7.0 Appendices

Appendix 1	Reef Designs and Site Layout Drawings
Appendix 2	Permit to Transport Scallop Cultch A
Appendix 3	Permit to Transport Scallop Cultch B
Appendix 4	Construction Environment Management Plan (CEMP) (Polaris Marine Group)
Appendix 5	Natural Values Reports: Dixons Beach (Taroona) and Helliwells Point (Woodbridge) Restoration Sites (Marine Solutions Tasmania Pty Ltd)
Appendix 6	Restoration Guidelines for Shellfish Reefs (The Nature Conservancy)
Appendix 7	Reef Builder – Restoring Australia's Lost Shellfish Reefs (The Nature Conservancy)
Appendix 8	LUPA Advice (Kingborough Council)
Appendix 9	Specifications for Cat 330DL Long Reach Excavator
Appendix 10	Constructor Barge Fact Sheet
Appendix 11	Leaders Creek Tug Fact Sheet
Appendix 12	Environmental Monitoring Plan and Methods (EMPM) (The Nature Conservancy and NRM South)

Figure 1

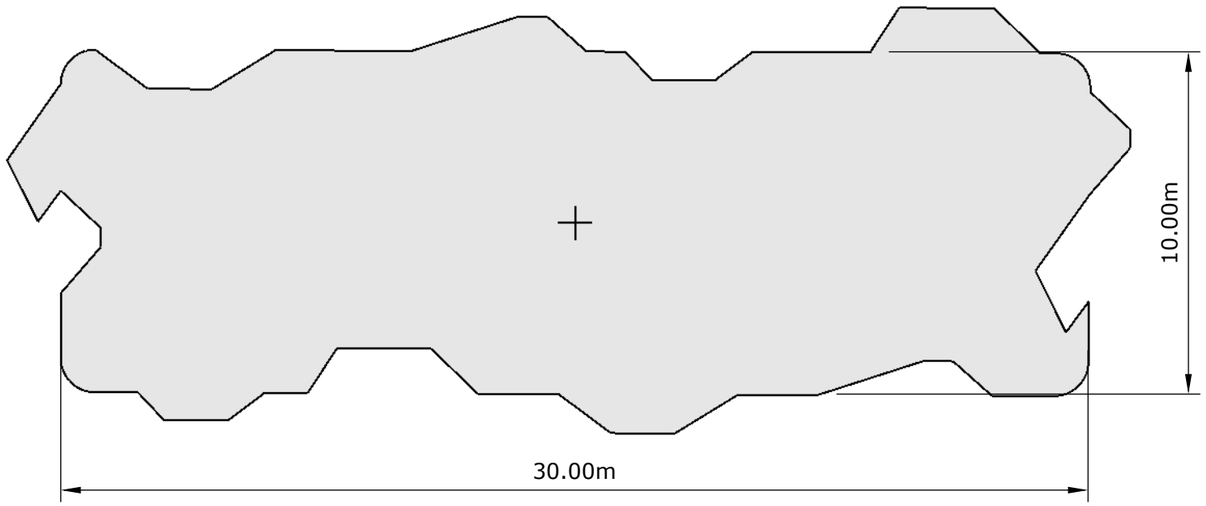
Reef Base

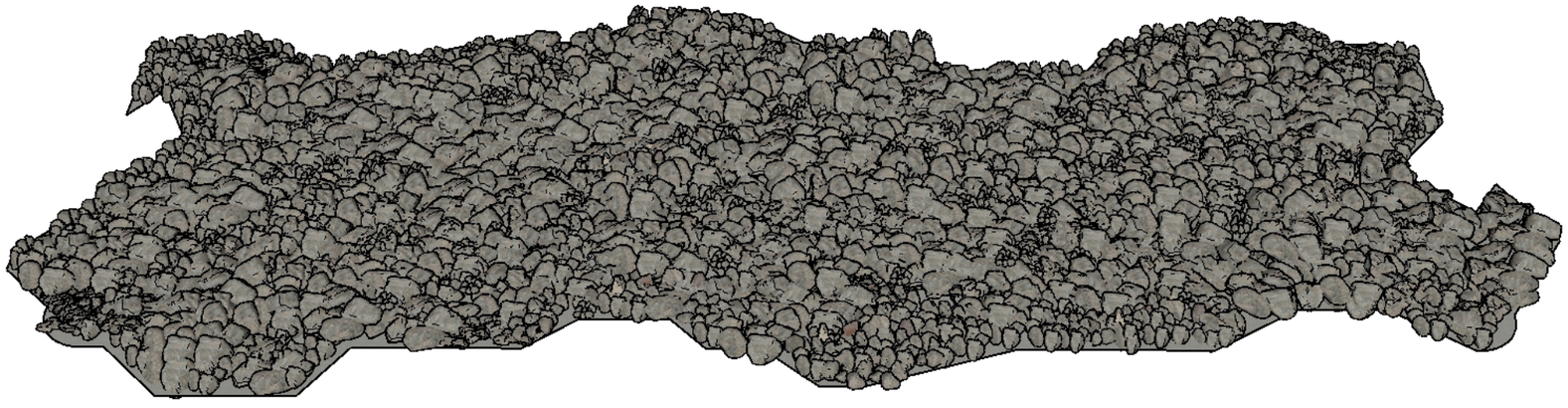
Across all sites a limestone rock reefbase, is to be deployed with an undulating finish height above the seabed that ranges between 300mm and 500mm. The grade of the rock being placed will range between 250mm & 600mm dia. with the majority
(70%) being 300-400mm dia.

Each engineered footprint has been designed to allow maximum surface area and promote naturally forming reef features.
Coverage for 30x10m Reef - 300m²
Coverage foe 15x10m Reef - 150m²

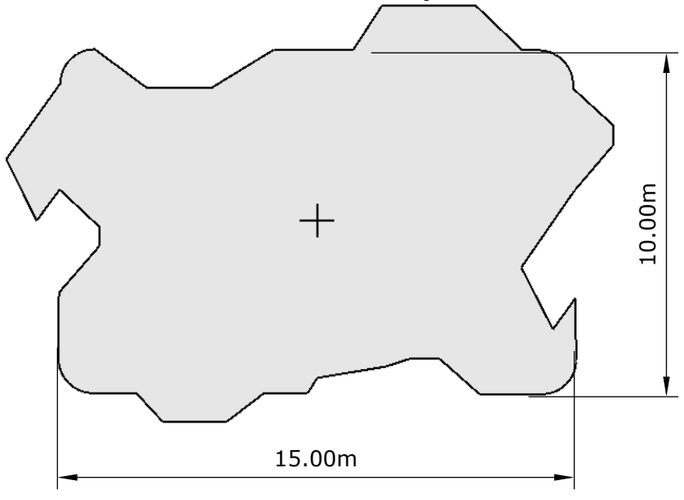
Cubic tonnage for 30x10m Reef 120m³
Cubic tonnage for 15x10m Reef 60m³

30m x 10m reef footprint





15m x 10m reef footprint



RB SE TAS 09/21-003-1

Rev	Date	Description	By	APP
1	27/08/21	Initial Reef Design	SR	
2	01/09/21	Final Reef Design	SR	

Client: nrm SOUTH NATURAL RESOURCE MANAGEMENT

Drawn:	Date:
Engineered:	Date:
Checked:	Date:
Approved:	Date:

Project: Reef Builder Southeast Tasmania

Title: Reef Design & Layout
30m x 10m Reef.
15m x 10m Reef.

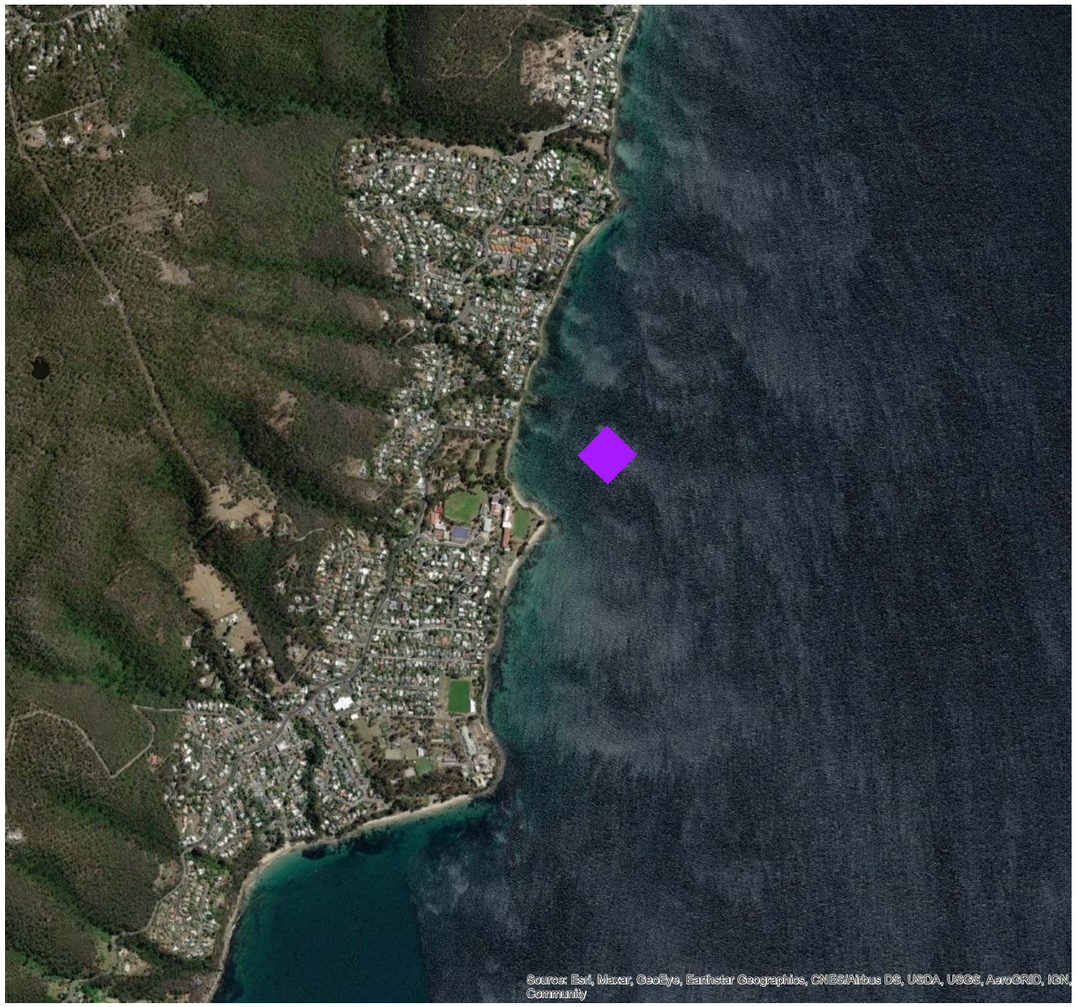
Scale:	Drawing No:	Sheet:	Rev:
NTS	RB SE TAS- 09/21-003-1	1	2

Figure 2

Dixons Beach Taroona

The total reef permit area is 22,500m² (2.25 Ha);
the permit area is a square with dimensions 150m x 150m.
The co-ordinates of the vertices of the reef permit area are:

N: 529403.381166 E, 5245793.10347 N
E: 529511.580505 E, 5245689.21457 N
S: 529407.691608 E, 5245581.01523 N
W: 529299.492269 E, 5245684.90413 N



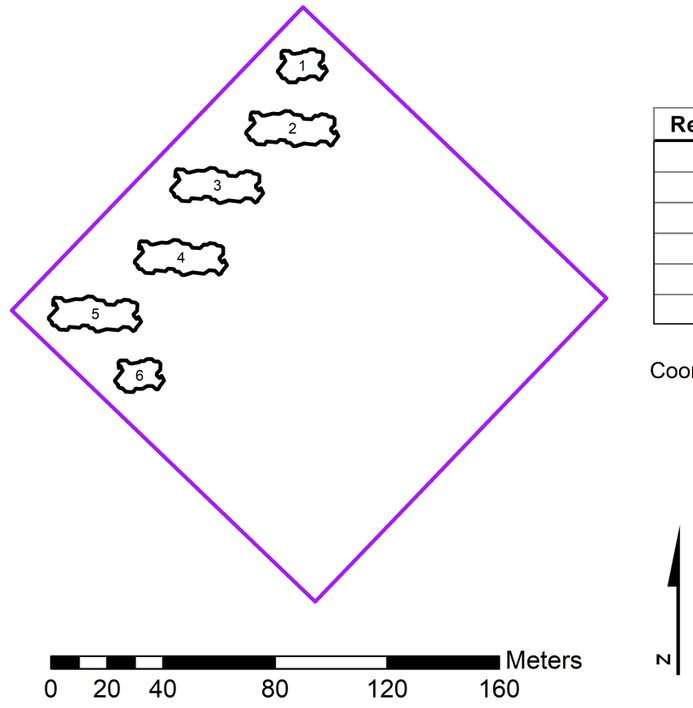
Reef Installation - 2022

The reefs in this location will be installed in a east west orientation and consist of;

4 x reefs at 30m x 10m = 1200m² coverage

2 x reefs at 15m x 10m = 300m² coverage

Total reef area =1500m² coverage



Reef	Easting	Northing
1	529403.000929	5245772.18788
2	529399.37842	5245749.58041
3	529372.572531	5245729.30172
4	529359.633899	5245703.59748
5	529328.997629	5245683.43357
6	529344.924771	5245661.72412

Coordinate Reference System: GDA 1994 MGA Zone 55

Th	Rev	Date	Description	By	APP
	1	17/05/2022	Reef Design Layout.	PA	

Client: NRM SOUTH NATURAL RESOURCE MANAGEMENT

Drawn:	PA	Date:
Engineered:		Date:
Checked:		Date:
Approved:		Date:

Project: Reef Builder Southeast Tasmania

Title: Dixons Beach Taroona 2022 Permit Area and Reef Layout

Scale:	Drawing No:	Sheet:	Rev:
NTS	RB SE TAS 03/22-002-1	2	1

Figure 3

Helliwells Point Woodbrige

The total reef permit area is 22,500m² (2.25 Ha);
the permit area is a square with dimensions 150m x 150m.
The co-ordinates of the vertices of the reef permit area are:

NW: 520086.857443 E, 5222001.71997 N
NE: 520236.290651 E, 5222014.74749 N
SE: 520249.318172 E, 5221865.31428 N
SW: 520099.884964 E, 5221852.28676 N

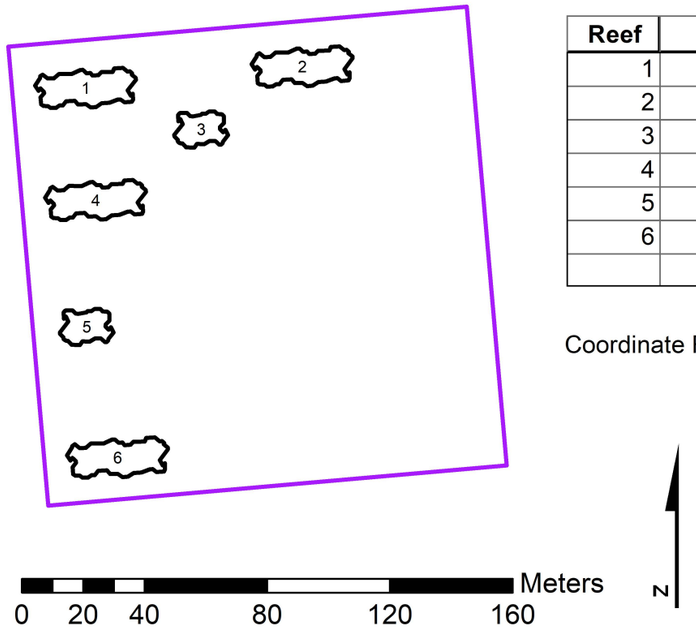
Reef Installation - 2022

The reefs in this location will be installed in a east west orientation and consist of;

4 x reefs at 30m x 10m = 1200m² coverage

2 x reefs at 15m x 10m = 300m² coverage

Total reef area =1500m² coverage



Reef	Easting	Northing
1	520111.820105	5221987.60157
2	520182.42442	5221994.56298
3	520149.040487	5221974.21816
4	520115.086149	5221951.09328
5	520111.734162	5221909.92428
6	520122.256423	5221867.21803

Coordinate Reference System: GDA 1994 MGA Zone 55

Rev	Date	Description	By	APP
1	17/05/22	Reef Design Layout.	PA	

Th

Client: nrm SOUTH NATURAL RESOURCE MANAGEMENT

Drawn:	PA	Date:
Engineered:		Date:
Checked:		Date:
Approved:		Date:

Project: Reef Builder Southeast Tasmania

Title: Helliwells Point 2022 Permit Area and Reef Layout

Scale:	Drawing No:	Sheet:	Rev:
NTS	RB SE TAS 03/22-002-1	3	1

ANIMAL HEALTH ACT 1995
SECTION 40A

Tasmanian Government

PERMIT FOR MOVEMENT WITHIN CONTROL AREA

Permit number: POMS 21-897

Mr Paul Armstrong
NRM South
293 Macquarie St
HOBART TAS 7000

I, Phillip Reid, an Inspector appointed under the *Animal Health Act 1995* (the Act) and acting pursuant to section 40A of the Act hereby authorise the movement as specified in Schedule 1 of oysters and/or oyster product and/or oyster farming equipment (old scallop shells for use as reef substrate) within the State of Tasmania, an area subject to a declaration in force under section 39 of the Act to be a control area, by or under the direction of the person specified in Schedule 2 and under the following conditions:

1. All items described in Schedule 1 must have been removed from the marine environment, dried and exposed to sunlight for a minimum of three months.

2. The movement is carried out between the issue and expiry dates where stated.

3. The holder of this permit must maintain a written record of all movements including date of translocations, type and quantity of oyster product being moved, and the destination. Records are to be presented to an Inspector on request.

4. The holder of this permit must carry a copy of this permit whenever engaged in activities authorised under the permit.

5. All items described in Schedule 1 must be visibly clean and free of organic material of marine origin prior to deployment into the water.

6. Future movement between marine environments will require a separate permit.

Schedule 1

Description	Quantity	Origin	Destination
Old scallop shells (for use as reef substrate)	9M^3	[redacted] Bridport	[redacted] Bruny Is [redacted]

Schedule 2

Person or Company	Email	Postal Address	Suburb	Post Code
Mr Paul Armstrong, NRM South	parmstrong@nrmsouth.org.au	293 Macquarie St	Hobart	7000

This permit remains in force until the date of expiry or until revoked by notice in writing, or until the control area to which it relates ceases to be in force.

Signed:

INSPECTOR

Issue Date: 26 November 2021

Expiry Date: 30 June 2022

ANIMAL HEALTH ACT 1995
SECTION 40A

Tasmanian Government

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Permit number: POMS 21-898

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2. The movement is carried out between the issue and expiry dates where stated.

3. The holder of this permit must maintain a written record of all movements including date of translocations, type and quantity of oyster product being moved, and the destination. Records are to be presented to an Inspector on request.

4. The holder of this permit must carry a copy of this permit whenever engaged in activities authorised under the permit.

5. All items described in Schedule 1 must be visibly clean and free of organic material of marine origin prior to deployment into the water.

6. Future movement between marine environments will require a separate permit.

Schedule 1

Description	Quantity	Origin	Destination
Old scallop shells (for use as reef substrate)	0.5M^3	[redacted] Bridport.	[redacted] Boomer Bay (Blackman Bay)[redacted]

Schedule 2

Person or Company	Email	Postal Address	Suburb	Post Code
Mr Paul Armstrong, NRM South	parmstrong@nrmsouth.org.au	293 Macquarie St	Hobart	7000

This permit remains in force until the date of expiry or until revoked by notice in writing, or until the control area to which it relates ceases to be in force.

Signed:

INSPECTOR

Issue Date: 26 November 2021

Expiry Date: 30 June 2022

POLARIS MARINE
LEADING THE WAY

TOWAGE SALVAGE BARGE HIRE DREDGING CONSTRUCTION

INTEGRATED MANAGEMENT SYSTEM

Construction Environmental Management Plan

Reef Builder South-East Tasmania Project:
Native Oyster Reef Restoration

52 WHITERS ST, LAKES ENTRANCE VIC 2909

&

GATES 1 & 2 – 5 JAMES CRAIG RD
ROZELLE BAY NSW 2039

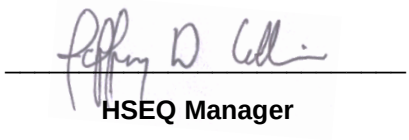
DOCUMENT CONTROL

Rev No.	Description of Change	Authorised By:	Effective Date
001	**New document**	Stephen Richmond	20/05/2022

All changes to this document must be recorded in the above table and approved by Management.

This Construction Environmental Management Plan (CEMP) complies with the requirements of Polaris Marine Pty. Ltd. Integrated Management System (IMS).

Preparation: Jeff Cobbin



HSEQ Manager

This Construction Environmental Management Plan is authorised for use on this project.

Approved: Stephen Richmond

General Manager - Construction

All changes to this document must be recorded in the above table and approved by Management.

1. INTRODUCTION

This Construction Environmental Management Plan (CEMP) has been developed to identify the approach and controls to be used by Polaris Marine in managing the environmental aspects and impacts of this project. This plan is self-contained in this format to assist in the review and approval from Southern Regional Natural Resource Management (NRM South) (Client). Once approved, it will be incorporated into the Project Management Plan in compliance with the Polaris Marine Group (PMG) Integrated Management System (IMS) utilised for project quality, safety and environmental management.

The PMG IMS is independently audited by Sustainable Certification as complying with ISO 9001 Quality Management System (QMS), ISO 45001 Occupational Health and Safety Management System (OHSMS) and ISO 14001 Environment Management System (EMS).

This CEMP has been developed with reference to the Client EMP.

This CEMP, its sub-plans and procedures will be applicable to all project works, workers and subcontractors during construction of this project.

1.1 Plan Distribution and Review

The Polaris Marine General Manager is responsible for the distribution of this CEMP. This plan will be introduced to all project workers and contractors through general introductions to the management systems during project inductions.

A controlled copy of this CEMP, as well as future updates, will be provided to the Client and other interested parties as required.

This CEMP may be updated and revised, when necessary, as a result of any change in equipment, systems or procedures in performing the works, or when directed by the Client.

Update and revision of the plan may be required in the event that the plan:

- Does not adequately address the matters it is intended to address;
- Causes non-conformity or does not comply with the contractual requirements;
- Has to be changed because of an audit;
- No longer represents current or best practice;
- Requires change due to feedback received through the designated monitoring mechanisms;
- Following the release of relevant environmental alerts, bulletins or guidelines from Regulatory Authorities, Client or industry; and
- Is otherwise required to be updated by the Client.

1.2 Management Commitment

Polaris Marine are committed to delivering the project works in accordance with this CEMP and other contractual requirements. The company policies reinforce Polaris Marine management commitment to providing a platform for achieving project environment management excellence. Every employee regardless of position or title has an individual responsibility to be uncompromising with regard to environmental management. Risk management will be incorporated as an integral part of our business initiatives and operations, ensuring that environmental hazards are identified, assessed, controlled and monitored.

We are committed to:

- The achievement of environment management excellence as a genuine organisational aspiration rather than due to mandatory requirement.
- Ensuring all environmental hazards are identified, assessed and controlled.
- Implement the Environmental Policy and maintain an environmental management system to AS/NZS ISO 14001:2015 EMS.
- Abide by all statutory and regulatory obligations and pursue best practice applications beyond these requirements.
- Ensure adequate resources are allocated for all environmental management matters.

- Provide the necessary environmental training for all workers to safely carry out their jobs.
- Consult with workers to identify and control risks.
- Maintain plant and equipment in a safe operating condition.
- Set and monitor environmental improvement objectives and targets.
- Regularly review this policy to ensure it continues to reflect legislative requirements and organisational needs for continuous improvement.
- All personnel have the right and responsibility to stop or refuse work in situations that are not safe or may cause harm.
- All personnel must be trained and competent in the tasks they are expected to perform.
- Reinforcing to the Client that team work is essential in achieving environmental management excellence.
- Management supporting proactive safety compliance and providing feedback to workers and employees either in the field, or via pre-start meetings and toolbox meetings where appropriate.
- All personnel, at every organisational level, have a responsibility to act, participate and positively contribute to environmental management.

1.3 Quality Management

The IMS is applied to the project activities to achieve their objectives in an organised and consistent process. The IMS covers all aspects of project management and presents the interface between the overall company management and the project management.

1.4 WHS Management

The Work Health & Safety Management Plan (WHSMP) outlines the system for identifying WHS risks and for planning safe work processes to cover those risks. It complies with WHS Act (2012) and WHS Regulations (2012), Marine Safety (Domestic Commercial Vessel) Act (2013), Marine Safety (Domestic Commercial Vessel) Regulation (2013) and relevant Codes of Practice and Australian Standards.

The company has health & safety representatives that represents the company personnel in the consultation process at the company and project level and provides an avenue to bring forward safety, environment and management issues of concern from project for discussion and consideration.

1.5 Environmental Management

Refer Environmental Aspects and Impacts Procedure

This CEMP addresses the management of those aspects of project works that have a potential environmental impact so as to eliminated or reduce the impact and comply with the Environmental Management and Pollution Control Act.

This CEMP complies with the key environmental legislation and project specific standards are listed at Section 2.4 Environmental and Relevant Legislation, project specific licences and requirement as issued by the appropriate authorities.

1.6 Continual Improvement

Refer Management Review procedure

Polaris Marine Senior Management are committed to the continual improvement of its processes and services in order to provide customer satisfaction, achieve best practice and drive market leadership.

Continual improvement is achieved through the full use of the IMS, individual management initiatives and the involvement of all workers through the Consultation and Communication procedure.

During the term of the project, relevant changes in technology and work methods will be examined for opportunities to improve Polaris Marine processes and systems for the benefit of project stakeholders. This will be achieved through various mediums including, but not limited to meetings, audits, reviews, inspections, data trend analysis and legislative requirements.

1.7 Policies

Polaris Marine overall objective is to prevent anyone from being harmed whilst they are at work. All personnel shall be aware of their accountabilities during the project. The following polices are displayed (where applicable) and shall also be available to all stakeholders of the project.

- Work Health & Safety (WHS) Policy
- Quality Policy
- Environmental Policy

The WHS, Quality and Environmental policies are available on request.

All Polaris Marine policies are available for review on site (electronically and/or hard copy) and on request.

1.8 Procedures

Throughout this CEMP reference is made to Polaris Marine procedures and work instructions. These references provide further information on the subject and are the source of the CEMP requirements.

1.9 Resources

The General Manager and/or Project Supervisor are responsible for the allocation of personnel and equipment resources to the project. These resources will be reviewed continually at the project meetings held each week. Minutes of these meetings will be produced and circulated.

1.10 Emergency Contacts

PROJECT:	**Native Oyster Reef Restoration in South-east Tasmania.**	
For all emergencies, medical, fire, bomb or other security alerts, environmental spills or security perimeter breaches contact Client Project Manager and/or the numbers below:	**Contact Number**	**Address**
Tasmanian Police	000 or 131 444	47 Liverpool St, Hobart TAS 7000
Ambulance Tasmania	000 or 1800 088 088	1 Melville St, Hobart TAS 7000
Tasmanian State Emergency Services (SES)	132 500 or 03 6173 2707	28 Bathurst St, Hobart TAS 7000
Tasmanian Fire Service	000 or 03 6173 2740	Cnr Argyle and Melville St, Hobart TAS 7000
Royal Hobart Hospital	03 6166 8308	48 Liverpool St, Hobart TAS 7000
Worksafe Tasmania	1300 366 322 or 03 6166 4600	30 Gordons Hill Road, Rosny Park TAS 7018
Environmental Protection Authority (EPA)	03 6165 4599	134 Macquarie St, Hobart TAS 7000
Poison Information Centre	131 126	
Tasmanian Port Authority (TasPorts)	1300 366 742	90-110 Willis St, Launceston TAS
Vessel Traffic Service (VTS)	03 6235 1000	Channel 12 or 14 VHF
Duty Harbour Master (Hobart)	0417 562 636	90-110 Willis Street, Launceston TAS 7250

1.11 Project Emergency Contacts

NAME	POSITION	TELEPHONE
Stephen Richmond	General Manager (Construction)	Mob: 0450 900 183
Steven Kennedy	General Manager (Marine)	Mob: 0419 638 744
Brad Hosemans	Chief Operating Officer	Mob: 0436 126 124
Andrew Cruikshank	Operations Manager	Mob: 0418 231 916
Leon Smith	Project Supervisor (Marine)	Mob: 0429 177 833

1.12 Client Representative Contact

NAME	POSITION	TELEPHONE
Paul Armstrong	Senior Project Officer – Reef Builder	Mob: 0427 609 015

1.13 Key Polaris Marine Personnel

Onsite

NAME	POSITION	TELEPHONE	EMAIL
Stephen Richmond	General Manager	Mob: 0450 900 183	stephen@polarismarine.com.au

Offsite

NAME	POSITION	TELEPHONE	EMAIL
Brad Hosemans	Chief Operating Officer	Mob: 0436 126 124	brad@polarismarine.com.au
Steven Kennedy	General Manager	Mob: 0419 638 744	steve@polarismarine.com.au
Andrew Cruikshank	Operations Manager	Mob: 0418 231 916	operations@polarismarine.com.au
Leon Smith	Project Supervisor	Mob: 0429 177 833	leon@polarismarine.com.au
Jeff Cobbin	HSEQ Manager	Mob: 0400 567 322	hseq@polarismarine.com.au

The responsibilities allocated to these positions are listed at Section 11 of this CEMP.

1.14 Major Subcontractors & Suppliers

See Section 1.4 Major Subcontractors & Suppliers in the WHSMP.

2. PROJECT DETAILS

NRM South is undertaking a project to restore native oyster reefs in southeast Tasmania. The funding for the Reef Builder Southeast Tasmania project has been granted to NRM South by The Nature Conservancy. This project is part of the national Reef Builder initiative, a partnership between The Nature Conservancy and the Australian Government to restore native oyster reefs in 13 coastal communities impacted by

bushfires and COVID-19. The project will restore new native flat oyster reefs at 2 sites in the Derwent Estuary and D'Entrecasteaux Channel, resulting in a total of 4-5 hectares of restored reef area.

Scope of Works / Indicative Timeframe

The proposed reef building project will restore new oyster reefs at 2 x sites in southeast Tasmania that include 1 x site in the Derwent Estuary and 1 x sites in the D'Entrecasteaux Channel. The project will focus on building limestone rubble reef bases to provide settlement substrate for native flat oysters and habitat for other marine life with the project presently estimated to be completed in 24 days from commencement in October.

Construction Methodology (Load Out Site)

Polaris Marine have made arrangements directly with Margate Marina, Margate for the use of their waterfront facility located off Marina Drive, Margate as the load-out site, Polaris Marine also have an agreement in place for a contingency secondary option at Haywards Shipyard.

Previously when Polaris Marine have used an area for this purpose, the area is left in a better way than discovered for benefit of the local community/Site owner. The load-out site establishment of the area includes:

a) Pre-arrival condition survey and departure survey.
b) Signage for safety and communicating the project to local users (if required).
c) Site lay out and traffic management plan (if required).
d) The site has existing fencing and secure gate access for pedestrian / plant separation and to prevent public from climbing on rock.

The site is set up so that the arriving trucks can drive in a forward direction through a secure gate to a cleared turning area in the facility. The driver will then reverse into the load out area that is bunded by temporary road (concrete) barriers. At Margate Marina this area is at the South of the property where the rock will then be transferred from the shoreside stockpile directly by the long-reach excavator on the barge

The barge will take 180t of rock per load. The site also supports the operational hours (0600 – 1800 hours, 6 days a week for shoreside rock loadout) required to load on to the barge upon arrival from the day's deployment.

Please see following figure 1 and 2 of loadout site setups, indicating the approx. location of the two bunded locations for rock consolidation and the barge positioning.

Figure 1 Primary loadout site at Margate Marina. Truck access (blue Line) to rock stockpile (Yellow line) adjacent to the Curlew Vessel which is now land locked. The construction barge (blue rectangle) is in front of the rock stockpiling area.

Figure 2 Secondary Contingency Loadout site at Haywards Shipyard. Truck access (Purple line) to rock stockpiling area (Yellow line). Loader route from the rock stockpile past the shipyard warehouse (Maroon line) to load the construction barge (Blue rectangle) at the Jetty

Relocation Delivery of Rock Cargo to Site

The Quarry Beams Bros in North Tasmania will deliver the rock to load out site.

Methodology General

Polaris Marine will be using a proven method to accurately deploy the limestone rubble reef base with the use of a long reach excavator established aboard a barge. The barge is self-propelled for movements between the

load out site and deployment site. The barge will be assisted by a 21m Tug throughout the duration of the project to increase transit times.

The barge with the excavator aboard can self-load with rock from the load out site; the load out site is also supported with a wheeled loader to assist with this task and to maintain the site.

Positioning of the barge at the load out site and deployment site is done with the vessels hydraulic positioning spuds removing the need for anchors. The position spuds reduce the impact on the seafloor from dragging anchors and enables us to accurately position the spuds to not interact with other adjacent or recently deployed reefs.

The supply of rock is to be consolidated limestone sourced from a local north Tasmanian quarry for reef bases in sizes of 30 m x 10 m with height above the sea floor ranging from 300 to 500 mm, with an average height of 400 mm post construction. Considerations shall be given to any fine particles at the loadout site for dust and site run off in the event of heavy rain fall, weather will be monitored closely throughout the project and if required run off suppression/erosion control systems will be installed such as coir logs, hay bales and diversion channels.

Project Schedule Table

For the reefs, Polaris Marine can cargo approx. 180T of rock per load on the barge. The barge once loaded at the load out site will travel to the deployment site with the Tug to assist.

Once an individual reef is completed the barge will return to replenish rock and then reposition to the next reef in line at each site.

Load out Site (Waterworth Drive)

Site Set / Pack up	Offsite Mobilisation	Offsite Demobilisation	Total days
4	5	5	14 days

Dixons Beach, Taroona

Cargo / Tonnage	Travel Endurance	Barge Trips	Total Days Allowance
120m3 / 168T	8 Hours	1 / reef	5 Days

Helliwells Point, Woodbridge

Cargo / Tonnage	Travel Endurance	Barge Trips	Total Days Allowance
120m3 / 168T	7 Hours	1 / reef	5 Days

Project Shape for the installation of 1680T of reef is a total of 24 days (subject to weather)

2.1. Inspection and Records

Inspection Test Plans (ITP) will be completed for items listed as required under the specification.

2.2. Objectives

In broad terms, the environmental objectives to which Polaris Marine adhere to are:

- Comply with all environmental legislation applicable to project works;
- Meet or exceed all statutory obligations applicable to project works;
- Meet or exceed all license, permit and approval requirements;
- Foster a positive culture towards environmental management to contribute to overall environmental performance;
- Maintain and integrate formal environmental management systems (including AS/NZS ISO 14001 EMS conformance) into project works;
- Encourage ethical practices which reflect commitment to Duty of Care by all project personnel, subcontractors and suppliers; and
- Promote and record efficient use of resources.

2.3. Environmental and Relevant Legislation

- Environmental Management and Pollution Control Act (1994).
- Environmental Management and Pollution Control (Waste Management) Regulations (2020).
- Living Marine Resources Management Act (1995).
- Marine and Safety Authority Act (1997) and Safety of Life at Sea (SOLAS).
- Marine and Safety (General) Regulations (2013).
- Marine and Safety (Maritime Incidents) Regulations (2017).
- Marine-related Incidents (MARPOL Implementation) Act (2020).
- Relevant Codes of Practice and Australian Standards.

Commonwealth Legislation

- Environment Protection and Biodiversity Conservation Act (1999).
- Navigation Act (2012).
- Protection of the Sea (Prevention of Pollution from Ships) Act (1983).
- COLREGS / International Regulations for Preventing Collisions at Sea (1972).
- Historic Shipwrecks Act (1976).

2.4. Consultation / Communication

The Client and Polaris Marine are committed to consulting with all relevant stakeholders as part of the planning of all projects and works.

The CEMP requirements will be communicated to all employees and subcontractors in the site induction and further information provided by tool box talks.

The Client will manage all community related activities and notifications.

Stakeholder and community consultation will be undertaken regarding new or changed project works that are likely to cause potential impacts to the surrounding local environment, such as aquatic and offensive noise impacts or otherwise works involving local harbour traffic.

2.5. Community Involvement

Stakeholder meetings may be undertaken throughout the project. Key stakeholders may include:

- Department of Natural Resources and Environment.
- Environmental Protection Agency (EPA).
- Department for State Growth.
- Councils.
- Shipping agents.
- Maritime operators / tenants.
- Local businesses.

- Contractor works occurring within the vicinity of the approved project work areas.

2.6. Stakeholder Involvement

Community consultation would be undertaken as required and may consist of media advertisement, personal visit or a combination of these or other suitable methods.

2.7. Rehabilitation of Site

At practical completion, Polaris Marine will ensure the loadout site and surrounds, or any land area which may have been used or impacted upon as a result of project-related works, will be rehabilitated to a state equivalent or better in comparison to the pre-construction state.

2.8. Statutory Authorities, Similar Organisation's and Government Departments

- Department of Natural Resources and Environment.
- Environmental Protection Agency (EPA).
- Department for State Growth.
- Local Councils.

2.9. Approvals

See Section 1.17 Approvals / Licences in the WHSMP.

2.10. Hours of Operation

The hours of operation for the works are as follows.

- Rock delivery via road transport will occur during regular business hours Monday – Saturday
- Vessel transit between the Margate load-out site and reef locations will have unrestricted hours.
- Rock deployment will aim to be within 0700–1800 Hours.

Minimum break of 10 hours prior to commencing or re-commencing work. Any extension of hours required by Polaris Marine will be raised with the Client under the Project Management Plan

The contractor must consider the risk of noise impact to nearby residential and other sensitive receptors in their project risk assessment and project CEMP, with particular consideration given to works scheduled between 1800– 0700 hours on weekdays and Weekends and at any times of public holidays.

2.11. Site Facilities

Site facilities and amenities will be provided on the vessel as required. In the case of land-based works suitable hoardings and fencing will be erected to delineate public and project workspaces. Hoardings and site fencing to be marked clearly and appropriately.

Polaris Marine will leave the land-based site in a secure condition during non-working hours.

2.12. After Hours Emergency Contact

The after-hours emergency contact numbers can be found in Section 1.11 Project Emergency Contacts.

3 PERSONNEL

Refer Training Competency & Awareness Procedure

3.1 Induction / Training of Personnel

All persons intending to work on site are also required to be inducted into the project as per the Polaris Marine and Client site induction processes. The induction is to address all site-specific information relevant to the administration of personnel as well as the safety, environment and quality matters relevant to the success of the project. All site personnel are to be advised of the environmental risks and controls applicable to the site. Communication of CEMP requirements will commence with this compulsory site induction. The induction environmental elements will incorporate the following aspects:

- General environmental duty. (All Polaris Marine employees onsite have training in use of spill kits)

- Report all incidents immediately
- Emergency procedures (All Polaris Marine personnel will be inducted in to the emergency procedures).
- An Induction Register will be maintained on site.

Polaris Marine maintains an electronic training register which includes names of persons trained and dates of training.

3.2 Induction of Visitors

All visitors entering the project site are to be inducted into the visitor's induction and sign the Visitors Register. They will be required to sign-in that they have read and understood the safety requirements applicable to their activities. They are to be advised of general site safety and environmental issues to the extent necessary to ensure their safety.

Visitors are to be accompanied throughout their stay at the site. If they cannot be accompanied or they need to perform work on the site, they are to attend the full site induction.

4 ENVIRONMENTAL MANAGEMENT

Refer Environmental Aspects & Impacts Procedure

The environmental management for this project is based on the Polaris Marine IMS or as modified by the requirements of the contract and addresses the project risks and aligns with the obligations identified in the Client contractual requirements. The approach is that the environmental risks associated with the project are identified and assessed and the necessary controls put in place to eliminated or adequately control the risk.

4.1 Project Environmental Risk assessment

Refer Risk Assessment Procedure

This assessment identifies the overall controls required for the site and project. These controls may need to be modified as work progresses. Environmental risk assessment will be on going throughout project delivery. Emphasis will be placed on any changes to project methodology, changes in materials and/or methods used, and works within or adjacent to sensitive receiving environments. The Project Supervisor will be responsible for management of risk identification and assessment in consultation with the project team. Forums for facilitation of risk identification may include but are not limited to:

- Project meetings
- Initial project risk assessment
- Toolbox meetings
- Informal site discussions
- Safe Work Method Statements (SWMS)
- Initial risk workshop

4.1.1 Spill Management

See Section 11 Spill Prevention and Response Plan

4.1.2 Dust management

Dust may be generated from handling the material. This may be exacerbated in the event of heavy rain fall where dust and fine particles may be washed into the water with control measures implemented if required such as coir logs, hay bales and diversion channels.
A hose at the Margate load-out site will be used to mitigate the release of any generalised dust from stockpiles whilst handling.

4.1.3 Air Quality Management (Exhaust Fumes)

Objective
To ensure that all plant exhaust visible emissions are minimised and that the escape of fumes associated with the works is non-invasive.

Response

- Maintenance of all plant and equipment to ensure good operating condition and exhaust emissions comply with the Environmental Management and Pollution Control Act (1994).
- Maintaining the work site in a condition that will minimize fugitive emissions such as minor dust.
- Maintenance of all vehicles, including trucks and vessels entering and leaving the site in accordance with the manufacturers' specifications to comply with all relevant regulations.
- Motors will be turned off rather than left idling when not in use.
- Plant and equipment to be maintained and fully operational.
- There may be some minor air quality impacts due to emissions from construction cranes and equipment. These emissions would, however, occur only intermittently, and are expected to be minor and temporary.
- Covering of all loaded trucks.

Monitoring

- Regular inspection of plant and equipment to identify any excessive emission output.

4.1.4 Waste Management

Objective

Prevent waste entering into the water, minimise the quantum of waste and dispose of all waste in an acceptable manner.

Response

- All applicable laws and regulations regarding pollution shall be obeyed.
- Waste disposed of off-site shall be classified in accordance with the Environment Protection Regulations prior to disposal and shall be disposed of at an appropriately licensed facility for that waste.
- Polaris Marine shall at all times maintain good housekeeping.
- Personnel shall be instructed in pollution control and shall clean up pollution occurring during the installation operations.
- Polaris Marine shall take every precaution to prevent debris from falling into the water and shall remove from the water any debris that does fall in.
- The site is to be left in a clean and tidy condition following completion of the works.
- Waste material will be recycled where possible.
- All other waste will be disposed of offsite at a place that can lawfully accept the waste, in accordance with EPA guidelines.
- Waste management practices shall follow the resource management hierarchy principles embodied in the Environmental Management and Pollution Control Act (1994) and current waste classification.
- Dockets shall be obtained for all waste disposal, detailing the weights, materials, time and date and waste facility used.

Monitoring

Regular site inspections will be conducted to ensure that the correct procedures are being followed.

4.1.5 Noise & Vibration Management

See Section 12 Noise and Vibration Plan

4.1.6 Liquid Waste

Objective

Minimise the generation of liquid waste materials and correctly manage the disposal and storage of generated materials as required

Response

Liquid waste on the barge will be kept in holding tanks and pumped out regularly by a specialist contractor when at berth.

Monitoring
Records of pump-outs are to be obtained.

4.1.7 Disturbance of Seabed, Aquatic Life, Flora and Fauna

Objective
To minimise seabed disturbance and to have minimal impact on flora and fauna.

Response
- Propeller damage and wash scouring risk from small vessels working in shallow waters or used for pushing or towing vessels can be mitigated by matching the works to suitable tide and calm conditions
- Vessels used to bring barges into place will be placed so as to direct propeller wash into deeper waters to lower the risk of bottom scouring
- Where possible vessels will be moored alongside assets to be inspected and anchoring should be avoided and the barges spuds used. Where anchors must be used, they should be lifted directly up from the bottom to minimise potential bottom disturbance/scouring
- Scouring damage will also be minimised by 'working the wind and tides', by only moving floating plant into place on high tides and under favorable or no-wind conditions.
- During the placement of rock, the turbidity will be visually monitored closely and if deemed excessive or placing sensitive habitats at risk a silt curtain extending from a minimum of 100 millimetres above the water line and attached to the seafloor will be installed around the vessel to provide a catchment area for any excessive sediment turbidity blooms, where possible alternative measures will look to be implemented such as washing down of rocks prior to loading to the barge for deployment.
- Visual observations of the effectiveness of the silt curtain if deployed are required to be made at least twice each day. Results of observations of the integrity of the silt curtain are required to be recorded in a site notebook maintained specifically for the purpose. The notebook is required to be kept on the site and to be available for inspection by persons authorised by the Client.
- Anchor cables must be suitably buoyed prior to laying, and kept buoyed once laid, to prevent cable drag and cable swing damage (scalping) to marine vegetation and rock rubble habitat areas. Where this is impractical, Polaris Marine will use floating rope, Spuds are to be used as a preference where weather and sea state conditions allow.
- Do not drag anchor blocks across seabed. Anchors will be lifted prior to moving vessels to minimise disturbance of the seabed.
- No vessel anchors will be placed in or over identified rocky reef or marine vegetation habitat.

Monitoring
Regular site inspections will be conducted using a checklist to ensure that the correct procedures are being followed.

4.1.8 Marine Species Conservation

Polaris Marine will always prioritise the protection and preservation of native marine species that occupy a project location. For this particular project, Polaris Marine will undertake the following procedures.

4.1.9 "Soft Start" Procedure

A "soft start" procedure will be utilised on arrival to the deployment site. This will provide opportunities for mobile native species to relocate during the soft start period. A soft start procedure involves generating a sustained level of noise by lowering the barge spuds into the water, as to intentionally disturb marine species and encourage their relocation from the area. Additionally, for the first six buckets of rock lowered into the water, a two-minute break will be observed between each load. Hence, the term "soft start", this approach provides marine species with ample warning and time to safely vacate the area.

4.1.10 Systematic Reef Construction

A progressive systematic building process will be used so marine species can vacate as rock substrate is placed on seabed adjacent to the last bucket load of rock placed on sediment. Rock will be placed as close as

practical by the excavator bucket to the sediment to allow ample time for marine species to temporarily relocate and minimise sediment disturbance.

4.1.11 Traffic / Pedestrian Management

Objective

To minimize disruption to traffic and pedestrians.

Response

- Polaris Marine will ensure the access points and work sites are maintained to a safe standard. Where appropriate, the water-based construction zone will be clearly delineated and marked to prevent non-construction vessels from entering the construction site.
- The land-based disposal area will be clearly delineated and marked to prevent non-construction vehicles from entering the construction site. Site fencing and/or hoarding may be used, this will be dependent on the local site conditions. A site entry gat or similar will be installed, this to consider and minimise traffic congestion in the local area.

Monitoring

- Project team are to monitor vessel and/or traffic movement.

4.1.12 Climate Change

Objective

To minimise greenhouse gas emissions

Response

- Polaris Marine will ensure that construction equipment is in good working condition and that equipment is switched off when not in use.
- Will use bio-diesel when possible.

Monitoring

- Ongoing

4.2 Social and economic

Objective

- To ensure the local community are to kept informed about the details of the works

Response

- Where applicable, the project site will be illuminated at night for safety. Lights will be downward facing so that light is not directed toward nearby residences.

Monitoring

- Ongoing

4.3 Indigenous Conservation

Objective

- To ensure that items of aboriginal heritage are preserved.

Response

- Polaris Marine will cease work immediately and follow unanticipated discovery protocol upon the discovery of any Aboriginal cultural material, Aboriginal Heritage Tasmania will be notified.
- Polaris Marine will be careful to not damage or remove vegetation of cultural significance to the Aboriginal community

4.4 Aquatic Ecology Assessment

Prior to undertaking the works, the location and type of works need to be identified and then compared against the two tables below. Ecology risk is therefore based on two factors, location and type of work.

The type of works and location will provide a risk measure and therefore controls that need to be applied for the project.

While the location may play a role in raising the risk profile, generally the aquatic habitat is the driver of the increased risk profile for a location. As such this then only applies to works that affect aquatic habitats. It is noted that most aquatic works are already a high-risk profile. Generally, as a short hand measure, the type of work will generate the risk profile. So as a general rule of thumb the works type provide the foundation for the risk profile and mitigation measures to adapt.

LOW RISK - General Precautions (lower risk profiles) – Above Water and Deck Level Inspections, Minor Works

Spillages of solids (smothering and ingestion hazards) and liquids (water quality):

Solids, particularly small colored off-cuts and plastics present an ingestion or choking hazard for fish, fishing birds, marine mammals or reptiles. Larger off-cuts (wood, protective plastics, metals, silt curtain materials) can smother bottom habitats:

- All works undertaken above the deck of the assets and from small vessels will have adequate waste storage bins available for the collection, storage and eventual on-shore disposal of off-cuts (timber, metal, plastics, cables, wrapping materials, empty containers etc.
- Works that require liquids (eg. cleaning) will ensure that there is adequate bunding available to contain spillages from containers and where possible bunding or scaffolding to collect over-applications; sprays etc.
- Fueling and oil top-ups for motors (including hydraulic oils) will be undertaken in an appropriate zone at the project site and where required fuel and oils for machinery and motors on-site should be suitably bunded and their over-water use should be minimised.

Propeller wash and anchoring impacts from use of small work and dive vessels:

There is a potential for direct damage to shallow water habitats under, and in the immediate vicinity of assets, including disturbance of seabed sediments and smothering of adjacent habitats from propeller strike or excessive propeller wash, particularly where vessels are used to push barges or other floating plant into place in shallow waters:

- Propeller damage and wash scouring risk from small vessels working in shallow waters or used for pushing or towing vessels can be mitigated by matching the works to suitable tide and calm conditions.
- Vessels used to bring barges into place will be placed so as to direct propeller wash into deeper waters to lower the risk of bottom scouring.
- Where possible vessels will be moored alongside assets to be inspected and anchoring will be avoided. Where anchors must be used, they should be lifted directly up from the bottom to minimise potential bottom disturbance/scouring.

MEDIUM RISK - Specific Precautions (medium risk profiles or sites) – Use of barges/floating plant, scaffolding works

There are potential direct impacts on habitats arising from vessels bottoming out on habitats, smothering of habitats from vessel anchoring or mooring blocks and bottom scalping impacts of seagrass or rock habitats from cables or chains:

- Where possible the working water level will meet the following requirement; displacement depth of the plant + an allowance for extra forward (inshore) displacement for crane work to achieve minimum of 0.4m seabed clearance over seagrass or rock rubble habitats.
- Where possible barges will be held in place with suitable moorings to the asset being worked on or where fitted, a barge spud pile set into identified bare sediment habitat aft. Where this is not possible, maneuvering

of barges in-situ should be undertaken by the use of floating ropes to the side and forward to the wharf and/or shore-based anchoring points.
- If longer cables to mooring blocks/anchors are required, the mooring blocks or anchors are not to be placed into seagrass or rock habitat and cables/chains are not to be placed over these habitats as they can scalp these habitats. To minimise scalping risk floating rope should be used where possible.

There are a number of activities that are associated with the disturbance and mobilisation of seabed sediments that could smother adjacent habitats. Potential turbidity plumes are also associated with these works:
- Where there are direct risks of smothering rock vegetated habitats, divers should remove as much vegetated rock away from the site as possible and place it onto bare sediment habitat that is exposed to sunlight and as close to the site as possible (to match depths and also minimise diver seabed work).
- Where there are risks of smothering immediate adjacent rock vegetated habitats (or seagrass beds), silt fencing will be placed around the work site to contain mobilised sediments with the silt fencing placed between the work site and the habitats to be protected.
- For more remote vegetated seagrass and vegetated rock habitats where direct smothering is unlikely, impacts from excessive turbidity can be mitigated by use of silt curtains between the site and the habitats to be protected.

Whilst for the most part the underwater noise spectrums of the activities would be similar to those of other activities, the underwater impulse noise from pile driving can startle marine mammals with a low risk of consequential panic swimming behaviour, particularly by young cetaceans (whales and dolphins). For sites that are listed as being located in areas where listed marine mammals and reptiles could occur occasionally, the following precautions are recommended:
- As part of their responsibilities, all crew personnel will proactively maintain a watch for marine mammals etc. and advise through the vessel Master of any sightings. The vessel Master in consultation with the Project Supervisor will contact the Client and advise of the circumstances.

HIGH RISK - Precautions for specific Key species and Possible Further Assessments (high risk profile sites or sensitive areas with known aquatic habitats)

Each scope of works will be assessed at the time of receipt with respect to high risk or sensitive issues which may arise during disposal.

4.5 Waste Streams & Goals

The classification of waste is based on the Commonwealth of Australia Waste Classification system. According to the Australian Waste Database (AWD), the processing / disposal route established in Tasmania comply with the national classification system proposed under the AWD for managing waste.

1. Recycling.
2. Composting.
3. Incineration.
4. Landfill.
5. On-site.

5 COMPLAINTS

Any complaints regarding the project will be referred to the Polaris Marine General Manager / Project Supervisor for action. Upon receipt of the complaint Polaris Marine will notify the Client immediately. All complaints are to be documented in detail and then referred to the Client for action.

6 INCIDENT MANAGEMENT

Refer to Incident Management Procedure

All environmental incidents are to be reported immediately to the General Manager and/or Project Supervisor.

The General Manager or their delegate will then immediately notify the Client. This verbal notification will be followed up in writing within 24 hours.

The Client will notify the EPA if required.

The Project Supervisor or their delegate will immediately notify the General Manager and the Client of any visit to site by EPA.

All environmental incidents are managed as detailed in the Polaris Marine Incident Management Procedure. All incidents, no matter how minor, including near misses, are to be reported immediately to the Project Supervisor, an Incident Report is raised and passed to the General Manager.

Incident Reports are to be forwarded to the HSEQ Manager within 24 hours. They are to be investigated by the HSEQ Manager and the General Manager. The investigation is to be recorded in the Improvement Commitment Register (ICR) for tracking and close-out purposes.

7 EMERGENCY RESPONSE

Refer to the Emergency Response Procedure.

An emergency response plan will be assembled from Polaris Marine standard procedures and processes. The plan covers safety and environmental emergencies.

Essential parts of the emergency response plan will be:

- designated assembly areas;
- designated first aid posts;
- designated first aid personnel;
- designated personnel for responding to environmental emergencies and their responsibilities;
- emergency contact numbers including those of nearest medical treatment providers;
- equipment required; and
- inclusion of all the above in the site induction process.

The Emergency Response Plan will form part of the Site Induction process to raise awareness of the procedure to all personnel, subcontractors and visitors. The Emergency Response Plan will be available to all personnel as required.

8 SAFETY DATA SHEETS

Safety Data Sheets (SDS) will be available to all personnel as required.

9 MONITORING, REVIEW, AUDITING AND REPORTING

Daily inspections of the work area are carried out by the vessel Master responsible for the work area with all hazards to be documented in the toolbox talk meeting minutes. These forms are reviewed by the Project Supervisor to ensure that required action is being taken.

9.1 Non-Conformance

Refer to Non-Conforming Process, Product or Service Procedure.

All non-conforming environmental issues and procedures or inability to comply with the project requirements are to be addressed and managed as a non-conformance using the Non-Conformance Report (NCR). This NCR is to be raised within 24 hours of detection of the deficiency.

Non-conformances (including environmental procedures) are handled in accordance with the Non-Conforming Process, Product or Service Procedure.

This CEMP will be reviewed following an audit and updated as necessary.

10 RESPONSIBILITIES

10.1 General Manager

The General Manager is the key person for the success of Polaris Marine environmental management and must ensure the full implementation of this CEMP by carrying out as a minimum the following responsibilities:

- Implement Polaris Marine environmental policy;
- Ensure workers acknowledge their environmental responsibilities;
- Review the completed weekly environmental inspection reports;
- Ensure all project personnel receive environmental training;
- Ensure incident reports are investigated and appropriate corrective actions are implemented;
- Co-ordinate emergency responses;
- Investigate pollution incidents;
- Monitor overall environmental management performance;
- Communicate with external parties as required;
- Ensure subcontractors comply with the CEMP;
- Stop work causing a pollution incident; and
- Review and endorse the weekly environmental inspection report.

10.2 Project Supervisor

- Manage the implementation of environmental controls on site;
- Ensure appropriate emergency response equipment is maintained on site;
- Review the daily hazard checks;
- Ensure all site personnel are inducted and trained in the environmental requirements of the project;
- Carry out daily / weekly environmental inspections of subcontractor works to ensure compliance with Polaris Marine's CEMP; and
- In the absence of the General Manager, stop work causing a pollution incident.

10.3 Maintenance Manager

- Ensure major Polaris Marine plant is inspected and serviced in a safe manner as required;
- Ensure periodic servicing of plant and equipment is carried out; and
- Maintain master records of Polaris Marine plant.

10.4 HSEQ Manager

- Develop the CEMP and ensure that it is implemented and maintained in accordance with the requirements of Contract;
- Facilitate Polaris Marine's environmental induction program;
- Require Polaris Marine to take reasonable steps to avoid or minimise any unacceptable environmental impacts;
- Review in consultation with the project management team the relevant SWMS;
- Review pollution monitoring data;
- Investigate pollution incidents;
- Review the emergency response procedure following a pollution incident; and
- Investigate environmental complaints.

10.5 Employees

- Be aware of the potential environmental impacts of the project's activities;
- Report to the Project Supervisor or vessel Master any environmental or pollution incident observed or damaged environmental control established on site;
- Apply Polaris Marine's environmental policy in your activities;
- Observe the requirements of the site induction to decant fuels and oils over a spill tray and replace lids on containers when not in use; and
- Attend toolbox talk meeting and raise environmental issues for discussion and resolution.

10.6 Subcontractors

- Ensure all Subcontractor's personnel attend Polaris Marine's site inductions;
- Carry out project activities in accordance with the requirements of Polaris Marine CEMP and the Polaris Marine site induction;
- Be aware of the potential environmental impacts of the project's activities;
- Report to the Supervisor any environmental or pollution incident observed or damaged environmental control established on site;
- Apply Polaris Marine's environmental policy in subcontractor activities;
- Submit SDSs to Polaris Marine for all products used on site and ensure appropriated control as required by each MSDS are in place.
- Polaris Marine Site Supervisor will undertake and document daily/weekly environmental inspections of subcontractor works to ensure compliance with Polaris Marine's CEMP.
- Prior to subcontractor commencement on site Polaris Marine will review the subcontractors planning, proposed implementation procedure and environmental protection measures to ensure compliance with this CEMP.

11. APPENDICES

Appendix 1. Spill Prevention and Response Plan

Spill Prevention and Response Plan	
1. Objectives	• To provide a strategic and systematic framework to enable construction of the Project with minimal environmental or social impact due to potential contaminant spills or inappropriate disposal of contaminants. • To ensure all construction activities are undertaken with the objective of preventing such impacts by implementing measures to minimise the risk of release of chemicals, dangerous goods or hazardous materials to the environment. • To ensure no potential risks to health or amenity occur due to construction related effects relating to this aspect.
2. Regulatory and Other Requirements	• Environmental Management and Pollution Control Act (1994). • Tasmanian Environment Protection Policy (Noise) 2009 • Marine and Safety Authority Act (1997). • Marine and Safety (Maritime Incidents) Regulations (2017). • Marine-related Incidents (MARPOL Implementation) Act (2020).
3. Performance Criteria	• No major accidental or uncontrolled releases to occur. • All minor spills to be managed, remediated and reported upon as per this plan. • All disposal of regulated waste to be tracked and documented.
4. Communication and Training	• Intent of this plan will be communicated through the site induction process, to ensure all site personnel are aware and take ownership of plan requirements relating to this element. • Requirements relating to this plan to be revisited frequently through Toolbox meetings. • All Polaris Marine personnel will be trained in the use of spill kits.

Spill Prevention and Response Plan	
5. Mitigation Measures	• Weather forecasts will be checked regularly during construction. If flooding is forecast construction area will be appropriately secured. • Fully stocked spill kits, absorbent pads, granular absorbents and booms will be available on site and on the barges. • Install floating buoys and floating silt booms around construction zone (where applicable). Visual observations of the silt curtain are required to be made at least twice each day. Results of observations are to be noted in a site notebook maintained specifically for the purpose. • Polaris Marine site personnel have been trained in the use of the spill kits and will be called upon to contain any spill. • Spill kits will be kept on each barge and in the temporary compound. • Al personnel will be made aware of the location of the spill kits. • Fuels, oils and chemicals will be stored in an appropriate cabinet or container with impervious flooring and sufficient capacity to contain 110% of the largest container stored within the bund. These containers will only be removed for a specific activity and then returned. • Refuelling must be undertaken using the Bunkering Checklist. • All equipment, materials and wastes transported between an off-site facility, and the work site will be secured to avoid spills during transportation • The quantity held will be the minimum required for efficient operations. • Plant will be properly maintained and regularly inspected for fuel leaks. • No vehicle or vessel wash down will occur on site. • All material used to contain or clean up spills will be disposed of at the appropriate licenced disposal facility. • If the environmental incident is beyond the scope of the emergency spill kit, vessel Master is to contact the local emergency response • In an event of a spill during operation, the incident emergency plan will be implemented in accordance with the Shipboard Oil Pollution Emergency Plan (SOPEP) and Client Oil Spill Contingency Plan. • If a spill occurs, the Client Project Manager and the Client environment staff will be notified as soon as practicable.
6. Monitoring	• Frequent surveillance and auditing of fuel and chemical storage, spill kits, spill response materials, bunding, and regulated waste management will be undertaken and documented. Checks will be performed by the vessel Master. • All complaints to be recorded investigated and acted upon as necessary.
7. Responsible Persons	• All site personnel are responsible for their general environmental duty, and shall ensure that their or others' actions do not cause environmental nuisance or harm at any level. • The vessel Master are responsible for ensuring compliant handling and storage of hydrocarbons and chemicals, constructing or obtaining sufficient bunding, and ensuring refuelling is carried out within designated areas within all work areas under their control. • The vessel Master and Polaris Marine personnel are responsible for actioning spill response activities.

Spill Prevention and Response Plan	
	• HSEQ Manager is responsible for routine surveillance and monitoring, communication of requirements of this plan, coordination of spill response activities, auditing of storage and handling practices, the reporting and investigation of complaints, and all other responsibilities related to storage and handling of hydrocarbons and chemicals identified within this CEMP. • The General Manager or their delegate is responsible for overseeing implementation of this CEMP.
8. Reporting	• In the event of an environmental incident, the Client will be notified verbally immediately. Written notification will be forwarded to the Client within 24 hours. • Any further reporting to regulatory authorities will be carried out by the Client. • Relevant information regarding incidents will be passed to workers via toolbox talks.
9. Corrective Actions	• All accidental or uncontrolled releases will be rectified immediately. • In the case of a major spill, relevant specialists will be consulted, and the Client, emergency services, EPA and other relevant authorities will be notified immediately. • In the event of a complaint or incident, an investigation will be undertaken by the HSEQ Manager in consultation with the project management team to determine the cause of the problem, through which processes or activities will be modified if required.

Appendix 2. Construction Noise and Vibration Management Plan

Noise and Vibration Management Plan	
1. Objectives	• To minimise the noise and vibration impact on the residents and flora and fauna. In coordination with the Client all potentially affected residents and businesses would be informed of the timing and nature of works as well as the expected noise levels, duration and impacts prior to the commencement of works. • To provide a strategic framework to enable construction of the project with minimal environmental or social impact due to noise or vibration. • To undertake all works package activities with the objective of preventing such impacts. • To ensure no potential risks to health or amenity occur due to works-generated noise or vibration. • To ensure any noise or vibration generated due to works activities complies with the relevant legislation and standards.
2. Regulatory and Other Requirements	• Environmental Management and Pollution Control Act (1994). • Marine and Safety Authority Act (1997). • WHS Act (2012). • WHS Regulation (2012).
3. Performance Criteria	• Noise and vibration levels are to be minimised as not to cause environmental nuisance.

Noise and Vibration Management Plan	
	• Works activities and traffic will be minimised as much as practicable near sensitive receptors. • No complaints related to noise or vibration from the local community.
4. Communication and Training	• Intent of this sub-plan will be communicated through the site induction process, to ensure all site personnel are aware and take ownership of sub-plan requirements relating to this element. • Requirements relating to this sub-plan to be revisited frequently through Toolbox and Prestart meetings. • Any works or changes required to works activities will be implemented by the General Manager and/or Project Supervisor.
5. Mitigation Measures	• Restrict works hours to approved working times. • Where night time maintenance works are necessary, there will be one respite night between Monday (from 12am) and Saturday (up to 6am) where possible. • Temporary hoarding will be erected around the compound site. • Polaris Marine personnel will be informed of the location of sensitive receivers, and the need to minimise noise and vibration from the works, through the site induction and regular toolbox talks. • The use of portable radios, public address systems or other methods of site communication that may impact on residents unnecessarily will be avoided where possible. • Works plant and vehicles regularly used on site will be fitted with reverse alarms that are tonal. • Site practices that minimise reversing movements will be implemented wherever practicable. • All community complaints will be passed onto the Client. • Turn off plant if not used longer than 15 minutes. • Diesel powered machines will not be left idling unnecessarily, particularly during rest breaks. • Machinery engine covers to be closed at all times. • Operators will be encouraged to use less than full engine speed, where full power is not required, to minimise noise. • Plant and equipment will be regularly inspected to ensure they are in good working order. • Appropriate hearing protection PPE will be issued to all site personnel. • Plant, equipment and machinery will be serviced as per manufacturer's recommendations to ensure good working order. • Plant, equipment or machinery emitting excessive noise levels will be removed from site until repaired, or silencing/baffling device installed.

Noise and Vibration Management Plan	

	• In cases where noise or vibration levels are identified as being too high, modification or substitution of work methods will be undertaken wherever possible, including but not limited to:
	  ○ Works programming assessments
	  ○ Selective use of enhanced equipment/plant
	  ○ Equipment/plant substitution
	• Use of horns, bells, beepers and other audible signals will be minimised as much as practicable.

6. Monitoring	• All complaints to be recorded, investigated and acted upon as necessary. • Proximity of nearest sensitive receivers to the proposal displayed on site.
7. Responsible Persons	• All site personnel are responsible for their general environmental duty, and shall ensure that their or others' actions do not cause environmental nuisance or harm at any level. • The General Manager and Project Supervisor are responsible for monitoring and mitigating excessive noise or vibration for all activities or work areas under their control. • General Manager is responsible for overseeing implementation of this CEMP.

8. Reporting	• In the event of an environmental incident, the Client will be notified verbally immediately.
	• Any further reporting to Regulatory Authorities will be carried out by the Client or their delegate.
	• An incident will be reported if any of the following scenarios occur or have the potential to occur:
	  ○ Serious environmental harm;
	  ○ Material environmental harm;
	  ○ Prosecution by a Regulatory Authority;
	  ○ Environmental approval condition breach; or
	  ○ Environmental monitoring parameter breach.
	• Relevant information will be passed to workers via pre start meetings and toolbox talks.

9. Corrective Actions	• Where assessment of noise or vibration generation proves unsatisfactory, operations will cease and adequate measures will be employed to modify or substitute work processes to mitigate impacts. • In the event of a complaint or incident, an investigation will be undertaken to determine the cause of the problem, through which processes or activities will be modified if required.

Noise and Vibration Management Plan	
	• Equipment found to be unsatisfactory for use due to excessive noise or vibration will be removed from use until the issue has been resolved.