STAR OF THE SOUTH

Commonwealth Environmental Impact Statement

Chapter 23 – Commonwealth Environmental Management Framework

Chapter 23 Commonwealth Environmental Management Framework

The Star of the South Offshore Wind Farm Project (the project) is located offshore in the Commonwealth Marine Area and Victorian coastal waters, and onshore in the coastal area of Gippsland, Victoria. The project therefore requires approvals under both Commonwealth and Victorian legislation. Two separate Environmental Management Frameworks (EMFs) have been developed for the project to outline how the environmental effects of the project will be managed to comply with the requirements of Commonwealth and Victorian legislation.

This chapter presents the Commonwealth EMF for the project activities that are proposed to be undertaken in the Commonwealth Marine Area or that are otherwise regulated by Commonwealth legislation.

23.1 Introduction

The EMF provides a governance framework for managing the environmental effects of the project and includes accountabilities for the implementation of management plans during construction, operation and decommissioning.

As required by section 2.8.1 of the EIS Guidelines, this EMF contains:

A detailed outline of the environmental management plans that set out the framework for management, mitigation and monitoring of relevant impacts of the action, including any provisions for independent environmental monitoring.

The EMF has been informed by the technical assessments completed as part of the project's EIS, as well as relevant legislation, policies and guidelines. It includes a consolidated list of all the mitigation measures recommended in the technical assessments to avoid, minimise and mitigate potential impacts from the project in the Commonwealth Marine Area and impacts to matters that are protected by Commonwealth legislation.

23.1.1 Project delivery approach

The project proponent, Star of the South Wind Farm Pty Ltd as trustee for Star of the South Trust (Star of the South) is the entity responsible for project delivery. To construct, operate and decommission the project, a range of contractors will be engaged by Star of the South to undertake packages of work and specialised activities. The Contractors will be required to comply with the requirements of their project contract, this EMF and any plans or mitigations required or referred to in this EMF that are relevant to their works package. Contractors will also ensure their sub-contractors comply with relevant requirements of this EMF and the project approvals.

23.1.2 Works covered by this framework

This EMF covers works for the project and their potential environmental effects and risks that will be regulated by Commonwealth environment and heritage legislation. It covers the works proposed to be carried out in the Commonwealth Marine Area and across the whole project, both onshore and offshore, where works may interact with matters protected by the EPBC Act.

This Commonwealth EMF does not address matters regulated by Victorian legislation.

The key components and activities covered by this Commonwealth EMF are described in *Chapter 4 – Project Description* and include:

Within the Commonwealth Marine Area:

- The offshore wind farm and transmission infrastructure including:
  - Up to 147 turbines and connecting inter-array cables
  - Up to five offshore substations and three interlink cables
  - Up to eight offshore export cables.

Outside the Commonwealth Marine Area (where works may interact with matters protected by the EPBC Act):

- The nearshore transmission and shore crossing infrastructure:
  - Up to eight trenchless crossings containing the offshore export cables.
- Onshore transmission infrastructure:
  - Approximately 30 kilometres of underground cables up to the proposed VicGrid connection hub
- Temporary construction infrastructure to enable construction.

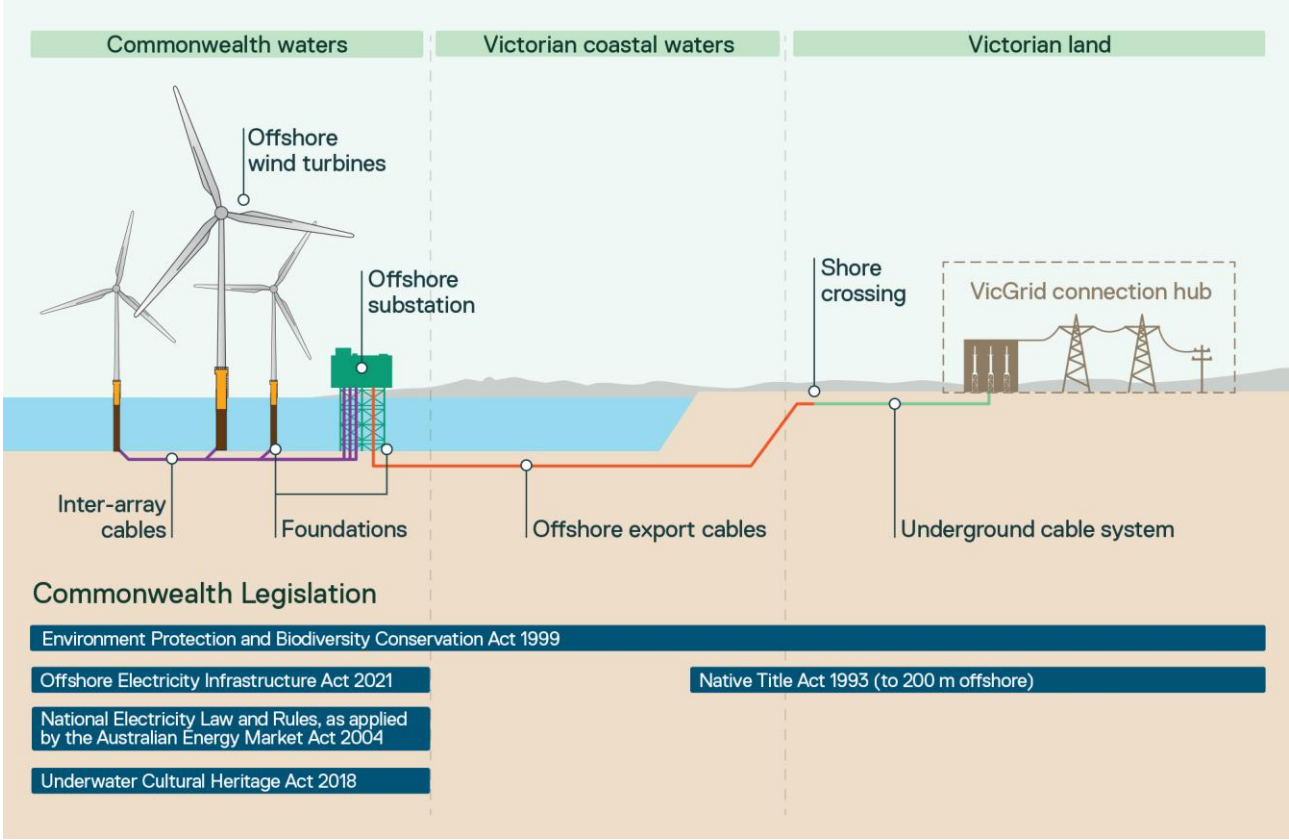
23.2 Statutory context

Star of the South is responsible for preparing an EIS the project under the *Environment Protection and Biodiversity Conservation Act 1999* (Cth) (EPBC Act).

Different approvals are required for the different project components within the Commonwealth jurisdiction, as shown in Figure 23-1. The figure illustrates the legislation and different geographical boundaries for the primary approvals required for the project. Further information on the regulatory framework for the project is provided in *Chapter 5 – Commonwealth Legislative Framework*.

This section provides the statutory context for approvals required under Commonwealth legislation only.

Figure 23-1 Statutory context overview



23.2.1 Primary approvals

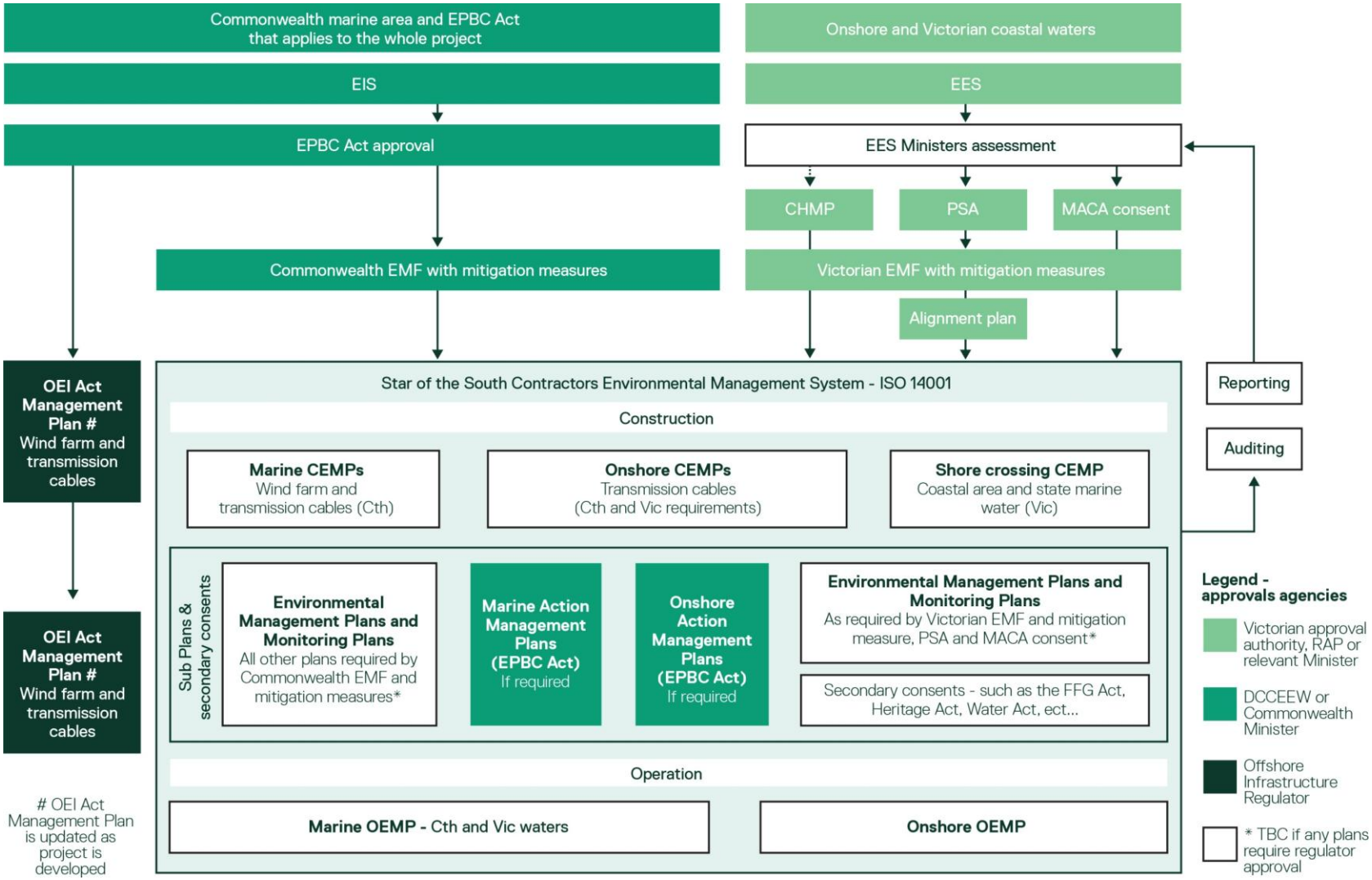
Star of the South requires the following primary approvals under Commonwealth legislation:

- Approval of the project under the EPBC Act for potential impacts on Matters of National Environmental Significance
- Commercial licence under the *Offshore Electricity Infrastructure Act 2021* (OEI Act) (Cth)
- Transmission and infrastructure licence under the OEI Act 2021 (Cth).

The primary approvals required under Victorian legislation are described in *Chapter 5 – Commonwealth Legislative Framework.*

Star of the South, working with its Contractors, will develop, implement and maintain management plans for the construction, operation and decommissioning of the project. The plans will be developed to meet the requirements of the primary approvals and, in the case of management plans under the OEI Act, the requirements of the Act and its associated regulations. Figure 23-2 provides an overview of the project approvals required under both Commonwealth and Victorian jurisdictions and key plans that are expected to be required to comply with the approvals. A description of these key plans is provided in Section 23.5.

Figure 23-2 Overview of the primary approvals and key plans



23.2.2 Environment Protection and Biodiversity Conservation (EPBC) Act

On 2 June 2020 a delegate to the Commonwealth Minister for the Environment determined that the project is a controlled action requiring assessment and approval under the EPBC Act. A variation to the EPBC Act referral was approved on 9 July 2025. This variation included additional areas in the Commonwealth marine area and for the onshore transmission route. The project was required to be assessed in an Environmental Impact Statement (EIS), and this assessment must consider potential impacts to relevant Matters of National Environmental Significance (MNES) onshore and up to three nautical miles offshore in Victorian waters, and to the environment in the Commonwealth Marine Area.

Following completion of the statutory impact assessment process, the Minister will decide whether to approve the project under the EPBC Act. As discussed in Section 23.2.3, Star of the South will also require a commercial licence and approved management plan under the OEI Act to be able to construct and operate the project. Section 115 of the OEI Act creates a link between the EPBC Act approval and the OEI Act management plan. The OEI Act requires a management plan to address how obligations under the EPBC Act or associated regulations will be complied with in the delivery of the project under the commercial licence and transmission and infrastructure licence (OIR 2024a).

23.2.3 Offshore Electricity Infrastructure (OEI) Act

Star of the South holds a feasibility licence under the OEI Act. The offshore wind farm is proposed within the feasibility licence area. This licence authorises Star of the South to assess the feasibility of commercial offshore electricity infrastructure for the licence area.

If approved under the EPBC Act, Star of the South will seek approval of a management plan under the OEI Act by the Offshore Infrastructure Regulator that will apply to the construction, commissioning, operation or decommissioning of the proposed project activities within the commercial licence area (see Section 23.5.1 for more information about OEI Act management plans).

Under the OEI regulations, the management plan must describe measures that will be implemented to comply with the conditions of the EPBC Act approval for the project. The management plan will cover all activities required by the licence holder to deliver the works, including safety management, and will be legally enforceable.

The management plan must be approved by the Offshore Infrastructure Regulator before a feasibility licence holder can apply for and be granted a commercial licence.

The commercial licence will authorise Star of the South to construct, install, operate, maintain and decommission the project within the commercial licence area for the duration of the licence. Only Star of the South can apply for a commercial licence within its existing feasibility licence area.

As the project also includes offshore electricity transmission infrastructure that will extend beyond the commercial licence area, a separate transmission and infrastructure licence is required to construct, install, operate, maintain and decommission this infrastructure in Commonwealth waters. The licensed activities will also need to be undertaken in accordance with a management plan that has been approved by the Offshore Infrastructure Regulator.

23.3 Roles and responsibilities

Star of the South will be responsible for overseeing the delivery of the project including stakeholder and community engagement, project approvals, design, construction, operation and decommissioning. Contractors will be engaged to design, construct and operate the project in accordance with the project approvals and required management plans.

The roles and responsibilities in relation to environmental management are outlined in Table 23-1.

Table 23-1 Key roles and responsibilities for the Commonwealth EMF

Organisation	Role	Responsibility
Commonwealth Minister for the Environment and Water	Decision making and regulation	The Minister or delegate will decide whether the project is approved, approved with conditions or refused under the EPBC Act. Review and approve action management plans as required under the conditions of the relevant EPBC Act approvals. Receive audit or monitoring reports as required by the EPBC Act approval. Enforce compliance with the EPBC Act approval, as required.
Offshore Infrastructure Regulator (OIR)	Decision-making and regulation	Under the OEI Act, the Offshore Infrastructure Regulator has responsibility to provide operational oversight of offshore renewable energy projects and the works undertaken to manage health and safety, infrastructure integrity and environmental management for the works. Review and approve management plans under the OEI Act. Undertake inspections during construction, operation and decommissioning to confirm compliance with the OEI Act management plan and licence conditions. Where non-compliance with the OEI Act management plan and EPBC Act conditions is identified, take enforcement action and engage with the Department of Climate Change, Energy, the Environment and Water (DCCEEW) where required. Receive and review environment reports as required by the project's approved management plan and licence under the OEI Act.
Commonwealth Department of Climate Change, Energy, the Environment and Water (DCCEEW)	Administer conditions of the EPBC Act	Review and comment on action management plans, other relevant plans and documents required to comply with EPBC Act approval conditions. Receive and review environment reports where required.

Organisation	Role	Responsibility
Star of the South	Proponent	Obtain and comply with key Commonwealth statutory approvals relevant to the Commonwealth EMF including: • Approvals under the EPBC Act • An approved management plan under the OEI Act • Commercial licence under the OEI Act • Transmission and infrastructure licence under the OEI Act. Develop and implement an Environmental Management System. Develop and obtain approval for Action Management Plans, where required by the EPBC Act approval. Mandate compliance with all relevant approvals, mitigation measures, action management plans and any other environmental management plans required to comply with project approvals and in the project contracts during construction, operation and decommissioning. Evaluate environmental management capability as part of contractor selection process to ensure they have the qualifications, competencies and supervision necessary to ensure compliance with management plan/s and other approvals. Review action management plans and environmental management plans prepared by Contractors before being submitted to statutory authorities for approvals. Audit and monitor Contractor compliance with approved mitigation measures, action management plans, environmental management plans and approvals conditions and take corrective action where required. Submit relevant environment reports to the applicable regulator(s) where required by legislation or approval conditions to outline the environmental performance of the project. Conduct stakeholder and community engagement as required.
Contractors	Design, construction, operation and decommissioning (as relevant to the scope of the respective contract)	Comply with environmental laws and approval conditions, action management plans, including preparing and implementing environmental management plans. Develop and implement plans required to comply with approval conditions and the Commonwealth EMF. Manage any Sub Contractors to ensure compliance with approval conditions, action management plans, environmental management plans and the Commonwealth EMF. Obtain any additional permits and approvals required to design, construct or operate the project works that are the subject of the project contract (other than the approvals to be obtained by Star of the South). Develop and implement environmental management systems consistent with AS/NZS ISO 14001:2015. Comply with approved action management plans, environmental management plans during project delivery and take corrective action where required. Report compliance with approved environmental management plans to Star of the South. Conduct stakeholder and community engagement as required.

23.4 Environmental Management System

An Environmental Management System (EMS) provides an organisation with a framework and systematic approach to achieving its objectives for environmental management and sustainability and driving continuous improvement.

Star of the South will maintain its own EMS that will cover all activities that are proposed to be undertaken across the whole project. It will apply systems and procedures to monitor and review compliance of Contractor activities with Victorian and Commonwealth approvals.

Contractors involved in the construction, operation and decommissioning of the project will also have an EMS to guide environmental management across the key project works packages. Contractors must have an EMS that is in accordance with AS/NZ ISO 14001:2015.

Consistent with AS/NZS ISO 14001:2015, each EMS will address the following:

- Leadership and commitment
- Environmental policy
- Roles and responsibilities for environmental management
- Environmental risk and opportunity assessment and actions to address these
- Requirements for setting and achieving objectives and achieving compliance with environmental legislation, approval conditions and consents
- Requirements for competency and awareness
- Communication and reporting
- Management of documentation and records
- Operational control including emergency preparedness and response
- Monitoring procedures and internal and external audit program
- Processes for responding to incidents and non-conformance and implementing corrective and preventative action
- Review and continual improvement.

Using this approach, the systems and procedures developed and implemented by Contractors will provide a high level of assurance that environmental issues associated with the project will be effectively monitored and controlled during construction, operation and decommissioning of the project.

23.4.1 Star of the South EMS

Key components of the Star of the South EMS include an audit plan and schedule and a Compliance Plan. These documents will be progressively updated as the project progresses through design, construction, operation and decommissioning phases.

The audit plan and schedule will set out Star of the South's approach to auditing the works of each Contractor. A risk-based approach will be adopted to determine the priorities for the auditing plan, which will be reviewed and updated as required. Compliance with all mitigations will also be audited by Star of the South annually (as a minimum) where relevant activities are being undertaken.

Audits include reviewing and verifying that Contractor’s environmental management documents comply with the Commonwealth EMF and approval conditions prior to commencement of construction.

The Compliance Plan will outline the approach to managing compliance in accordance with approvals under both Commonwealth and Victorian legislation for the whole project. The Compliance Plan will include:

- A summary of the key applicable environmental legislation and approvals and associated conditions.
- Roles and responsibilities for managing compliance with key environmental legislation and approvals.
- Consolidated requirements from both the Commonwealth and Victorian EMFs including a high-level summary of the approval conditions
- An overview of the management plans, procedures and other documents that address the approval conditions.
- A matrix outlining the mitigation measures from both EMFs and which management plans, procedures or documents address the mitigation measures.

Star of the South will engage auditors with relevant qualifications, expertise and experience to review and verify project documents and audit project activities.

23.4.2 Risk management

The Star of the South EMS will include procedures for risk management during project implementation, including maintenance of a risk register which will be updated as required considering new information, monitoring results, and the findings of audits.

The EIS considered environmental risks that could occur due to unplanned events or accidents during construction, operation and decommissioning. These risks will be considered as a starting point for the risk register to be maintained during the project.

The Star of the South environmental risk register will be maintained as part of the EMS and reviewed on a regular basis to ensure it remains relevant and adequately considers risks throughout project implementation.

23.5 Environmental management documents

Environmental management documents must be prepared to document how Star of the South and its Contractors will comply with the project's statutory approvals and how management, mitigation and monitoring measures will be implemented to manage the environmental effects of the project.

The statutory approvals for the project will be implemented through a series of documents required as conditions of statutory approvals. These documents will outline how compliance with relevant standards, guidelines and statutory approval obligations, as outlined in Section 23.2, will be achieved and to reflect the mitigation measures outlined in Section 23.8.

Documents prepared by contractors will be required to align with the documents and mitigation measures referenced in the statutory approvals and consents where relevant, as they detail mandatory conditions and contingency measures to protect environmental and social values throughout the life of the project.

Different plans will be required for the different project components to meet the applicable statutory approvals and scope of works allocated to Contractors. The different plans required to address the EPBC Act approval conditions for the project components in the Commonwealth offshore area will be referenced in the OEI Act management plan where relevant (see section 23.5.1).

All management plans required to comply with the EPBC Act approval conditions must be prepared in accordance with the Environmental Management Plan Guidelines (DCCEEW 2024) and take into account the Australian Ramsar Management Principles where required. If required as a condition of the EPBC Act approval, Action Management Plans will be approved by the Commonwealth Minister for the Environment or DCCEEW in accordance with the EPBC Act approval. All other plans required to comply with the mitigation and monitoring measures and the EPBC Act approval that are not Action Management Plans are referred to as environmental management plans in this EMF.

To prevent duplication and inconsistency, environmental management plans and action management plans will be created that address the requirements in both Commonwealth and State waters. These plans will be developed in consultation with relevant regulators to address all statutory requirements. Separate plans for works in Commonwealth and Victorian waters will only be prepared where there is a requirement for regulator endorsement or approval of the plans in accordance with approval conditions, noting that there is no legislative provision for joint approval of plans across jurisdictions. The need for separate plans will be confirmed in consultation with regulators prior to works commencing.

Before the commencement of each project phase (construction, operation, decommissioning), Star of the South or its Contractors will obtain any further statutory approvals or secondary consents (e.g. approvals of management plans that are required by conditions of consent), as described in *Chapter 5 – Commonwealth Legislative Framework*.

Prior to construction, all documents required by the approval conditions, EMF and mitigation measures that are prepared by the Contractors will be reviewed by Star of South. The following sections outline the environmental management documentation that Star of the South and its Contractors will prepare and implement to address Commonwealth approvals. The environmental management documentation must comply with the EMF and approval conditions and address relevant legislation and contractual requirements.

A coordinated approach to environmental management will be undertaken for all offshore activities. Action management plans and environmental management plans identified through the preparation of technical studies for the EIS will form sub plans to Marine Construction Environmental Management Plans (Marine CEMPs) (See section 0) and Marine Operational Environmental Management Plans (Marine OEMP) where required.

23.5.1 OEI Act Management Plan

As outlined in section 23.2.3, a Management Plan must be approved by the Offshore Infrastructure Regulator before project construction, commissioning, operation or decommissioning activities can commence. The regulator is also responsible for administering the management plan and monitoring ongoing compliance of the licence holder (OIR 2024b).

The Management Plan must describe a management system to address a licence holder's various legal obligations, including those under the OEI Act and EPBC Act. It addresses a broad range of matters, including but not limited to environmental management, health and safety, infrastructure integrity and stakeholder consultation. Discussion about the OEI Act Management Plan within this Commonwealth EMF relates only to environment-related requirements.

Section 115 of the OEI Act outlines the matters to be addressed by a Management Plan, which include environmental management and obligations under the EPBC Act (see Section 23.2.3). The following guidance documents published by the Offshore Infrastructure Regulator, or the most up to date guidance materials at the time, will be referenced when preparing the Star of the South OEI Management Plan:

- Management plan content, Document No: N-04403-GL2084 A1153587

- Consultation and engagement for OEI management plans, Document No: N-04403-GL2259 A1164505
- Environmental management regulation for offshore renewables, Document No: A1087958.

There will be one Management Plan for the life of each licence under the OEI Act that will be updated as the project progresses. The OEI Act management plan will be approved in stages as the Star of the South project develops and Contractors are engaged. The OEI Act management plan will be updated for operation and decommissioning when the project is nearing those stages.

The EIS sets out mitigation measures for all activities and phases of the project, which will be addressed through the implementation of action management plans and other required environmental management and monitoring plans. These plans will be referenced in the OEI Act management plan, where required (OIR 2023).

23.5.2 Star of the South Marine Operations Framework

Star of the South will develop a Marine Operations Framework to outline the requirements and obligations for all vessels and their crews and diving operations required for the project. The framework will be implemented and updated as required during construction, operation and decommissioning. The Marine Construction Environmental Management Plans (Marine CEMPs) and sub plans prepared by each Contractor will address the requirements of the Marine Operations Framework.

The Framework will include:

- Identification of plans, procedures and equipment that vessels must have in place including requirements for the level of competence and training of vessel crew and masters
- Vessel crew induction and pre-start briefing requirements
- Vessel operations framework
- Vessels safety management systems requirements including compliance with maritime and transport safety regulations
- Communication of obligations and responsibilities that vessels must adhere to when operating on the project, including statutory reporting
- Requirements for implementing biosecurity controls and ballast water management plan
- Procedures for re-fuelling and re-supply on vessels

- Safe diving controls.

The Marine Operations Framework will address the requirements for the following mitigation measures, which are outlined in section 23.8.2.

Table 23-2 Mitigation measures addressed in the Marine Operations Framework

Mitigation measure ID	Mitigation measure title
VES-M01	Vessel Operations Framework
VES-M04	Vessel movement controls
VES-M05	Vessel biosecurity controls
VES-M06	Vessel collision - marine mammals
VES-M07	Propeller guards
VES-M08	Routine discharges & accidental discharges
VES-M09	Vessel crew environmental induction
VES-M10	Restricted speed in southern right whale Biologically important Area
VES-M11	Adaptive management procedure for southern right whales and blue whales
LIT-M01	Infrastructure Light Management
LIT-M02	Vessel Artificial Light Management
OMU-M13	Safe diving controls
SPL-M01	Refuelling and resupply limitations

23.5.3 Offshore construction

23.5.3.1 Overview

The Marine CEMPs prepared by each Contractor will apply to works within their scope for construction and commissioning of different components of the project within the Commonwealth marine area. The Marine CEMPs will include relevant subplans on specific matters to address approval conditions and the Star of the South Marine Operations Framework.

An overview of the content and approvals of the Marine CEMPs and sub plans to address matters protected by Commonwealth legislation is presented in Table 23-3.

Table 23-3 Overview of content and approval of the Marine CEMPs and sub plans

Document	Description	Responsibility
Marine Construction Environmental Management Plans (CEMPs) and sub plans – for each Contractor's works package	Contractors will develop and implement a Marine CEMP for their package of works as required by their project contract and in accordance with the EMF and mitigation measures, and to comply with approval conditions during construction and commissioning. The Marine CEMPs and sub plans must be developed in accordance with DCCEEW's Environmental Management Plan Guidelines, where applicable. The Marine CEMP and sub plans will be prepared in consultation with agencies relevant to the works covered in the sub plans. The Marine CEMPs and sub plans will be subject to regulator approval prior to commencing construction. The Marine CEMP will include details of processes and responsibilities for: • Achieving compliance with approval conditions, secondary consents, permits and relevant legislation for construction • Identifying, mitigating, monitoring and managing environmental risks and issues during construction to address all requirements outlined in the mitigation measures provided in Table 23-8 • Applying environmental objectives, performance criteria, corrective actions and timing for each environmental issue • Site inductions, training, competency and awareness • Communication and reporting • Environmental monitoring, reporting and auditing requirements • Managing complaints, incidents, nonconformance • Emergency preparedness and response • Review and continual improvement. Description of the content of the key subplans to the Marine CEMP are provided in Table 23-5.	**Owner**: Contractors **Review**: Star of the South **Accept**: Star of the South

Document	Description	Responsibility
Action management plans required by the EPBC Act approval during construction	The requirement for and scope of action management plans for the project during construction will be defined in the conditions of the EPBC Act approval, subject to the Commonwealth Minister for the Environment assessment of the EIS. It is expected that mitigation and monitoring measures relevant to matters protected by the EPBC Act may also need to be addressed in action management plans. Action Management Plans for construction will: • Outline how Star of the South and its contractors will avoid, minimise and mitigate impacts to matters protected by the EPBC Act and the marine environment. • Be prepared by a suitably qualified and experienced personnel. • Be reviewed annually, or at the frequency required in the EPBC Act approval, to confirm they are adequately addressing the impacts as works progress. • Include monitoring plans, if required by the EPBC Act approval, prepared by Star of the South to verify compliance. These monitoring plans will also be referenced in the Marine CEMP. • Be developed in accordance with DCCEEW's Environmental Management Plan Guidelines, where applicable.	**Owner**: Star of the South **Review**: Star of the South **Approve**: DCCEEW
Environmental management and monitoring plans required by the mitigation measures to protect the environment during construction	The mitigation measures (section 23.8) set out requirements to develop and implement relevant management and monitoring plans to avoid, minimise and mitigate impacts to matters protected by the EPBC Act and in the marine environment during construction. Mitigation measures for construction that are not required to be addressed in the Action Management Plans will be addressed in separate environmental management and monitoring plans. The environmental management and monitoring plans for construction will: • Outline how Star of the South and its contractors will avoid, minimise and mitigate impacts to matters protected by the EPBC Act and the marine environment. • Be prepared by a suitably qualified and experienced personnel • Be reviewed at least annually, or at the frequency required by the plan, to confirm they are adequately addressing the impacts as works progress. • Include monitoring plans prepared by Star of the South to verify compliance. These monitoring plans will also be referenced in the Marine CEMP. • Be developed in accordance with DCCEEW's Environmental Management Plan Guidelines, where required. • Be prepared in consultation with relevant agencies as required by the mitigation measures.	**Owner**: Contractors unless otherwise specified by the mitigation measures **Review**: Star of the South **Accept**: Star of the South

Document	Description	Responsibility
Communications and Stakeholder Engagement Plan - construction	A Communications and Stakeholder Engagement Plan will guide consultation with Traditional Owners, stakeholders and communities during the construction phase and meet requirements of the OEI Act. Star of the South will prepare an overarching plan that sets out the principles and framework that will be implemented by Star of the South and its Contractors. Where required, contractors will prepare a subplan to the Communications and Stakeholder Engagement Plan relevant to their specific construction activities, which complies with the Star of the South overarching plan. Further description of the content of plan is provided in Table 23-5.	**Owner**: Star of the South and Contractors **Review**: Star of the South **Accept**: Star of the South

23.5.3.2 Marine CEMPs and management documents

Marine CEMPs will be prepared by each Contractor to describe how the requirements of the Commonwealth EMF, the Marine Operations Framework, and mitigation measures will be complied with and implemented during construction. The Marine CEMPs will be a key plan referenced in the OEI Act management plan (section 23.5.1) during construction and will apply to the environmental impacts of all activities and works undertaken within the Commonwealth marine area.

It may be necessary to prepare separate documentation to meet the conditions of Commonwealth and Victorian approvals and have separate plans for activities undertaken in Victorian and Commonwealth waters. If this is a requirement, to avoid inconsistencies in approaches outlined in the documentation, contractors will include the same mitigation measures in the plans for the same activities that are carried out in both jurisdictions. These plans will be developed in consultation with relevant Commonwealth and Victorian agencies where required by the mitigation measures or approval conditions.

Activities for installation and operation of the transmission cable occurs in both Commonwealth waters and State waters. Consequently, the following topics will require the same measures to be included in management plans under the EPBC Act, OEI Act and the *Marine and Coastal Act 2018* (Vic) (MAC Act):

- Ballast water management
- Spills and oil pollution prevention and management
- Underwater cultural heritage management
- Vessel movements and marine operations.

Table 23-4 outlines the sub plans to the Marine CEMPs and other marine management documents required for construction that are recommended in the mitigation measures in the EIS technical studies. The same Marine CEMP sub plans will be used by all contractors so that a consistent approach is applied across all activities occurring within the offshore project area. Marine CEMPs and sub plans will cover all works being undertaken in the marine environment. Any specific subplans required by approvals under Victorian legislation for the marine activities will also be appended to the Marine CEMPs.

Table 23-4 List of Marine CEMP sub plans and other marine management documents

Marine CEMP sub plans	Other marine management documents
Operational lighting and marking plan Aids to navigation and lighting plan Spill response plan Underwater cultural heritage management plan Vessel passage plan Marine mammals and turtles monitoring and management plan to implement the Underwater noise monitoring framework (see *Attachment III – Construction Underwater Noise Management Framework)*.	Seabird monitoring and management plan to implement the Seabird Monitoring and Management Framework (see *Attachment IV – Seabird Monitoring and Management Framework)*. Fisheries Liaison and Coexistence Plan Communications and Stakeholder Engagement Plan

An overview of the content of the sub plans for the CEMP and other marine management documents is provided in Table 23-5.

Table 23-5 Description of Marine CEMP sub plans and other marine management documents

Sub plan title	Description	Mitigation measures
Fisheries Liaison and Coexistence plan	The aim of the Fisheries Liaison and Coexistence Plan is to facilitate co-existence between the project and commercial fishing interests. The plan will include: • Details on consultation with the industry • Strategy for fisheries liaison and coexistence • Code of good practice on working together with the industry • Incident management for gear snagging • Compensation calculation methodologies • Identification of commercial opportunities for commercial fishers.	CRF-M08 CRF-M09
Operational Lighting and Marking Plan	The aim of the Lighting and Marking Plan is to describe the operational lighting and marking of the offshore wind farm. The plan relates to safe navigation of vessels and aircraft during the construction and operational phases of the project and measures to minimise light spill on marine fauna. The plan will include: • Details of relevant standards and guidelines the plan has been prepared and approved under, including the Regulator responsible • Design principles to avoid light spill • Detailed lighting and marking measures for operations including relevant equipment specifications.	LIT-M01 LIT-M03 SLV-M02

Sub plan title	Description	Mitigation measures
Seabird Monitoring and Management Plan	The aim of the Seabird Monitoring and Management Plan is to manage and minimise impact to seabirds and shorebirds through the construction and operational phases of the project and also to provide details of the seabird monitoring commitments. The plan will implement the Seabird Monitoring and Management Framework (See *Attachment IV – Seabird Monitoring and Management Framework*). The plan will include: • Shore crossing measures • Vessel management, lighting controls and fallout/grounding procedures • Bird roosting procedures and management measures • Details on bird avoidance monitoring, methodologies and reporting • Roles and responsibilities • Communication and reporting procedures.	OFF-M05 LIT-M02
Aids to Navigation and Lighting Plan	The aim of the Aids to Navigation and Lighting Plan is to provide details on buoys and markings as aids to navigation required to mark surface piercing infrastructure during construction and decommissioning. The plan will include: • Details on the aid to navigation during the construction phase and specification of the equipment • Details on the aid to navigation during the operation phase and specification of the equipment (as required) • Prepared with consideration of cumulative marking with other offshore infrastructure • Emergency procedures.	OFF-M03 SNV-M02
Vessel Passage Plan	The aim of the Vessel Passage Plan is to provide active management of vessels to reduce choke points and provision of safe separation distances limiting impacts to third-party vessels and port congestion. This plan will include details as required in the Port Information Handbook at the time, and is likely to include details such as: • Vessel information • Voyage overview • Navigations charts and notices • Route planning • Hazard identification • Communication and reporting.	SNV-M07
Spill Response Plan	The aim of the Spill Response Plan (SRP) is to describes first strike management measures (initial response measures) for vessel spills until the Australian Maritime Safety Authority (AMSA) takes over the response as the designated Control Agency for vessel spills. If a spill was to occur the SRP will be activated and will include: • Initial response measures • Notification and reporting requirements • Determine if oil spill modelling and/or tracking buoys are required • Monitoring of the spill, such as water quality monitoring • Response tactics to be implemented, such as subsea or surface dispersants, mechanical dispersion, containment and recovery and in-situ burning, depending on the nature and scale of the spill • Determine if shoreline protection and deflection and shoreline clean up are needed • Monitoring and assessment of ecological impacts.	SPL-M02

Sub plan title	Description	Mitigation measures
Underwater Cultural Heritage Management Plan	The aim of the Underwater Cultural Heritage Management Plan is to set out the proposed approach to archaeological investigation and mitigation to be undertaken in association with the offshore and intertidal project areas. The plan will include: • Roles and respective responsibilities of the project team, contractors and archaeological contractors and formal lines of communication between the parties and with the archaeological curators and regulators • An outline of the known and potential archaeological receptors that could be impacted by the scheme • An outline of the agreed mitigation and archaeological actions that are to take place in various circumstances • A summary of methodologies to be adopted for these archaeological actions • Approach for archaeological recording, samples and artefacts • Unexpected finds protocols.	UMH-M002 UMH-M003 UMH-M004 UMH-M005 UMH-M006 SCH-M004 SCH-M005 SCH-M006 SCH-M008
Marine Mammal and Turtle Monitoring and Management Plan	The aim of the Marine Mammal and Turtle Monitoring and Management Plan is to minimise the risk of vessel collisions and underwater noise from piling causing auditory injury to marine mammals and other marine fauna that could be present in and around the project. The plan will implement the Underwater Noise Management Framework (See *Attachment III – Construction Underwater Noise Management Framework*) The plan will include: • Details on the precaution zone for the specific species from the detailed modelling • Marine Mammal Observer requirements for piling and vessel activities • Passive Acoustic Monitoring setup and procedures for piling • Operational procedures for piling including soft starts, stop works procedure and low visibility and night time monitoring • Adaptive Management approaches on where in field observations inform operational procedures • Vessel Caution and no approach zones to limit collisions • Roles and responsibilities • Communication and reporting procedures.	MEMP-M01 MEMP-M02 MEMP-M04 MEMP-M10 UWN-M06 UWN-M07 UWN-M08 UWN-M09 UWN-M10 UWN-M11 UWN-M12 UWN-M13 UWN-M14

Sub plan title	Description	Mitigation measures
Communications and Stakeholder Engagement Plan	Stakeholder engagement will be undertaken during all phases of the project to ensure community members and stakeholders have opportunities to raise issues and feedback, and for these to be assessed and responded to appropriately. Prior to commencement of project works, an overarching Communications and Stakeholder Engagement Plan will be developed by Star of the South to outline the approach to engagement with community, stakeholders and First Peoples throughout construction and operations. Each contractor will then develop a plan specific to their works for how they will apply the overarching plan. The Community and Stakeholder Engagement Plan will: • Identify relevant stakeholders • Describe the approach for consultation with the community, stakeholders, First Peoples and potentially affected stakeholders in relation to: – Construction activities including temporary activities that may affect the community, businesses or individual stakeholders and relevant mitigations – Changes to local conditions and relevant mitigations. • Establish communication protocols and tools to enable the project to communicate and engage effectively with the community and stakeholders, including traditional (notifications, posters, meetings) and digital (social media, website) tools. • Outline the approach to providing access to relevant digital offshore wind farm infrastructure data for ocean users • Outline the approach to providing regular updates and advanced notice of planned activities throughout the project's construction, operations and decommissioning, so that stakeholders can manage their activities accordingly. • Outline complaints policies and management procedures for recording, managing, and resolving complaints. • Maintain a register of enquiries and complaints. • Outline the requirements and frequency for review and update of the plans.	OFF-M22 BTM-01 MMS-C03

23.5.4 Onshore construction

Action management plans and environmental management plans will be required to address impacts to onshore MNES that are protected by the EPBC Act. These plans will be sub plans to the Onshore CEMPs.

The mitigation measures relevant to onshore MNES are detailed in the EIS technical studies to manage potential impacts and will be developed in the relevant Onshore CEMPs, these mitigations are captured in Table 23-8. Further description of the content of onshore CEMPs is provided in the Victorian Environment Effects Statement for the project works within the Victorian jurisdiction.

23.5.5 Operation

During operation Star of the South will prepare any required Action Management Plans and either Star of the South or its Contractors will prepare environmental management plans for marine and onshore operational activities.

The Marine OEMP will apply to all activities to operate and maintain infrastructure in the Commonwealth offshore area and Victorian waters. It will describe how the requirements of the EMF and mitigation measures, and project approval conditions will be complied with and implemented. The Marine OEMP will be a key plan referenced in the OEI Act management plan (Section 23.5.1) during operation.

The EIS has not identified any specific management plans required for onshore operation and maintenance activities to manage potential impacts to that MNES that are protected by the EPBC Act. The onshore OEMP is described in the Environment Effects Statement for the project.

An overview of the content and approvals of the Marine OEMP and sub plans to address the matters protected by Commonwealth legislation is presented in Table 23-6.

Table 23-6 Overview of content and approval of Marine OEMP and sub plans

Document	Description	Responsibility
Marine Operations Environmental Management Plan (OEMPs) and sub plans - for each Contractors works package	Contractors will develop and implement a Marine OEMP for their package of works in accordance with the EMF and mitigation measures relevant to operations, and to comply with approval conditions. The Marine OEMPs and sub plans must be developed in accordance with DCCEEW's Environmental Management Plan Guidelines and in consultation with relevant agencies, where applicable. The Marine OEMPs and sub plans will include details of processes and responsibilities for: • Achieving compliance with the approval conditions, secondary consents, permits and relevant legislation for project operation • Identifying, mitigating, managing and monitoring environmental risks and issues during operation to address all requirements outlined in the mitigation measures provided in Table 23-8 • Applying environmental objectives, performance criteria, corrective actions and timing for each environmental issue • Site inductions, training, competency and awareness to all personnel engaging in activities associated with operation. • Communication and reporting • Environmental monitoring, reporting and auditing requirements • Managing complaints, incidents, nonconformance • Emergency preparedness and response • Review and continual improvement.	**Owner**: Contractors **Review**: Star of the South **Accept**: Star of the South
Action management plans required by the EPBC Act approval during operation	The requirement for and scope of Action Management Plans for the project during operation will be defined in the conditions of the EPBC Act approval, subject to assessment of the EIS by the Commonwealth Minister for the Environment. Any plans required in operation will have regard to the plans implemented during construction. Action Management Plans for operation will: • Outline how Star of the South and its contractors will avoid, minimise and mitigate impacts to matters protected by the EPBC Act and the marine environment. • Be prepared by a suitably qualified and experienced personnel • Be reviewed annually, or at the frequency required in the EPBC Act approval, to confirm they are adequately addressing the impacts as works progress. • Include monitoring plans, if required by the EPBC Act approval, prepared by Star of the South to verify compliance. These monitoring plans will also be referenced in the Marine OEMP. • Be developed in accordance with DCCEEW's Environmental Management Plan Guidelines, where applicable.	**Owner**: Star of the South **Review**: Star of the South **Approve**: DCCEEW

Document	Description	Responsibility
Environmental management and monitoring plans required by the mitigation measures to protect the environment in operation	The mitigation measures (section 23.8) set out requirements to develop and implement relevant management plans to avoid, minimise and mitigate impacts to matters protected by the EPBC Act and the marine environment during operation. Mitigation measures for operation that are not required to be addressed in the Action Management Plans will be addressed in separate environmental management and monitoring plans. The environmental management and monitoring plans for operation will: • Outline how Star of the South and its contractors will avoid, minimise and mitigate impacts to matters protected by the EPBC Act and the marine environment. • Be prepared by a suitably qualified and experienced personnel • Be reviewed at least annually, or at the frequency required by the plan, to confirm they are adequately addressing the impacts as works progress. • Include monitoring plans prepared by Star of the South to verify compliance. These monitoring plans will also be referenced in the Marine OEMP. • Be developed in accordance with DCCEEW's Environmental Management Plan Guidelines, where required. • Be prepared in consultation with relevant agencies as required by the mitigation measures.	**Owner**: Contractors unless otherwise defined by the mitigation measures **Review**: Star of the South **Accept**: Star of the South
Communications and Stakeholder Engagement Plan - operation	Communications and Stakeholder engagement plans will be required to guide consultation with stakeholders and Traditional Owners during project operation. Star of the South will review and update the overarching Communications and Stakeholder Engagement Plan prepared for construction of the project to reflect the operational requirements for the project. This will be done prior to the commencement of operation. The plan will set out the principles and framework for the community, stakeholder and Traditional Owner consultation to be undertaken by Star of the South and its contractors during the operation phase. Each Contractor will prepare a plan for specific for their operational activities that complies with the Star of the South overarching plan (as required).	**Owner**: Star of the South and Contractors **Review**: Star of the South **Accept**: Star of the South

Table 23-7 outlines the sub plans to the Marine OEMP and other marine management documents required for operation and maintenance activities that are recommended in the mitigation measures in the EIS technical studies. The sub plans will cover all operation and maintenance activities being undertaken in the marine environment. Description of the content of the sub plans is provided Table 23-5, which will be tailored for operational requirements of the project.

Table 23-7 Marine OEMP sub plans and other marine management documents

Marine OEMP sub plans and procedures	Other marine management documents
• Operational lighting and marking plan • Aids to navigation and lighting plan • Spill response plan • Underwater cultural heritage management plan • Vessel passage plan	• Seabird monitoring and management plan to implement the Seabird Monitoring and Management Framework (see *Attachment IV – Seabird Monitoring and Management Framework)*. • Communications and Stakeholder Engagement Plan • Fisheries Liaison and Coexistence Plan

23.5.6 Decommissioning

As decommissioning activities will occur well into the future, it is not possible to specify the detailed requirements of the decommissioning environmental management plan now. A Marine Decommissioning Environmental Management Plan will be prepared toward the end of the infrastructure life in accordance with the following principles:

- Consideration of current legislation and policy at the time of decommissioning activities
- Consultation with relevant regulators
- Assessing environmental conditions at the time of decommissioning
- Developing and implementing measures to avoid, minimise and mitigate environmental impacts
- Adopting best practice approaches to decommissioning offshore wind infrastructure at the time of the proposed activities.

The Marine Decommissioning Environmental Management Plan will be subject to regulator approval prior to the commencement of decommissioning activities and will be referenced in the OEI Act management plan.

The plan will include, but not be limited to:

- Details on marine infrastructure proposed to be removed or left in situ
- Assessment of potential impacts of decommissioning activities for the removal or retention of infrastructure on EPBC Act protected matters
- Specify how activities associated with decommissioning will be carried out in accordance with the project approval conditions
- Describe measures to be implemented to avoid or reduce impacts arising from the removal of infrastructure (if required)

- Consider management measures adopted in construction and apply where similar impacts could occur.

The Star of the South Communications and Stakeholder Engagement Plan will also be updated and implemented to guide consultation in advance of and during decommissioning.

23.6 Change management

The EIS has assessed the impacts of a project design envelope defined for the project, as described in *Chapter 4 – Project Description*. The project design envelope provides a range of design and construction parameters to inform the upper and lower limits of project infrastructure that will be required to deliver the project, but it does not represent the final design that will be built.

The project design envelope approach accommodates the completion of the design in the post approval phase, by considering a range of infrastructure parameters, as opposed to a single solution. This approach allows for the flexibility required in design development to address approval conditions and accommodate technological advances.

23.6.1 Design and construction

The final design will be developed to comply with approval conditions within the scope of the project design envelope. A design notification must be provided to the Offshore Infrastructure Regulator before submitting an OEI Act management plan for the project. The design notification must demonstrate how the licence holder has avoided major hazards through the design to the extent practicable. It is recognised by the Offshore Infrastructure Regulator that the design aspects may need to change as new information comes to light with project development. The OEI Act management plan and any revisions should provide justification for design changes (OIR 2024c).

Any changes to the design that occur after the design notification must be documented and justified in the OEI Act management plan submitted to the Offshore Infrastructure Regulator. This should include how the changes avoid any increase in risks to the workforce, infrastructure integrity, the environment or other users of the marine environment (Offshore Infrastructure Regulator, 2024c).

Changes will not be permitted outside the scope of the project design envelope and all components of the project infrastructure must stay within the areas defined by the commercial licence and the transmission and infrastructure licence.

Star of the South will demonstrate that the final design and construction approach is within the project design envelope, complies with the approval conditions and implements the mitigation measures developed through the EIS. Any changes will need to be in accordance with the scope of the EPBC Act approval.

23.6.2 Environmental management documents

The Star of the South EMS will include a procedure for managing changes to environmental management documentation. Revisions to the environmental management documents described in Section 23.5 may be required through the delivery of the project. The change may be:

- Minor changes - improvements or clarifications to environmental management practices, minor changes in work practices, new controls being implemented. Minor changes will not introduce new or increased environmental risk or impacts.
- Major changes - significant changes to environmental management procedures or construction methods. Major changes will have the potential for new or increased environmental risks or impacts.

Documents that require a major change will be subject to the review and approvals as outlined in section 23.5.

23.7 Evaluating compliance

Compliance with approvals will be evaluated through monitoring, auditing and reporting. Where outcomes of mitigation measures do not achieve the expected results, corrective actions or adaptive management procedures will be implemented.

The Star of the South EMS will include an audit plan and schedule, and a compliance plan (refer Section 23.4.1). Audits will review compliance with the Commonwealth EMF, mitigation measures and approval conditions prior to commencement of and during construction. The compliance plan will outline the approach to managing compliance in accordance with approvals for the whole project under both Commonwealth and Victorian legislation.

Contractors will be required by Star of the South to evaluate their own compliance with projects approvals throughout the delivery of the project by monitoring and internal auditing. Star of the South will also monitor and audit the Contractor's management plans and works to confirm compliance with approval conditions and environmental outcomes prior to and during construction (See Sections 23.4.1 and 23.7.5).

During operation, environmental compliance with the projects statutory approvals will be monitored and audited by Star of the South in accordance with the Contractors EMS.

The Offshore Infrastructure Regulator also will audit and review compliance with project approvals and environmental outcomes during operation, construction and decommissioning.

23.7.1 Role of the Offshore Infrastructure Regulator in compliance

The Offshore Infrastructure Regulator has a role under the OEI Act to oversee work health and safety, infrastructure integrity, and environmental management for the development of offshore renewable energy infrastructure and offshore electricity transmission infrastructure in the Commonwealth offshore area (OIR website 2025). The Offshore Infrastructure Regulator is responsible for:

- Assessing management plans
- Undertaking inspections to monitor compliance
- Undertaking investigations to verify and learn from non-compliance
- Undertaking enforcement actions to correct and deter non-compliance

- Promoting and advising, with the objective of fostering continuous improvement in industry performance.

23.7.2 Baseline environmental conditions

The baseline environmental conditions that have informed the impact assessments presented in the EIS are described in technical reports A to Z. These conditions and any additional baseline data collected prior to construction will be used to evaluate the effectiveness of proposed mitigation measures.

All relevant data sets collected as part of the EIS environmental assessment will be assembled and made accessible by Star of the South to its contractors, where required, to confirm potential impacts and assess the effectiveness of mitigation measures being implemented.

Star of the South or its Contractors will be responsible for any pre-construction surveys required to inform final design and the ongoing collection and management of monitoring data to comply with project approvals.

23.7.3 Monitoring

Monitoring programs will form a key part of the process for confirming that mitigation measures are effective and that impacts are being managed.

Monitoring is required by some of the mitigation measures recommended by technical specialists. Monitoring will also be undertaken where there are areas of uncertainty about or gaps in existing data about a species, environmental condition or effectiveness of mitigation measures in the specific project location.

Monitoring plans will be developed by Star of the South in accordance with the approval conditions and mitigation measures. Experienced technical specialists will be engaged to assist with preparing required monitoring plans. During the development of monitoring plans, consideration will be given to any relevant recovery plans (such as White Shark, Southern Right Whale and Blue Whale) and if the monitoring programmes could also assist any of the recovery actions detailed in the plan, such as filling knowledge gaps of key species.

The monitoring plans will:

- Outline monitoring objectives
- Address relevant regulations, guidelines, approval conditions and mitigation measures
- Detail the methods, parameters, locations, and frequency
- Outline the duration of the required monitoring program
- Outline trigger levels for review of controls and implementing adaptive management
- Reporting requirements.

Monitoring data will be used to inform adaptive management and to demonstrate compliance with approval conditions, were relevant.

Monitoring plans will also outline the frequency that plans must be reviewed to consider:

- If the monitoring program extent, frequency and range of parameters sufficient to identify it mitigation measures are being effective
- Have there been changes in construction approach or program that needs to be reflected in the monitoring plans
- Any updates are required based on the outcomes of monitoring data review or implementing adaptive management procedures.
- The monitoring plans will become sub plans to the Marine CEMP and Marine OEMP, where relevant.

Table 23-9 lists the project monitoring measures for the Commonwealth jurisdiction.

23.7.4 Adaptive management

Adaptive management procedures will be developed following receipt of project approvals to determine when additional or revised mitigation measures are required during project delivery. The adaptive management procedures will enable management of impacts in accordance with approval conditions and environmental outcomes to be achieved when changes occur or new information becomes available.

The adaptive management procedures may be triggered through review of monitoring data, additional surveys, identifying higher levels of impact than expected, evidence of new impacts or other unexpected outcomes, or if other new information becomes available. Triggers for when the adaptive management procedures will be applied will be outlined in the:

- Detailed monitoring plans
- EMS procedure for data review and continuous improvement.

23.7.5 Auditing

Contractors will prepare an audit plan and establish an internal audit process for their works and their sub-contractors. The audit plan will define the frequence of internal audits to be undertaken by the Contractor during construction and with the commencement of each new phase of construction to evaluate compliance with CEMPs.

Star of the South will also conduct audits at agreed intervals to monitor the project's compliance with the mitigation measures, management system obligations, statutory approvals conditions and relevant legislation and guidelines throughout all phases of the project. As described in Section 23.4.1, Star of the South will develop and implement an audit plan and schedule as part of the EMS. The audit plan will be informed by the regulatory approval requirements applying to the project.

The audits completed by Star of the South will evaluate:

- Compliance with statutory approvals conditions issued for the project
- Compliance with all relevant mitigation measures contained in action management plans and environmental management plans
- Compliance with the Environmental Management Framework and any other relevant environmental management documentation

- Responses to non-conformances, complaints and incidents
- Compliance with safety requirements
- Implementation of monitoring programs.

Conformance and compliance will be assessed through a range of inspections, observations of project works, consultations with the proponent, operators and contractors, reviews of records and meeting minutes.

An annual environment report will be prepared by Star of the South and submitted to the Offshore Infrastructure Regulator that outlines the environmental performance of the project.

23.7.6 Complaints management

An enquiries and complaints procedure is outlined in *Attachment II – Consultation Report*. Following receipt of project approvals, Star of the South will update this system in accordance with any approval conditions and maintain it in line with relevant standards and guidelines. The objectives of the complaints management process is to:

- Resolve stakeholders' concerns or complaints with the project in a timely fashion
- Apply learnings from a concern or complaint to reduce the likelihood of complaints or concerns as the project progresses
- Provide accessible and clear lines of communication for the community to be able to contact Star of the South.

The process will include:

- Engaging with complainant to understand the details of the complaint being raised
- Investigation of the complaint
- Responding to the complainant about what has been done to resolve the issue
- Documenting the details of complaints, investigations undertaken and actions taken in response.

23.7.7 Reporting

Star of the South and its Contractors will be responsible for reporting compliance with mitigation measures and statutory approvals conditions to regulators. Reporting and external notification requirements will be outlined in OEI Act Management Plan including which matters require reporting, to which party and the timeframe within which the reporting should occur.

Annual environmental reports will be prepared by Star of the South and submitted to the Offshore Infrastructure Regulator and the Commonwealth Minister for the Environment, where required, that outline the environmental performance of the project. It is assumed that reporting frequency will be specified in the EPBC Act approval, the approved management plan and the commercial licence issued under the OEI Act.

Reporting will address statutory approval requirements and include:

- Monitoring results and reporting against triggers outlined in monitoring plans
- Compliance with requirements
- Non-conformances and corrective actions
- Complaints register and responses
- Notifications to the Registered Aboriginal Party and First Peoples State Relations, if a potential Aboriginal site or artefact is identified
- Environmental incident notifications.

23.8 Mitigation measures

Mitigation measures were recommended by technical specialists as part of the impact assessments completed for the project. Mitigation measures have been identified to further avoid, minimise or manage potential environmental, social and safety impacts. Star of the South has committed to the mitigation, monitoring and contingency measures recommended by technical specialists to achieve acceptable environmental outcomes for the project.

23.8.1 Consultation

Some of the mitigation measures require consultation to inform the development of plans and measures to manage and mitigate impacts.

Star of the South will prepare an overarching Communications and Stakeholder Engagement Plan (see Section 0) to guide engagement throughout the project's life. This plan will address the statutory requirements of the OEI Act, other regulatory requirements and project commitments, including explaining how Star of the South and its Contractors will identify and consult with government, First Nations people, groups and native title holders, other licences holders under the OEI Act, communities and other commercial interests in or near the project (Offshore Infrastructure Regulator, 2024d). Where required, engagement subplans will be developed by contractors for activities relevant to their scope of work.

Consultation is included in mitigation measures where the views, requirements and priorities of identified stakeholders will help to develop the approach to implementing mitigation measures. Consultation will be tailored to the stakeholder and topic and may be in the form of meetings, workshops, or written correspondence. Not all consultation requires the provision of written material to seek written comments unless it is a requirement of statutory approvals.

Star of the South and its Contractors will undertake all reasonable endeavours to engage with stakeholders and address all feedback provided. Where feedback cannot be taken on board, Star of the South and/or its Contractor/s will communicate this to the stakeholder and document the outcomes.

23.8.2 Recommended mitigation measures

Mitigation measures outlined in this Commonwealth EMF cover activities that are proposed both onshore and offshore. It covers works in the Commonwealth marine area and works across the whole project that may interact with matters protected by Commonwealth legislation. Mitigation measures may be implemented in stages and at different locations as the project is developed and delivered.

Contractors will develop the approach to implement the mitigation measures. The approaches will consider the current state of knowledge about impact mitigation for offshore wind construction globally and apply feasible and practical methods to meet the design requirements and local conditions.

Some mitigation measures refer to a plan or measures being developed in accordance with guidelines or regulations. This refers to the version of the guidelines or regulations referenced at the time of preparing the impact assessment. At the time of implementing a mitigation measure, the latest documents will be referred to.

A consolidated list of mitigation and monitoring measures recommended by technical specialists for the project is provided in Table 23-8 and Table 23-9.

Table 23-8 Project mitigation measures for the Commonwealth jurisdiction

Measure ID	Title	Mitigation outcome	Description	Performance indicator	Stage
Commonwealth marine environment					
BHC-M01	Pre-construction geophysical survey – avoidance of high profile reef	Avoid direct impact to high profile reef.	A pre-construction non-destructive investigation (high-resolution geophysical surveys and/or remotely operated vehicle inspections) survey will be undertaken along the proposed cable routes (export cable, inter-array and interlink cables) and where foundations will be located within the Offshore Project Area (OPA). The targeted survey will be used to determine the location and extent of any high-profile reefs (reef greater than 0.5 metres) within the OPA. Should high-profile reef features be identified where infrastructure (such as foundations or cable trenching) is proposed to be located, appropriate measures (e.g. micro-siting) will be implemented to avoid direct impacts to these features, and on the basis of the extent of these features at the time of construction. A revision to the layout will be undertaken as per mitigation measure SNV-M11 and confirmed by the relevant Statutory Authority.	Survey results for detailed design geophysical campaign and as-built records from pre-construction clearance survey.	Pre-construction
CRF-M08	Compensation for impacted commercial fishers	Minimise economic impact to effected commercial fisheries.	The project seeks to coexist with other users of the marine environment, including commercial fishers. In any instances where coexistence is not safe or practical and other options to mitigate the impact have been exhausted, compensation will be provided as redress for commercial fishers that are affected by project activities (during all phases of the project). The project will develop, implement and maintain a Fisheries Liaison and Coexistence Plan prior to construction and describe the process through which potentially impacted commercial fishers can lodge a claim and be fairly assessed for compensation.	Development of the Fisheries Liaison and Coexistence plan.	All phases
CRF-M09	Opportunities for work on the project	Maximise commercial opportunities for commercial fisheries operators.	The project will endeavour to provide opportunities for commercial fishers to obtain work on the project. Examples of opportunities include guard vessel duties, environmental monitoring or surveys. Information on project-related opportunities and the process for local industry to express interest in being involved will be shared during all phases of the project.	Development of the Fisheries Liaison and Coexistence plan.	All phases

Measure ID	Title	Mitigation outcome	Description	Performance indicator	Stage
DEC-M01	Marine Decommissioning Management Plan	Manage impacts of Decommissioning activities.	A Marine Decommissioning Management Plan will be developed prior to decommissioning activities commencing to assess the impacts on the final agreed methodologies of removing offshore infrastructure. The plan will include: • Details on marine infrastructure proposed to be removed or left in situ • Assess potential impacts of decommissioning activities for the removal or retention of infrastructure on protected matters • Specify how activities associated with decommissioning will be carried out in accordance with the project approval conditions • Describe measures to be implemented to avoid or reduce impacts arising from the removal of infrastructure (if required) • Consider management measures adopted in construction and apply where similar impacts could occur.	Development of Marine Decommissioning Management Plan.	Decommissioning
EMI-M01	Depth of Cable burial	Minimise exposure of marine fauna to Electromagnetic fields. Minimise likelihood of vessel anchor / fishing gear interactions with cables.	Subsea cables will have a minimum depth of lowering (MDoL) of 1.0 metres for offshore export cable and 0.6 metres for inter-array cables.	Post-lay survey Report confirming cable burial depths and Ongoing monitoring of cable position and depth below the seabed (MEMP-M09).	Construction Operation
EMI-M02	Cable Testing Procedure	Minimise exposure of marine fauna to Electromagnetic fields during cable testing, prior to cable burial.	To minimise the duration and intensity of EMF emissions during pre-burial testing of inter-array cables the project will develop a Cable Testing Procedure to ensure the testing process is managed efficiently without unnecessary delays and tests.	Development of turbine and cable commissioning procedure and process flow document.	Construction
IOU-M01	Consult with CASA and Airservices Australia	Management of project infrastructure infringement of airspace feature.	Star of the South will continue to consult with CASA and Airservices Australia to increase the height of the Grid LSALT once a final turbine layout is made available.	Correspondence with CASA and Airservices Australia and confirmed raised Grid LSALT.	Pre-construction

Measure ID	Title	Mitigation outcome	Description	Performance indicator	Stage
IOU-M02	Consult with the Yarram Aerodrome	Management of project infrastructure infringement of airspace feature.	Star of the South will work with the Yarram Aerodrome operations team regarding the PANS-OPS approach space so that the turbines will not infringe the PANS-OPS surface.	Correspondence with Yarram Aerodrome operations team regarding the PANS-OPS approach space.	Pre-construction
IOU-M03	Consult with Defence	Management of project infrastructure infringement of airspace feature.	Further consultation will be undertaken with Defence regarding raising the LSALT of training areas D and V within airspace R359F.	Correspondence with Australian Department of Defence on raising the LSALT of training areas D and V within airspace R359F.	Pre-construction
IOU-M04	Manage Civil radar interference	Manage radar interference to Civil radar installations.	When a final layout is known, Star of the South will work with CASA, Airservices Australia and impacted providers to determine the need for aviation radar interference modelling and any mitigation to reduce or remove the level of radar interference caused by the operation of the wind farm.	Correspondence with CASA and Airservices Australia and any other impacted providers and Aviation radar modelling report, where deemed required.	Pre-construction
IOU-M05	Manage Defence radar interference	Manage radar interference to Defence radar installations.	Star of the South will continue consultation with Defence and submit final turbine layout once determined and prior to construction commencing.	Correspondence with Australian Department of Defence on the final turbine layout.	Pre-construction

Measure ID	Title	Mitigation outcome	Description	Performance indicator	Stage
IOU-M06	Manage Weather radar interference	Manage radar interference to Bureau of Meteorology radar installations.	Following confirmation of a final layout and turbine height, Star of the South will request another BoM preliminary screening assessment to identify any impacts to the Bairnsdale radar. If, following this screening, potential impacts are identified, Star of the South will work with BoM to undertake an industry service interference modelling assessment to determine any mitigations that would be required.	Correspondence with Bureau of Meteorology on the final turbine layout.	Pre-construction
LIT-M01	Infrastructure Light Management	Minimise effects of project offshore infrastructure light spill on marine fauna.	Wind farm and vessel lighting during all phases of the project will comply with National Light Pollution Guidelines for Wildlife (DCCEEW, 2023), to limit the effects of artificial lighting on wildlife, where these do not conflict with safety (i.e. needed for safe work, navigation and aviation). This includes: • The minimisation of light spill; • Avoidance of long wavelength light sources; • Avoidance of blue, violet or ultra-violet wavelengths; and • Lighting in each maintenance area will be kept to the minimum requirement for safe passage when personnel are not required to be working in the area. Construction lighting and marking requirements will be included in the Marine Operations Framework, including vessel lighting and temporary lighting and marking on structures within the Offshore Wind Farm Area (OWFA). For the operation phase, an operational lighting and marking plan will be developed in consultation with relevant regulators, such as the Civil Aviation Authority and the Australian Maritime Safety Authority. The plan sets out the design and operation of lighting within the Offshore Wind Farm Area, including on turbines and substations for both aviation and navigational safety requirements. During good weather while in operations, lighting on turbines and substations will be reduced where practicable as agreed with relevant regulators, including the Civil Aviation Safety Authority (CASA) and the Australian Maritime Safety Authority (AMSA). The specific requirements for lighting will be set out in the Operations Lighting and Marking Plan, in agreement with relevant authorities.	Development of Operational Lighting and Marking Plan. Development of Marine Operation Framework.	Construction Operations Decommissioning

Measure ID	Title	Mitigation outcome	Description	Performance indicator	Stage
LIT-M02	Vessel Artificial Light management	Minimise effects of vessel light spill on seabirds.	Routine monitoring on vessels will be undertaken to measure and detect the impacts of lighting and determine the extent of seabird fallout on vessels. If pre-defined trigger values for birds being attracted to vessels at night resulting in fallout are reached this will initiate review of the impact assessment and additional adaptive management depending on the species affected. See Section 16.3 for more detail.	Development of Seabird Monitoring and Management Plan including the Bird Interaction Procedure. Development of Marine Operation Framework.	Construction Operations Decommissioning
LIT-M03	Operational light intensity – turbines and substations	Minimise vessel / aircraft allision / collision with project infrastructure.	During good weather while in operations, lighting on turbines and substations will be reduced where practicable as agreed with relevant regulators, including the Civil Aviation Safety Authority (CASA) and the Australian Maritime Safety Authority (AMSA). The specific requirements for lighting will be set out in the Operations Lighting and Marking Plan, in agreement with relevant authorities.	Development of Operational Lighting and Marking Plan.	Operations
OFF-M012	Safety and protection zones	Minimise likelihood of vessel collisions.	Where construction, large scale maintenance activities (during operations) or decommissioning is taking place, a temporary safety zone of up to 500 metres may be put in place around eligible infrastructure to protect the safety of third-party vessels and project infrastructure. During operations, protection zones may be in place up to 1852 meters from eligible infrastructure, placing limits on certain activities which present a risk to safety or infrastructure longer-term. Safety and protection zone applications (where required) will be submitted to the Offshore Infrastructure Regulator (OIR) in accordance with OEI Amendment Regulations 2024, following consultation with other marine users.	Safety and protection zone applications submitted to the Offshore Infrastructure Regulator.	Construction Operations Decommissioning

Measure ID	Title	Mitigation outcome	Description	Performance indicator	Stage
OFF-M02	Marine debris Minimisation	Avoid impacts of marine debris on marine fauna.	During all phases of the project, all activities will be undertaken in accordance with the management actions provided in the Commonwealth "Threat abatement plan for the impacts of marine debris on the vertebrate wildlife of Australia's coasts and ocean (2018)" to limit impacts of marine debris on sensitive marine receptors. The project will take practicable actions to avoid and minimise the loss of marine debris from offshore installations and project vessels. Appropriate training will be communicated during crew induction (OFF-M04). In the event of debris lost, if practicable, Star of the South will retrieve the debris. Reporting and monitoring will be undertaken according to the Environmental Management Framework.	Vessel crew Induction record and Notification reporting of debris loss.	Construction Operations Decommissioning
OFF-M03	Demarcation areas	Minimise likelihood of vessel collisions and allisions.	Designated construction and decommissioning area/s within the offshore wind farm area (OWFA) will be demarcated with cardinal buoys to show where construction and/or decommissioning is underway in order to protect project infrastructure and third-party vessels. Demarcated areas will move and vary in size, dependent on the location and extent of construction activities underway at any given time. As infrastructure is installed, the site may progressively open to vessels if considered safe to do so.	Development of Project Aids to Navigation and lighting plan.	Construction Decommissioning
OFF-M04	Low Toxicity Marine drilling fluids	Minimise reductions in water quality.	During the construction period, only water-based drilling fluids (such as those containing xanthan gum and bentonite, or low toxicity alternatives) will be used for marine drilling activities, including trenchless installation of the shore crossing (at Reeves Beach) and drilling monopiles in the Offshore Windfarm Area (OWA) in the event of pile refusal. Low toxicity fluids will limit potential environmental harm, including impacts to sensitive marine receptors associated with decreased water quality.	Development of a Construction Environmental Management Plan and Offshore foundation installation method statement.	Construction
OFF-M05	Shore crossing Methodology	Minimise disturbance of shorebird habitat.	The project will commit to trenchless installation methods at the Reeves Beach shore crossing during the construction phase to minimise impacts to beach and dune shorebird habitat. Trenchless installation will be within the bounds of the project design envelope and include the following measures to avoid and minimise impacts to biodiversity values:	Development of a Construction Environmental management Plan.	Construction

Measure ID	Title	Mitigation outcome	Description	Performance indicator	Stage
			• A suitably trained ecologist will check the beach for signs of nesting habitat for Hooded Plover. Should any nests be found, signage and designated no-go areas will be established to ensure impacts are avoided. • All construction equipment will be removed following the completion of construction and the ground conditions restored to agreed rehabilitation standards.		
OFF-M10	Notice to Mariners	Minimise likelihood of vessel collisions and allisions.	During all phases of the project, distribution of Notices To Mariners (NTMs) via the Australian Maritime Safety Authority (AMSA) and Safe Transport Victoria (STV) to notify third-party vessel operators of project vessel movements, the establishment of safety zones, and the placement of permanent infrastructure (see SNV-M09 Charting of final layout on navigational charts). NTMs will provide advice on aids to navigation (AtoNs), safety issues, dangers or hazards to navigation. All NTMs will be published on the Australian Hydrographic Office (AHO) website and other local reporting as specified by the regulator. The Australian Maritime Safety Authority – Rescue Coordination Centre (AMSA - RCC) will also be advised of all project vessels' details, satellite communications and area of operation, as well as the relevant port authority. NTMs will be issued frequently for changes during construction and the schedule for issuing notices will be defined in consultation with AHO, AMSA and STV. Following completion of construction, a NTM will be issued to signal a change in the project phase from construction to operations, and the types of vessels that will be operating in the area for the next 30 years.	Record of Notice to Mariners publications.	Construction Operations Decommissioning
OFF-M22	Stakeholder consultation	Manages impacts to other marine users receptor groups through effective communication.	Stakeholder engagement will be undertaken during all phases of the project to ensure stakeholders have opportunities to raise issues and feedback, and for these to be assessed and responded to appropriately. Stakeholder communications will provide regular updates and advanced notice of planned activities throughout the project's construction, operations and decommissioning, so that stakeholders (including maritime users) can manage their activities accordingly. A range of accessible communication and engagement methods will be adopted to reach relevant stakeholders, including traditional (notifications, posters, meetings) and digital (social media, website) tools.	Development of a Communications and Stakeholder Engagement Plan.	Construction Operations Decommissioning

Measure ID	Title	Mitigation outcome	Description	Performance indicator	Stage
OMU-M10	Petroleum exploration and Offshore Wind industry consultation	Avoid or minimise impacts to geophysical data quality.	Conduct stakeholder consultation prior to and during marine construction piling to allow for seismic and geophysical survey operators to pre-plan surveys and conduct infield survey management (for example, SIMOPS planning and line planning).	Consultation log with planned seismic and geophysical survey operators.	Pre-construction construction
OMU-M11	Basslink consultation	Minimise and manage interactions with submarine cables.	Consultation will continue with the operator of Basslink to develop an agreement detailing the design and installation method of cable crossings and the responsibilities of each party.	Cable crossing agreement with Basslink.	Pre-construction
OMU-M12	Basslink survey	Minimise and manage interactions with submarine cables.	Survey of the portion of the Basslink Cable that is within the Offshore Project Area to inform cable crossing type and location. If the cable cannot be located then restrictions on anchoring by project vessels in the area will be implemented after further consultation with Basslink.	Geophysical Survey report identifying Basslink cable.	Pre-construction
OMU-M13	Safe Diving Controls	Avoid impacts to diving operations.	Application of DMAC 12 Safe Diving Distance from Seismic Surveying Operations during marine construction piling: • Where reasonably practicable, plans should be made to avoid overlapping piling and diving activities. Where this is not possible, the activities should be prioritised. • Where diving and piling activity are scheduled to occur within a distance of 45 km, it would be good practice for all parties to be made aware of the planned activity where practicable. This should include clients/operators, diving and piling contractors. • Where diving and piling activity will occur within a distance of 30 km a joint risk assessment should be conducted between the clients/operators involved and the piling and diving contractors in advance of any SIMOPS plan being developed. The SIMOPS plan should include that: – The maintenance of effective communication and co-operation between the piling vessel and the diving vessel is essential – The minimum safe distance between parties should not be compromised by either party	Correspondence with dive operators and SIMOPS Plan, where required Development of Marine Operation Framework	Construction

Measure ID	Title	Mitigation outcome	Description	Performance indicator	Stage
			– There should be regular effective communication between the piling vessel and diving vessel so that those in control of piling and diving operations are aware of each other's work programmes. A communications check should be conducted between vessels at a pre-defined regular frequency in order to reduce the chance of an unknown communications failure – Should any member of the diving team in the water suddenly experience discomfort, the piling operation should be terminated as soon as possible. The SIMOPS plan should include contingency arrangements for this situation. A diver's exposure should be terminated if the noise level: i Interferes with diver communications; ii Is considered to exceed acceptable noise exposure levels; iii Induces discomfort; or Places the diver at risk in any other way. Diving operations may continue if none of these criteria for terminating diving operations are present, including diving within 30 km of piling operations.		
OMU-M14	Civil Aviation Safety Regulations compliance	Manage displacement and interference of civil and defence aircraft.	Tall structures associated with the Project comply with the Civil Aviation Safety Regulations 1998 (or equivalent) as required. Star of the South will notify CASA, AirServices Australia, Defence and the Aeronautical Information Service of the Royal Australian Air Force (RAAF AIS) in writing that the project proposes to construct or erect an object that will have a height of 100 metres or more above ground level, including the proposal, the proposed height and location, and the proposed timeframe for the erection of the object. The notification will be provided as soon as practicable after the final object design has been determined. Tall structures associated with the Project comply with subpart 139.E-Hazards to aircraft operations of the Civil Aviation Safety Regulations 1998 as applicable to the project, including: 139.165 Notifying CASA of certain proposed objects or structures.	Submission of final Aviation Impact Assessment report and associated formal notifications to CASA, AirServices Australia, Defence and the Aeronautical Information Service of the Royal Australian Air Force (RAAF AIS).	Pre-construction

Measure ID	Title	Mitigation outcome	Description	Performance indicator	Stage
OMU-M15	Turbine layout Notification	Management of project infrastructure infringement of airspace feature.	Submit final turbine layout to Airservices Australia and CASA once determined and prior to construction commencing.	Formal notifications to CASA and AirServices Australia of final layout.	Pre-construction
OMU-M17	Cable crossing agreement	Minimise and manage interactions with submarine cables.	Pursue a cable crossing agreement with relevant cable operators. This agreement would include the design and installation method of cable crossings.	Cable crossing agreement with operators.	Pre-construction
OMU-M18	Co-existence agreement (cable operators)	Minimise and manage interactions with submarine cables	Pursue a co-existence agreement with relevant cable operators. This agreement would include the responsibilities of each party and enable the free sharing of project information.	Co-existence agreement with operators.	Pre-construction
OMU-M19	Co-existence agreement (CCS)	Minimise and manage interactions with Carbon Capture and Storage.	Identify opportunities to co-locate and/or identify no-go areas around some infrastructure through the implementation of a Co-existence Agreement with CarbonNet. Act in accordance with the MoU around activities in the overlap area and activities outside that area that may impact the other party. The MoU also outlines communication and information sharing. Has binding provisions around working towards a Co-existence agreement.	Co-existence agreement with operators.	Construction
OMU-M20	Infrastructure Lighting - Aviation	Manage displacement and interference of civil and defence aircraft.	Aviation obstacle lighting is installed in accordance with the outcomes of the project aeronautical risk assessment process, including consideration of mitigations recommended during consultation with CASA and in compliance with the National Airports Safeguarding Framework Guideline D.	Submission of the permanent lighting and marking plan with CASA, AMSA and other required Regulators.	Construction Operations
SNV-M02	Navigational aids and lighting	Minimise likelihood of vessel collisions and allisions.	Project Aids to Navigation (AtoN) and lighting will be developed, installed and maintained in consultation with relevant authorities, including the Australian Maritime Safety Authority (AMSA) and the Civil Aviation Safety Authority (CASA); including reference to guidelines published by the International Association of Marine Aids to Navigation and Lighthouse Authorities (IALA) to manage safety of navigation during construction, operations and decommissioning.	Submission of the permanent lighting and marking plan with CASA, AMSA and other required Regulators.	All

Measure ID	Title	Mitigation outcome	Description	Performance indicator	Stage
SNV-M03	Minimum Wind Turbine Generator Air Gap	Minimise vessel interaction with project infrastructure.	The project is committed to a minimum airgap (lowest blade tip clearance) of 35 metres above lowest astronomical tide for wind turbine generators to minimise collision risk to ornithology receptors and to minimize the risk of interaction with recreation vessel masts. Project will install a minimum spacing of wind turbine generators of 1062 metres (set out in the final layout) to ensure that World Association for Waterborne Transport Infrastructure (PIANC) guidelines for safe navigation are met.	Design notification to Offshore Infrastructure Regulator.	Construction Operations
SNV-M04	Cable burial risk assessment	Minimise likelihood of interactions with other marine users.	A cable burial risk assessment will be undertaken as part of detailed design to ensure that cables will be buried to adequate depth, for the safety of other marine users. Factors considered include shipping activity, use of anchors, fishing activity, substrate type and metocean conditions. Where possible cable burial will be the preferred option for cable protection. Where sufficient depth of cover cannot be achieved during installation, remedial protection will be used.	Cable burial risk assessment report.	Operations
SNV-M05	Project vessel safety requirements	Minimise the likelihood of vessel collisions and spills.	During all phases of the project, all project vessels will have a safety management system (SMS) that will be signed off prior to use, ensuring compliance with relevant Australian and Victorian maritime regulations (including the Commonwealth Navigational Safety Act 2012, and the Victorian Marine Safety Act 2012), including vessel certification and licencing, pilotage requirements and local knowledge certification (Corner Inlet). Project vessels will comply with incident reporting as required by Safe Transport Victoria (STV) and the Australian Maritime Safety Authority (AMSA). All vessels transiting from Port will adhere to International Association of Marine Aids to Navigation and Lighthouse Authorities' (IALA's) vessel traffic services (VTS) marine traffic guidelines. Project vessels using Corner Inlet must also hold a Certificate of Local Knowledge while entering, leaving or navigating within the Port of Corner inlet, as required by Safe Transport Victoria (STV) and Gippsland Ports. This ensures that all operators have an understanding of the local conditions, marine traffic and navigational aids.	Development of Marine Operation Framework.	Construction Operations Decommissioning

Measure ID	Title	Mitigation outcome	Description	Performance indicator	Stage
SNV-M07	Vessel Passage Plan	Minimise likelihood of vessel collisions.	During all phases of the project, a Vessel Passage Plan (VPP) will be produced by the vessel 'master for navigation' for relevant vessels entering Corner Inlet, in consultation with the Gippsland Ports Harbour Master as per requirements set out in the Port Information Handbook for the Port of Corner Inlet and Port Albert. The VPP is required on the first entry to the Port of Corner Inlet for relevant vessel classes, or if the vessel has not entered for a period exceeding six months. The vessel master must submit to the Harbour Master (or their delegate) a formal passage plan, to be lodged with the Notification of Arrival/Departure and Application for Berth form. The VPP, provides active management of vessels to reduce the choke points and provision of safe separation distances limiting impacts to third-party vessels and port congestion.	Development of Vessel Passage Plan.	Construction Operations Decommissioning
SNV-M09	Charting of final layout on navigational charts	Minimise likelihood of vessel collisions and allisions.	Appropriate marking of offshore structures (both within the Offshore Windfarm Area (OWA) and Offshore Export Cable Area (OECA)), including the position of foundations and cables, on the Australian Hydrographic Office (AHO) nautical charts. Star of the South will provide as laid (final positioning) coordinates of project infrastructure to the AHO for charting. The timing of charting will be in consultation with the AHO and other relevant stakeholders such as the Australian Maritime Safety Authority and the Offshore Infrastructure Regulator, to determine if marking of infrastructure is done progressively or once construction has been fully completed. The purpose of charting is to maximise awareness of the project allowing vessels to passage plan in advance.	Submission of as-built information to Australian Hydrographic Office.	Construction Decommissioning
SNV-M11	Final layout design consultation	Minimise likelihood of vessel collisions and allisions.	The final layout of infrastructure in the Offshore Project Area (including cables and foundations) will be confirmed during the Management Plan development and approval (secondary approvals) following consultation with the Australian Maritime Safety Authority (AMSA), Civil Aviation Safety Authority (CASA), and search and rescue (SAR) agencies. Review and confirmation of infrastructure siting (associated with submission of the final layout of development to the relevant Statutory Authority) will occur to ensure micro siting of high-profile reef (greater than 1.5 meters) has occurred, to ensure compliance with mitigation measure BHC-M01 – Avoidance of high-profile reef.	Submission of the Final Aeronautical Impact Assessment including final layout to CASA, AMSA and SAR agencies.	All

Measure ID	Title	Mitigation outcome	Description	Performance indicator	Stage
SNV-M13	Area to be avoided around the Offshore Wind Farm Area	Minimise likelihood of vessel collisions and allisions.	Star of the South will consult with regulators and marine safety authorities and provide information to seek the application of an Area To Be Avoided (ATBA) (subject to the Australian Maritime Safety Authority capabilities and offshore wind regulators) around the Offshore Wind Farm Area during the operations phase of the project. The ATBA would apply to third party vessels above a particular size (to be confirmed with the Australian Maritime Safety Authority), for the purpose of ensuring safety of navigation as well as safety of infrastructure.	Consultation outcome with AMSA / OIR and other regulators as to proposed control measures required.	Operations
SPL-M01	Refuelling and resupply limitations	Minimises the likelihood of a Marine Gas Oil (MGO) spill during vessel refuelling / resupply.	To minimise the likelihood of vessel collision and hydrocarbon release, project vessels (during all phases of the project) will comply with all statutory requirements, including MARPOL (Marine Order 97). This includes the following refuelling measures • Wherever possible, routine refuelling of project vessels will occur in port; • Should refuelling be required at sea, refuelling will not occur within shipping lanes or areas of high traffic to minimise the likelihood of vessel collision and fuel spill. • Vessel fuel must only contain a maximum sulfur content of 0.50 per cent m/m in compliance with MARPOL and Marine Order 97. • Materials and equipment that have the potential to spill onto the deck or into the marine environment will be stored within a contained area. • Spill response kits will be available and routinely checked to ensure adequate stock is maintained • Bunkering and bulk liquids will be transferred in accordance with bulk transfer procedures to reduce the risk of an unintentional release to sea during transfer. The procedures include standards for: – Certified equipment with confirmed integrity (e.g. hose and valves). – Transfer process (e.g. safety, communication, monitoring, inventory, emergency shut down procedures, procedural documents, and spill incident details).	Development of Marine Operation Framework.	Construction Operations Decommissioning

Measure ID	Title	Mitigation outcome	Description	Performance indicator	Stage
SPL-M02	Spill Response Plan	Minimise the exposure time and area for oil spills.	Develop, implement and maintain a Spill Response Plan (SRP) for accidental hydrocarbon release from project activities within the marine environment, including prevention, response and management during all project phases to minimise risk to sensitive marine receptors. The SRP describes first strike management measures (initial response measures) for vessel spills until the Australian Maritime Safety Authority (AMSA) takes over the response as the designated Control Agency for vessel spills. If a spill was to occur the SRP would be activated and will include the following: • Initial response measures • Notification and reporting requirements • Determine if oil spill modelling and/or tracking buoys are required • Monitoring of the spill such as water quality monitoring • Response tactics to be implemented, such as subsea or surface dispersants, mechanical dispersion, containment and recovery and in-situ burning, depending on the nature and scale of the spill • Determine if shoreline protection and deflection and shoreline clean up are needed. • Monitoring and assessment of ecological impacts.	Development of Spill Response Plan.	Construction Operations Decommissioning
SPL-M03	Maintenance of offshore substation transformers	Minimises the potential likelihood of a spill associated with substation transformers.	To reduce the risk of potential hydrocarbon spill from offshore substation transformers in the marine environment, the following measures will be undertaken during the operation phase: • Offshore substation transformers will be maintained in accordance with manufacturer's requirements. • All offshore transformers will be bunded appropriate to the oil capacity to reduce the risk of hydrocarbon release to the environment. • Regular inspection of items that have a potential hydrocarbon spill risk	Offshore Substation Maintenance Logs and spill incident reports.	Operations

Measure ID	Title	Mitigation outcome	Description	Performance indicator	Stage
UMH-M001	Pre-Construction Archaeological Investigation	Avoid or minimise impacts to submerged archaeological features.	Pre-construction, targeted non-destructive investigation will occur within sections of the Offshore Wind Farm Area (OWFA) and Offshore Cable Export Area (OECA). These investigations will inform refinement of the wind turbine generator array, inter-array cables, interlink cables and export cable route to avoid/minimise impacts to archaeological sites. The methodology for the targeted non-destructive investigation surveys will be developed in consultation with Heritage Victoria and the project maritime archaeologist and the methods may include, but not be limited to high-resolution geophysical surveys and remote operated vehicle (ROV) inspections. Adaptive Management: Should anomalies of potential underwater cultural heritage be detected by qualified maritime archaeologist, investigation of anomalies of high and medium diagnostic priority as potential archaeological items (such as the wreck of the schooner Sarah - VHR # S607) within or close to the placement infrastructure or where seabed disturbance will occur to confirm their locations and determine status.	Survey results for detailed design geophysical campaign and as-built records from pre-construction clearance survey.	Pre-construction
UMH-M002	Archaeological Exclusion zones	Avoid or minimise impacts to submerged archaeological features.	Following the targeted pre-construction non-destructive investigations (UHM-M001), exclusion zones (with permitted activities) within the Offshore Project Area may be established prior to construction works occurring (seabed disturbance) for confirmed underwater cultural heritage (UCH) items that may be impacted by the positioning of project infrastructure, such as cable trenching or foundation installation. An Exclusion zone is a defined area where activities that can impact a heritage site are prohibited. Prohibited activities within these zones could include, but not be limited to, the establishment of no anchoring zones; or if the site is shallow, vessel movement over a certain size will not be allowed due to risk of propellor jet turbulence. The size of exclusion zones will be confirmed in consultation with Heritage Victoria and the project maritime archaeologist. Micro-siting around the defined exclusion zones will occur prior to construction. Exclusion zone sizes and locations will be documented in the project construction, operation and decommissioning environmental management plans. Exclusion zones will be maintained, resized, relocated, or removed in consultation with Heritage Victoria.	Development of Underwater Cultural Heritage management plan.	Construction, operation, decommission

Measure ID	Title	Mitigation outcome	Description	Performance indicator	Stage
UMH-M003	Underwater Cultural Heritage Management Plan	Avoid or minimise impacts to submerged archaeological features.	An Underwater Cultural Heritage (UHC) Management Plan for assessment, monitoring and reporting protocols will be established and approved prior to construction to mitigate potential risks of negative impacts to items of UCH. The UCH management plan will also include permit requirements and procedures for any site-specific archaeological investigations and actions that maybe required for identified items of UCH. This plan should be developed by a qualified maritime archaeologist in consultation with Heritage Victoria and in accordance with relevant Commonwealth and State Guidelines. An Unexpected Finds Protocol (UFP) will be included as part of the UCH Management Plan. The UFP is to guide Project personnel on appropriate assessment and reporting measures in case any unknown, unrecorded and/or newly discovered UCH items are found during construction, operation and decommissioning of the project. The UCH item will need to be reported according to the notification protocols detailed in the UCH Management Plan.	Development of Underwater Cultural Heritage management plan.	Pre-construction
UMH-M004	Site specific archaeological investigation	Minimise or manage impacts to submerged archaeological features.	Adaptive management: Should it be deemed not reasonably practicable to avoid impacts to a confirmed underwater cultural heritage (UCH) item, a program of site-specific archaeological investigation aligned with the principles of the 2001 UNESCO Convention should be undertaken. These investigations may include, but not be limited to, site recording, sampling, relocation or excavation. The methodology and research design to be approved by the appropriate authority as outlined in the UCHMP. Subject to the outcomes of such a program, further measures may be required to be implemented in consultation with and approved by Heritage Victoria.	Development of Underwater Cultural Heritage management plan.	Construction, operation, decommission
UMH-M005	Underwater cultural heritage induction	Minimise or manage impacts to submerged archaeological features.	For project personnel whose activities may impact underwater cultural heritage, the project environmental induction will include an underwater cultural heritage induction. This induction is to make these personnel aware of their obligations to protect underwater cultural heritage under Commonwealth and State legislation relevant to UCH, including • *Victorian Heritage Act 201* • *Commonwealth Underwater Cultural Heritage Act 201.* The details of the underwater cultural heritage induction requirements will be included as part of the Underwater Cultural Heritage Management Plan.	Development of Underwater Cultural Heritage management plan.	Construction, operation, decommission

Measure ID	Title	Mitigation outcome	Description	Performance indicator	Stage
UMH-M006	Unexpected finds protocol	Minimise or manage impacts to submerged archaeological features.	As part of the UCH Management Plan, site monitoring will be required for works taking place in the near vicinity of confirmed underwater cultural heritage (UCH) sites. The purpose of site monitoring is to prevent or minimise impacts to significant UCH items and monitor any changes to the site to determine if these are attributable to project activities. Site monitoring is to be undertaken by the project maritime archaeologist to minimise impacts. Adaptive Management: If confirmed UCH items are unavoidable (cannot be micro-sited around) then monitoring and adaptive management should be undertaken in consultation with the project maritime archaeologist. If confirmed significant or high potential significant UCH sites are identified, monitoring briefs will be required for works taking place in the near vicinity of items as part of the implementation of the UCH Management Plan. Monitoring is to be undertaken by the project maritime archaeologist to reduce impacts. The monitoring program would assess impacts on locations where site specific archaeological survey investigations have identified seabed features as being items of underwater cultural heritage (UCH) that are protected, or are likely to be protected, under the Commonwealth or State heritage legislation. Site monitoring could include, but not be limited to: 2. A baseline survey immediately prior to construction phase (methods could include side scan sonar, multi beam side scan, underwater remotely operated vehicle (ROV) or if appropriate direct diver inspection). 3. Periodic inspections during construction if risk of impact is considered significant. 4. Post construction inspection as soon as construction completed. 5. Depending on the site and the nature of the potential impacts, periodic inspections could continue for one or more years after completion.	Development of Underwater Cultural Heritage management plan.	Construction, operation, decommission

Measure ID	Title	Mitigation outcome	Description	Performance indicator	Stage
			Inspections for any breaches of Exclusion zones. The planning, methodology and analysis of the results of the monitoring should be conducted in consultation with Heritage Victoria and a qualified maritime archaeologist.		
UWN-M01	Piling soft start procedure	Minimise likelihood of marine fauna experiencing Temporary Threshold Shift or Permanent Threshold Shift.	The project will implement soft start and ramp-up of hammer energy measures at the commencement of each impact pile driving activity for both monopile and jacket pile foundations during the construction phase. The soft start will involve the implementation of lower hammer energies at the beginning of the piling sequence before the energy input applied by the hammer is 'ramped up' (increased) over time to the required higher levels. Soft start and ramping up of energy during piling is aimed at discouraging wildlife (e.g. fish, diving seabirds and marine mammals) from remaining in close proximity to the noise source, and reduce the number of individuals potentially occurring within hearing impairment ranges. Each piling event would commence with a minimum of 10 minutes at 10% of the maximum hammer energy, followed by a gradual ramp-up for at least 20 minutes up to 80% of the maximum hammer energy for all pile driving activities.	Hammer energy logs during soft start period of foundation installation.	Construction
UWN-M02	Maintenance of turbines	Minimise underwater noise generated by operational Wind Turbine Generators.	Maintain turbines to reduce problems arising (e.g., vibration) that could contribute to unnecessary underwater noise.	Wind Turbine Generator maintenance logs.	Operations
UWN-M03	Noise abatement system (NAS)	Minimise likelihood of marine fauna experiencing Temporary Threshold Shift or Permanent Threshold Shift.	The project will implement the best available NAS techniques at the point of construction that meets the noise level limit (refer UWN-M04) and is feasible for the site's water depths, metocean conditions, pile size and vessels, as detailed in the Construction Underwater Noise Management Framework. Currently the NAS includes a Double Big Bubble Curtain (DBBC), to ensure the efficacy of this NAS the SOTS project team will have a DBBC management procedure in place that will involve hose drilling, testing and flushing, visual assessments of bubbles, connection maintenance, compressor pressure monitoring, metocean monitoring and reporting to ensure that piling continues only while the DBBC is functional.	Pre-construction Underwater Noise Modelling Report and Pile Installation underwater noise monitoring results (MEMP-M01).	Construction

Measure ID	Title	Mitigation outcome	Description	Performance indicator	Stage
UWN-M04	Noise level limit for pile driving activities and model validation	Minimise likelihood of marine fauna experiencing Temporary Threshold Shift or Permanent Threshold Shift.	Piling activities will be managed to ensure that the noise level at set distances are equal to, or less than, those defined in the pre-construction modelling as per the Construction Underwater Noise Management Framework. Therefore demonstrating that the noise levels / zones of effect correspond appropriately to the precaution zone (as detailed in the Construction Underwater Noise Framework).	Pile Installation underwater noise monitoring results (MEMP-M01).	Construction
UWN-M05	Southern Right Whale Reproductive Biologically Important Area Limit	Avoid exposing SRW to noise levels of greater than 14 dB SPL (impulsive piling) when within the Reproduction BIA between May to September.	Ensure SRW are not exposed to noise levels of greater than 140 dB SPL (impulsive piling) when within the Reproduction BIA between May to September. Where reasonably practicable, install piles on the offshore side of the project area during the months of May to September and inshore piles during October to April. If this is not reasonably practicable, management controls on piling operations would be as per the monitoring and adaptive management procedure for pile driving operations in Section 4.4 of the Construction Underwater Noise Management Framework.	Pre-construction Underwater Noise Modelling Report and Pile Installation underwater noise monitoring results (MEMP-M01).	Construction
UWN-M06	Marine Fauna Observers (MFOs)	Minimise likelihood of marine fauna experiencing Temporary Threshold Shift or Permanent Threshold Shift.	Sufficient MFOs and vessels deployed to ensure visible coverage of the precaution zone based on the final round of modelling, as per the Construction Underwater Noise Management Framework. Any crew that will be used as MFOs will be trained. All MFOs will be suitably qualified and experienced in accordance with EPBC Act PS 2.1.	Development of Marine Mammal and Turtle Monitoring and Management Plan and MMO Field Logs.	Construction
UWN-M07	Passive acoustic monitoring (PAM)	Minimise likelihood of marine fauna experiencing Temporary Threshold Shift or Permanent Threshold Shift.	PAM systems will be used to support detection of vocalising species of whales that are not easily observed at the surface, and during low visibility conditions and at nighttime. Long range detection and real time systems will be investigated. All PAM operators will be qualified and experienced.	Development of Marine Mammal and Turtle Monitoring and Management Plan and MMO Field Logs.	Construction

Measure ID	Title	Mitigation outcome	Description	Performance indicator	Stage
UWN-M08	Pre start-up marine mammal surveillance	Minimise likelihood of marine fauna experiencing Temporary Threshold Shift or Permanent Threshold Shift.	A 30 minute pre-start whale surveillance period will apply before the commencement of the soft start procedure at each piling location with sufficient trained and experienced Marine Fauna Observers to ensure coverage of the precaution zone and supplemented by a PAM array.	Development of Marine Mammal and Turtle Monitoring and Management Plan and MMO Field Logs.	Construction
UWN-M09	Start-up Delay Procedure	Minimise likelihood of marine fauna experiencing Temporary Threshold Shift or Permanent Threshold Shift.	If a whale, dolphin, pinniped or turtle is detected within the relevant precaution zone of a piling location, start-up will be delayed until marine fauna has been confirmed to have left the zone or a period of 30 mins has elapsed since the last detection.	Development of Marine Mammal and Turtle Monitoring and Management Plan including Operational Procedures.	Construction
UWN-M10	Operations procedure	Minimise likelihood of marine fauna experiencing Temporary Threshold Shift or Permanent Threshold Shift.	Species specific precaution zones will be under continuous surveillance (visual and acoustic) during all pile driving operations (low power and full operations). The size of the precaution zones will be refined in response to pre-construction noise modelling and in-field noise verification around representative piling locations. If piling is paused for operational reasons, marine fauna observations should continue and if marine fauna are detected within their precaution zones, re-start should be delayed until the precaution is clear of marine fauna. Once the precaution zone is clear for a period of 30 minutes, soft start procedures can be recommenced.	Development of Marine Mammal and Turtle Monitoring and Management Plan including Stop Work Procedure and MMO field reports.	Construction
UWN-M11	Stop Work Procedure	Minimise likelihood of marine fauna experiencing Temporary Threshold Shift or Permanent Threshold Shift.	If marine fauna are detected within the relevant precaution zone (define by pre-construction modelling as per the Construction Underwater Noise Management Framework) for each species, pile driving should cease or hammer energy reduced to the lowest feasible level when safe to do so. The pile driving operation must not resume until the animal has moved out of the precaution zone or has not been sighted for 30 minutes. Following this, operations may resume following the stop work procedure that will be developed prior to construction.	Development of Marine Mammal and Turtle Monitoring and Management Plan including Start-up Delay Procedure.	Construction

Measure ID	Title	Mitigation outcome	Description	Performance indicator	Stage
UWN-M12	Night-time monitoring	Minimise likelihood of marine fauna experiencing Temporary Threshold Shift or Permanent Threshold Shift.	Effective detection of whales at night will be achieved through a combination of a PAM array and 360 degree scanning thermal infra-red (IR) cameras (or similar) on support vessels ensuring coverage of the precaution zone. Whale detections at night will trigger the mitigation measures outlined in UWN-M09, UWN-M10 and UWN-M11 above.	Development of Marine Mammal and Turtle Monitoring and Management Plan including Night-time Monitoring Plan.	Construction
UWN-M13	Night-time and low visibility procedures	Minimise likelihood of marine fauna experiencing Temporary Threshold Shift or Permanent Threshold Shift.	If three or more whales are detected within the relevant precaution zone (as detailed in the Construction Underwater Noise Management Framework) on any day, piling activities will cease (as soon as safe to do so) during non-daylight hours, in the event that no effective night time detection is available. Piling can recommence in daylight hours the following day, and night operations can continue that night as long as less than three shutdown events are observed within the precaution zone during daylight hours.	Development of Marine Mammal and Turtle Monitoring and Management Plan including Night-time / Low Visibility Procedure.	Construction
UWN-M14	Adaptive management procedure for whales	Minimise likelihood of marine fauna experiencing Temporary Threshold Shift or Permanent Threshold Shift.	An adaptive management procedure will be implemented if behaviour, occurrence of abundance is different to what has been predicted for the noise management, as detailed in the Construction Underwater Noise Management Framework. Examples of behavioural triggers include: Three or more SRW or BW abundance recorded in the precaution zone Repeated or sustained (>30 minutes) blue whale feeding activity is observed by qualified Marine Fauna Observers (MFO's) within or adjacent to the construction precaution zone for blue whales. A Southern Right Whale (SRW) mother and calf pair are observed resting by qualified MFOs within or adjacent to the construction precaution zone for SRW. Examples of potential adaptive management include: • Larger precaution zones that can be realistically managed • Long range surveys • Increased observation platforms and/or methods • Increased coverage MFOs • Additional NAS	Development of Marine Mammal and Turtle Monitoring and Management Plan including Whale Adaptive Management Procedure.	Construction

Measure ID	Title	Mitigation outcome	Description	Performance indicator	Stage
			• Modified NAS.		
UWN-M15	Installation of export cable within southern right whale Biologically Important Area	Minimise likelihood of marine fauna experiencing Temporary Threshold Shift or Permanent Threshold Shift.	If reasonably practicable, the project will avoid installing the export cable within the SRW reproduction BIA during the months of May to September. If this is not reasonably practicable, and a SRW is detected by the vessel MFO, DP will be powered down to the lowest possible safe setting. DP will not be powered up until at least 30 minutes has elapsed since the most recent sighting of a SRW. This measure is designed to limit operations during periods when southern right whales are utilising the area.	Confirmed installation schedule as provided to Offshore Infrastructure Regulator and Marine Mammal Observer field logs.	Construction
VES-M01	Vessel Operations Framework	Minimise the likelihood of vessel collisions and spills Minimise reduction in water quality.	To ensure vessel safety and to reduce the risk of accidents (such as vessel collision and fuel spills) the project will develop, implement and maintain a vessel operations framework to be approved by the regulator, in accordance with International and Australian maritime legislation, including: • The Convention on the International Regulations for Preventing Collisions at Sea (COLREGS) (implemented in Australia by Marine Order 30 (Prevention of collisions) 2016), • The International Convention for the Safety of Life at Sea (SOLAS) as part of the Navigation Act 2012 (lights and signals to be used by a vessel and to reduce potential vessel collisions), • The International Convention for the Prevention of Pollution from Ships (MARPOL) (regulations aimed at preventing both accidental pollution and pollution from routine vessel operations) implemented through the Protection of the Sea (Prevention of Pollution from Ships) Act 1983 (Commonwealth), the Navigation Act 2012 (Commonwealth) and the Pollution of Waters by Oil and Noxious Substances Act 1986 (Victoria).	Development of Marine Operation Framework.	Construction Operations Decommissioning

Measure ID	Title	Mitigation outcome	Description	Performance indicator	Stage
			All project vessels will ensure that they are operated in accordance with this framework (as required by vessel size and class) during every project stage (construction, operation and decommissioning) within both Commonwealth and State Waters (including at Port, transiting to and from the offshore project area and within the offshore project area). Star of the South will ensure that prior to procuring project vessels, all vessels have a record of inspections and compliance.		
VES-M03	Marine coordination centre	Minimise the likelihood of vessel collisions and allision.	To minimise risk of third-party vessel interactions, a Marine Coordination Centre (MCC) will manage movements of project vessels to and within the Offshore Project Area (OPA). The marine coordination centre will also monitor third party vessels and aircraft around the project area. The marine coordination centre will operate 24/7 in the construction phase and in the operations phase it will be staffed during working hours and operate 24/7 during large scale maintenance campaigns such as blade replacement.	Marine Coordination centre operational records.	Construction Operations Decommissioning
VES-M04	Vessel movement controls	Minimise the likelihood of vessel collisions	To reduce the likelihood of interactions with third party vessels or an accidental hydrocarbon release from a vessel collision occurring within the marine environment the following measures will be applied: • All construction, operations and decommissioning activities will occur within the designated Offshore Project Area (OPA) • Project vessels will use defined shipping routes between construction feeder ports and the OPA, as well as within Corner Inlet. Vessel routes will be further defined in consultation with relevant stakeholders. Deviation from recommended routes can occur for safety or environmental reasons. • All project vessels that require dynamic positioning (DP) will comply with the DP Certification scheme.	Development of Marine Operation Framework.	Construction Operations Decommissioning
VES-M05	Vessel biosecurity controls	Minimise the likelihood of introducing invasive marine species.	Project vessels and subsea equipment will be compliant with relevant biosecurity legislation and guidelines, including: • Prior to commencing project activities, all installation and support vessels will have a project-approved Ballast Water Management Plan and a Ballast Water Management Certificate.	Development of Marine Operation Framework and audit of project vessels.	Construction Operations Decommissioning

Measure ID	Title	Mitigation outcome	Description	Performance indicator	Stage
			• Reporting and management of ballast water will be in accordance with The Biosecurity Act 2015 and the Ballast Water Management Convention's Guidelines for Ballast Water Management and Development of Ballast Water Management Plans. • An Invasive Marine Species (IMS) risk Assessment Procedure (IMS-RAP) will be undertaken in accordance with the International Maritime Organisation Guidelines for the Management of Ships Biofouling for all vessels undertaking project activities, and the vessel will be confirmed to be a low biosecurity risk before approval to enter the Offshore Project Area (OPA) and Corner Inlet. • Biosecurity clearance prior to entering Australian Waters for foreign vessels: – Vessels that are intending to discharge internationally sourced ballast water within Australian waters must submit a Ballast Water Report through Maritime Arrivals Reporting System (MARS) at least 12 hours prior to arrival to gain biosecurity clearance. • Ballast tank sediment must be disposed of in an area outside 200 nautical miles from the nearest land, and in at least a depth of 200 metres, or at an approved land-based reception facility. • Management of anti-fouling and in-water cleaning in accordance with the Australian anti-fouling and in-water cleaning guidelines.		
VES-M06	Vessel collision - marine mammals	Minimises vessel disturbance and likelihood of vessel strike to marine mammals and turtles.	All project vessels will implement the following requirements during all project phases (construction, operation and decommissioning) as prescribed by the EPBC Regulations 2000 Part 8 and Victorian State Wildlife (Marine Mammal) Regulations 2019 to minimise the risk of collision with a whale or dolphin: • Implementation of 'no approach' and 'caution' zones for whales, dolphins and seals: – No approach zone (whales): within 100 metres of a whale, and within 300 metres to the front and rear of a whale – No approach zone (dolphins): within 50 metres of a dolphin, and 150 metres in front and to the rear of a dolphin	Development of Marine Operation Framework and marine mammal observation records.	Construction Operations Decommissioning

Measure ID	Title	Mitigation outcome	Description	Performance indicator	Stage
			– No approach zone (seals): within 30 metres of a seal, if the seal is on land or a haul out; or within 5 metres if the seal is on water infrastructure within state waters – Caution zone (whales): within 300 metres of a whale – Caution zone (dolphins): within 150 metres of a dolphin. • Vessels must not enter the 'no approach zone' and must not wait in front of the direction of travel when a calf is present.		
VES-M07	Propeller guards	Minimise propeller impacts to Little Penguins and other marine fauna.	Where reasonably practicable, installation and use of propeller guards on propeller operated vessels utilising the Port of Corner Inlet throughout all phases of the project.	Development of Marine Operation Framework and Installation records of propeller guards.	Construction Operations Decommissioning
VES-M08	Routine discharges & accidental discharges	Minimise reduction in water quality of sensitive receptors.	Routine discharges No routine discharges within 500 m of the boundaries of State or Australian marine parks, the southern right whale reproduction BIA / HCTS (between May and September), or if a marine mammal or turtle is within 500 metres of the vessel. Accidental Discharges In the event of an accidental discharge from a vessel, the discharge will be reported and monitored, including recording of any marine mammals and turtles that encounter the discharge.	Development of Marine Operation Framework.	Construction Operations Decommissioning
VES-M09	Provide an environmental induction to all crew member(s) including training for marine mammal observations whilst vessels are in transit.	Minimise the likelihood of vessel disturbance or strike to marine mammals and turtles.	Provide an environmental induction to all crew member(s) including training for marine mammal observations whilst vessels are in transit.	Development of Marine Operation Framework.	Construction Operations Decommissioning
VES-M10	Restricted speed in southern right whale Biologically important Area	Minimise the likelihood and consequence of a vessel strike to Southern Right Whale.	Project vessels working on the transmission cable in the southern right whale Biologically Important Area (BIA) for reproduction will maintain a speed of less than 10 knots) during peak calving months of May to September.	Development of Marine Operation Framework.	Construction Decommissioning

Measure ID	Title	Mitigation outcome	Description	Performance indicator	Stage
VES-M11	Adaptive management procedure for southern right whales and blue whales	Minimise the likelihood and consequence of a vessel strike to Southern Right Whales and Blue Whales.	Vessels will watch and act for the presence of southern right whales and blue whales during all project phases. If a southern right whale or blue whale is sighted: • Increased caution zone to 500 m • Reduced vessel speed to 5 knots within the caution zone	Vessel crew Induction record and records of marine mammals observations. Development of Marine Operation Framework.	Construction Operations
Onshore ecology (EPBC matters)					
FFM-M001	Avoidance of impacts to ecological values during the design phase	Avoid or minimise impacts to sensitive ecological values.	Continue to seek opportunities to avoid and minimise impacts on ecological values during design and construction planning. Undertake on-ground ecology surveys, including Vegetation Quality Assessments (VQA) of areas previously inaccessible prior to any native vegetation removal to inform design and construction planning.	Updated Environmental Line List.	Prior to construction
FFM-M002	Prepare an Environmental Line List (ELL)	Minimise or manage impacts to sensitive ecological values.	Prepare an Environmental Line List (ELL) which identifies all ecological values that occur within the project area (including areas previously inaccessible) prior to construction commencing. The ELL will define all prescribed mitigation or management requirements associated with each identified value. The ELL will be incorporated in the detailed environmental management plans and will be referred to when completing detailed construction planning. The ELL will be prepared in consultation with the Department of Energy, Environment and Climate Action and reviewed on a regular basis.	Development of an Environmental Line list.	Prior to construction (prepare) Construction Operation Decommissioning
FFM-M003	Prepare and implement a Construction Environmental Management Plan (CEMP) and subplans	Manage impacts of construction activities on ecological values.	Prepare and implement a Construction Environmental Management Plan (CEMP) to define measures to manage biodiversity values, air quality, noise, site contamination, waste, water quality and monitoring to minimise construction activities impacting on the environment in consultation with the Department of Energy, Environment and Climate Action. An audit framework and emergency response procedure will be included in the plan. Specific controls for protecting ecological values not defined by the CEMP will be outlined in sub-plans to the CEMP including:	Development of a Construction Environmental Management Plan.	Prior to construction (prepare) Construction

Measure ID	Title	Mitigation outcome	Description	Performance indicator	Stage
			• Flora and Fauna Management Plan (FFM-M005, FFM-M006) to define measures to protect retained ecological values during construction and outline control measures to minimise risk of disturbance, injury or death of fauna. • Biosecurity Management Plan (FFM-M007) to define measures to manage and control biosecurity threats (weeds, pathogens, and pest animals). • Management plans to reduce erosion, sedimentation and contamination risk to retained vegetation and habitat including waterways (FFM-M008). • Protocol for works within Conservation Reserves (FFM-M009) • Protocol for incidental discovery of threatened flora and fauna species. • Designated Waterway Crossing Management Plan (FFM-M010) to describe how the project will manage and control impacts on designated waterways during construction. • Rehabilitation and Reinstatement Plan (FFM-M013) to guide the approach to rehabilitation following the completion of construction in conservation reserves and roadsides / streamsides that support remnant vegetation.		
FFM-M004	Contractor inductions and awareness	Manage impacts of construction activities on ecological values through Contractor awareness.	Provide inductions and training to ensure contractors are aware of areas of ecological value along the alignment and the mitigation measures required for construction activities. Provide reference material such as environmental management plans and maps at the site office during construction.	Project Induction records.	Prior to construction (prepare) Construction Operation Decommissioning
FFM-M005	Prevent construction impacting on retained vegetation and habitat not approved for removal	Manage impacts of construction activities on ecological values.	Prepare and implement a Flora and Fauna Management Plan (FFMP) to identify significant ecological values to be retained (native vegetation and threatened species habitat, Large Trees in Patches, Scattered Trees) including in areas previously inaccessible and define measures to protect those values during construction. The FFMP will be developed in consultation with the Department of Energy, Environment and Climate Action and will include:	Development of a Construction Environmental Management Plan including the sub plan - Flora and Fauna Management Plan.	Prior to construction (prepare) Construction

Measure ID	Title	Mitigation outcome	Description	Performance indicator	Stage
			• No-Go Zones where works are not permitted to protect sites of known significant ecological values to be retained. No Go Zones to be placed on boundary of project area and around scattered trees, large patch trees and habitat trees where project area encroaches > 10% of Notional Root Zones (NRZ) as per AS 4970-2025 Protection of Trees on Development Sites. • Clear demarcation of No-Go Zones and NRZs on maps and construction drawings. • Protection of No-Go Zones and NRZs with temporary fencing and signage; fencing will be installed and removed in a staged manner as construction progresses along the linear alignment. • Pre-construction inspections by a Site Environmental Manager (or similar) to confirm that native vegetation and trees to be retained have been adequately protected from impact. • Conduct regular inspection and maintenance of fencing during construction to ensure continued integrity. • Performance targets and contingency measures.		
FFM-M006	Minimise disturbance, injury, or death of wildlife	Minimise the likelihood of impacts from construction activities to terrestrial fauna.	Prepare and implement a Flora and Fauna Management Plan (FFMP) which outlines control measures to minimise risk of disturbance, injury or death of fauna. The FFMP will be developed in consultation with the Department of Energy, Environment and Climate Action and include measures to: • Manage any open pits or trenches to reduce potential for fauna entrapment in accordance with the Australian Pipelines and Gas Association Code of Environmental Practice: Onshore Pipelines (AGPA, 2022) through measures such as: – Minimising the length of trench open at a time. – Minimising the amount of time trenches and other excavations are open. – Scheduling trenching through watercourses during dry and low flow periods.	Development of a Construction Environmental Management Plan including the sub plan - Flora and Fauna Management Plan.	Prior to construction (prepare) Construction

Measure ID	Title	Mitigation outcome	Description	Performance indicator	Stage
			– Constructing trench plugs (short section of trench left unexcavated to allow passage of stock or wildlife across the trench) with slopes less than 45o to provide exit ramps for fauna. Provide other exit ramps where practicable and safe to do so. Exit ramps to be installed at the ends of cable trenches. – Creating 'ladders' to enable fauna to exit the excavations (e.g. branches, ropes, planks, floats). – Daily inspections of open trenches by appropriately certified personnel to remove trapped fauna as required. – Inspection prior to and during dewatering activities by Inspection prior to and during dewatering activities by appropriately experienced and licenced personnel to remove trapped aquatic fauna as required. – Checking for fauna prior to backfilling trenches. • Ensure fauna are discouraged from work areas by erecting barriers where practicable. • Install signage along access routes through conservation reserves and patches of native vegetation to raise awareness of presence of wildlife crossing roads and reduce incidence of wildlife collision. • Develop and implement a procedure for finding trapped and/or injured fauna. • Design any fencing required to define construction boundaries or to protect No-Go Zones or Notional Root Zones (NRZ) in accordance with relevant DEECA guidelines to limit fauna strike and fauna mortality risk and/or maintain habitat connectivity. • Schedule construction works to avoid the breeding season of threatened fauna species in areas of habitat for those species, where practicable. • Time removal of vegetation (trees, shrubs, ground cover) to avoid the breeding season of nesting birds and mammals or times when arboreal mammals are less active and more likely to be inhabiting hollows (winter and spring) where practicable.		

Measure ID	Title	Mitigation outcome	Description	Performance indicator	Stage
			• Design and manage lighting to avoid/minimise light spill into adjacent habitat in general accordance with guidance in the National Light Pollution Guidelines for (DCCEEW, 2023) where these do not conflict with construction safety. • Minimise night-time works where practical to do so, to reduce impacts of noise and light on nocturnal animals. • Develop an artificial hollow pragram in consultation with the Department of Energy, Environment and Climate Action. • Avoid impacts on Hooded Plover by engaging a suitably trained ecologist to check the beach for signs of nesting habitat for Hooded Plover and, if nests are found, designating no go areas and installing signage (OFF-M05). • Conduct pre-clearing survey at all sites where vegetation or aquatic habitat is being removed to assess presence of fauna. While this is particularly relevant for the removal of hollow-bearing trees due to potential occupancy of hollows, it is also relevant for shrubs and ground layer habitat as this provides nesting and refuge opportunities for non-hollow dependent fauna. • Engage a suitably qualified wildlife handler ('wildlife spotter'), holding a relevant and current authorisation under the Wildlife Act 1975, to salvage any wildlife encountered during site clearance works.		
FFM-M007	Control spread and/or introduction of weeds, pathogens and/or pe st animals	Manage biosecurity risks and minimise the likelihood of introduction and spread of weeds, pathogens and/or pest animals.	Prepare and implement a Biosecurity Management Plan (BMP) to define measures to manage and control impacts on indigenous fauna and flora values from biosecurity threats (weeds, pathogens, and pest animals) and set performance targets and contingency measures. The BMP will be developed in consultation with the Department of Energy, Environment and Climate Action and Wellington Shire Council and define measures to prevent the introduction and spread of weeds and pathogens including: • Use of fill that is preferably sourced locally to be compatible with the surrounding area or, if from offsite, needs to be determined as weed-free by a suitable service provider as per the Australian Pipelines and Gas Association Code of Environmental Practice: Onshore Pipelines (AGPA 2017). • Inspection and certification of machinery and materials upon arrival at site in accordance with A Guide for Machinery Hygiene for Civil Construction (CCF 2011).	Development of a Construction Environmental Management Plan including the sub plan - Biosecurity Management Plan.	Prior to construction (prepare) Construction Operation Decommissioning

Measure ID	Title	Mitigation outcome	Description	Performance indicator	Stage
			• Biosecurity hygiene protocols to mitigate the spread of weeds, Cinnamon Fungus and Chytrid Fungus. • Pre-construction weed mapping to determine locations of Catchment and Land Protection Act 1994 listed weeds where weed treatment is required within the project land. • Monitoring during construction to identify any new outbreaks of weeds • Management of any outbreak weeds within construction areas that occurs due to construction activity in accordance with the Catchment and Land Protection Act 1994. • Measures to minimise the risk of spread of weeds into adjacent land. • Measures to ensure pest animals are not encouraged in the area through the provision of food (e.g. garbage on-site), harbour or new burrowing opportunities (e.g. for rabbits, foxes). • Measures to minimise the risk of spreading weeds and/or pathogens elsewhere in the region from machinery and vehicles leaving the project area.		
FFM-M008	Reduce erosion, sedimentation and contamination risk to retained vegetation and habitat (including waterways)	Minimise and manage impacts on retained vegetation and habitat and aquatic environments from erosion and sedimentation.	Prepare and implement procedures to manage soil, erosion and sediment under the Construction Environmental Management Plan (CEMP) (FFM-M003) that define measures to manage erosion and sedimentation to minimise impacts on retained vegetation and habitat and aquatic environments. Erosion and sediment will be managed in accordance with current best practice environmental management and the Australian Pipelines and Gas Association Code of Environmental Practice: Onshore Pipelines (AGPA, 2017) to prevent sediment-laden water from entering retained vegetation and habitat, drainage systems and waterways (see also, SOL-M010). Prepare and implement measures and procedures to manage air quality such as management of stockpiles and materials which may become windborne (i.e. covering, spraying) in areas adjacent to retained vegetation and waterways (see also, AQM-M001). Prepare and implement measures and procedures to manage hazardous substances under the CEMP which define measures for storage and handling of hazardous substances in areas adjacent to retained vegetation and waterways (see also, SUM-M003).	Development of a Construction Environmental Management Plan including the sub plan - Soil Erosion and Sediment Management Plan.	Prior to construction (prepare) During construction (implement)

Measure ID	Title	Mitigation outcome	Description	Performance indicator	Stage
FFM-M009	Protect values within conservation reserves	Avoiding or minimise impacts to sensitive ecological values within Conservations Reserves.	Prepare and implement a protocol for works within Conservation Reserves in consultation with Parks Victoria and the Department of Energy, Environment and Climate Action. Measures contained within the protocol will be based on those defined in the Flora and Fauna Management Plan (FFM-M005) and Biosecurity Management Plan (FFM-M007) components of the Construction and Operational Environmental management Plans but with site-specific requirements, where required.	Development of Construction Environmental Management Plan.	Prior to construction (prepare) During construction (implement)
FFM-M010	Manage impacts on waterways	Manage and minimise impacts to waterways from waterway crossing construction.	Prepare and implement a Designated Waterway Crossing Management Plan (DWCMP) in consultation with the Department of Energy, Environment and Climate Action and the West Gippsland Catchment Management Authority to describe how the project will manage and control impacts on designated waterways during construction. The DWCMP will define the construction method, timing and duration for construction works, and outline mitigations appropriate to the waterways such as diversion drains to maintain environmental water flows during construction. Designated Waterway Crossing Plan to be developed in alignment with the surface water elements of the project wide Construction Environmental Management Plan (FFM-M003) and measures to control the introduction and/or spread of weeds and/or pathogens (FFM-M007).	Development of a Construction Environmental Management Plan including the sub plan - Designated Waterway Crossing Management Plan.	Prior to construction (prepare) During construction (implement)
FFM-M011	Prepare and implement an Operation Environmental Management Plan (OEMP)	Manage impacts of operational activities on ecological values.	Prepare and implement an Operation Environmental Management Plan (OEMP) in consultation with the Department of Energy, Environment and Climate Action to define controls around the protection of retained biodiversity values including: • An Environmental Line List (ELL) which identifies ecological values that occur within the project area and prescribed management requirements associated within each identified value. The ELL will be reviewed on a regular basis. • Permitted maintenance activities (extent and type of activity) based on the ELL and defined based on the occurrence of native vegetation, threatened ecological communities and threatened species habitat. • Accurate maps identifying 'No Go Zones' and/or maintenance zones based on restrictions associated with ecological values.	Development of Operation Environmental Management Plan.	Prior to operation (prepare) During operation (implement)

Measure ID	Title	Mitigation outcome	Description	Performance indicator	Stage
			• Weed and pathogen control, in accordance with the same post-completion prevention and control procedures and methods outlined for the construction phase of the project. • Dust control using the same methods used during the construction phase for routine vehicle movements (cf. large construction machinery movements). • Waterway and wetland protection, including the use of stabilised waterway crossing points during dry conditions only, or the use of designated existing bridges to obtain access to the easement during wet conditions. • An audit framework will be included in the plan. • Corrective actions to be implemented if the outcomes of the OEMP are not achieved. The OEMP will be reviewed by the project annually and adaptive measures implemented (where required).		
FFM-M012	Prepare and implement a Decommissioning Environmental Management Plan (DEMP).	Manage impacts of Decommissioning activities on ecological values.	Prepare and implement a Decommissioning Environmental Management Plan (DEMP). The DEMP will be developed following an updated survey of biodiversity values present immediately prior to the decommissioning phase. An audit framework will be included in the plan. The DEMP will be developed in consultation with the Department of Energy, Environment and Climate Action and reviewed by the project annually.	Development of Decommissioning Environmental Plan.	Prior to decommissioning (prepare) During decommissioning (implement)
FFM-M013	Site reinstatement and rehabilitation	Manage and mitigate impacts of construction activities on ecological values through rehabilitation and reinstatement.	Prepare and implement a Rehabilitation and Reinstatement Plan (RRP) to guide the approach to rehabilitation following the completion of construction in patches of native vegetation and threatened species habitat in conservation reserves, on private land and roadsides. The RRP will be developed in consultation with the Department of Energy, Environment and Climate Action, relevant landowners, and with reference to the Australian Pipelines and Gas Association Code of Environmental Practice: Onshore Pipelines (APGA, 2017), and include measures such as: • Details of the actions and responsibilities to progressively rehabilitate, regenerate, and/or revegetate areas (noting the operational maintenance requirements). • Topsoil removal and storage to protect the seed bank resource.	Development of a Construction Environmental Management Plan including the sub plan - Rehabilitation and Reinstatement Plan.	Prior to construction (prepare) Post construction (implement

Measure ID	Title	Mitigation outcome	Description	Performance indicator	Stage
			• Retention of proportion of trees felled in situ to provide additional habitat resources. Emphasis should be placed on retaining trees that contain hollows. • Returning habitat features removed during construction such as large hollow logs and rocks if consistent with rehabilitation objectives at particular locations. • Identification of flora species and plant and/or seed stock sources that may include salvage and replanting of plants where appropriate and resonably practicable. • Procedures, timeframes, measurable performance objectives, and responsibilities for monitoring the success of rehabilitation and/or reinstatement/stabilisation areas. Corrective actions to be implemented if the outcomes of rehabilitation and/or reinstatement/stabilisation do not achieve the objectives adopted.		
Aboriginal cultural heritage					
SCH-M001	Detailed geotechnical and geophysical surveys to inform an updated Submerged Palaeolandscape Assessment, project design and mitigation	Avoid or minimise impacts to submerged archaeological features.	Detailed geotechnical and geophysical survey campaigns undertaken prior to construction will be informed and guided by a suitably experienced and qualified underwater archaeologist. The planned geophysical survey campaign will provide full coverage of all the final infrastructure locations, with broader project-area survey carried out at line spacing appropriate for archaeological purposes (including multibeam echosounder, side scan sonar, sub bottom profiler, and magnetometer). The geotechnical survey (cone penetration testing (CPT), vibro-coring (VC)) will sample targeted locations throughout the offshore project area where project infrastructure is intended to be installed and will include the provision of samples for geoarchaeological assessment. The datasets obtained from this survey campaign will be utilised to update the Submerged Palaeolandscape Assessment prior to construction, including: • Greater density of survey lines to identify features and inform subsequent geotechnical surveys • Assessment of geotechnical samples by specialist geoarchaeologist.	Geophysical and Geotechnical Survey report.	Pre-Construction

Measure ID	Title	Mitigation outcome	Description	Performance indicator	Stage
			The updated Submerged Palaeolandscape Assessment and the results of this survey campaign will in turn inform project design, mitigation, and the preparation of both the Cultural Heritage Management Plan (pertaining to State Waters, see SCH-M003; SCH-M007) and UCH Management Plan (pertaining to Commonwealth Waters, see SCH-M004; SCH-M008). Consultation will be undertaken with Gunaikurnai Land and Waters Aboriginal Corporation, the Commonwealth Department of Climate Change, Energy, the Environment and Water, Heritage Victoria, and First Peoples–State Relations on the findings and implications of the updated Submerged Palaeolandscape Assessment.		
SCH-M002	Geoarchaeological assessment to clarify the geoarchaeological and palaeoenvironmental potential of geotechnical samples	Avoid or minimise impacts to submerged archaeological features.	Undertake a geoarchaeological assessment of geotechnical logs and samples as appropriate for a defined and agreed mitigation campaign to clarify the geoarchaeological and palaeoenvironmental potential of geotechnical sequences recovered from the study area. This will involve identifying and describing samples of geoarchaeological potential by a suitably qualified marine geoarchaeologist, in order to clarify the nature of the sediments, and their mode of deposition. This assessment will be undertaken prior to construction and include the following: • Description of sediment sequences assigned medium and high priority status during the initial review of logs obtained for geotechnical (engineering) purposes. • Modelling the character, extent and depth of deposits; • Interpreting the probable environments represented; • Determining the importance of the deposits, with regard to their archaeological and palaeoenvironmental potential, and; • Recommendations for dating and palaeoenvironmental assessment as appropriate, in order to understand the preservation and changing nature of the human landscapes of the study area, to address specific questions reflecting the scientific and cultural value of the evidence preserved in the stratigraphic sequences.	Geoarchaeological assessment report.	Pre-Construction

Measure ID	Title	Mitigation outcome	Description	Performance indicator	Stage
			The geoarchaeological assessment will inform the update to the Submerged Palaeolandscape Assessment (also see SCH-M001) and inform the preparation of both the Cultural Heritage Management Plan (SCH-M003; SCH-M007) and Underwater Cultural Heritage Management Plan (see SCH-M004; SCH-M008).		
SCH-M004	The preparation of an Underwater Cultural Heritage Management Plan with mitigation measures pertaining to both non-Aboriginal Underwater Cultural Heritage and Submerged Aboriginal Cultural Heritage in Commonwealth Waters	Avoid, minimise and manage impacts to submerged archaeological features.	An overarching Underwater Cultural Heritage (UCH) Management Plan for mitigation measures related to both non-Aboriginal UCH and Submerged Aboriginal Cultural Heritage will be established in consultation with Heritage Victoria (HV) as the delegates for the UCH Act on behalf of Commonwealth Department of Climate Change, Energy, the Environment and Water (DCCEEW) prior to construction to mitigate potential risks of negative impacts to items of UCH and Submerged Aboriginal Cultural Heritage. The UCH Management Plan will apply only to Submerged Cultural Heritage located within Commonwealth Waters. The preparation of the UCH Management Plan is also outlined in UMH-M003. This management plan will be informed by SCH-M001 and SCH-M002, above, and include the following specific mitigation measure related to Submerged Aboriginal Cultural Heritage within Commonwealth Waters: • A definition of circumstances where additional design and management measures such as Archaeological Exclusion Zones are required. Measures related to Submerged Aboriginal Cultural Heritage within the UCH Management plan will be prepared by a suitably experienced and qualified underwater archaeologist, in consultation with Gunaikurnai Land and Waters Aboriginal Corporation, the Commonwealth Department of Climate Change, Energy, the Environment and Water, Heritage Victoria, and First Peoples–State Relations.	Development of Underwater Cultural Heritage management plan.	Prepared and Agreed Pre-Construction. Active during Pre-Construction, Construction, Operation, Decommissioning

Measure ID	Title	Mitigation outcome	Description	Performance indicator	Stage
SCH-M005	Inductions for Submerged Aboriginal Cultural Heritage	Manage impacts to accidentally impacted submerged archaeological features.	For project personnel whose activities may impact submerged palaeolandscapes receptors, Submerged Aboriginal Cultural Heritage inductions will ensure that personnel are aware of their obligations to report and protect Aboriginal cultural heritage under Commonwealth and State legislation including: • *Aboriginal Cultural Heritage Act 2006* (Vic) • *Underwater Cultural Heritage Act 2018* (Cth). The details of the Submerged Aboriginal Cultural Heritage induction requirements will be included as part of the Cultural Heritage Management Plan (SCH-M003) and Underwater Cultural Heritage Management Plan (SCH-M004). Also refer to UMH-M005 for non-Aboriginal underwater cultural heritage inductions.	Development of Underwater Cultural Heritage management plan.	Prepared and Agreed Pre-Construction. Deployed as needed during Pre-Construction, Construction, Operation, Decommissioning
SCH-M006	Unexpected finds protocols	Manage the impacts of construction onsubmerged archaeological features through Contractor awareness.	Develop and maintain an unexpected finds protocol for the unexpected discovery of Aboriginal cultural heritage material. The unexpected finds protocol will lay out the process by which any Aboriginal archaeological material that is found unexpectedly (such as within geotechnical samples or through seabed inspections) is managed. The protocol includes the nomination of a suitably qualified and experienced archaeologist to whom any finds are reported. The archaeologist will then undertake an assessment of the finds to establish the appropriate pathways for reporting, recording, and assessment of the material, and establish whether additional further actions such as establishment of exclusion zones, further intervention or investigative work is required. The unexpected finds protocols will be outlined in the Cultural Heritage Management Plan for State Waters (SCH-M007) and the UCH Management Plan for Commonwealth Waters (SCH-M008).	Development of Underwater Cultural Heritage management plan.	Prepared and Agreed Pre-Construction. Active during Pre-Construction, Construction, Operation, Decommissioning.
ACH-M004	Sightlines	Avoid impacts to sightlines from GunaiKurnai Country to White Rock	Turbine placement will not obstruct sightlines from Gunaikurnai Country to White Rock.	Consultation records with GLaWAC - showing designs with turbine placement	Operation

Measure ID	Title	Mitigation outcome	Description	Performance indicator	Stage
Surface Water					
SUM-M003	Preventing fuel and chemical spills	Management of fuels and chemicals during construction.	The CEMP will be implemented and include measures and procedures for the appropriate storage, handling and transportation of chemicals and fuels, including: • Store bulk fuel in self-bunded tanks in accordance with relevant Australian standards (AS1940-2017 and AS1692-2006). • Refuelling or maintenance of equipment, machinery and vehicles will be conducted at least 50 m or as far away as is reasonably practical from any waterway with appropriate measures to contain spills. • Store hazardous materials in ventilated, self-bunded and secured containers in accordance with the Occupational Health and Safety Act 2004 (OHS Act) and Occupational Health and Safety Regulations 2007 (OHS Regulations). • Store dangerous goods in accordance with the Dangerous Goods (Storage and Handling) Regulations 2012 and the code of practice for the storage and handling of dangerous goods. • Undertake routine and scheduled maintenance of vehicles and plant/machinery/equipment to minimise the potential for leaks/spills to occur. Supply spill kits and firefighting equipment with the chemicals required by legislation. Maintain dangerous goods and hazardous materials register and current safety data sheets (SDSs). Transformers to be filled only following installation of bunds to prevent discharge of oils during filling process.	Inclusion of measures and procedures for the appropriate storage, handling and transportation of chemicals and fuels in the CEMP.	Construction

Measure ID	Title	Mitigation outcome	Description	Performance indicator	Stage
SUM-M005	Preventing pollution from trenchless waterway crossings	Avoid, minimise manage pollution impacts from trenched waterway crossing construction.	The proposed drilling profile design and the work method statement shall be submitted to the WGCMA and approved prior to the commencement of trenchless waterway crossings. Risk of frac-out will be assessed in accordance with industry best practice guidelines to determine likelihood of occurrence (e.g. modelling). Drilling profiles will be adjusted where the risk of frac-out is considered likely. Drilling fluid properties will be monitored during trenchless crossing operations to reduce the risk of frac-outs (e.g. mud weight, viscosity, pressure). Drilling equipment and configuration will be appropriate for the proposed trenchless crossing operation to prevent frac-out. Pollution prevention strategies will be in accordance with EPA Publication 1834; Civil Construction, Building and Demolition Guide, IECA Best Practice Erosion and Sediment Control Appendix P; Land Based Pipeline Construction Guidelines and EPA Publication 1896: Working within or adjacent to waterways. Sediment control devices such as silt fences will be used to remove suspended solids and dissipate flow where required. Earth bunds/or and drainage channels will be placed around the upper edges of drill sites and work areas to divert natural runoff around and away from the site and prevent mixing with drilling compound runoff. Sump pits will be constructed at the bottom of the drill site. The sump pit will be positioned to capture runoff from the drilling compound. Materials collected in the sump pit will be assessed and managed in accordance with industry best practice guidelines for trenchless crossing operations. An earth bund or silt fence will be placed around the sump pit to contain any spillage. All facilities utilised in the surface mud handling (mixing, cleaning and pumping) during trenchless crossing activities will be bunded.	Submission of proposed drilling profile design and work method statement to WGCMA.	Construction
SUM-M006	Managing acid sulfate soils during construction	Manage impacts associated with the disturbance of acid sulfate soils during construction.	All works in areas identified as containing potential ASS, an ASS management plan will be developed (also refer to mitigation GWM-M003) and all mitigation works will be carried in out in accordance with the relevant industry legislation and guidelines, including: • Industrial Waste Management Policy (Waste Acid Sulfate Soils) 1999. • EPA Victoria - Publication IWRG655.1 Acid Sulfate Soil and Rock.	Development of an Acid Sulfate Soil Management Plan.	Construction

Measure ID	Title	Mitigation outcome	Description	Performance indicator	Stage
			• Victorian Best Practice Guidelines for Assessing and Managing Coastal Acid Sulfate Soils (CASS BPMG 2010). Construction works will be staged and programmed to minimise the duration and exposure of excavations in areas identified as containing ASS to the extent practicable.		
SUM-M007	Managing runoff from construction sites	Management of erosion and sediment and site runoff during construction.	All construction activities will be carried out in accordance with industry standard best practice guidelines including: • IECA Best Practice Erosion and Sediment Control Guidelines. • EPA Publication 1834; Civil Construction, Building and Demolition Guide. • EPA Victoria Publication 1806; Reducing Risk in the Premixed Concrete Industry. A project wide Construction Environmental Management Plan (CEMP) will include a surface water management plan (SWMP) that sets out the engineering controls and management strategies required to manage runoff during construction. The CEMP will also include requirements for appropriate soil testing at each site to identify any potentially problematic soils (e.g. dispersive soils). Where identified, the CEMP will outline the necessary control measures to ensure problematic soils are managed to prevent runoff from impacting receiving waterways and wetlands.	Inclusion of erosion and sediment mitigation measures in the CEMP.	Construction
SUM-M008	Preventing discharges from dewatering activities	Avoid and minimise impacts to surface water quality from dewatering discharge.	The CEMP will adopt a management hierarchy that prioritises the prevention of discharges into surface waters as far as is reasonably practicable. Any groundwater released to surface waters will meet the water quality objectives as defined in the Environmental Reference Standards 2021.	Inclusion a management hierarchy that prioritises the prevention of discharges into surface waters in the CEMP.	Construction

Measure ID	Title	Mitigation outcome	Description	Performance indicator	Stage
Social					
SOC-M001	Workforce Accommodation Strategy	Minimise impacts of the project workforce on available accommodation providers within the local area.	Develop and update the draft Workforce Accommodation Strategy prior to construction, in collaboration with the relevant Councils and accommodation providers to minimise the impacts of the project's workforce during construction and operation on available accommodation within the local area.	Update and finalise the Workforce Accommodation Strategy.	Construction, Operation
SOC-M002	Medical Services	Avoid or minimise impacts to the availability of local GP services.	Clarify final workforce numbers prior to construction, and as necessary and appropriate, provide primary medical services at Gippsland Ports which may be used by construction workers, to reduce or avoid the need for workers to make use of GP services in the local area.	Record of number of workforce confirmed prior to construction.	Construction
SOC-M003	Stakeholder Engagement Plan	Manages impacts to social receptor groups through effective communication.	A Stakeholder Engagement Plan will be developed and implemented during construction, including the following in relation to social impact matters: • Information about construction sequencing to stakeholder such as fishing participants and users of the Reeves Beach Campground. • Provision of access to digital data on the location of wind turbines and OSS platforms, suitable for use by the fishing community. • ensure Reeves Beach Campground users are informed regarding potential noise associated with construction, planned closures to the campground, etc.	Development of a Stakeholder Engagement Plan.	Construction
Business and tourism					
BTM-M001	Stakeholder Engagement Plan – business and tourism	Manage changes to local business and tourism through effective communication	A Stakeholder Engagement Plan will be developed and implemented prior to construction in accordance with TTP-M001 and SOC-M003. In relation to potential changes to local business and tourism during the construction phase, the plan will include communications, enquiries and complaints management procedures that allow feedback from Councils and the local community. Relevant business and community organisations will be included in stakeholder engagement activities.	Development of a Stakeholder Engagement Plan	Construction and operation

Measure ID	Title	Mitigation outcome	Description	Performance indicator	Stage
BTM-M002	Traffic Management Plan – business and tourism	Minimise construction traffic impacts.	The Traffic Management Plan required in TTP-M002 will include assessment and management of construction impacts and will be developed in consultation with relevant road authorities. In relation to business and tourism, the plan will include the programming of construction works to avoid major traffic changes during key holidays in the region, where possible.	Development of a Traffic Management Plan.	Construction
BTM-M003	Develop and implement a community benefit fund	Maximise opportunities for regional communities.	Develop and implement a community benefit fund, in consultation with the community and Councils.	Community benefit fund established and initiatives agreed and funded.	Construction and operation
BTM-M004	Consultation with Parks Victoria on Reeves Beach campground	Minimise and manage impacts to Reeves Beach campground during shore crossing works.	Consultation with Parks Victoria will be undertaken to identify and support management options of the Reeves Beach campground during construction of the project. Appropriate resources will be provided to notify potential campground users of construction noise or activity, and to promote alternative camping locations if required.	Correspondence with Parks Victoria and pre-construction notifications.	Construction
BTM-M005	Workforce Development Strategy	Maximise commercial opportunities for Gippsland firms and workers.	Developt and implement a Workforce Development Strategy, in consultation with Councils and other stakeholders that will identify project labour needs and how to maximise participation by Gippsland firms and Gippsland workers.	Development of a Workforce Development Strategy.	Construction and operation
BTM-M006	Workforce Accommodation Strategy	Minimise impacts of the project workforce on available accommodation providers within the local area.	Develop, update and implement the draft Workforce Accommodation Strategy prior to construction to minimise impacts of the project workforce on available accommodation providers within the local area (in accordance with SOC-M001). • In finalising the Strategy, the following actions will be undertaken: Regular review and amendment of the Strategy, as required • Making available sufficient resources to actively plan, manage and monitor the Strategy. • Report on the broad Strategy outcomes to a Community Advisory Group or relevant Councils • If required, once the scale of the project and likely workforce is known with more certainty, collaborate with local authorities and other stakeholders to plan the provision of supplementary accommodation.	Update and finalise the Workforce Accommodation Strategy.	Construction and operation

Measure ID	Title	Mitigation outcome	Description	Performance indicator	Stage
Seascape, landscape and visual					
SLVM01	Selection of Colour that Minimises Visual Impacts	Minimise visual impacts of offshore wind turbine generators.	Selection of a colour from the colour palette available for wind turbine generators that maximises the absorption of the infrastructure into the receiving environment, whilst also considering potential avifauna interactions.	Design notification to Offshore Infrastructure Regulator.	Construction
SLVM02	Adoption of Minimum Illumination for Maritime and Aviation Safety	Minimise visual impact from wind farm safety lighting.	Adoption of the minimum illumination for maritime and aviation safety lights (while meeting safety requirements) to minimise impacts of wind farm lighting.	Development of Operational Lighting and Marking Plan.	Construction
SLVM03	Revegetation within the Onshore Transmission Corridor	Manage and mitigate impacts of construction activities on ecological values through rehabilitation and reinstatement	Revegetation within the onshore transmission corridor will be undertaken during the operation phase consistent with the Rehabilitation and Reinstatement Plan (FFM13).	Development of a Construction Environmental Management Plan including the sub plan - Rehabilitation and Reinstatement Plan.	Construction

Table 23-9 Project monitoring measures for the Commonwealth jurisdiction

Measure ID	Title	Description	Stage
MEMP-M01	Underwater noise monitoring	Implement an in-field noise verification to validate model outputs and confirm that the noise levels/zones of effect correspond appropriately to the precaution zone defined in the pre-construction phase. It enables decisions to be made to reduce or increase precaution zone size based on results and also identifies when additional mitigation measures such as further NAS may be required. Noise level verification will take place on a representative number of pile driving locations (approximately 4-6) based on geoacoustic properties, pile design and water depth. Noise measurements will be in accordance with ISO 18406:2017 Underwater acoustics — Measurement of radiated underwater sound from percussive pile driving. This standard outlines the methodologies, procedures and measurement systems for assessing radiated underwater noise generated during percussive pile driving. This standard will be used to develop a detailed in-field measurement survey design including hydrophone placement, distance from the source for near and far field measurements, hydrophone validation, sampling rate, data processing and metrics.	Construction Decommissioning
MEMP-M02	Marine mammal monitoring - maintenance	Monitoring the presence of marine mammals and turtles during WTG inspection and maintenance activities. Recording details on the date, time, location, species, direction of travel and behaviour of marine mammals observed within the OPA from project vessels or infrastructure.	Operations
MEMP-M03	Seabird Monitoring and Management Plan	Seabird Monitoring and Management Plan (SMMP), including monitoring and adaptive management arrangements, will be developed and implemented prior to offshore construction. The SMMP will outline approaches and objectives of monitoring for the project key impacts and risks and approaches to management in the event that results indicate that additional measures are needed. Offsets will be developed as necessary and informed by strategies and actions outlined in National Species Recovery Plans and other plans of management.	Construction Operations
MEMP-M04	Marine mammal monitoring – operation	Monitoring of noise emissions to validate operational noise of WTGs.	Operations
MEMP-M05	Coastal Monitoring	Precautionary monitoring of coastal change based on satellite imagery such as Geoscience Australia's Digital Earth Australia database and/or the Victorian Coastal Monitoring Program (VCMP) database will commence 1 year prior to construction and will continue during the first 10 years of operation of the project to detect any changes to coastal landforms outside the range of natural variation (i.e. sediment accumulation and/or erosion). The Proponent will obtain and archive data from Digital Earth Australia and the Victorian Coastal Monitoring Program annually. Data will be analysed every three years for changes contrary to model predictions. As an adaptive management measure, should changes to the coastal system be identified (CPS-C01) as being due to the project (and not part of the natural variability or response to climate change), the Proponent will work with regulators to establish appropriate mitigation measures (or offsets).	Pre-construction, construction & operation

Measure ID	Title	Description	Stage
MEMP-M06	Monitoring of benthic habitats	A robust monitoring program will be designed to assess the impact of seabed disturbance on benthic habitats from project construction activities and to inform management decisions. The program will be carried out by suitably trained and competent personnel and be designed to enable detection of receptor recovery over time through the sampling of representative benthic habitats. The program will be informed by input from stakeholders, regulatory guidance and aligned with reputable, published monitoring standards.	Construction Operation
MEMP-M07	Monitoring of fish assemblage and key species	A robust fish monitoring program will be implemented during project construction and operation to assess environmental performance and inform management decisions. The program will enable comparison of data with spatial/temporal references, including baseline data collected during the Marine Ecology Survey Program. Adaptive management An adaptive management process will be adopted to respond to monitoring results where necessary. This process will consider the project activities and other relevant data collected by the project at the time. The management process will implement appropriate actions where required, considering the spatial and temporal nature of the monitoring results.	Construction Operation
MEMP-M09	Cable Burial survey and monitoring	Post-lay survey and ongoing monitoring of cable position and depth below the seabed. A Remedial Burial Strategy (RBS) will be implemented when the inter-array or offshore export cables are thought to be inadequately buried, with the intent to ensure the cable is reburied to the required depth standard. The RBS will comprise an initial DoB survey and analysis of seabed conditions, sediment types and other factors including environmental sensitivities, followed by a risk assessment to confirm reburial options and, where necessary, reburial to defined MDoL using a suitable remedial burial method (defined in the RBS).	Construction Operation
MEMP-M10	Marine mammal monitoring – construction and decommissioning	Monitoring of marine mammal distribution, abundance and behaviour within relevant precaution zones and underwater noise verification as part of mitigation trigger observations during the construction and decommissioning programs to provide ongoing estimates of marine mammal and turtle presence in the offshore wind farm area and surrounds.	Construction Decommissioning
BTM-M007	Stakeholder Engagement Plan – boat ramps	In order to gauge how the project is affecting the preferences of boat users and recreational fishers at boat ramps, the stakeholder engagement will provide evidence for potential infrastructure improvements or demand management measures.	Construction and operation
BTM-M008	Workforce Housing Monitor	Monitor the number and share of project workers who live in the region or who move to the region. Identify the type of accommodation used by each worker who moves into the region. This data can be used to monitor and adjust the Workforce Accommodation Strategy, if required.	Construction and operation
BTM-M009	Accommodation Surveys	Monitor visitation to the local study area through accommodation surveys in order to understand impacts on tourism businesses. This could include asking a range of accommodation providers to continually report on their occupancy in order to gauge the ongoing state of the industry and the availability of short term accommodation for the project. This will be necessary in monitoring the Workforce Accommodation Strategy.	Construction and operation

Measure ID	Title	Description	Stage
SCH-M008	The preparation of a UCH Management Plan with monitoring and contingency measures pertaining to both non-Aboriginal UCH and Submerged Aboriginal Cultural Heritage in Commonwealth Waters	An overarching Underwater Cultural Heritage (UCH) Management Plan for monitoring and contingency measures related to both non-Aboriginal UCH and Submerged Aboriginal Cultural Heritage will be established and approved by HV as the delegates for the UCH Act on behalf of Commonwealth Department of Climate Change, Energy, the Environment and Water (DCCEEW) prior to construction to mitigate potential risks of negative impacts to items of UCH and Submerged Aboriginal Cultural Heritage. The UCH Management Plan will apply only to Submerged Aboriginal Cultural Heritage located within Commonwealth Waters. The preparation of the UCH Management plan is also outlined in UMH-M003. This management plan will be informed by SCH-M001 and SCH-M002, and include the following specific monitoring and contingency measure related to Submerged Aboriginal Cultural Heritage within Commonwealth Waters: • An unexpected finds protocol for Submerged Aboriginal Cultural Heritage Measures related to Submerged Aboriginal Cultural Heritage within the UCH Management plan will be prepared by a suitably experienced and qualified underwater archaeologist, in consultation with Gunaikurnai Land and Waters Aboriginal Corporation, the Commonwealth Department of Climate Change, Energy, the Environment and Water, Heritage Victoria, and First Peoples–State Relations.	Prepared and Agreed Pre-Construction. Active during Pre-Construction, Construction, Operation, Decommissioning
SUM-M015	Water quality monitoring	Implement a water quality monitoring program during the construction phase to monitor changes in water quality and ensure all discharges from the proposed works are in accordance with the legislative requirements. Where feasible, the baseline water quality assessments will be carried out at key project locations. This will include sampling upstream and downstream of an identified discharge point, and where feasible, real-time monitoring of turbidity in surface water runoff. The water quality monitoring program will be documented in the Construction Environmental Management Plan (CEMP), with more specific details contained in the surface water management plan (SWMP), including water quality parameters, locations (including at least one location between the shore crossing and the Corner Inlet Ramsar site) and frequency. The SWMP will also outline additional and/or improved measures that would be implemented should those controls fail or are not effective to eliminate or minimise risks of harm to surface water. The water quality monitoring program will be guided by multiple references and guidelines including the ERS, baseline water quality assessment results, and soil assessment reports conducted as part of geotechnical investigations. The water quality monitoring program will also be conducted in line with EPA Publication IWRG701: Sampling and analysis of waters, wastewaters, soils and wastes.	Construction

23.9 References

- Offshore Infrastructure Regulator, 2023, Offshore renewables environmental approvals, Revision 2
- Offshore Infrastructure Regulator, 2024a, Environmental management regulation for offshore renewables, Document No: A1087958
- Offshore Infrastructure Regulator, 2024b, Management plan content, Document No: N-04403-GL2084 A1153587
- Offshore Infrastructure Regulator, 2024c, Preparing a management plan, Document No: A898345
- Offshore Infrastructure Regulator, 2024d, Consultation and engagement for OEI management plans, Document No: N-04403-GL2259 A1164505
- Department of Climate Change, Energy, the Environment and Water, 2024, Environmental Management Plan Guidelines