ferry wharves. This report must: • be submitted to the MBOS Implementation Reference Panel for review no later than six (6) months after the 12-month full operation period; • include the results of before and after monitoring of all seagrass species, White's Seahorse, populations, and habitats impacted by the ferry wharf structures and associated commercial and recreational vessel uses; and	✓	-

Operational Management Criteria	Applicability	
	Stage 1	Stage 2
• be used to review the MBOS no later than six (6) months after the submission of the Operational Impact Assessment Report to the MBOS Implementation Reference Panel. Refer to section Operational Marine Biodiversity Impact Assessment Report (OMBIAR) for further details. Additionally, an outline of the OMBIAR is contained in Appendix D.		
Part A-10: The approval holder must comply with NSW Approval conditions E12 – E20 related to the requirements of the Marine Biodiversity Offset Strategy (MBOS) to compensate for the clearing of 0.0683 hectares of seagrass meadows and White's Seahorse habitat.	✓	✓
Part A-11: To monitor the outcomes of the MBOS for seagrass meadows and White's Seahorse habitat, the approval holder must include a Marine Biodiversity Offset Report as part of the compliance report until at least the 10th anniversary of the commencement of the action, unless otherwise agreed to in writing by the Minister. Each Marine Biodiversity Offset Report must include: • a progress report on the implementation of the MBOS; • a list of success metrics; • details of the monitoring methodology(ies) implemented and the locations of reference sites; • monitoring results including a comparison against references sites; • a summary of any adaptive management steps taken to improve implementation and/or monitoring methodology(ies); and • a conclusion as to whether, as measured against the success metrics, have been achieved, are likely to be met or are unlikely to be met, as determined by a suitably qualified person.	✓	✓
Part A-12: To assess the ongoing success of the MBOS, the approval holder must submit a Rehabilitation Monitoring Review to the department within 6 years of the date of this approval and every 5 years thereafter, unless otherwise agreed to in writing by the Minister. Each Rehabilitation Monitoring Review must include: • a review of the monitoring methodology by a suitably qualified person; • a conclusion based on the success metrics as to whether the environmental offsets for seagrass meadows and White's Seahorse habitat have been achieved, are likely to be met or are unlikely to be met, as determined by a suitably qualified person; and • if environmental offsets for seagrass meadows and White's Seahorse habitat have not been achieved based on the success metrics: • a list measurable and time-bound remediation measures which will be undertaken to ensure the success metrics are achieved; and • justification for how the remediation measures will provide full compensation for the impacts to seagrass meadows and White's Seahorse habitat.	✓	✓

6.2.2 Traffic and transport

The ferry service will operate during peak hours without significantly impacting road traffic or intersection capacity. Parking reconfiguration at La Perouse and Kurnell will satisfy demand, and facilities will comply with accessibility standards, promoting inclusive use. The ferry service enhances public transport links between La Perouse and Kurnell, with no expected disruption to existing services. Pedestrian and cycling infrastructure will improve, aligning with the Project's commitment to accessibility and connectivity.

Marine operations will offer safe berthing and facilitate prompt emergency responses, improving overall marine safety. While there may be an increased risk of vessel conflicts, especially on weekends and holidays, operational adjustments and careful management of the wharves are expected to mitigate potential issues.

Table 6-3. Operational management traffic and transport

Operational Management Criteria	Applicability	
	Stage 1	Stage 2
Key Environmental Performance Objectives		
Ensure safe and efficient movement of vessels.	✓	✓
Key Environmental Issues		
Risk of conflict between marine users including ferries (Stage 2), recreational vessels, commercial vessels, and shipping operations.	✓	✓
Environmental Action and Management Measures		
T9: Moorings that conflict with construction or the operational ferry swept path will be relocated outside of the construction boundary in accordance with Transport standard mooring relocation processes. Mooring relocation will be undertaken in consultation with Port Authority NSW and notify any affected stakeholders.	-	✓
T10: Consultation and notification (as per section 4 of this OEMP) will be carried out before the commencement of operations to ensure the surrounding maritime operations, including recreational boating, are informed about the project.	✓	✓
E81: To improve local traffic flow and where existing road widths allow, line marking for two lanes within the Anzac Parade loop, La Perouse, must be provided before the commencement of operation of the SSI. Line marking must be undertaken in consultation with Randwick City Council and NPWS, unless otherwise agreed by the Planning Secretary.	✓	-
E82: Prior to the commencement of operation of Ferry services, the Proponent must provide an increase in car parking spaces (greater than 13) at La Perouse along the Anzac Parade parking loop through the reconfiguration of parking bays. The establishment of additional car parking spaces must be undertaken during the winter months. The Proponent must avoid the temporary closure of existing car parking bays for the purposes of installing the additional car parking spaces during the peak visitation periods at La Perouse. The Proponent must consider the impact that the provision of additional parking would have on surrounding heritage and artifacts and demonstrate the total and additional number of spaces that can be provided. This must be undertaken in consultation with relevant council(s) and NPWS. Evidence of consultation must be provided to the Planning Secretary for approval within 60 days of its completion. Note: Identified mitigation measures may need to be further assessed under the EP&A Act. Work will need to meet relevant design standards and subject to independent road safety audits.	-	✓ (partial)
E83: The operation of ferry services must not commence until the off-street parking at Kurnell, that is to be undertaken by NPWS, is operational, unless otherwise agreed to by the Planning Secretary.	-	✓

Operational Management Criteria	Applicability	
	Stage 1	Stage 2
Associated wayfinding and signage must be provided to encourage the use of these parking facilities.		
E86: Prior to the commencement of operation of the SSI, an Operational Maritime Risk Management Plan (OMRMP) must be prepared by a suitably qualified person, in consultation with the Harbour Master. The OMRMP must demonstrate how vessel movements associated with the proposal will not impact on commercial shipping movements in Port Botany and how vessel movements will interact with recreational vessels.	✓	✓
E87: The Proponent must prepare a Vessel Traffic Management Plan (VTMP) in consultation with Port Authority of NSW that identifies priority to sea going ships and protocols for interactions between different vessel types to aid with the safe operation of ferry vessels associated with the SSI. The VTMP must include operation of recreational vessels around the wharves and the use of the wharves for berthing/drop off/pick up (signage). The VTMP must include emergency management arrangements for incidents and accidents.	✓	✓
E88: Ferry movements must not impede any future activities by the Port Operator of the Port of Botany Bay within the navigation channel including, but not limited to, any dredging activities.	-	✓
E89: All passenger ferry vessels operating between La Perouse and Kurnell to service the SSI must participate in the Vessel Traffic Service (VTS) system at all times. All ferry activities must be reported to the Harbour Master and all vessels must be fitted with an Automatic Identification System (AIS) transponder, in consultation with the Harbour Master, to enable monitoring of vessels by VTS and other AIS fitted vessels in the area.	-	✓
Priority of Commuters and Ferries: Install clear signage to ensure that commuters and Transdev Sydney Ferries are always given priority access to wharves. These signs will remind anglers that they must respect the right of way of these groups.	✓	✓

6.2.3 Landscape character and visual amenity

The Project's structural components have been built within the marine environment of Botany Bay, and the design is characteristic of similar maritime infrastructure in Botany Bay. The urban design considers key natural features of the landscape setting and area to improve the Project's consistency with the immediate landscape character. The Project has high to moderate visual impacts at viewpoints nearest the Project areas (i.e., La Perouse Museum, Frenchmans Beach, Captain Cook's Landing Place and Prince Charles Parade).

The wharves, nearby roads and car parking areas are appropriately lit for security and safety. The lighting has been designed to minimise and/or avoid obtrusive light spill to residential areas and National Park land. The landscaping outlined in the Urban Design and Landscape Plan will be maintained to the standards established in the UDLP, unless and until landscaping items have been transferred to another authority.

Table 6-4. Operational management Landscape character and visual amenity

Operational Management Criteria	Applicability	
	Stage 1	Stage 2
Key Environmental Performance Objectives		
To ensure operation of the project aligns with the objectives of the Urban Design and Landscape Plan. These are: • Responding to historical and contextual place-making • A wharf for people • Celebration of past, present and future maritime use of the two sites. The urban design objectives were informed by the principles in Beyond the Pavement (Transport, 2020), Better Placed (NSW Government Architect, 2017), Kamay Botany Bay National Park Kurnell Master Plan (NSW DPIE, 2019) and Plan of the Management (NSW DPIE, 2020).	✓	✓
Key Environmental Issues		
Permanent change to landscape character from introduced wharf elements	✓	✓
Permanent change to visual amenity from viewpoints where wharves are visible.	✓	✓
Environmental Action and Management Measures		
L7: The ongoing maintenance of urban design and landscaping for the project shall remain Transport's responsibility unless satisfactory arrangements are put in place for the transfer of ownership to another authority. The landscaping outlined in the UDLP will be maintained to the standards established in the UDLP, unless and until landscaping items have been transferred to another authority.	✓ (partial)	✓ (partial)
E92: The SSI must be constructed and operated with the objective of minimising light spillage to surrounding properties and wildlife habitat. All lighting associated with the construction and operation of the SSI must be consistent with the requirements of AS/NZS 4282:2019 Control of the obtrusive effects of outdoor lighting and relevant Australian Standards in the series AS/NZ 1158 — Lighting for Roads and Public Spaces. Additionally, the Proponent must provide mitigation measures to manage any residual night lighting impacts to protect properties adjoining or adjacent to the SSI, in consultation with affected landowners.	✓ (partial)	✓ (partial)
E95: An updated Urban Design and Landscape Plan (ULDP) must be prepared to inform the final design of the SSI and detail how the SSI is to be maintained. The UDLP must be:	✓ (partial)	✓ (partial)

Operational Management Criteria	Applicability	
	Stage 1	Stage 2
• submitted to the Planning Secretary prior to the construction of permanent built surface works and / or landscaping, excluding those for ecological requirements, or technical requirements, or requirements as agreed by the Planning Secretary that do not allow for alternate design outcomes; and implemented during construction and operation of the SSI.		
E106: The ongoing maintenance and operation costs of urban design, open space, landscaping and recreational items and work implemented as part of this approval remain the Proponent's responsibility until satisfactory arrangements have been put in place for the transfer of the asset to the relevant authority. Before the transfer of assets, the Proponent must maintain items and work to at least the design standards established in the UDLP. The Planning Secretary must be advised of the date of transfer of the asset(s) to the relevant authority.	✓ (partial)	✓ (partial)
E107: Should any plant loss occur during the maintenance period the plants should be replaced by the same plant species unless it is determined by a suitably qualified person that a different species is more suitable for that location.	✓ (partial)	✓ (partial)
E108: Management and routine maintenance for design elements and landscaping work (including weed management) to ensure the success of the design and landscape outcomes must be undertaken for the life of the SSI.	✓ (partial)	✓ (partial)
E109: Prior to operation of the SSI the Proponent must install bicycle parking racks near the entrances to the ferry wharves as recommended by the documents listed in Condition A1. At Kurnell, the Proponent must consult with NPWS on the installation of bicycle parking near the ferry wharf. The Proponent must also ensure that dedicated bicycle parking is provided on the ferry service and that the future ferry operator will accept bicycles on board all vessels.	✓	✓
E110: Continuous active transport paths linking the ferry wharves to the nearest public transport bus stops, located on Anzac Parade, La Perouse and Captain Cook Drive, Kurnell must be provided. Wayfinding signage must be provided to direct commuters from the ferry wharves to the bus stops. In Kamay Botany Bay National Park, all new permanent signage must be provided in consultation with NPWS. The path must be in accordance with the Guide to Road Design Part 6A: Paths for Walking and Cycling (Austroads, 2017).	✓	-

6.2.4 Socioeconomic

The Project would provide a new method of travel between La Perouse and Kurnell for both the local community and visitors from Greater Sydney. This would improve access to community infrastructure across Botany Bay. This increased connectivity and access to community infrastructure would enhance the way of life for individuals, improve user enjoyment and increase community cohesion.

Signage will be employed to promote proper usage of the wharves, with penalties implemented to enforce appropriate behaviour. Refer to section 5.13 for standard s procedure.

Table 6-5. Operational management socioeconomic

Operational Management Criteria	Applicability	
	Stage 1	Stage 2
Key Environmental Performance Objectives		
• Deliver a sense of community, inclusiveness, wellbeing, and involvement • Protect and enhance the amenity of residents, workers, and visitors • Connect modes and communities, and promote active transport • Maintaining/creating connection to Country. To ensure operation of the Project aligns with the objectives of the Community Consultation Strategy.	✓	✓
Key Environmental Issues		
Perceived increase in traffic congestion may result in frustration for motorists.	✓	✓
Change in landscape character from viewpoints could impact how people value that area and their sense of place.	✓	✓
Environmental Action and Management Measures		
Fishing Zones: Install clear signage to indicate optimal zones for fishing , ensuring anglers are aware of and comply with the restrictions on where fishing is recommended. NSW Police can monitor these sites and have the authority to enforce regulations. Notes: Individuals who fish in prohibited areas or disregard signage may incur penalties. Fines are set at $250, which may escalate to $1,500 if the case proceeds to court.	✓	-
No Boating Zones: Ensure that 'No Boating Zone' signs are clearly displayed in waterways to indicate any areas with restrictions or exclusions.	✓	-
Swimming Areas and Surf Zones: Install clear, visible signs marking the boundaries of swimming areas and surf zones to ensure they are easily identifiable by all water users. Surfing will be restricted in ferry operational zones.	✓	-
Enforcement of Safe Distances: Actively enforce the minimum distance regulations for powered vessels, including sailing boats over 5.5m and personal watercraft (PWC), from designated swimming areas and surf zones as specified under "Safe distance" guidelines.	✓	-
PWC Restrictions: Provide clear information and signage on areas where personal watercraft are restricted or prohibited, using platforms such as the Personal Watercraft Restrictions Guide.	✓	-
Education: Conduct regular awareness campaigns to educate boaters and other water users about the importance of these boundaries for safety.	✓	-
Aquatic License Requirements: Ensure all organised events such as competitions, races, and regattas obtain the necessary aquatic licenses. Provide clear guidelines on how to apply for these licenses.	✓	-

Operational Management Criteria	Applicability	
	Stage 1	Stage 2
Information Accessibility: Maintain an updated list of aquatic licenses and special events on NSW waterways through readily accessible platforms like the Marine notices | NSW Government.	✓	-
Exclusion and Restriction Zones: Clearly mark exclusion and restriction zones around ports, including areas for seaplane take-offs, naval zones, and zones with personal watercraft restrictions.	✓	-

6.2.5 Noise and vibration

The operation of the ferry (vessels approaching, mooring, and departing) and vehicle traffic has the potential to cause noise impacts for nearby sensitive receivers, employees and visitors to the National Park. However, exceedances of noise management levels are not expected to be at a level that is discernible by the average listener or significantly above current ambient noise environment. No long-term vibration impacts are expected from the operation of the Project. Refer to Surface noise and vibration assessment completed as part of the EIS for more detail.

Table 6-6. Operational management noise and vibration

Operational Management Criteria	Applicability	
	Stage 1	Stage 2
Key Environmental Performance Objectives		
• Minimise operational noise impact on nearby sensitive receptors. • To ensure compliance with the following legislation: – *Protection of the Environment Operations Act 1997* – Protection of the Environment Operations (Noise Control) Regulation 2017 • Code of Conduct Commercial vessels using amplified sound systems on Sydney Harbour	✓	✓
Key Environmental Issues		
Modelled surface noise management levels may be exceeded by the ferry operations (Stage 2) and commercial/recreational users of the wharf, however this is not expected to be at a level that is discernible by the average listener or significantly above current ambient noise environment.	✓	✓
Environmental Action and Management Measures		
E52: Prior to the commencement of ferry operation, the Proponent must prepare an Operational Noise Review (ONR) to confirm noise control measures that would be implemented for the operation of the SSI. The ONR must be prepared in consultation with relevant council(s) and must confirm the operational noise predictions based on the final vessel selection. The results of these revised predictions must be compared to the noise performance assumptions in the documents listed in Condition A1. Should the results indicate a worsening of impact predicted in the documents listed in Condition A1, appropriate mitigation measures must be identified and implemented.	-	✓
E53: The ferry vessel selected for operation must be free of annoying noise characteristics as determined in the Noise Policy for Industry (EPA 2017) Fact Sheet C when assessed at offset distances representative of the nearest residential receivers to each wharf. Where it is demonstrated that this is not reasonably practicable, justification of the best achievable noise levels must be submitted to the Planning Secretary, prior to the commencement of ferry operation.	-	✓
E54: Noise associated with the operation of the wharf and vessel based public address system(s) must not exceed 5 dB(A) above the background noise level when measured at the boundary of any sensitive receiver, excluding for emergency announcements, and testing of the emergency PA system.	✓ (partial)	✓
E55: Operational noise mitigation measures as identified in Condition E52 that will not be physically affected by work, must be implemented within six months of submitting the ONR, unless otherwise agreed by the Planning Secretary. Where implementation of operational noise mitigation measures is not proposed to be in accordance with this requirement, the Proponent must submit to the Planning Secretary a report providing justification as to why, along with details of temporary measures that would be implemented to reduce construction noise impacts, until such time that the operational noise mitigation measures	-	✓

Operational Management Criteria	Applicability	
	Stage 1	Stage 2
are implemented. The report must be submitted to the Planning Secretary within six months of submitting the ONR. Note: Not having finalised detailed design is not sufficient justification for not implementing the proposed mitigation measures. The ONR template can be found in Appendix E – Operational noise review (ToC).		
E56: Within six (6) months of the commencement of ferry operation of the SSI, the Proponent must undertake monitoring of operational noise to compare actual noise performance of the SSI against the noise performance predicted in the review of noise mitigation measures required by Condition E52.	-	✓
E57: An Operational Noise Compliance Report (ONCR) must be prepared to document the findings of the operational noise monitoring carried out under Condition E56. The ONCR must address the following: • compliance with the operational noise levels predicted in the review of operational noise mitigation measures required under Condition E52; • methodology, location and frequency of noise monitoring undertaken, including monitoring sites at which SSI noise levels are ascertained, with specific reference to locations indicative of impacts on receivers; • details of any complaints and enquiries received in relation to operational noise generated by the SSI between the date of commencement of operation and the date the report was prepared; • any required recalibrations of the noise model taking into consideration factors such as noise monitoring; • an assessment of the performance and effectiveness of applied noise mitigation measures together with a review and if necessary, reassessment of mitigation measures; and • identification of additional measures to those identified in the review of noise mitigation measures required by Condition E52, that are to be implemented, the effectiveness of the mitigation measures and reported to the Planning Secretary. The Operational Noise Compliance Report must be submitted to the Planning Secretary and the EPA within 60 days of completing the operational noise monitoring and made publicly available. The ONCR template can be found in Appendix F – Operational noise compliance report (ToC).	-	✓
Hours of operation – Recreational and Commercial Boats: No time restriction for commercial vessels and recreational use. **Hours of operation – Ferry Service boats (timetabled services):** 7am-6pm everyday	✓	✓
In accordance with the Code of Conduct Commercial vessels using amplified sound systems on Sydney Harbour, December 2022: Owners and masters of commercial vessels have agreed to adhere to the following waterway management conditions: **General conditions** • Ensure impacts of noise emitted from amplified sound systems have been considered and measures to mitigate those impacts on people and the environment are recorded within a noise management plan. • Ensure that all staff, contractors, and other persons working on board the vessel have been briefed on the mitigation measures. • Ensure notices are displayed prominently on the vessel to remind the vessel's master and sound system operators that they are responsible for monitoring noise emissions and compliance with this Code. **Day and evening hours**	✓	✓

Operational Management Criteria	Applicability	
	Stage 1	Stage 2
In the time: • between 8.00 am and 11.59pm on any Friday, Saturday, or the day immediately before a public holiday, and • between 8.00am and 10.00pm on any other day, Commercial vessels operating amplified sound systems in an open area of the vessel must not anchor or moor, and remain making way when operating: • within 200 metres from any shore within Sydney Harbour, North Harbour and Middle Harbour, unless the amplified sound systems are operated in accordance with a noise management plan and offensive noise is not being emitted from the vessel. **Overnight hours** In the time: • between 12.00am and 8.00am on any Friday, Saturday, or the day immediately before a public holiday, and • between 12.00am and 8.00am and 10.00pm and 11:59pm on any other day, Commercial vessels operating amplified sound systems must: • not anchor or moor and remain making way at all times anywhere within Sydney Harbour, North Harbour and Middle Harbour • not operate within 200 metres of any shore within Sydney Harbour, North Harbour and Middle Harbour • not operate amplified sound systems in open areas of vessels Causing or permitting offensive noise to be emitted from a vessel may result in compliance action including, but not limited to: • a penalty notice being issued under cl.39 of the Protection of the Environment Operations (Noise Control) Regulation 2017, or • a noise abatement direction or noise control notice being issued under the *Protection of the Environment Operations Act 1997*.		
Recreation and Commercial Boats, berthing is permitted for up to 15 minutes, and someone must remain on board to move the boat, with no overnight berthing allowed. Ferry Service Boats, there is no specific time limit on berthing within operational hours for regulated services, and one-hour berthing is allowed for chartered services if pre-booked and paid, without the option for overnight stays.	✓	✓

6.2.6 Soils, water, and contamination

The operation of the ferry service and increase in vessel use at the proposed wharves would cause sediment disturbance due to propeller wash. There would be no predicted impact because the chemistry of the tested sediments has been tested and shown to be consistent with background levels across Botany Bay.

A potential contamination pathway during operation of the Project is from fuel/mechanical leaks from the ferries and other vessels due to poor maintenance. These spills could then contaminate surrounding water sources and affect water quality. Spillage of hazardous material may also occur during maintenance works which could affect maintenance workers and nearby sensitive receivers.

6.2.6.1 Water Quality Objectives

The Project is located within the estuary component of the Georges catchment for the Water Quality and River Flow Objectives (NSW Government, 2006). The applicable objectives for this area include:

- Aquatic ecosystems – maintaining or improving the ecological condition of waterbodies and their riparian zones over the long term.
- Visual amenity – aesthetic qualities of waters.
- Secondary contact recreation – maintaining or improving water quality for activities such as boating and wading, where there is a low probability of water being swallowed.
- Primary contact recreation – maintaining or improving water quality for activities such as swimming in which there is a high probability of water being swallowed.
- Aquatic foods (cooked) - refers to protecting water quality so that it is suitable for the production of aquatic foods for human consumption and aquaculture activities.

The Water Quality Objectives for the operation of this Project are detailed above. Quantitative measures of water quality are not proposed as there is no permitted water discharge, and no pump-out. The need for quantitative monitoring would be reviewed in the event of an incident.

Table 6-7. Operational management soil, water and contamination

Operational Management Criteria	Applicability	
	Stage 1	Stage 2
Key Environmental Performance Objectives		
To avoid detrimental impact on the water quality and marine environment of Botany Bay. To maintain and protect the integrity of Botany Bay and other waterways. To comply with the following legislation: • *Protection of the Environment Operations Act 1997* • Protection of the Environment Operations (General) Regulation 2022 • NSW Health and Safety requirements.	✓	✓
Key Environmental Issues		
Spills and runoff into Botany Bay form ferry vessels	-	✓
Leaks/Spill from Ferry vessel activity	-	✓
Localised scour from vessel movements in swept path	✓	✓
Localised scour around piles	✓	✓

Operational Management Criteria	Applicability	
	Stage 1	Stage 2
Litter entering marine environment	✓	✓
Environmental Action and Management Measures		
CP3: Operational restrictions to control approaching, berthing, and departing from the wharves will be enforced for all vessels using the wharves to limit scour. These measures will be agreed in consultation with Port Authority NSW (including Harbour Master).	✓	✓
E69: The Site Auditor Statement (SAS) and Site Auditor Report (SAS) must be submitted to the Planning Secretary no later than one (1) month prior to the commencement of operation of the approved land use.	✓	-
E115: The SSI must be designed, constructed and operated so as to maintain the NSW Water Quality Objectives where they are being achieved as at the date of this approval, and contribute towards achievement of the NSW Water Quality Objectives over time where they are not being achieved as at the date of this approval, unless an EPL in force in respect of the SSI contains different requirements in relation to the NSW Water Quality Objectives, in which case those requirements must be complied with. As per E115 Water Quality Objectives for operation are outlined above and monitoring requirement in section 7.2.	✓ (partial)	✓ (partial)
Approved Facilities: Require vessel washing to occur at approved slipways or wash bays equipped with waste containment and wastewater control systems.	✓	-
Visual Inspections: Routine checks for visible oil/grease, compliance with vessel pre-start and maintenance requirements, adequate spill response provisions, and training	-	✓
Routine Maintenance: Recommend rinsing trailered vessels with fresh water after each trip and using a soft cloth, brush, or sponge for cleaning slime or growth beneath the waterline.	✓	-
Minimising Chemical Use: Discourage the use of harsh chemicals or degreasers and promote non-toxic, phosphate-free, and chlorine-free cleaners. Advise diluting detergents heavily to minimise impact.	✓	-
Wastewater Management: Ensure that no wastewater from cleaning activities runs back into the waterway.	✓	-
Bilge Maintenance: Encourage regular cleaning of bilges to prevent oil and other pollutants from being discharged. This will be done through establishment of signage at the wharves.	✓	-
Onshore Refuelling: Encourage refuelling of small vessels and fuel containers on shore, away from water bodies, to avoid spills. This will be done through establishment of signage at the wharves.	✓	-
Waste Management: adequate rubbish bin facilities and cleaning maintenance in accordance with the Wharf Maintenance Plan.	✓	✓

6.2.7 Air Quality and greenhouse gas emissions

The Kamay Wharves have been designed to operate a ferry service, accommodating commercial and recreational vessels but not for shipping purposes. While unconfirmed most operating ferries are diesel powered (but alternatives such as electrical alternatives are entering the market). The public berthing area is projected to host additional commercial and recreational vessels movements. Despite this activity, the emissions from the vessels will have a minimal impact on local air quality due to their distance from sensitive receivers and the transient nature of the exposure to patrons at the wharf, backed by limited number of trips.

Regarding road traffic, the operation of the wharves is anticipated to slightly increase vehicle trips to La Perouse and Kurnell. However, this increase will not cause noticeable air quality impacts. Some ferry passengers might opt for the ferry over driving between La Perouse and Kurnell, potentially reducing vehicle emissions.

Additionally, the wharves and ferry vessels will be operated and maintained in accordance with this Operations Environmental Management Plan (OEMP). This OEMP serves as the operational management system for the project, as referenced in the Revised Environmental Mitigation Measures (REMMs) G2, GG3, CC2, and HZ7. It is important to note that this OEMP is the intended operational management system, as Transport does not have a separate Operational Management System.

Table 6-8. Operational management air quality and greenhouse gas emissions

Operational Management Criteria	Applicability	
	Stage 1	Stage 2
Key Environmental Performance Objectives		
Reduce the environmental impact of ferry operations and recreational vessels to preserve the air quality of Botany Bay. Encourage the adoption of electric or alternative fuel ferries to decrease greenhouse gas emissions. Enhance ferry scheduling and operational efficiency to reduce idling and cut emissions from both marine and road traffic.	✓	✓
Key Environmental Issues		
Potential contribution to climate change through greenhouse gas emissions	✓	✓
Increase extreme weather events, sea level rise and increased atmospheric carbon dioxide caused by climate change could impact the safe operation of the wharves.	✓	✓
Greenhouse gas emissions from the operation of the ferry service, recreational vessels, and maintenance of the wharves.	✓	✓
Environmental Action and Management Measures		
Speed restrictions: Enforce speed restrictions for vessels in the vicinity of the wharf to reduce fuel consumption and minimise emissions.	✓	-
Idle Reduction Policies: Implement and enforce idle reduction policies for all vessels docked at the wharf to decrease air pollution and fuel use.	-	✓
Routine Maintenance: Ensure all vessels undergo regular maintenance checks to keep engines and other systems operating efficiently, reducing potential emissions.	-	✓
GG3: The ferry vessels will be operated and maintained in accordance with the Transport Operational Management System to ensure optimal operational conditions to minimise fuel use.	-	✓
CC2: the wharves will be maintained in accordance with the Transport Operational Management System to ensure the weather protection measures remain effective over time.	✓	✓

6.2.8 Waste

The main waste streams generated during both stages of operation would be:

- Small quantities of green waste produced during landscaping maintenance activities.
- General solid waste produced from debris and litter (from waste receptacles along the wharves), including recreational boating waste.
- Contaminated waste which may result from any traffic or maritime accidents, spills and fuel leaks would be managed in accordance with the Guideline for the Management of Contamination (NSW Roads and Maritime Services, 2013).

These waste streams would be consistent with existing waste streams currently generated at both Project areas. It is also expected that waste volumes would not significantly increase due to the operation of the wharves and associated ferry services. There may be a small increase in the amount of general solid waste due to increased visitor numbers.

Waste hierarchy and objectives

Any waste produced during operation would be managed in accordance with the waste hierarchy, classified according to the *Waste Classification Guidelines (NSW EPA, 2014).* The waste hierarchy is a set of priorities for the efficient use of resources; this underpins the objectives of the *Waste Avoidance and Resource Recovery Act 2001*.

The waste hierarchy is:

- **avoidance** including action to reduce the amount of waste generated by households, industry and all levels of government.
- **resource recovery** including re-use, recycling, reprocessing and energy recovery, consistent with the most efficient use of the recovered resources
- **disposal** including management of all disposal options in the most environmentally responsible manner.

Figure 6-1: Waste Hierarchy. Ordered by most preferable: avoid and reduce; reuse; recycle; recover energy; treat; dispose of waste (Source: NSW EPA)

The EPA Waste Classification Guidelines provide clear criteria for the classification of waste materials to ensure proper handling, disposal, and recycling processes. These guidelines support the objectives set by the *Protection of the Environment Operations Act 1997*, which aims to protect the environment by regulating pollution and waste operations through licensing, monitoring, and compliance mechanisms. Additionally, the Protection of the Environment Operations (Waste) Regulation 2014 focuses on detailed waste management practices that aim to prevent environmental harm by reducing and regulating waste generation and disposal.

In alignment with the *Plastic Reduction and Circular Economy Act 2021*, efforts will also be made to mitigate environmental and health impacts caused by plastic waste and promote a sustainable circular economy.

Table 6-9. Operational management waste

Operational Management Criteria	Applicability	
	Stage 1	Stage 2
Key Environmental Performance Objectives		
• To minimise waste generated at the site and reduce to volume of waste requiring disposal to landfill. • To prevent disposal of waste from site to receiving environments. • To maintain the wharves and surrounding site in a neat and tidy state without build-up of litter. • Manage waste in accordance with the waste hierarchy (described above). • Mitigate environmental and health impacts caused by plastic waste and promote a sustainable circular economy in accordance with *Plastic Reduction and Circular Economy Act 2021*. • To ensure compliance with the following legislation: – Waste Classification Guidelines – *Waste Avoidance and Resource Recovery Act 2001.* – *Protection of the Environment Operations Act 1997* – Protection of the Environment Operations (Waste) Regulation 2014 – *Marine Pollution Act 2012* – *Plastic Reduction and Circular Economy Act 2021*.	✓	✓
Key Environmental Issues		
Waste generated by users of the wharves.	✓	✓
Environmental Action and Management Measures		
E111: Waste generated during construction and operation must be dealt with in accordance with the following priorities: • waste generation must be avoided and where avoidance is not reasonably practicable, waste generation must be reduced; • where avoiding or reducing waste is not possible, waste must be re-used, recycled, or recovered; and • where re-using, recycling or recovering waste is not possible, waste must be treated or disposed of.	✓	✓
W5: Recycling and general waste bins will be installed at the wharves. Note: operational waste will be incorporated into existing management systems operated by Transport, NPWS, Randwick City Council and Sutherland Shire Council.	✓	✓
Clean, Safe Wharves Initiative: promote awareness of this initiative through signage, to encourage a consistent and coordinated effort by the public to maintain cleanliness across all wharves on Sydney Harbour	✓	✓
Waste Disposal: Prohibit the disposal of rubbish or any other waste from vessels into the water. Implement fines and penalties for non-compliance.	✓	-
Onboard Waste Management: Encourage the collection of all rubbish onboard and ensure proper disposal at designated facilities on shore.	✓	-
Food Waste Management: Advise wiping cooking utensils and plates clean with a paper towel before washing to reduce grease and food particles entering the marine environment.	✓	-

Operational Management Criteria	Applicability	
	Stage 1	Stage 2
Use of Eco-friendly Products: Promote the use of low-phosphate or no-phosphate soaps and detergents. Provide information on environmentally friendly alternatives for sinks and showers.	✓	-
Disposal Protocols: Ensure that owners and masters of both Domestic Commercial Vessels (DCV) and recreational vessels are fully aware that it is illegal to dispose of garbage overboard. Garbage must be disposed of responsibly at shore-based reception facilities. Implement regular checks and monitoring to ensure compliance with proper disposal protocols.	✓	✓
Mandatory Equipment for Garbage Management (Under the *Marine Pollution Act 2012*): • Garbage Placard: Require all recreational vessels longer than 12 meters and DCVs, depending on their size and passenger capacity, to display a garbage placard. This placard should inform and remind all on board about the importance of proper garbage disposal. • Garbage Management Plan: Vessels must carry a garbage management plan that outlines procedures for collecting, storing, and disposing of garbage. • Garbage Record Book: Require a garbage record book on board to log all garbage disposal activities, ensuring compliance with regulations and facilitating inspections. • Conduct regular inspections to verify that vessels are equipped with the necessary garbage management tools and that they are being used correctly.	✓	✓
Distribution Points: Ensure that garbage placards, management plans, and record books are readily available at Service NSW centres and through the Australian Maritime Safety Authority (AMSA).	✓	✓
Educational Outreach: Provide educational materials at the point of distribution for these items to help vessel operators understand their use and importance.	✓	✓
Penalties for Non-compliance: Implement fines and other penalties for non-compliance with the garbage disposal regulations to reinforce the importance of following these environmental protection measures.	✓	✓

6.2.9 Hazard and risk

Botany Bay is subjected to extreme swell and wave conditions during storm events. During operation, storm conditions could pose safety risks for construction workers, operational staff of ferry vessels and wharf users. The ferry service would not operate in extreme weather conditions and would be berthed at a safe location within Botany Bay. Fuel leaks from the ferries could occur if they are not properly maintained or are involved in an accident. This has the potential to contaminate the surrounding environment. A Vessel Traffic Management Plan and Maritime Risk Management Plan have been developed (refer to section 5.7 and section 5.8 of this OEMP).

Table 6-10. Operational management hazard and risk

Operational Management Criteria	Applicability	
	Stage 1	Stage 2
Key Environmental Performance Objectives		
To ensure emergency response procedures are adequate.	✓	✓
Key Environmental Issues		
Spills from ferry vessels	✓	✓
Environmental Action and Management Measures		
HZ4: An Emergency Spill Management Plan (ESMP) will be prepared in accordance with the Code of Practice for Water Management (NSW Roads and Traffic Authority, 1999) and relevant NSW EPA guidelines. It will be implemented under the WEMP. The ESMP will measures to be implemented in the event of a spill, including initial response, containment/cleaning up, and emergency services and relevant authority notifications including Transport, Port Authority NSW, and NSW EPA. The NSW Coastal Waters Marine Pollution Plan (MPP) adequately fulfills the requirements of an Emergency Spill Management Plan (ESMP) for this project, eliminating the need for a separate ESMP. Refer to section 5.6	✓	✓
HZ7: Operational spill management environmental mitigation measures will be included in the standard operating procedure for ferries in Sydney managed by Transport and required by the Harbour Master. The NSW Coastal Waters Marine Pollution Plan (MPP) adequately fulfills the requirements of an Emergency Spill Management Plan (ESMP) for this project, eliminating the need for a separate ESMP.	✓	✓
Reporting: Establish clear procedures and contact numbers for reporting oil or chemical spills to relevant authorities. • Transport (Maritime) on 13 12 36, or • Port Authority of NSW on 9296 4999, or • NSW Environment Protection Authority (EPA) on 13 15 55.	✓	✓
Pollution Incidents: all incidents to be managed in accordance with NSW Coastal Water NSW Coastal Waters Marine Pollution Plan as described in section 5.6.	✓	✓

7. Monitoring and reporting

7.1 Environmental Inspections

During the operational phase, environmental inspections will be an integral part of the management strategy to ensure compliance with environmental standards and the effectiveness of implemented mitigation measures. This environmental oversight will be conducted by Transport staff and, where necessary, by suitably qualified contractors. The following outlines the specifics for each stage of operation.

Stage 1: wharf operation

Environmental inspections at the wharf during the initial operational phase will be conducted weekly to ensure all operations are consistent with the environmental guidelines established in the OEMP. The frequency can be adjusted based on the findings to either increase during periods of higher risk activities or decrease as operations stabilise and demonstrate compliance.

Additional inspections will occur following significant environmental triggers such as extreme weather events or operational incidents (as per section 5.5 of this OEMP) that impact the environment. This ensures that any unforeseen impacts are quickly identified and mitigated.

Stage 2: ferry operations

With the commencement of ferry services, environmental inspections will include regular checks during the initial six weeks of operation to establish a baseline of environmental performance under increased operational measure. After the initial period, the monitoring frequency may adjust, with the flexibility to modify based on operational feedback and environmental performance data gathered during the early stages. The engaged ferry service operator will assume responsibility for establishing and maintaining routine environmental monitoring and surveillance.

For both stages, all findings from environmental inspection activities will be documented comprehensively. This documentation will include the date of inspection, detailed findings, any deviations from the norm, corrective actions taken, and follow-up dates. These records will be reviewed regularly to ensure ongoing compliance and to identify any trends that require more strategic changes to operational practices.

7.2 Environmental monitoring and reporting

Environmental monitoring and reporting requirements specific to the operation of the Project are detailed in the table below.

Table 7-1. Monitoring and reporting requirements.

Activity	Monitoring/Reporting Requirement	Frequency	Applicability	
			Stage 1	Stage 2
An Operational Impact Assessment Report (MCoA E20)	An Operational Impact Assessment Report must be prepared on impacts to marine biodiversity following 12 months of the **full operation of the ferry wharves.** This report must:	Following 12 months of the full operation of the ferry wharves.	X	✓

Activity	Monitoring/Reporting Requirement	Frequency	Applicability	
			Stage 1	Stage 2
	(a) be submitted to the MBOS Implementation Reference Panel for review no later than six (6) months after the 12-month full operation period; (b) include the results of before and after monitoring of all seagrass species, White's Seahorse, populations and habitats impacted by the ferry wharf structures and associated commercial and recreational vessel uses; and (c) be used to review the MBOS no later than six (6) months after the submission of the Operational Impact Assessment Report to the MBOS Implementation Reference Panel.			
Operational Noise Review (MCoA E52)	**Prior to the commencement of ferry operation**, the Proponent must prepare an Operational Noise Review (ONR) to confirm noise control measures that would be implemented for the operation of the SSI. The ONR must be prepared in consultation with relevant council(s) and must confirm the operational noise predictions based on the final vessel selection. The results of these revised predictions must be compared to the noise performance assumptions in the documents listed in Condition A1. Should the results indicate a worsening of impact predicted in the documents listed in Condition Al, appropriate mitigation measures must be identified and implemented.	Prior to the commencement of ferry operation	X	✓
Operational Noise Monitoring (MCoA E56)	Within six (6) months of the commencement of ferry operation of the SSI, the Proponent must undertake monitoring of operational noise to compare actual noise performance of the SSI against the noise performance predicted in the review of noise mitigation measures required by Condition E52.	Within six (6) months of the commencement of ferry operation of the SSI.	X	✓
Operational Noise Compliance Report (MCoA E57)	An Operational Noise Compliance Report (ONCR) must be prepared to document the findings of the operational noise monitoring carried out under Condition E56. The ONCR must address the following: (a) compliance with the operational noise levels predicted in the review of operational noise mitigation measures	Within 60 days of completing the operational noise monitoring and made publicly available.	X	✓

Activity	Monitoring/Reporting Requirement	Frequency	Applicability	
			Stage 1	Stage 2
	required under Condition E52; (b) methodology, location and frequency of noise monitoring undertaken, including monitoring sites at which SSI noise levels are ascertained, with specific reference to locations indicative of impacts on receivers; © details of any complaints and enquiries received in relation to operational noise generated by the SSI between the date of commencement of operation and the date the report was prepared; (d) any required recalibrations of the noise model taking into consideration factors such as noise monitoring; (e) an assessment of the performance and effectiveness of applied noise mitigation measures together with a review and if necessary, reassessment of mitigation measures; and (f) identification of additional measures to those identified in the review of noise mitigation measures required by Condition E52, that are to be implemented, the effectiveness of the mitigation measures and reported to the Planning Secretary. The Operational Noise Compliance Report must be submitted to the Planning Secretary and the EPA within 60 days of completing the operational noise monitoring and made publicly available.			
Marine Biodiversity offset strategy EPBC-CoA Part A -11	To monitor the outcomes of the MBOS for seagrass meadows and White's Seahorse habitat, the approval holder must include a Marine Biodiversity Offset Report as part of the compliance report until at least the 10th anniversary of the commencement of the action, unless otherwise agreed to in writing by the Minister. Each Marine Biodiversity Offset Report must include: (a) a progress report on the implementation of the MBOS; (b) a list of success metrics; (c) details of the monitoring methodology(ies) implemented and the	Annually	✓	✓

Activity	Monitoring/Reporting Requirement	Frequency	Applicability	
			Stage 1	Stage 2
	locations of reference sites; (d) monitoring results including a comparison against reference sites; (e) a summary of any adaptive management steps taken to improve implementation and/or monitoring methodology(ies); and (f) a conclusion as to whether the outcomes, as measured against the success metrics, have been achieved, are likely to be met or are unlikely to be met, as determined by a suitably qualified person.			
Marine Biodiversity offset strategy EPBC-CoA Part A -12	To assess the ongoing success of the MBOS, the approval holder must submit a Rehabilitation Monitoring Review to the department within 6 years of the date of this approval and every 5 years thereafter, unless otherwise agreed to in writing by the Minister. Each Rehabilitation Monitoring Review must include: (a) a review of the monitoring methodology by a suitably qualified person; (b) a conclusion based on the success metrics as to whether the environmental offsets for seagrass meadows and White's Seahorse habitat have been achieved, are likely to be met or are unlikely to be met, as determined by a suitably qualified person; and c) if environmental offsets for seagrass meadows and White's Seahorse habitat have not been achieved based on the success metrics: (i) a list measurable and time-bound remediation measures which will be undertaken to ensure the success metrics are achieved; and (ii) justification for how the remediation measures will provide full compensation for the impacts to seagrass meadows and White's Seahorse habitat.	Within 6 years of the date of EPBC approval and every 5 years thereafter	✓	✓
EPBC-CoA Part B - 27, Annual Compliance Reporting	The approval holder must prepare a compliance report for each 12-month period following the date of this approval, or as otherwise agreed to in writing by the Minister.	Annually	✓	✓

Activity	Monitoring/Reporting Requirement	Frequency	Applicability	
			Stage 1	Stage 2
Water Quality Objectives	Qualitative water quality monitoring requirements are as outlined in Table 6-7.	Stage 1 – Routine wharf cleaning as per the Wharf Maintenance Plan. Stage 2 – Routine vessel maintenance and routine visual checks for spills, oils, grease To be reviewed in response to any water quality related environmental incidents.	✓	✓

7.3 Auditing

7.3.1 Internal auditing

Internal audits will be undertaken to assess the effectiveness of environmental controls and compliance with this Plan and other relevant guidelines. The following elements may be included in the audit of the overall OEMP:

- Compliance with statutory obligations
- Compliance with standards, guidelines, specifications, and contract conditions
- Compliance with the OEMP
- Adequacy of monitoring and operational reports
- Completion of environmental actions
- Adequacy of environmental training records
- Adequacy of environmental records, checklists, and document management systems
- Preparation of environmental reports
- Recording and completion of corrective actions following environmental incidents and complaint
- Achievement of environmental performance objectives, and
- Implementation of actions from previous audits.

Audits will be undertaken by suitably qualified and experienced Transport personnel and in accordance with an audit schedule.

7.3.2 Independent environmental audit

Auditing will also be undertaken by an independent environment auditor who is engaged by Transport and independent to the Kamay Ferry Wharves in accordance with ISO 19011:2014 - Guidelines for Quality and/ or Environmental Management Systems Auditing, Independent Audit Post Approval Requirements (DPE, 2020) and *Environment Protection and Biodiversity Conservation Act 1999* Independent Audit and Audit Report Guidelines (2019).

The frequency of these audits will be in accordance with the *Independent Audit Post Approval Requirements* (DPIE, 2020) as outlined in Table 7-2 below.

Table 7-2: Audit Frequency (DPIE,2020)

Phase	Initial Independent Audit	Ongoing Independent Audit Intervals
Operation	Within 26 weeks of the commencement of operation	At intervals, no greater than 3 years or as otherwise agreed by the Secretary.
Closure/rehabilitation	Within 52 weeks from notifying of suspension/ceasing of operations or the relevant standards prevailing at the time.	At intervals no greater than one year or as otherwise agreed by the Secretary.

8. Improvement

8.1 Non-conformance, non-compliances, and actions

8.1.1 Non-conformances

Non-conformances are a failure to conform to Transport processes, systems, product or material specifications. Where a nonconformance is also considered to represent a non-compliance, it will be recorded as a non-compliance.

It is the responsibility of all personnel to report non-conformances to Transport, who will investigate non-conformances, log corrective actions, and delegate responsibility for corrective actions within assigned timeframes.

All non-conformances will be recorded in a computer-based incident recording and reporting system. Non-conformances, corrective actions, responsibilities, planned and actual completions dates and details of reporting to Regulatory Agencies and the community where appropriate will be tracked by this system.

Investigation of non-conformance will be undertaken to determine:

- Where applicable, immediate actions to fix the problem in the short-term
- Investigate the root cause of the problem. For example, management system, human factors / behaviour, working environment, and training
- Corrective actions to eliminate root cause
- Action(s) undertaken to verify the effectiveness of corrective actions.

8.1.2 Non-compliances

A non-compliance is a failure to comply with the requirements of the SSI Project approval or any applicable licence, permit or legal requirements or this OEMP and Sub Plans. Incident response, classification and notification requirements are outlined in this OEMP.

Suspected non-compliance with the Development Consent can be identified by anyone and will be reported to Transport.

Non-compliance with the Development Consent will be recorded and addressed by logging the issue in a computer-based incident recording and reporting system. Non-compliances, corrective actions, responsibilities, planned and actual completions dates and details of reporting to Regulatory Agencies and the community where appropriate will be tracked by this system.

Investigation of non-compliance will be undertaken to determine:

- Where applicable, immediate actions to fix the problem in the short-term
- Investigate the root cause of the problem. For example, management system, human factors/ behaviour, working environment, and training
- Corrective actions to eliminate root cause
- Action(s) undertaken to verify the effectiveness of corrective actions.

8.2 Review and continuous improvement

The OEMP for is designed as a dynamic, 'live' document, continually adapted and updated to align with the evolving needs of the Project and its environmental responsibilities. This ongoing

revision ensures that the OEMP stays relevant to the current operations of the ferry service and effectively manages any changes in environmental risks.

Key triggers for updating the OEMP include changes in operational practices that affect environmental risk assessments, legislative updates, environmental incidents or complaints, and findings from environmental audits. Additionally, any modifications in the Development Consent conditions will necessitate immediate updates to the OEMP. Routine amendments, such as corrections in grammar, updates of legislative references, and adjustments to contact details, will be promptly incorporated into the document. The updated OEMP will then be shared with NSW Ports, DPHI and made accessible on the Project's website.

Appendix A – Operational environmental aspects and impacts

The environmental risk analysis provided below is based on the environmental aspects and impacts identified as key issues for the operation phase within EIS Chapter 26. The operational environmental control measures for each identified key issue are discussed in section 6 of the OEMP.

Risk Aspect	Risk Impact	Likelihood	Potential Consequence	Preliminary Risk Rating	Mitigation Strategies	Residual Likelihood	Residual Consequence	Residual Risk Rating	Stage 1	Stage 2
Aboriginal Heritage										
AH1	During the operation of the project, no ground disturbance would occur on land and therefore no direct Aboriginal heritage impacts are predicted. No impacts during operation are expected.	-	-	Low	Not required.	-	-	Low	✓	✓
Non-Aboriginal Heritage										
NAH 1	There would be no further ground disturbance that could expose and impact heritage items causing direct impacts. Similarly, there are not expected to be any indirect impacts from vibration or subsidence.	-	-	Low	Not required.	-	-	Low	✓	✓

Risk Aspect	Risk Impact	Likelihood	Potential Consequence	Preliminary Risk Rating	Mitigation Strategies	Residual Likelihood	Residual Consequence	Residual Risk Rating	Stage 1	Stage 2
NAH 2	Indirect visual impacts on views and vistas to and from heritage items from the proposed wharf introducing additional visual clutter.	Likely	Minor	Medium	Yes, refer to section 6.2.3.			Low		
Underwater heritage										
UH1	No impacts during operation are expected.	-	-	Low	Not required.	-	-	Low	✓	✓
Marine biodiversity										
MB1	Shading impacts would restrict light and cause fragmentation of seagrass	Likely	Major	High	Yes Refer to section 6.2.1	Unlikely	Moderate	Low	✓	✓
MB2	Loss of habitat for threatened fauna, including White's Seahorses due to decreased foraging habitat and increased exposure to predators	Likely	Major	High		Unlikely	Moderate	Low	✓	✓
MB2	Increased risk of injury and death of marine species from vessel strikes.	Likely	Major	High		Unlikely	Moderate	Low	✓	✓

Risk Aspect	Risk Impact	Likelihood	Potential Consequence	Preliminary Risk Rating	Mitigation Strategies	Residual Likelihood	Residual Consequence	Residual Risk Rating	Stage 1	Stage 2
MB4	Impacts on seagrass from propeller wash	Likely	Major	High		Unlikely	Moderate	Low	✓	✓
Terrestrial biodiversity										
TB1	Indirect habitat disturbance from lighting and noise.	Moderate	Minor	Medium	Yes refer to 6.2.3	Unlikely	Minor	Low	✓	✓
Traffic and transport										
TT1	Increased risk of conflict between marine users including ferry vessels, recreational vessels, commercial vessels and shipping operations.	Moderate	Major	High	Yes Refer to section 6.2.2	Unlikely	Minor	Low	✓	✓
TT2	Introduction of regular ferry services may disrupt existing local marine traffic patterns, including private leisure crafts and small fishing operations.	Likely	Moderate	High		Moderate	Minor	Medium		✓
TT3	Increased ferry traffic could lead to higher accumulation of marine debris, posing navigational hazards for all marine users.	Unlikely	Major	Medium		Unlikely	Moderate	Low		✓
TT4	Adverse weather conditions, equipment failure, human error, and navigational hazards could lead to anchor dragging or vessel	Likely	Moderate	High		Moderate	Minor	Medium		✓

Risk Aspect	Risk Impact	Likelihood	Potential Consequence	Preliminary Risk Rating	Mitigation Strategies	Residual Likelihood	Residual Consequence	Residual Risk Rating	Stage 1	Stage 2
	collision at the Frenchmans Bay emergency anchorage.									
Landscape character and visual amenity										
LCV1	Permanent change to landscape character from introduced wharf elements.	Certain	Moderate	High	Yes Refer to section 6.2.3	Certain	Minor	Medium	✓	✓
LCV2	Permanent change to visual amenity from viewpoints where wharves are visible.	Certain	Minor	Medium		Certain	Insignificant	Low	✓	✓
Socioeconomic										
SE1	Perceived increase in traffic congestion may result in frustration for motorists.	Moderate	Minor	Medium	Yes Refer to section 6.2.4	Unlikely	Minor	Low	✓	✓
SE2	Change in landscape character from particular viewpoints could impact how people value that area and their sense of place.	Moderate	Minor	Medium		Unlikely	Minor	Low	✓	✓
Noise and vibration										
NV1	Modelled surface noise management levels may be exceeded by the ferry service and commercial/recreational users of the wharf.	Moderate	Minor	Medium	Yes Refer to section 6.2.5	Unlikely	Minor	Low	✓	✓

Risk Aspect	Risk Impact	Likelihood	Potential Consequence	Preliminary Risk Rating	Mitigation Strategies	Residual Likelihood	Residual Consequence	Residual Risk Rating	Stage 1	Stage 2
Soils, water and contamination										
SWC1	Spills and runoff into Botany Bay from both recreational and ferry vessels.	Likely	Major	High	Yes Refer to section 6.2.6 and 6.2.8	Unlikely	Moderate	Low	✓	✓
SWC2	Localised scour from vessel movements in swept path and around piles.	Moderate	Minor	Medium		Unlikely	Minor	Low	✓	✓
Air quality and Greenhouse Gas Emissions										
AQ1	Potential contribution to climate change through greenhouse gas emissions	Unlikely	Moderate	Low	Yes Refer to section 6.2.7				✓	✓
AQ2	Increase extreme weather events, sea level rise and increased atmospheric carbon dioxide caused by climate change could impact the safe operation of the wharves.	Unlikely	Moderate	Low						
AQ3	Greenhouse gas emissions from the operation of the ferry , recreational vessels and maintenance of the wharves.	Certain	Minor	Medium					✓	✓
Waste										
W1	Waste generated by users of the wharves,	Likely	Minor	Medium	Yes	Likely	Insignificant	Low	✓	✓

Risk Aspect	Risk Impact	Likelihood	Potential Consequence	Preliminary Risk Rating	Mitigation Strategies	Residual Likelihood	Residual Consequence	Residual Risk Rating	Stage 1	Stage 2
	recreational vessels and ferry operations.				Refer to section 6.2.7					
Cumulative Impacts										
CI1	No anticipated cumulative impacts are expected as there are no other major projects scheduled at the same time as the project.	-	-	Low	Not required	-	-	-	✓	✓

Appendix B – Vessel traffic management plan

Transport for NSW

Kamay Ferry Wharves - Vessel Traffic Management Plan

December 2024

t Plan

NSW GOVERNMENT

transport.nsw.gov.au

Acknowledgement of Country

Transport for NSW acknowledges the traditional custodians of the land on which we work and live.

We pay our respects to Elders past and present and celebrate the diversity of Aboriginal people and their ongoing cultures and connections to the lands and waters of NSW.

Many of the transport routes we use today – from rail lines, to roads, to water crossings – follow the traditional Songlines, trade routes and ceremonial paths in Country that our nation's First Peoples followed for tens of thousands of years.

Transport for NSW is committed to honouring Aboriginal peoples' cultural and spiritual connections to the lands, waters and seas and their rich contribution to society.

Table of Contents

Versions

Version	Amendment notes
Draft 1	First Draft for TfNSW comment
Draft 2	Updated draft with TfNSW comments addressed
Draft 3	Updated draft with Port Authority NSW (inclusive of Harbour Master) comments addressed
Final 1.0	Finalised and appended to OEMP. OEMP lodged to DPHI (Oct 2024)
Final 1.1	Updated to address DPHI review (Dec 2024)

1. Background

The NSW Government is replacing the previous ferry wharves at La Perouse and Kurnell as part of the Kamay Botany Bay National Park, Kurnell Master Plan by the National Parks and Wildlife Service.

The new wharves will provide a valuable recreational resource for the community and will allow for future ferry access between both sides of the National Park.

Extensive stakeholder engagement occurred during the planning and construction stages, involving external stakeholders and internal Government stakeholders. Construction of the wharves began in mid 2023, with completion due late-2024.

2. Document Purpose

The purpose of this DRAFT Vessel Traffic Management Plan (VTMP) is to provide guidance to enhance marine safety and navigation for the Kamay Ferry Wharves at La Perouse and Kurnell, Botany Bay. This DRAFT VTMP is issued for discussion and is to be agreed by TfNSW and the Port Authority of NSW prior to finalisation.

This VTMP is to be read in conjunction with, and is subordinate to, NSW and Commonwealth marine legislation, as amended from time to time. In the event of any inconsistency between this VTMP and the legislation or information promulgated on relevant websites (Notices), then the requirements of the legislation and relevant websites take precedence.

The VTMP has been utilising information contained in the Thompson Clarke Navigational Safety Assessment Report[1], which was commissioned by TfNSW for Kamay Ferry Wharves and based on consultation with government and marine industry stakeholders. The VTMP is also based on the Navigational Safety Risk Register and associated process for Kamay Ferry Wharves. Further stakeholder consultation with TfNSW and the Port Authority is to be held prior to finalisation of this VTMS.

3. Implementation and commencement

The implementation of the VTMP will undertaken in two stages:

- **Stage 1** implementation will begin 1 month prior to opening of the Kamay Ferry Wharves for public use and recreational vessels.
- **Stage 2** implementation will begin 1 month prior to commissioning of a TfNSW ferry services between the La Perouse and Kurnell wharves.

The implementation will consist of internal Government stakeholder engagement followed by external stakeholder engagement.

The implementation stage includes:

- installing safety signage at each wharf (various)
- briefing sessions for stakeholders on the VTMP
- issuing of a Marine Notice

[1] Thompson Clarke Shipping, 2020, Kamay Ferry Wharves Project – Navigational Safety Assessment

- notice to Mariners
- updating Boating Maps

4. Relevant marine legislation

The VTMP does not impact on the compliance of any marine legislation. It will support all relevant legislation and should be considered in conjunction to the legislation to maintain safe navigation of vessels in the area.

In the event of any inconsistency between this VTMP and the legislation or information within a Marine Notice or Notice to Mariners, the requirements of the legislation and relevant Notices take precedence.

Current legislation that applies to both commercial and recreational vessels includes:

- Marine Safety Act 1998
- Marine Safety Regulation 2016
- Ports and Maritime Administration Regulation 2021
- Ports and Maritime Administration Act 1995
- Protection of the Environment Operations Act 1997
- Protection of the Environment Operations (General) Regulation 2022
- Protection of the Environment Operations (Noise Control) Regulation 2017
- Marine Pollution Act 2012
- Marine Pollution Regulation 2024
- Marine Safety (Domestic Commercial Vessel) National Law Act 2012.

5. Communications

Masters of all commercial operating in Botany Bay (navigating or at anchor or secured to a buoy) should monitor VHF Channel 12, at all times.

All vessels 30 meters and above must seek clearance to enter the VTS area from Port Authority of NSW on VHF Channel 12. All ferries, irrespective of size, must also seek clearance to enter the VTS area.

Commercial vessels are required to immediately advise Port Authority of NSW VTS on VHF Channel 12 of any matters affecting safe navigation of a vessel operating in Botany Bay.

Port Authority of NSW' Vessel Traffic Service (VTS) provides a continuous service to monitor the movement of participating vessels within the VTS areas of Botany Bay. This includes broadcasted information on navigational warnings, weather forecasts, shipping movements, tidal conditions and special events.

6. General rules and obligations

All vessels shall enter, exit and operate within Botany Bay in accordance with the International Regulations for Preventing Collisions at Sea, with particular attention to the following rules:

- Rule 2 – Responsibility
- Rule 5 – Lookout.

All vessels transiting Botany Bay shall avoid impeding the safe passage of a seagoing ship bound for, or departing, Port Botany. All vessels are prohibited from anchoring or obstructing the Channel in Botany Bay.

All vessels, shall at all times, observe the speed limits while operating in Botany Bay, including the 8 knot speed restriction within Frenchman's Bay for the La Perouse Wharf.

All vessels shall at all times observe the no anchoring zones in Botany Bay, including the no anchoring zone for the Ausgrid easement in close proximity to Kurnell Wharf.

All vessels must, at all times, pass all wharves at a distance whereby they can be clearly seen by a berthed vessel or allow sufficient distance so that avoiding action can be taken by either vessel should a berthed vessel depart.

Vessels may use the La Perouse and Kurnell wharves for storm moorings in an emergency. It is also worth noting that the Yarra Bay emergency anchorage may be used by a ship without prior notice and may impede the normal routes to and from the La Perouse Wharf.

Emergency Management arrangements for incidents and accidents would be in accordance with the Botany Bay Local Emergency Management sub plan (Emergency NSW).

Refer to Section 15 for vessel size limits for each berth face.

7. Ferry Operations

Only Approved Ferry Vessels shall be allowed to operate from the Ferry Berth side of La Perouse and Kurnell wharves.

When departing the ferry berth, either bow or stern first, approved vessels shall maintain a proper lookout and use all available means to ensure a safe departure and avoid impeding the safe passage of other vessels.

Approved ferry vessels shall maintain a radio watch on the VHF channel 12 at all times whilst operating between La Perouse and Kurnell wharves.

Approved Ferry Vessels must have an up-to-date Safety Management System in line with this VTMP. The vessel must meet operational requirements for the vessel to utilise the Kamay Ferry Wharves

Approved ferry vessels are required to implement their own berthing and navigational procedures which align with this VTMP and suit the arrangement with the wharf configuration.

At La Perouse, vessels must remain within the navigable limits shown in Appendix A.

Overnight berthing is not permitted, except in emergency situations.

8. Recreational Use

Recreational Vessels may use the Recreational Berth side of the La Perouse and Kurnell wharves for loading and unloading passengers.

No permanent berthing is permitted. Recreational vessels have a 15-minute limit at berth. Maximum vessel size is 55 tonne displacement.

Recreational vessels departing the Recreational Berth at La Perouse and Kurnell wharves shall at all times observe the visual and audible warnings of commercial vessels operating in the area.

Recreational vessels should not impede the safe passage of Approved Ferry Vessels and other commercial vessels maneuvering and berthing at the Kurnell and La Perouse Wharves.

At La Perouse, all vessels using the Recreational Berth shall remain within 20m of the berthing face at all times.

9. Shipping and commercial vessels

Coordination of the ferry timetable service with daily shipping schedules to be further assessed prior to implementation of Stage 2. *To be confirmed prior to implementation of Stage 2.*

Operators of commercial vessels that utilise Kamay Ferry Wharves and its berthing arrangements should include a reference to this VTMP in their vessel's Safety Management System.

10. Noise

All vessel operators are to operate within the Kamay Ferry Wharves area in a manner that does not create offensive noise.

Under Section 263 of the Protection of the Environment Operations Act 1997, Environment Protection Authority is the Appropriate Regulatory Authority issuing noise control notices for noise pollution from premises such as marinas, boat repair facilities, and vessels.

Offensive noise relates to noise which is, or is likely to be, harmful to other people, or that which interferes, or is likely to interfere, unreasonably with their comfort or repose. A number of factors determine whether the noise is offensive, including but not limited to:

- level (loudness or intrusiveness)
- nature, character and tonal qualities
- time at which the noise is made.

11. Review of VTMP

A Kamay Ferry Wharves Working Group will be established, and key stakeholders will meet to discuss the implementation of the VTMP, operational aspects of the Kamay Ferry Wharves, and overall functionality of the areas. The Working Group will meet weekly for the first month of the Kamay Ferry Wharves Stage 1 and Stage 2 operation, then as required.

The VTMP will be reviewed at three, six and twelve month intervals from commencement of Stage 1 and Stage 2 operations. During these reviews, stakeholders will be engaged to provide feedback on the current VTMP, including timetables for ferry and charter boat operations.

At the completion of the twelve month operating period, TfNSW will review the VTMP on an annual basis or more regularly if required.

Key stakeholders and the Working Group may convene to discuss matters of priority for the operation of the Kamay Ferry Wharves at any stage.

TfNSW will monitor operations within the area during the initial implementation of the VTMP and commencement Stage 1 and Stage 2. This will be achieved through CCTV monitoring, water and land based surveillance.

TfNSW will update the VTMP as required and disseminate information by updating VTMP on the TfNSW website, or by issuing of a Marine Notice or Notice to Mariners, and/or facilitate briefings to Commercial Vessel Operators.

12. Further considerations

The VTMP is developed to be simplistic and effective without introducing complicated regulations or increasing organisational resources to manage the area.

Some additional strategies were also considered and will be implemented if required. These are:

- further recreational vessel restrictions
- enhanced navigational requirements
- Port Authority of NSW VTS Traffic Control
- develop Coordination Plan for shipping and ferry services
- Introducing vessel speed limits

Consultation will continue with key stakeholders to keep them notified of future considerations.

13. Consultation process

The consultation process will involve key stakeholders to review and provide comment on the VTMP. The final

VTMP will be communicated via briefing sessions prior to the commencement of Stage 1 and Stage 2 of the Kamay Ferry Wharves. Further stakeholder engagement will be sought at the three, six and twelve month reviews after each stage.

Key stakeholders to be consulted include:

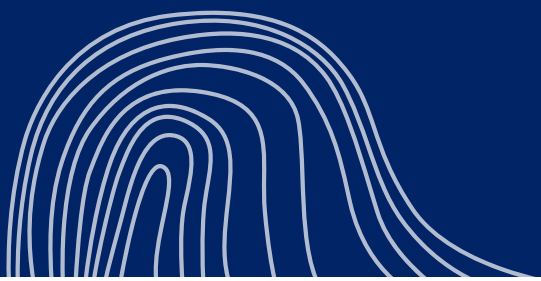
- Transport for NSW
- Port Authority of NSW
- Future Ferry Operator for Stage 2
- NSW Water Police

14. Amendments

Suggested amendments or variations to this plan should be submitted to TfNSW. Suggestions will be considered and submitted for consultation where appropriate.

15. Definitions

Term	Definition
Approved Ferry Vessel	Vessel up 300 tonnes displacement and between 15m and 40m long approved by TfNSW to berth at the Ferry Berth side of Kurnell and La Perouse wharves.
Harbour Master	Means a person appointed by the Minister to exercise the functions detailed in marine legislation. The general powers of the Harbour Master are described under s88 of the Marine Safety Act 1998 no. 121.
Operator of a vessel	The Master and/or the Owner of a Vessel.
Recreational vessel	Means a vessel up to 55 tonnes displacement and 20m length overall used solely for recreation, which is not allowed or authorised to be used in the course of any business or in connection with any commercial transaction.
Speed Limits	Means the speed limits as included in: • the Port Authority of NSW Harbour Master's Directions for Sydney Harbour and Botany Bay • section 11 of the Marine Safety Act 1998 • on authorised signs displayed in the vicinity of Botany Bay • as published in the Government Gazette Notice.
Ports Authority of NSW VTS	Means a Vessel Traffic Service (VTS) operated by the Port Authority of NSW for the Ports of Sydney Harbour and Botany Bay. The service is implemented under a law of Commonwealth or of a State or Territory, and in accordance with the guidelines for Vessel Traffic Services. The VTS is adopted by the International Maritime Organisation to improve the safety and efficiency of Vessel Traffic and to protect the environment.
VHF communications	Means to maintain effective communications by very high frequency (VHF) with Vessel Traffic Service (VTS) (channel 13) and monitor vessel traffic communications within the area.



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Appendix C – Operational maritime risk management plan

KAMAY FERRY WHARVES - VESSEL NAVIGATION RISK REGISTER

Date: September 2024

Rev . Updated to address stakeholder review. Final for lodgement.

No.	Hazards / Risks	Risk Analysis Likelihood x Consequence = Risk			Mitigations	Residual Risk Rating Likelihood x Consequence = Risk			Risk Owners	Hazard Status
		L	C	R		L	C	R		
1	Ferry / commercial vessels impacting seagoing ships crossing the navigational channel while navigating between Kurnell and La Perouse timetable. Consequence: vessel collision and instability, injury to passengers. Consequence other: ferry timetable delays if not inbuilt.	6	3	D	- Consult with HM Office / PANSW and future ferry operator. - Confirm VTS participation requirements. - Develop VTMP for ferry operation in concert with HM's Office. - Vessel masters/ service coordinator to monitor shipping schedule on PANSW web site. - Develop literature for passengers on possible delays. - Ensure time float in ferry timetable to minimise pressures on vessel master.	6	4	D	TfNSW Service Operator VTS	Open
2	Increased recreational vessel numbers impact on seagoing ship within the navigational channel. Consequence: vessel collision and instability, injury to boat users.	5	2	C	- Consult with HM Office / PANSW. - Confirm VTS participation requirements. - Develop VTMP for recreational boat users in concert with HM's Office. - Conduct education campaign with Botany Bay motorboat and yacht clubs, and representatives of BIA and CVA.	4	3	C	TfNSW Service Operator VTS	Open
3	Angling vessels fishing in close proximity to ferry route at Kurnell Wharf. Consequence: vessel collision and instability, injury to passengers. Consequence: vessel wake, injury to fishers.	3	4	C	- Develop VTMP for ferry operation in concert with TfNSW and HM's Office. - Ensure vessel crews are appropriately trained and certificated. - Conduct education campaign with anglers / fishermen. - Develop protocols for ferries navigating in proximity to fishing vessels. - Ferries to manoeuvrer a safe speed and distance at all times.	4	5	D	Service Operator Harbour Master VTS	Open
4	Ongoing dive / snorkelling activities interacting with wharf related vessel traffic at La Perouse. Consequence: vessel impacting people in water causing injury / death.	4	5	D	-Provide signage as per project specification. - Develop VTMP for ferry operation in concert with TfNSW and HM's Office. - Ensure vessel crews are appropriately trained and certificated. - Conduct education campaign with diving associations and companies conducting diving activities.	5	5	D	TfNSW Service Operator Activity Manager Vessel Master	Open
5	La Perouse: Proximity of existing vessel moorings / buoys to wharf activities impacting vessel and passenger safety. Consequence: ferry collision with moored vessel due to insufficient navigable space.	4	5	D	- Develop VTMP for ferry operation in concert with TfNSW and HM's Office. - Limit extent of ferry navigation in consultation with future operator. - Relocation of rec vessel mooring buoys as per construction stage. - Establish clearing marks ashore. - Ensure vessel crews are appropriately trained and certificated.	5	5	D	TfNSW	Open
6	Navigational hazards to vessels using wharves - jetties, shallows etc. Especially at La Perouse. Consequence: vessel collision and damage causing sinkage.	4	4	C	- Develop VTMP for ferry operation in concert with TfNSW and HM's Office. - Ensure vessel crews are appropriately trained and certificated. - Conduct education campaign with Botany Bay motorboat and yacht clubs, and representatives of BIA and CVA.	5	4	D	Service Operator Vessel Master	Open
7	Exposure of wharves and ferry operations, alongside, to adverse swell and sea conditions and potential cessation of operations.	1	4	B	- Develop VTMP for ferry operation in concert with TfNSW and HM's Office. - Establish safe operating criteria for inclusion within VTMP (consult with ferry operator). - Establish which source of weather and sea conditions to be used to monitor conditions. - For ferry service, vessels to be moored at a sheltered berth location (by others) - Ensure vessel crews are appropriately trained.	1	4	B	TfNSW Service Operator Vessel Master	Open
8	Safety of passengers embarking and disembarking ferries at wharves impacted by large swells / seas.	1	2	A	- Develop VTMP for ferry operation in concert with TfNSW and HM's Office. - Establish safe operating criteria for inclusion within VTMP. - Ensure vessel crews are appropriately trained. - Provide additional personnel on the jetties to assist passengers. - Cease passenger boarding if unsafe	4	3	C	TfNSW Service Operator Vessel Master	Open
9	Conditions too rough for vessels to remain alongside for prolonged period of time (i.e. overnight and cribbing). Vessel and wharf damage.	1	5	B	- Develop VTMP for ferry operation in concert with TfNSW and HM's Office. - Establish lay-up / safe haven berths. - Establish safe operating criteria for inclusion within VTMP. - Ensure vessel crews are appropriately trained.	1	6	C	TfNSW Service Operator Vessel Master	Open
10	Wharves difficult for recreational vessels to use safely given design.	2	3	B	- TfNSW to include BIA in consultation on wharf design. - Incorporate BIA design preferences in wharf design. - Conduct education campaign with BIA. - Wharf designed with multi level access and separate from ferry berth. - Recreational berth only to be used for 'good weather' berthing	3	4	C	TfNSW	Open

11	Recreational user non-compliance with procedures and requirements.	1	3	A	- TfNSW and HM to conduct education campaign with BIA and CVA. - TfNSW to monitor compliance during high recreational vessel traffic periods. - Develop VTMP for ferry operation in concert with TfNSW and HM's Office. - Establish procedures for advising authorities of rec vsl non compliance within VTMP.	2	4	B	TfNSW HM	Open
12	Recreational vessels berth for long periods and blocking access for other recreational vessels, especially at the lower and more accessible platforms	1	4	B	- Implement wharf condition of pick up and drop off only. - Communicate via signage and patrol.	4	5	D	TfNSW HM	Open
13	Multiple vessel users of wharf, ferry and recreational. Collisions between ferry vessel and recreational vessel when leaving / departing respective berths.	3	4	C	- Establish vessel traffic management protocol. - Recreational vessels required to give way to ferry vessels - CoI regs - Communicate with signage and updated boating maps.	4	4	C	TfNSW	Open
14	User berth conflict between ferry and recreational vessels and potentially other wharf users.	1	3	A	- Segregate berths for users. - Develop VTMP for ferry operation in concert with TfNSW and HM's Office. - Provide signage. - Monitor with patrols	4	5	D	TfNSW	Open
15	Collision between ferry swept path and beach users and swimmers.	5	2	C	- Develop VTMP for ferry operation in concert with TfNSW and HM's Office.	5	2	C	TfNSW	Open
16	Large wake from ferry vessel impacting swimmers (drowning).	5	2	C	- Reduce speed limit for ferries from 8 knots to 4 knots in close proximity to wharf. - Develop VTMP for ferry operation in concert with TfNSW and HM's Office. - Consult with ferry operator.	5	2	C	TfNSW HM Service Operator	Open
17	Large recreational vessel using berth bigger than design vessel, overloading the berth structure.	3	2	B	- Communicate via signage the maximum design vessel for each berth (300 tonnes for ferry and 55 tonnes for recreational berth).	4	3	C	TfNSW	Open

Risk Matrix Evaluation Table

Risk Ratings A – Very High B – High C – Medium D – Low			Consequence					
			Insignificant	Minor	Mode	Major	Severe	Catastrophic
			C6	C5	C4	C3	C2	C1
Likelihood	Almost certain	L1	C	B	B	A	A	A
	Very likely	L2	C	C	B	B	A	A
	Likely	L3	D	C	C	B	B	A
	Unlikely	L4	D	D	C	C	B	B
	Very unlikely	L5	D	D	D	C	C	B
	Almost unprecedented	L6	D	D	D	D	C	C

Appendix D – Operational marine biodiversity impact assessment (ToC)

Indicative Table of Contents

i. Executive Summary

ii. Introduction

iii. Project Description

iv. Legislative and Policy Framework

v. Marine Biodiversity Overview

vi. Impact Assessment Methodology

vii. Operational Impact Analysis

viii. Mitigation Measures and Management

ix. Consultation and Stakeholder Engagement

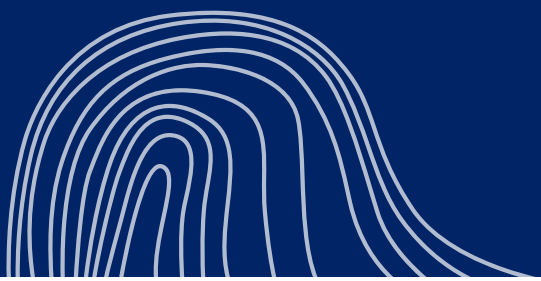
Appendix E – Operational noise review (ToC)

Chapter	Description
Introduction	Project overview Purpose of this report Minister's Conditions of Approval
Existing environment	**Land uses surrounding the Ferry Wharves** La Perouse Kurnell **Baseline noise monitoring** Measurement locations Measured noise levels
Operational noise criteria	**Ferry operations noise criteria** Intrusive noise trigger level Amenity noise criteria Sleep disturbance Established Project Specific Noise Trigger Levels **Road traffic noise criteria**
Operational noise impact assessment	**Overview** **Ferry operations** Methodology Inputs (includes Ferry PA system) Assessment Results **Operational road traffic** Methodology Inputs Assessment Results
Operational noise management (if required)	Operational Noise Management Measures
Conclusion	Summary of key findings Conclusion

Appendix F – Operational noise compliance report (ToC)

Chapter	Description
Introduction	**Project overview** **Purpose of this report** **Structure of this report**
Project requirements	**Minister's Conditions of Approval** **Operational noise policy and guidance**
Operational noise compliance	**Sensitive receivers** **Project specific noise criteria** **Methodology** Measurement Locations Noise monitoring equipment Weather **Measurement Results**
Conclusion	**Summary of key findings** **Conclusion**

Appendix G – Transport Signage Strategy



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