



MARINE ENVIRONMENT MANAGEMENT PLAN

Sea Swift

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Marine Environment Management Plan

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REVISION HISTORY

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001	29.04.2021	Marine	Implementation into new draft IMS. Version number reset

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1 SECTION ONE - ENVIRONMENTAL MANAGEMENT PLAN

1.1 Introduction

Sea Swift's policy is to manage its shipping operations in a pro-active manner as to minimise any impacts from unwanted environmental incidents at port locations throughout all operational areas, and while vessels are at sea. The organisation will continually strive for improvement in the control of its marine operations and encourages all its ships officers, crew, subcontractors and customers to maintain a safe operating environment.

The Marine Environmental Management Plan (MEMP) provides management strategies and control measures for protecting the environment and minimising the adverse impacts during the organisation's day to day maritime operations. The MEMP will be reviewed and updated in accordance with the Document Control procedure (IMS-SOP-008), to ensure that the manual reflects any significant changes that may occur within the organisation's operations and on changes made to regulatory and advisory rulings from time to time.

The MEMP will direct users to other plans that are in place on each vessel but not controlled by these writings, (Ships Oil Pollution Emergency Procedures (SOPEP), discharge records etc.) It is the responsibility of all Sea Swift vessel officers to keep these plans/records current with the legislative requirements and **IMS-SOP-008 Document Control**. The plans/records will be listed in this manual as part of the environmental control measure that has been implemented and controlled by each vessel.

1.2 MEMP Objectives

The overall objectives of the MEMP are to:

- a. Meet the requirements of all relevant legislation.
- b. Identify potential adverse environmental impacts resulting from shipping operational activities.
- c. Establish procedures, control measures and strategies to minimize adverse environmental impacts and maintain operations to agreed environmental standards.
- d. Provide a system to document that the operational activities are being carried out in an environmentally responsible and sustainable manner.
- e. Provide systems to effectively monitor environmental management throughout the organisation.

1.3 Definitions

Definitions of terms used in the EMP have been adopted from ANZ ISO 14001:2015 and ANZ ISO14004:2015, and the terms of reference from other legislative and regulative publications.

Terminology	Definition
Environmental Aspect / Element	The activities, processes, products or services of an operation which can interact with the environment and can be controlled.
Potential Environmental Impact	Any change to the environment, wholly or partially resulting from operational activities, products or services.
Environmental Incident	Event(s) that result in direct or indirect adverse impacts to one or more environmental media (e.g. land, air, water), wildlife, or human communities. Such incidents require immediate response to correct and may result in enforcement actions by regulatory authorities or others.
Performance Objective	The target or strategy to be achieved by management.

Management Actions	The actions to be undertaken to achieve the performance objective, including any necessary approvals, applications and consultation.
Performance Indicators	The criteria against which the implementation of the actions and the level of achievement of the performance objectives will be measured.
Monitoring	The process of measuring actual performance.
Responsibility	The assigned responsibility for carrying out each action to a relevant person or organisation, including a process for dealing with complaints about the activity.
Reporting	The process and responsibility for reporting monitored results, including the identification of the agency receiving such reports.
Corrective Action	The action to be implemented in the case of non-compliance and the person or organisation responsible for action.

1.4 HSEQ Policy

Sea Swift has implemented the Integrated Management System (IMS) Health Safety Environment Quality (HSEQ) policies, which are the overarching document to the system. The policies shall be reviewed every 12 months, and reflect on Sea Swift senior management's commitment to safe environmental and other safety and compliance work practices. The HSEQ policies are communicated to all Sea Swift employees, and displayed in prominent positions at work sites and on vessels.

1.5 OH&S Policy

At Sea Swift, we are committed to a safe place of work, care for our employees and contractors, and good standing in the communities that we operate in. This policy sets out Sea Swift's obligation to Occupational Health and Safety (OH&S), where zero harm is our overall goal.

To accomplish this Sea Swift shall:

- Integrate the IMS OH&S policies, procedures and their principles into our daily operations.
- Regard IMS OH&S management as critical to business success, and hold each individual within our business accountable to maintaining the required work ethics and safety standard.
- Maintain the OH&S protection policy with the objective of safety at sea and on shore, prevention of human injury, loss of life and the avoidance of damage to property and equipment.
- Provide the means by which all employees can freely identify and eliminate obstacles to improving the safety of our work, and to the communities in which they operate.
- Train and support all employees in the principles and methods of OH&S management, and continuous improvement in safe work and compliance obligations.
- Ensure that all work standards and practices meet the requirements of legislative and regulative rulings that have an impact on our business.
- Identify our OH&S risk exposures, and implement managing systems and controls to mitigate if not eliminate those risks.
- Continue to improve the safety management skills of personnel ashore and aboard marine vessels, including preparation for all emergencies that may arise.
- Ensure all injured or ill employees are managed through our workplace rehabilitation and return to work program.

1.6 Environmental Policy

Sea Swift shall conduct its business in a manner that will minimise harm to the environment and the communities in which we operate. Compliance with all environmental laws and regulations is the foundation on which we will build and improve on our environmental performance.

To maintain a responsible approach to managing environmental issues, Sea Swift management shall ensure to:

- Monitor and comply with all environmental laws and relevant industry standards and practices.
- Manage our diverse activities to prevent or minimise pollution and impacts on water, land, flora, fauna, cultural and heritage values.
- Ensure understanding of environmental requirements and implementation of standards among our employees, suppliers and contractors.
- Respond to the environmental concerns of our customers and the communities in which we operate.
- Set and review environmental objectives and targets as part of our business planning activities.
- Monitor and report our environmental progress to our employees and others who are concerned.
- Through the continuous planning cycle, improve our environmental management performance.

1.7 Quality Policy

Sea Swift Pty Ltd is committed to meeting with and exceeding the needs and expectations of our clients and customers, by including the principles and objectives of our quality management system within our daily work routines.

The organisation's mission is to deliver a high standard of service to our clients and customers every time and on time.

Our commitment to our quality statements is demonstrated by:

- Complying with legislative obligations, standards and codes of practice applicable to quality and systems management.
- The continual review and improvement to quality management throughout the organisation.
- Ensuring that human and financial resources are available for quality and the Integrated Management System maintenance and support.
- The continual improvement of quality skills and knowledge throughout the Sea Swift work environments.
- Monitoring and evaluating the quality performance of employees and contractors, and maintaining a high standard of work.

1.8 Customer Service Policy

Sea Swift Pty Ltd is committed to meeting and exceeding the needs and expectations of our customers, by embedding the principles and objectives of our Customer Service system within our daily work routines.

The organisation's mission is to value each and every one of our Customers and to deliver a high standard of service to our clients and customers every time and on time.

In particular, our commitment to Customer Service shall be demonstrated by all staff that have interactions with Customers by doing the following:

- Complying with legislative obligations, standards and codes of practice applicable to customer interaction and freight delivery.
- Having polite and professional interaction with all Customers.
- Having empathy for our Customers and working with them to resolve any disputes or issues in a professional, courteous and timely manner.

- Understanding any specific contractual obligations that relate to Customers and ensuring these are delivered as agreed.
- Reporting and recording deficient deliveries, then analysing and improving the delivery process so as to enhance the Customer experience.
- Key staff meeting with or contacting Customers on a regular basis to monitor accounts and ensure Sea Swift are meeting their obligations, while also seeking feedback on service levels.
- Working with Customers to promote further business opportunities that enhance their business.
- The continual review and improvement to Customer Service throughout the organisation.
- Ensuring that human, IT, and financial resources are available for effective Customer Service and support.
- Monitoring and evaluating the Customer Service performance of employees who interact with our Customers, and maintaining a high standard of work.

1.9 Roles and Responsibilities

To ensure the effectiveness of the MEMP, the following roles and responsibilities have been assigned to the nominated Sea Swift positions.

Chief Executive Officer / General Managers

- Incorporate the operation's environmental management objectives in the organisation's financial planning process.
- Ensure Sea Swift maintains compliance with current environmental legislation and relevant permits and licences.
- Promote overall environmental ethics throughout the organisation.
- Ensure that the MEMP is properly and effectively implemented throughout the vessel fleet.
- Report all major environmental incidents to the relevant government agency as soon as practical after the event has occurred.
- Ensure the continual review and improvement of the MEMP and approve all its changes.
- Liaise with the community on environmental matters where required.

Fleet Master/DPA

- Promote overall environmental ethics throughout all fleet operations.
- Promote and monitor environmental awareness and its effectiveness within the fleet.
- Liaise with appropriate internal / external personnel in the event of an environmental incident.
- Implement sound corrective actions to mitigate the risk of unwanted environmental events from reoccurring in the future.
- Organise environmental audits and inspection programs for vessel in operation.
- Ensure appropriate environmental awareness training is completed.
- Ensure environmental risk planning is included in all daily risk and work plans.
- Ensure appropriate environmental monitoring activities are carried out in accordance with the MEMP.

Vessel Masters / Ship's Officers

- Immediately respond to all environmental incidents utilising the appropriate spill response and clean up equipment.
- Periodically review the MEMP and assure that the objectives are understood and can be achieved.
- Promote MEMP and work instructions to existing and new crew members.
- Report all breaches of MEMP to the Fleet Master / Marine Manager as soon as practical after the breach has occurred.

- Ensure that activities carried out during operations are conducted in accordance with the MEMP, IMS procedures and relevant legislative requirements.
- Identify areas of HSEQ improvement to the vessel's procedures and instructions and liaise with the Marine Manager to implement improvements.

Crew and Subcontractors

- Immediately respond to all environmental incidents utilising the appropriate spill response and clean up equipment.
- Follow all work practices in accordance with MEMP and relevant legislation, Sea Swift IMS policies and procedures at all times.
- Report all breaches to the MEMP to the respective ship's officer immediately.
- Promote the MEMP to others on board the vessel.
- Adhere to all changes to MEMP / IMS procedures as they are introduced.

1.10 Communication and Consultation

Environmental issues will be communicated to the crew through daily and other scheduled shipboard HSEQ meetings. Sea Swift management promote the 'top down bottom up' approach to communications management, where vessel crew are given every opportunity to contribute to issues concerning environmental management within the organisation.

The following HSEQ communications methods shall be considered and practiced throughout all Sea Swift operations.

- **IMS-Employee Suggestion Sheet** – employees written suggestions and feedback on all issues concerning HSEQ.
- **IMS-Daily Communications Form** – daily job planning and HSEQ communications sheet.
- **IMS-Toolbox Talk Template** – documented process for verifying toolbox talks with employees on HSEQ and other matters.
- **IMS-Meeting Minutes Template** – documented process for verifying all levels of HSEQ meetings held at Sea Swift.

1.11 Duty of Care

Under the **Environmental Protection Act 1994** and the **Transport Operations (Marine Pollution) Act 1995**, all persons have an environmental duty of care. No person must undertake an activity that causes or is likely to cause environmental harm unless they take all reasonable and practicable measures to prevent or minimise that harm. Sea Swift employees are reminded about their duty of care to the environment through the Sea Swift Corporate Induction Process, and regular toolbox talk sessions held on each vessel.

Sea Swift shall comply with all environmental licence, permits and regulations that have been issued in relation to the work tasks or services performed. Compliance to legislative and regulative requirements shall be checked at nominated intervals, through the Sea Swift HSEQ audit process. All non-conformances that are recorded following an audit shall be entered onto the C-Safe database system, and have assigned personnel to each action item who will be responsible to manage those actions through to completion. The C-Safe incident and non-conformance database is located on the Sea Swift computer home pages.

1.12 Training and Competence

Environmental awareness information will be provided to Sea Swift personnel through the corporate and site induction programs, and incorporated through other awareness training delivered on and off sites and vessels.

Records of training and inductions will be kept in the Sea Swift C-Safe training database, including details of the training conducted, dates, names and details of the trainer.

Employees engaged in projects where the client has specific environmental procedures in place, will participate in all additional training to comply with the project's requirements.

Crews on land based sites or on vessels, shall be trained in and conduct drills on all aspects of emergency response and recovery that may arise at their site or vessel. **IMS-SOP-015 Emergency Response and Recovery Planning.**

The Sea Swift Corporate Emergency Response and Recovery Team (CERRT), shall remain competent in managing any emergency event that has escalated to a crisis situation, calling on all levels of internal and/or external emergency support where required.

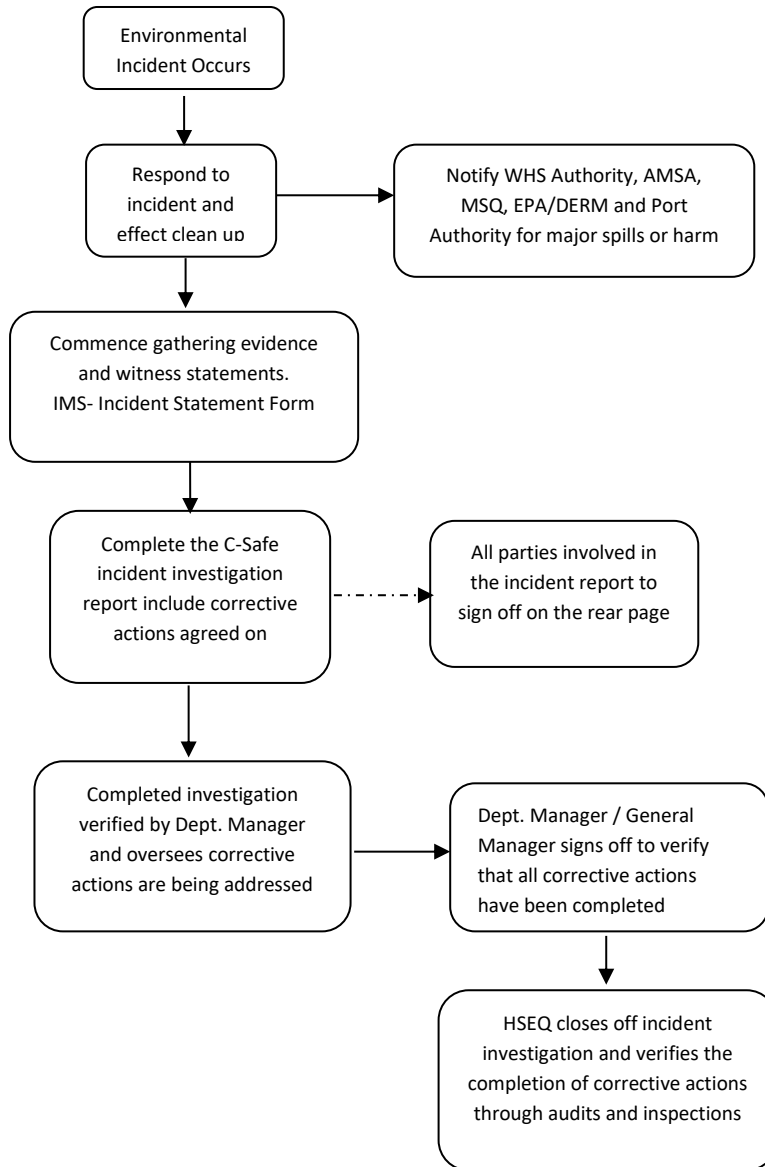
1.13 External Environmental Reporting

Sea Swift is a registered Controlling Corporation with the National Greenhouse and Energy Reporting scheme, and provides annual reports to the government regulator on energy and emissions usage. The HSEQ department is responsible for gathering information on the company's yearly fuel usage figures, calculate and report on all greenhouse and CO2 emissions as well as energy produced and consumed.

The HSEQ and Marine Compliance shall also manage other environmental external reporting to satisfy regulative and legislative requirements, project client's reporting requirements, and other approved interested parties.

1.14 Incident Reporting and Non-Conformances

All environmental incidents shall be investigated and reported to the HSEQ department, following the requirements of **IMS-SOP-014 Incident and Non-Conformance Management**. The following incident management process shall be adhered to when managing environmental incidents.



The HSEQ department shall track all corrective actions that arise from incident reporting, and issue non-conformances for incomplete or overdue corrective actions and incident closures. The Fleet Master / Marine Manager have the responsibility to ensure their ship's officers adhere to the requirements of **IMS-SOP-014 Incident and Non-Conformance Management**.

Risk Management

The identification of environmental risks associated with daily vessel work tasks or planning shall be assessed and monitored using **IMS- Job Safety Analysis**.

Environmental risks shall be included in the Sea Swift Marine department and vessel risk registers. It is the responsibility of Sea Swift Marine managers to identify all HSEQ hazards that have been identified for their operations area, and enter those hazards onto their C-Safe department risk register. Each hazard and its consequence shall be analysed using the risk matrix located with the register, and existing and intended controls (if required) along with responsibilities listed on the register.

The Marine Managers / vessel masters shall review their C-Safe Risk Registers regularly, and ensure that the risks and their controls are communicated to all their crew.

IMS-Job Safety Analysis shall be used to plan work tasks, and include consideration for environmental risks that may be associated with the task or its environment. The Job Safety Analysis shall be communicated to those employees required to do the work task prior to the job commencement.

1.15 Emergency Preparedness and Response

In the event of an unwanted environmental event, the Sea Swift **IMS-SOP-014-Incident and Non-Conformance Management Procedure** shall be followed in conjunction with the **Vessel Emergency Response Manual and Vessel Operations Manual**.

Where a major catastrophe has occurred, the Sea Swift Corporate Emergency Response and Recovery team shall be initialised to control all response and recovery processes that follow the event. All major emergency situations shall be guided by referring to the **IMS-Corporate Emergency Response and Recovery Plan**.

Marine environmental incident should be managed in accordance with the **Marine Emergency Preparedness Procedure**

1.16 Review

This plan shall be reviewed in accordance with the Sea Swift **IMS-SOP-008-Document, Records and Data Control procedure**. The current version of the document shall be shown on each page header, which can be verified to the currency listed in the Document Control Register.

2 SECTION TWO- MARINE ENVIRONMENTAL PLANS

2.1 Sea Swift Linehaul Vessels



2.1.1 Hydrocarbons Spills / Release

Identified Risks

The following risks have been identified for hydrocarbon spills:

- Mechanical failure or human error that results in a fully loaded ISO container or other bulk fuel containers being dropped from a height whilst loading the vessel is underway.
- Hydrocarbon spill during fuel transfers whilst at wharf locations used by Sea Swift vessels.
- Hydrocarbon spill during fuel transfers between tanks on board due to over filling or other human errors.
- Release of oily bilge water onto the wharf area and into the waterway during its transfer off vessels and into transport containers positioned at the wharf's edge.
- Fire or explosion causing the release of hydrocarbons on board the vessel, and it being washed over side when responding to the fire.
- Failure of hydraulic hoses used on equipment causing the release of hydrocarbon into the environment.
- Natural disasters, vessel running aground, capsizing or in collision with another vessel and sustaining damage to fuel tanks causing the release of hydrocarbons into the ocean.

Controls Implemented

The following controls related to the risks as detailed above have been implemented on the vessels:

- Firefighting equipment is installed and maintained on the vessels; regular fire and evacuation drills carried out; contracted fire equipment maintenance carried in accordance with the relevant marine code of practice / regulatory requirement.
- Hydrocarbons being transported in bulk are loaded onto the vessel by trained marine crew; all bulk fuel containers are checked for in date inspection certificates / inspections; lifting equipment is inspected internally by the ship's crew and externally by a certified inspection and testing contractor.
- Vessels have developed risk assessments / procedures for hydrocarbon management, all pumping equipment and hoses are inspected internally and externally by certified inspection and testing contractors; all pumping activities are monitored at all times.
- Designated smoking areas assigned on the vessels and away from all flammable dangerous goods or combustible material.
- Machinery pre-start checks are conducted by competent crew. Maintenance schedules of machinery implemented.
- BNWAS implemented on vessels. Additional lookouts placed on vessels in hours of darkness when operating in the GBR area. Appropriately qualified persons used as watch keepers. AMSA Pilotage Exemptions for vessels operating in the GBR and Torres Straits areas. Compliance with the COLREGS. Close monitoring of weather and cyclone tracking.
- SOPEP plan and spill kit available and all crew familiar with its use.

Monitoring

Bulk and other hydrocarbons are monitored by the crew through their loading, transportation and unloading stages, and all non-conformances are reported to the vessel masters for action. Pre-inspections of all hydrocarbon containers at their time of delivery at the wharf is carried out, so as to determine any leakages or risks associated with the safe travel of each container. Machinery pre-start checks are carried out prior to usage. Record keeping and checklists used

Emergency Response

Any uncontrolled release of hydrocarbons shall be immediately reported to the vessel master or officers, and the following actions should take place:

- Raise the alarm
- Attempt to stop the leak at the source if it is safe to do so (Stop the pump, close the fuel valve or tip up leaking oil drum / IBC to stop the flow).
- Report the spill to the vessel duty deck officer immediately,
- Deploy SOPEP equipment - spill kits and booms.
- Follow procedures outlined in **IMS-Oil Spill Emergency Checklist**.
- Master to reference **IMS- Marine Emergency Preparedness Procedure** for reporting information.
- Notify the Designated Person Ashore (DPA) as soon as is practicable
- The DPA shall notify all applicable shore side external agencies, and monitor the situation to ensure the vessels stops operation and attends to the spill
- Manage spill onsite and commence clean up after the spill is controlled. Contaminated absorbent material is collected and disposed of in accordance with local council rulings.
- Complete incident investigation and reporting after the site is controlled in accordance with **IMS-SOP-014-Incident and Non-conformance Management**.
- **IMS-SOP-015 Emergency Response and Recovery Planning** refers the management of an uncontrollable incident to the (CERRT) Corporate Emergency Response and Recovery Team (**1800 056 423**)

2.1.2 Waste Management

Identified Risks

The following risks have been identified on the vessels, for waste management.

- Liquid spills.
- Waste products generated on board.
- The inclusion of wharf waste management transfers where vessel general refuse and liquid regulated waste are transferred shore side for removal and disposal. Liquid waste such as sewerage, oily bilge water and vessel engine lubricants if not controlled, have the potential to cause harm to the marine and coastal ecosystem. Solid waste being transferred off the vessel or dislodging away from freight on-board if not controlled, may reduce the aesthetic value of the wharf / landing areas as well as pollute the waterways. Solid waste from the Special Quarantine Zone poses an increased risk to the environment.

Waste Management Aim

The aim of the waste management process adopted by Sea Swift is to:

- Maintain an aesthetic appeal of the vessel, wharf area and habitat of the surrounding environment by ensuring that no wastes are disposed on or adjacent to the site.
- Prevent the mixing of waste streams.
- Identify and correctly dispose of those waste products identified as “Regulated Wastes” under schedule 7 of the Environmental Protection Regulation 2008.
- Implement waste tracking procedures for those products identified as “Trackable Waste” under schedule 1 of the Environmental Protection (Waste Management) Policy and Regulation 2000.
- Reduce the waste stream volumes across the depot by introducing innovative programs such as the ‘Reuse, Recycle, Reduce’ methodology.
- Comply with the Department of Agriculture and Water Resources (AQIS) requirements for the quarantine and correct declaration and disposal of waste from the Protected Zone and the Special Quarantine Zone areas in the Torres Straits.
- No discharge of any waste products in the waters of the Great Barrier Reef and Nil discharge areas.

Control Strategies

Waste products will be collected and disposed of as follows.

Waste Product	Regulated	Disposal Method
Waste Oil (vessels)	Yes	Collected from the wharf by a licensed regulated waste contractor.
Bilge Water from Vessels	Yes	Collected in steel containers by engineering staff, and brought back to the engineering workshop where it is separated in the bunded area where the oil is collected by a licensed regulated waste contractor.
Used Oil Filters	Yes	Collected in drums at the site where it will be collected by a licensed regulated waste disposal contractor. Oil is removed from the filters prior to their collection, and transferred to the waste oil collection areas.
Oily Rags	Yes	Stored in bins where it will be collected by a licensed regulated waste disposal contractor.
Used Absorbent Material	Yes	Spills affecting small volumes with absorbent material. The contaminated soil/dirt and the absorbent material will be stored in labelled containers containing not more than 100kg of material for a minimum of 28 days. It will then be disposed of at the local council landfill dump. NOTE: Providing the maximum lot is not exceeded, absorbent material breaks oil down to a form where it is not considered "Regulated" under EP Act, in approximately 28 days.
Lead Acid Batteries	Yes	Collected and stored within a specified area for removal by a licensed regulated waste contractor in Cairns.
Treated Sewage	Yes	Sewage treatment plant on board allows the pumping of treated sewage. Treated sewage may only be discharged beyond the relevant precautionary discharge distances from sensitive areas. No discharge of any sewage in nil discharge areas. Vessels consult Vessel-sourced sewage discharge restriction maps on MSQ website. Sewage overboard discharge valves are closed and locked prior to vessel entering port to prevent accidental pumping of sewage into the port waters.
Untreated Sewage	Yes	Declared vessels - Sewage confined in vessel sullage tanks will be pumped out by licensed regulated waste disposal contractors as required. Sewage at the site is managed through council approved waste system. All other vessels fitted with macerators to comply with Transport Operations Marine Pollution Act 1995 regulations when pumping out sewage in the GBR area. Vessels consult Vessel-sourced sewage discharge restriction maps on MSQ website.
Sanitary Waste	No	Sanitary waste will be collected in containers and disposed of at approved waste site.
Empty Drums and other containers.	No	They can be reused for oily waste collection if required, or the remaining product removed from the drums and the drums collected by a contractor for recycling.
Non-recyclable solid waste	No	Stored on the vessel for removal and disposal at the local waste site.
Food waste		Kept on board in the domestic freezer and collected by contractor for disposal following AQIS inspection.
Waste office paper	No	All waste office paper generated will be reused where possible, or collected by a contractor for recycling.

2.1.3 Vessel Maintenance whilst at Sea

Identified Risks

The following risk has been identified for maintaining vessels while at sea.

- There is potential for paint chips and dust to be generated while the vessel surfaces are being maintained at sea. There is a potential for these types of waste to be washed overboard or blown into the water by the wind.
- Other activities that will cause solid waste to be displaced overboard.
- Oils / lubricant spills on deck and washing overboard into the surrounding waters.

Controls Implemented

The following controls related to the risk as detailed above have been implemented at the site:

- All vessel maintenance tasks whilst at sea are to be controlled by the Take 5 / Job Safety Analysis risk management system, where sound controls are to be in place prior to maintenance activities commencing. All waste generated from maintenance activities will be contained on the vessel, collected and transferred off the vessel with other waste at port facilities.
- Major maintenance tasks are to be carried out whilst vessels are in port or scheduled for slipway tasks. All waste generated from shore side maintenance activities will be controlled in accordance with the slipway environmental management plan or local council waste management requirements.

Monitoring

Officers on board shall monitor work progress and ensure that crew follow procedures when performing maintenance tasks at sea or at port locations.

2.1.4 Hazardous / Dangerous Goods

Identified Risks

The following risk has been identified at the site, for hazardous and/or dangerous goods that may be held or transported on the vessels:

- Hazardous or dangerous goods freight that is delivered to the wharf in packaged form may be damaged in transit. Potentially could spill onto the wharf and into the waterways causing harm to the environment and the ecosystem.
- Leaking valves on containers holding dangerous goods in liquid form. Spill onto wharf and into waterways.
- Flammable vapours that can ignite resulting in a fire on the wharf or vessel as a result of a spillage of flammable liquids or damage to gas cylinders.
- Damage to DG containers by the wharf or deck crew due to operator error or mechanical error resulting in a spillage of DG onto the wharf, waterway or deck of the vessel.
- Using incorrect cleaning products in large quantities that is harmful to the environment and flushing it overboard.

Controls Implemented

- Employees responsible for handling customer hazardous / dangerous goods attend awareness training and only deal with minor volumes of hazardous substances at the depot. Bulk hazardous substances are delivered directly to the wharf and loaded onto the awaiting vessel.
- Dangerous or harmful substances being transported in bulk are loaded onto the vessel by trained marine crew and separated according to the International Maritime Dangerous Goods Code 2014.
- All bulk flammable liquid substances containers are checked for in date inspection certificates / inspections. Lifting equipment is inspected internally by the ship's crew and externally by a certified inspection and testing contractor.

- The chemical management program ‘**Chemwatch**’ is available on the vessel to assist employees with instructions on the safe handling and disposal of substances. All Safety Data Sheets for DG / hazardous goods can be found in “Chemwatch”.
- Any leaking container found following an inspection is not to be loaded onto the wharf or vessel. Transporter to remove the container from wharf area. SOPEP gear is available on the wharf as well as on the vessel and all crew are familiar with the use of this equipment.
- All crew required to operate machinery are trained and assessed competent. Equipment pre-start checks are done and any defects reported to the supervisor and / or equipment tagged out.

Monitoring

Department HSR’s and Supervisors conduct scheduled inspections of their respective areas, and report on hazardous substance / dangerous goods non-conformances. Employees participate in toolbox talks and other information / training sessions for the safe handling of hazardous and dangerous goods. IMDG code volumes are kept on board and used as a guide when loading/unloading of DG and in an emergency situation.

2.1.5 Reducing the Carbon Footprint

Identified Opportunities

The following opportunities has been identified on the vessels, for positively participating in reducing the company’s carbon footprint.

- Reducing the use of paper and printed material.
- Recycling / reusing materials used as dunnage, for freight management and engineering maintenance on board.
- Reduce the essential resource usage (fuels, electricity and water).

Controls Implemented

- Employees at the depot and on the vessels, are encouraged to reduce the amount of printed materials by using the email system to pass on information that would have been printed; print double sided where possible to reduce paper usage; control printing outputs to only printing what is necessary.
- Employees are encouraged to recycle non-confidential printed paper for their notetaking; printed paper that cannot be used is placed in a recycle bin. Confidential documents are shredded and/or placed in recycle bins and collected by a recycling contractor.
- Freight packaging material is reused where possible; wooden pallets are repaired and returned for use; wood from unrepairable pallets is placed in a specific skip and collected by a recycling contractor.
- The engineering department has championed the recycle / reuse of vessel / equipment parts and metals to assist in reducing the maintenance costs for the depots. Used drums and other unusable metal is collected by a recycling contractor.
- Fuel burning company equipment is regularly maintained so as to ensure the efficient use of fuels; vessel fuel usage is monitored and reported on monthly.
- Employees are encouraged to turn off electrical items when not in use; lights and air-conditioners in rooms are turned off after their use or if not needed; air-conditioning temperatures are set moderately so that less electricity is used to cool areas.

Monitoring

Each department is challenged to assist in reducing the company’s carbon footprint.

2.2 Malu Vessels



2.2.1 Hydrocarbon Management

Identified Risks

The following risks have been identified for hydrocarbon spills:

- Mechanical failure or human error that results in bulk fuel containers being dropped from a height whilst loading the vessel.
- Hydrocarbon release during fuel transfers whilst at wharf locations used by Sea Swift vessels.
- Hydrocarbon release during fuel transfers between tanks on board due to over filling or other human errors.
- Release of oily bilge water onto the wharf area and into the waterway during its transfer off vessels and into transport containers positioned at the wharf's edge.
- Fire or explosion causing the release of hydrocarbons on board the vessel, and it being washed over side when responding to the fire.
- Failure of hydraulic hoses used on equipment causing the release of hydrocarbon into the environment.
- Natural disasters, vessel running aground, capsizing or in collision with another vessel and sustaining damage to fuel tanks causing the release of hydrocarbons into the ocean.

Controls Implemented

The following controls related to the risks as detailed above have been implemented at the site.

- Periodic audit and inspection of tanks and facility by regulator and/or representatives; site inspections and integrity checks, bund protection around large storage facility, spill kits on site.
- Maintenance program for all site equipment by internal and external specialist contracting organisation; site inspections, spill kits on site. Firefighting equipment is installed and maintained on the vessels; regular fire and evacuation drills carried out; contracted fire equipment maintenance carried out in accordance with the relevant marine code of practice / regulatory requirement.
- Hydrocarbons being transported in bulk are loaded onto the vessel by trained marine crew; all bulk fuel containers are checked for in date inspection certificates / inspections; lifting equipment is inspected internally by the ship's crew and externally by a certified inspection and testing contractor.
- Vessels have developed risk assessments / procedures for hydrocarbon management, all pumping equipment is inspected internally and externally by certified inspection and testing contractors; all pumping activities are monitored at all times.
- Designated smoking areas assigned on the vessels and away from all flammable dangerous goods or combustible material.
- Machinery pre-start checks are conducted by competent crew. Maintenance schedules of machinery implemented.
- BNWAS implemented on all vessels. Appropriately qualified persons used as watch keepers. Pilotage Exemptions for vessels operating in the GBR and Torres Straits areas. Ship reporting as per regulatory requirements when carrying >200 metric cubes of hydrocarbon as cargo. Compliance with the COLREGS. Close monitoring of weather and cyclone tracking.
- SOPEP plan and spill kit available and all crew familiar with its use.

Monitoring

Bulk and other hydrocarbons are monitored by the crew through their loading, transportation and unloading stages, and all non-conformances are reported to the vessel masters for action. Pre-inspections of all hydrocarbon containers at their time of delivery at the wharf is carried out, so as to determine any leakages or risks associated with the safe travel of each container. Machinery pre-start checks are carried out prior to usage. Record keeping and checklists used.

Emergency Response

Any uncontrolled release of hydrocarbons shall be immediately reported to the vessel master or officers, and the following actions should take place:

- Raise the alarm
- Attempt to stop the leak at the source if it is safe to do so (Stop the pump, close the fuel valve or tip up leaking oil drum / IBC to stop the flow).
- Report the spill to the vessel duty deck officer immediately,
- Deploy SOPEP equipment - spill kits and booms.
- Follow procedures outlined in **IMS-Oil Spill Emergency Checklist**.
- Master to reference **IMS- Marine Emergency Preparedness Procedure** for reporting information.
- Notify the Designated Person Ashore (DPA) as soon as is practicable
- The DPA shall notify all applicable shore side external agencies, and monitor the situation to ensure the vessels stops operation and attends to the spill
- Manage spill onsite and commence clean up after the spill is controlled. Contaminated absorbent material is collected and disposed of in accordance with local council rulings.
- Complete incident investigation and reporting after the site is controlled in accordance with **IMS-SOP-014-Incident and Non-conformance Management**.
- **IMS-SOP-015 Emergency Response and Recovery Planning** refers to the management of an uncontrollable incident to the (CERRT) Corporate Emergency Response and Recovery Team (**1800 056 423**)

2.2.2 Waste Management

Identified Risks

The following risks have been identified on the vessels, for waste management.

- Liquid spills.
- Waste products generated on board.
- The inclusion of wharf waste management transfers where vessel general refuse and liquid regulated waste are transferred shore side for removal and disposal. Liquid waste such as sewerage, oily bilge water and vessel engine lubricants if not controlled, have the potential to cause harm to the marine and coastal ecosystem. Solid waste being transferred off the vessel or dislodging away from freight on-board if not controlled, may reduce the aesthetic value of the wharf / landing areas as well as pollute the waterways. Solid waste from the Special Quarantine Zone poses an increased risk to the environment.

Waste Management Aim

The aim of the waste management process adopted by Sea Swift is to:

- Maintain an aesthetic appeal of the vessel, wharf area and habitat of the surrounding environment by ensuring that no wastes are disposed on or adjacent to the site.
- Prevent the mixing of waste streams.
- Identify and correctly dispose of those waste products identified as “Regulated Wastes” under schedule 7 of the Environmental Protection Regulation 2008.
- Implement waste tracking procedures for those products identified as “Trackable Waste” under schedule 1 of the Environmental Protection (Waste Management) Policy and Regulation 2000.
- Reduce the waste stream volumes across the depot by introducing innovative programs such as the ‘Reuse, Recycle, Reduce’ methodology.
- Comply with the Department of Agriculture and Water Resources (AQIS) requirements for the quarantine and correct declaration and disposal of waste from the Protected Zone and the Special Quarantine Zone areas in the Torres Straits.
- No discharge of any solid or untreated waste products in the waters of the Great Barrier Reef and Nil discharge areas.

Control Strategies

Waste products will be collected and disposed of as follows:

Waste Product	Regulated	Disposal Method
Waste Oil	Yes	Collected in waste oil drums and taken from the vessels / workshop and decanted into bulk bunded storage container where it will be returned to Cairns and collected by a licensed regulated waste contractor.
Used Oil Filters	Yes	Collected in drums at the site and returned to Cairns where it will be collected by a licensed regulated waste disposal contractor. NOTE: Oil is removed from the filter prior to collection in the used oil filter bin.
Oily Rags and Used Absorbent Material	Yes	Stored in bins at the site and returned to Cairns where it will be collected by a licensed regulated waste disposal contractor.
Soils contaminated by hydrocarbons	Yes	Spills affecting small volumes controlled with absorbent material. The contaminated soil and the absorbent material will be stored in labelled containers containing not more than 100kg of material for a minimum of 28 days. It will then be disposed of at the local council landfill dump. NOTE: Providing the maximum lot is not exceeded, absorbent material breaks oil down to a form where it is not considered "Regulated" under EP Act, in approximately 28 days.
Lead Acid Batteries	Yes	Collected in a designated waste battery container and shipped to Cairns depot for collection by a licensed regulated waste contractor.
Sewage	Yes	Sewage will be confined in vessel sullage tanks. Vessels are fitted with in line macerators. Tanks are pumped out when vessel is at a suitable distance away from the coastline or reefs as per MSQ Vessel – sourced sewage discharge restriction maps. Position and quantities are logged in the Sewage log book and the vessels log kept on the bridge. Sewage overboard discharge valves are locked before entering port and this is logged in log book. In port, sewage confined in vessel sullage tanks will be pumped out by licensed regulated waste disposal contractors as required. Sewage at the site is managed through council approved waste system.
Sanitary Waste	No	Sanitary waste will be collected in containers and disposed of at approved waste site.
Empty Drums and other containers.	No	They will be re-used for oily waste collection and removal, and returned to Cairns where the product will be removed and the drums crushed and transported off site for recycling.
Scrap Metal	No	Scrap metals are separated and stored at the site for re-use or collection by recycling contractors.
Scrap Wood	No	Scrap wooden packaging will be re-used where possible, otherwise it will be placed in bins on the wharf provided by a contractor for the purpose of removal to the local council waste disposal facility where it will be segregated and disposed of.

Waste Product	Regulated	Disposal Method
Non-recyclable solid waste	No	Placed in bins on the wharf provided by a contractor for the purpose of removal to the local council waste disposal facility where it will be segregated and disposed of. Garbage record book used by all vessels to keep record of volume of waste unloaded from vessel. Receipts from removal contractor kept in the garbage record book.
Waste office paper	No	All waste office paper generated will be collected and recycled where possible.

2.2.3 Vessel Maintenance whilst at Sea

Identified Risks

The following risk has been identified for maintaining vessels while at sea.

- There is potential for paint chips and dust to be generated while the vessel surfaces are being maintained at sea. There is a potential for these types of waste to be washed overboard or blown into the water by the wind.
- Other activities that will cause solid waste to be displaced overboard.
- Oils / lubricant spills on deck and washing overboard into the surrounding waters.

Controls Implemented

The following controls related to the risk as detailed above have been implemented at the site:

- All vessel maintenance tasks whilst at sea are to be controlled by the Take 5 / Job Safety Analysis risk management system, where sound controls are to be in place prior to maintenance activities commencing. All waste generated from maintenance activities will be contained on the vessel, collected and transferred off the vessel with other waste at port facilities.
- Major maintenance tasks are to be carried out whilst vessels are in port or scheduled for slipway tasks. All waste generated from shore side maintenance activities will be controlled in accordance with the slipway environmental management plan or local council waste management requirements.

Monitoring

Officers on board shall monitor work progress and ensure that crew follow procedures when performing maintenance tasks at sea or at port locations.

2.2.4 Hazardous / Dangerous Goods

Identified Risks

The following risk has been identified at the site, for hazardous and/or dangerous goods that may be held or transported on the vessels.

- Hazardous or dangerous goods freight that is delivered to the wharf in packaged form may be damaged in transit. Potentially could spill onto the wharf and into the waterways causing harm to the environment and the ecosystem.
- Leaking valves on containers holding dangerous goods in liquid form. Spill onto wharf and into waterways.
- Flammable vapours that can ignite resulting in a fire on the wharf or vessel as a result of a spillage of flammable liquids or damage to gas cylinders.
- Damage to DG containers by the wharf or deck crew due to operator or mechanical error resulting in a spillage of DG onto the wharf or the deck of the vessel and into the waterway.
- Using cleaning products in large quantities that is harmful to the environment and flushing it overboard. Accidental spill of cleaning products into the sea.

Controls Implemented

- Employees responsible for handling customer hazardous / dangerous goods attend awareness training and only deal with minor volumes of hazardous substances at the depot. Bulk hazardous substances are delivered directly to the wharf and loaded onto the awaiting vessel.
- Dangerous or harmful substances being transported in bulk are loaded onto the vessel by trained marine crew and separated according to the IMDG Code. All bulk flammable liquid substances containers are checked for in date inspection certificates / inspections.
- The chemical management program 'Chemwatch' is available on the vessel to assist employees with instructions on the safe handling and disposal of substances.
- Any leaking container found following an inspection is not to be loaded onto the vessel. Transporter to remove the container from wharf or ramp area. SOPEP gear is available on the wharf as well as on the vessel and all crew are familiar with the use of this equipment.
- All crew required to operate machinery are trained and assessed competent. Equipment pre-start checks are done and any defects reported to the supervisor and / or equipment tagged out.

Monitoring

Department HSR's and Supervisors conduct scheduled inspections of their respective areas, and report on hazardous substance / dangerous goods non-conformances. Employees participate in toolbox talks and other information / training sessions for the safe handling of hazardous and dangerous goods. IMDG code volumes are kept on board and used as a guide when loading/unloading of DG and in an emergency situation

2.2.5 Reducing the Carbon Footprint

Identified Opportunities

The following opportunities has been identified on the vessels, for positively participating in reducing the company's carbon footprint:

- Reducing the use of paper and printed material.
- Recycling / reusing materials used as dunnage, for freight management and engineering maintenance on board.
- Reduce the essential resource usage (fuels, electricity and water).

Controls Implemented

- Employees at the depot and on the vessels, are encouraged to reduce the amount of printed materials by using the email system to pass on information that would have been printed; print double sided where possible to reduce paper usage; control printing outputs to only printing what is necessary.
- Employees are encouraged to recycle non-confidential printed paper for their notetaking; printed paper that cannot be used is placed in a recycle bin. Confidential documents are shredded and/or placed in recycle bins and collected by a recycling contractor.
- Freight packaging material is re-used where possible; wooden pallets are repaired and returned for use; wood from unrepairable pallets is placed in a specific skip and collected by a recycling contractor.
- The engineering department has championed the recycle / re-use of vessel / equipment parts and metals to assist in reducing the maintenance costs for the depots. Used drums and other unusable metal is collected by a recycling contractor.
- Fuel burning company equipment is regularly maintained so as to ensure the efficient use of fuels; vessel fuel usage is monitored and reported on monthly.
- Employees are encouraged to turn off electrical items when not in use; lights and air-conditioners in rooms are turned off after their use or if not needed; air-conditioning temperatures are set moderately so that less electricity is used to cool areas.

Monitoring



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Each department is challenged to assist in reducing the company's carbon footprint.

2.3 Fishery support



2.3.1 Hydrocarbon Management

Identified Risks

The following risks have been identified for hydrocarbon spills.

- Mechanical failure or human error that results in bulk fuel containers being dropped from a height whilst loading from vessel to vessel.
- Hydrocarbon release during fuel transfers from ship to ship whilst at sea and alongside the wharf.
- Hydrocarbon release during fuel transfers between tanks on board due to over filling.
- Release of oily bilge water onto the wharf area and into the waterway during its transfer off vessels and into transport containers positioned at the wharf's edge.
- Fire or explosion causing the release of hydrocarbons on board the vessel, and it being washed over side when responding to the fire.
- Failure of hydraulic hoses used on equipment causing the release of hydrocarbon into the environment.
- Natural disasters, vessel running aground, capsizing or in collision with another vessel and sustaining damage to fuel tanks causing the release of hydrocarbons into the ocean

Controls Implemented

The following controls related to the risks as detailed above have been implemented at the site.

- Periodic audit and inspection of tanks and facility by regulator and/or representatives; site inspections and integrity checks, bund protection around large storage facility, spill kits on site.
- Maintenance program for all vessel equipment by internal and external specialist contracting organisation; site inspections, spill kits on site. Firefighting equipment is installed and maintained on the vessels; regular fire and evacuation drills carried out; contracted fire equipment maintenance carried out in accordance with the relevant marine code of practice / regulatory requirement.
- Hydrocarbons being transported in bulk are loaded onto the vessel by trained marine crew; all bulk fuel containers are checked for in date inspection certificates / inspections; lifting equipment is inspected internally by the ship's crew and externally by a certified inspection and testing contractor.
- Vessels have developed risk assessments / procedures for hydrocarbon management, all pumping equipment and hoses are inspected internally and externally by certified inspection and testing contractors; all pumping activities are monitored at all times.
- Designated smoking areas assigned on the vessels and away from all flammable dangerous goods or combustible material.
- BNWAS implemented on all vessels. Appropriately qualified persons used as watch keepers. Pilotage Exemptions for vessels operating in the GBR and Torres Straits Areas. Compliance with the COLREGS. Close monitoring of weather and cyclone tracking.
- SOPEP plan and spill kit available and all crew familiar with its use.
- Fuel transfer checklists used on all occasions when transferring fuel to or from the vessels.

Monitoring

Bulk and other hydrocarbons are monitored by the crew through their loading, transportation and unloading stages, and all non-conformances are reported to the vessel masters for action. Pre-inspections of all hydrocarbon containers at their time of delivery at the wharf is carried out, so as to determine any leakages or risks associated with the safe travel of each container. Machinery pre-start checks are carried out prior to usage. Record keeping and checklists used as per **IMS-Hydrocarbon Transfer Procedures and checklists**

Emergency Response

Any uncontrolled release of hydrocarbons shall be immediately reported to the vessel master or officers, and the following actions should take place.

- Raise the alarm

- Attempt to stop the leak at the source if it is safe to do so (Stop the pump, close the fuel valve or tip up leaking oil drum / IBC to stop the flow).
- Report the spill to the vessel duty deck officer immediately,
- Deploy SOPEP equipment - spill kits and booms.
- Follow procedures outlined in **IMS-Oil Spill Emergency Checklist**.
- Master to reference **IMS- Marine Emergency Preparedness Procedure** for reporting information.
- Notify the Designated Person Ashore (DPA) as soon as is practicable
- The DPA shall notify all applicable shore side external agencies, and monitor the situation to ensure the vessels stops operation and attends to the spill
- Manage spill onsite and commence clean up after the spill is controlled. Contaminated absorbent material is collected and disposed of in accordance with local council rulings.
- Complete incident investigation and reporting after the site is controlled in accordance with **IMS-SOP-014-Incident and Non-conformance Management**.
- **IMS-SOP-015 Emergency Response and Recovery Planning** refers the management of an uncontrollable incident to the (CERRT) Corporate Emergency Response and Recovery Team (**1800 056 423**)

2.3.2 Waste Management

Identified Risks

The following risks have been identified on the vessels, for waste management.

- Liquid waste spills.
- Waste products generated on board.
- Solid waste products collected from fishing vessels.
- The inclusion of wharf waste management transfers where vessel general refuse and liquid regulated waste are transferred shore side for removal and disposal. Liquid waste such as sewerage, oily bilge water, contaminate fuel and vessel engine lubricants if not controlled, have the potential to cause harm to the marine and coastal ecosystem. Solid waste being transferred off the vessel or dislodging away from freight on-board if not controlled, may reduce the aesthetic value of the wharf / landing areas as well as pollute the waterways. Solid waste from the Special Quarantine Zone poses an increased risk to the environment when transhipped to the main land.

Waste Management Aim

The aim of the waste management process adopted by Sea Swift is to:

- Maintain an aesthetic appeal of the vessel, wharf area and habitat of the surrounding environment by ensuring that no wastes are disposed on or adjacent to the site.
- Prevent the mixing of waste streams.
- Identify and correctly dispose of those waste products identified as “Regulated Wastes” under schedule 7 of the Environmental Protection Regulation 2008.
- Implement waste tracking procedures for those products identified as “Trackable Waste” under schedule 1 of the Environmental Protection (Waste Management) Policy and Regulation 2000.
- Reduce the waste stream volumes across the depot by introducing innovative programs such as the ‘Reuse, Recycle, Reduce’ methodology.
- Comply with the Department of Agriculture and Water Resources (AQIS) requirements for the quarantine and correct declaration and disposal of waste from the Protected Zone and the Special Quarantine Zone areas in the Torres Straits.
- No discharge of any waste products in the waters of the Great Barrier Reef and Nil discharge areas.

Control Strategies

Waste products will be collected and disposed of as follows.

Waste Product	Regulated	Disposal Method
Waste Oil	Yes	Collected in waste oil drums from the trawlers and stored in dedicated container on board for transfer to the line haul vessels. On board, generated waste oil decanted into bulk banded storage container where it will be returned to Cairns and collected by a licensed regulated waste contractor.
Used Oil Filters	Yes	Collected waste oil filters from the trawlers and other fishing vessels in the Gulf of Carpentaria are stored in a dedicated container on board for transfer to the line haul vessels. The storage container will be returned to Cairns and collected by a licensed regulated waste contractor. The East coast mother shipping vessel will return the waste oil filters container to Cairns for collection by a licensed regulated waste contractor.
Used Absorbent Material	Yes	Stored in bins on the vessel and returned to Cairns where it will be collected by a licensed regulated waste disposal contractor.
Soils contaminated by hydrocarbons	Yes	Spills affecting small volumes with absorbent material. The contaminated soil and the absorbent material will be stored in labelled containers containing not more than 100kg of material for a minimum of 28 days. It will then be disposed of at the local council landfill dump. NOTE: Providing the maximum lot is not exceeded, absorbent material breaks oil down to a form where it is not considered "Regulated" under EP Act, in approximately 28 days.
Lead Acid Batteries	Yes	Shipped to Cairns and deposited in the recycling section of the local council landfill sites.
Sewage	Yes	Sewage will be confined in vessel sullage tanks. Vessels are fitted with in line macerators. Tanks are pumped out when vessel is at a suitable distance away from the coastline or reefs as per MSQ Vessel – sourced sewage discharge restriction maps. Position and quantities are logged in the Sewage log book and the vessels log kept on the bridge. Sewage overboard discharge valves are locked before entering port and this is logged in log book. In port, sewage confined in vessel sullage tanks will be pumped out by licensed regulated waste disposal contractors as required. Sewage at the site is managed through council approved waste system.
Sanitary Waste	No	Sanitary waste will be collected in containers and disposed of at approved waste site.
Empty Drums and other containers.	No	They will be re-used for oily waste collection and removal, and returned to Cairns where the product will be removed and the drums crushed and transported off site for recycling.

Waste Product	Regulated	Disposal Method
Scrap Wood	No	Scrap wooden packaging will be reused where possible, otherwise it will be segregated and disposed of at the local council waste disposal facility.
Non-recyclable solid waste	No	Placed into a dedicated container to be returned to Cairns Depot. Waste stored at the depot for removal and disposal at the local council waste site.
Waste office paper	No	All waste office paper generated will be collected and recycled where possible.

2.3.3 Vessel Maintenance whilst at Sea

Identified Risks

The following risk has been identified for maintaining vessels while at sea.

- There is potential for paint chips and dust to be generated while the vessel surfaces are being maintained at sea. There is a potential for these types of waste to be washed overboard or blown into the water by the wind.
- Other activities that will cause solid waste to be displaced overboard.
- Oils / lubricant spills on deck and washing overboard into the surrounding waters.

Controls Implemented

The following controls related to the risk as detailed above have been implemented at the site.

- All vessel maintenance tasks whilst at sea are to be controlled by the Take 5 / Job Safety Analysis risk management system, where sound controls are to be in place prior to maintenance activities commencing. All waste generated from maintenance activities will be contained on the vessel, collected and transferred off the vessel with other waste at port facilities.
- Major maintenance tasks are to be carried out whilst vessels are in port or scheduled for slipway tasks. All waste generated from shore side maintenance activities will be controlled in accordance with the slipway environmental management plan or local council waste management requirements.

Monitoring

Officers on board shall monitor work progress and ensure that crew follow procedures when performing maintenance tasks at sea or at port locations.

2.3.4 Hazardous / Dangerous Goods

Identified Risks

The following risk has been identified at the site, for hazardous and/or dangerous goods that may be held or transported on the vessels.

- Hazardous or dangerous goods freight that is delivered to the wharf in packaged form may be damaged in transit. Potentially could spill onto the wharf and into the waterways causing harm to the environment and the ecosystem.
- Leaking valves on containers holding dangerous goods in liquid form. Spill onto wharf and into waterways.
- Flammable vapours that can ignite resulting in a fire on the wharf or vessel as a result of a spillage of flammable liquids or damage to gas cylinders.
- Damage to DG containers by the wharf or deck crew due to operator or mechanical error resulting in a spillage of DG onto the wharf or the deck of the vessel and into the waterway.
- Using cleaning products in large quantities that is harmful to the environment and flushing it overboard. Accidental spill of cleaning products into the sea.



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Controls Implemented

- Employees responsible for handling customer hazardous / dangerous goods attend awareness training and only deal with minor volumes of hazardous substances at the depot. Bulk hazardous substances are delivered directly to the wharf and loaded onto the awaiting vessel.
- Dangerous or harmful substances being transported in bulk are loaded onto the vessel by trained marine crew and separated according to the IMDG Code. All bulk flammable liquid substances containers are checked for in date inspection certificates / inspections.
- The chemical management program 'Chemwatch' is available on the vessel to assist employees with instructions on the safe handling and disposal of substances.
- Any leaking container found following an inspection is not to be loaded onto the vessel. Transporter to remove the container from wharf or ramp area. SOPEP gear is available on the wharf as well as on the vessel and all crew are familiar with the use of this equipment.
- All crew required to operate machinery are trained and assessed competent. Equipment pre-start checks are done and any defects reported to the supervisor and / or equipment tagged out.

Monitoring

Department HSR's and Supervisors conduct scheduled inspections of their respective areas, and report on hazardous substance / dangerous goods non-conformances. Employees participate in toolbox talks and other information / training sessions for the safe handling of hazardous and dangerous goods. IMDG code volumes are kept on board and used as a guide when loading/unloading of DG and in an emergency situation.

2.3.5 Reducing the Carbon Footprint**Identified Opportunities**

The following opportunities has been identified on the vessels, for positively participating in reducing the company's carbon footprint.

- Reducing the use of paper and printed material.
- Recycling / reusing materials used as dunnage, freight management and engineering maintenance on board.
- Reduce the essential resource usage (fuels, electricity and water).

Controls Implemented

- Employees at the depot and on the vessels, are encouraged to reduce the amount of printed materials by using the email system to pass on information that would have been printed; print double sided where possible to reduce paper usage; control printing outputs to only printing what is necessary.
- Employees are encouraged to recycle non-confidential printed paper for their notetaking; printed paper that cannot be used is placed in a recycle bin. Confidential documents are shredded and/or placed in recycle bins and collected by a recycling contractor.
- Freight packaging material is re-used where possible; wooden pallets are repaired and returned for use; wood from unrepairable pallets is placed in a specific skip and collected by a recycling contractor.
- The engineering department has championed the recycle / re-use of vessel / equipment parts and metals to assist in reducing the maintenance costs for the depots. Used drums and other unusable metal is collected by a recycling contractor.
- Fuel burning company equipment is regularly maintained so as to ensure the efficient use of fuels; vessel fuel usage is monitored and reported on monthly.
- Employees are encouraged to turn off electrical items when not in use; lights and air-conditioners in rooms are turned off after their use or if not needed; air-conditioning temperatures are set moderately so that less electricity is used to cool areas.

Monitoring



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Each department is challenged to assist in reducing the company's carbon footprint.

2.4 Tug and Barge



2.4.1 Hydrocarbon Management

Identified Risks

The following risks have been identified for hydrocarbon spills.

- Mechanical failure or human error that results in bulk fuel containers being dropped from a height whilst loading the barge.
- Hydrocarbon release during fuel transfers whilst at wharf locations used by Sea Swift vessels.
- Hydrocarbon release during fuel transfers between tanks on board due to over filling or other human errors.
- Release of oily bilge water onto the wharf area and into the waterway during its transfer off vessels and into transport containers positioned at the wharf's edge.
- Fire or explosion causing the release of hydrocarbons on board the vessel, and it being washed over side when responding to the fire.
- Failure of hydraulic hoses used on equipment causing the release of hydrocarbon into the environment.
- Natural disasters, vessel running aground, capsizing or in collision with another vessel or barge and sustaining damage to fuel tanks causing the release of hydrocarbons into the ocean

Controls Implemented

The following controls related to the risks as detailed above have been implemented at the site.

- Periodic audit and inspection of tanks and facility by regulator and/or representatives; site inspections and integrity checks, bund protection around large storage facility, spill kits on site.
- Maintenance program for all site equipment by internal and external specialist contracting organisation; site inspections, spill kits on site. Firefighting equipment is installed and maintained on the vessels; regular fire and evacuation drills carried out; contracted fire equipment maintenance carried out in accordance with the relevant marine code of practice / regulatory requirement.
- Hydrocarbons being transported in bulk are loaded onto the vessel by trained marine crew; all bulk fuel containers are checked for in date inspection certificates / inspections; lifting equipment is inspected internally by the ship's crew and externally by a certified inspection and testing contractor.
- Vessels follow **IMS-Hydrocarbon Transfer Procedures** when delivering fuel to other vessels, all pumping equipment is inspected internally and externally by certified inspection and testing contractors; all pumping activities are monitored at all times.
- Designated smoking areas assigned on the vessels and away from all flammable dangerous goods or combustible material.
- Machinery pre-start checks are conducted by competent crew. Maintenance schedules of machinery implemented.
- BNWAS implemented on all vessels. Appropriately qualified persons used as watch keepers. Pilotage Exemptions for vessels operating in the GBR and Torres Straits areas. Compliance with the COLREGS. Close monitoring of weather and cyclone tracking.
- SOPEP plan and spill kit available and all crew familiar with its use.

Monitoring

Bulk and other hydrocarbons are monitored by the crew through their loading, transportation and unloading stages, and all non-conformances are reported to the vessel masters for action. Pre-inspections of all hydrocarbon containers at their time of delivery at the wharf is carried out, so as to determine any leakages or risks associated with the safe travel of each container. Machinery pre-start checks are carried out prior to usage. Fuel hoses are inspected and tagged by a qualified authority once per year. Crew inspects hoses prior to fuel transfers. Record keeping and checklists used as per **IMS-Hydrocarbon Transfer Procedures and checklists**

Emergency Response

Any uncontrolled release of hydrocarbons shall be immediately reported to the vessel master or officers, and the following actions should take place.

- Raise the alarm
- Attempt to stop the leak at the source if it is safe to do so (Stop the pump, close the fuel valve or tip up leaking oil drum / IBC to stop the flow).
- Report the spill to the vessel duty deck officer immediately,
- Deploy SOPEP equipment - spill kits and booms.
- Follow procedures outlined in **IMS-Oil Spill Emergency Checklist**.
- Master to reference **IMS- Marine Emergency Preparedness Procedure** for reporting information.
- Notify the Designated Person Ashore (DPA) as soon as is practicable
- The DPA shall notify all applicable shore side external agencies, and monitor the situation to ensure the vessels stops operation and attends to the spill
- Manage spill onsite and commence clean up after the spill is controlled. Contaminated absorbent material is collected and disposed of in accordance with local council rulings.
- Complete incident investigation and reporting after the site is controlled in accordance with **IMS-SOP-014-Incident and Non-conformance Management**.
- **IMS-SOP-015 Emergency Response and Recovery Planning** refers the management of an uncontrollable incident to the (CERRT) Corporate Emergency Response and Recovery Team (**1800 056 423**)

Waste Management

Identified Risks

The following risks have been identified on the vessels, for waste management.

- Liquid spills.
- Waste products generated on board.
- The inclusion of wharf waste management transfers where vessel general refuse and liquid regulated waste are transferred shore side for removal and disposal. Liquid waste such as sewerage, oily bilge water and vessel engine lubricants if not controlled, have the potential to cause harm to the marine and coastal ecosystem. Solid waste being transferred off the vessel or dislodging away from freight on-board if not controlled, may reduce the aesthetic value of the wharf / landing areas as well as pollute the waterways. Solid waste from the Special Quarantine Zone poses an increased risk to the environment.

Waste Management Aim

The aim of the waste management process adopted by Sea Swift is to:

- Maintain an aesthetic appeal of the vessel, wharf area and habitat of the surrounding environment by ensuring that no wastes are disposed on or adjacent to the site.
- Prevent the mixing of waste streams.
- Identify and correctly dispose of those waste products identified as “Regulated Wastes” under schedule 7 of the Environmental Protection Regulation 2008.
- Implement waste tracking procedures for those products identified as “Trackable Waste” under schedule 1 of the Environmental Protection (Waste Management) Policy and Regulation 2000.
- Reduce the waste stream volumes across the depot by introducing innovative programs such as the ‘Reuse, Recycle, Reduce’ methodology.
- Comply with the Department of Agriculture and Water Resources (AQIS) requirements for the quarantine and correct declaration and disposal of waste from the Protected Zone and the Special Quarantine Zone areas in the Torres Straits.
- No discharge of any solid or untreated waste products in the waters of the Great Barrier Reef and Nil discharge areas.

Control Strategies

Waste products will be collected and disposed of as follows.

Waste Product	Regulated	Disposal Method
Waste Oil	Yes	Collected in waste oil drums and taken from the vessels / workshop and decanted into bulk banded storage container where it will be returned to Cairns and collected by a licensed regulated waste contractor.
Used Oil Filters	Yes	Collected in drums at the site and returned to Cairns where it will be collected by a licensed regulated waste disposal contractor. NOTE: Oil is removed from the filter prior to collection in the used oil filter bin.
Oily Rags and Used Absorbent Material	Yes	Stored in bins at the site and returned to Cairns where it will be collected by a licensed regulated waste disposal contractor.
Soils contaminated by hydrocarbons	Yes	Spills affecting small volumes controlled with absorbent material. The contaminated soil and the absorbent material will be stored in labelled containers containing not more than 100kg of material for a minimum of 28 days. It will then be disposed of at the local council landfill dump. NOTE: Providing the maximum lot is not exceeded, absorbent material breaks oil down to a form where it is not considered "Regulated" under EP Act, in approximately 28 days.
Lead Acid Batteries	Yes	Collected in a designated waste battery container and shipped to Cairns depot for collection by a licensed regulated waste contractor.
Sewage	Yes	Sewage will be confined in vessel sullage tanks. Vessels are fitted with in line macerators. Tanks are pumped out when vessel is at a suitable distance away from the coastline or reefs as per MSQ Vessel – sourced sewage discharge restriction maps. Position and quantities are logged in the Sewage log book. Sewage overboard discharge valves are locked before entering port and this is logged in log book. In port, sewage confined in vessel sullage tanks will be pumped out by licensed regulated waste disposal contractors as required. Sewage at the site is managed through council approved waste system.
Sanitary Waste	No	Sanitary waste will be collected in containers and disposed of at approved waste site.
Empty Drums and other containers.	No	They will be re-used for oily waste collection and removal, and returned to Cairns where the product will be removed and the drums crushed and transported off site for recycling.
Scrap Metal	No	Scrap metals are separated and stored at the site for re-use or collection by recycling contractors.

Waste Product	Regulated	Disposal Method
Scrap Wood	No	Scrap wooden packaging will be re-used where possible, otherwise it will be placed in bins on the wharf provided by a contractor for the purpose of removal to the local council waste disposal facility where it will be segregated and disposed of.
Non-recyclable solid waste	No	Placed in bins on the wharf provided by a contractor for the purpose of removal to the local council waste disposal facility where it will be segregated and disposed of. Garbage record book used by all vessels to keep record of volume of waste unloaded from vessel. Receipts from removal contractor kept in the garbage record book.
Waste office paper	No	All waste office paper generated will be collected and recycled where possible.

2.4.2 Vessel Maintenance whilst at Sea

Identified Risks

The following risk has been identified for maintaining vessels while at sea.

- There is potential for paint chips and dust to be generated while the vessel surfaces are being maintained at sea. There is a potential for these types of waste to be washed overboard or blown into the water by the wind.
- Other activities that will cause solid waste to be displaced overboard.
- Oils / lubricant spills on deck and washing overboard into the surrounding waters.

Controls Implemented

The following controls related to the risk as detailed above have been implemented at the site.

- All vessel maintenance tasks whilst at sea are to be controlled by the Take 5 / Job Safety Analysis risk management system, where sound controls are to be in place prior to maintenance activities commencing. All waste generated from maintenance activities will be contained on the vessel, collected and transferred off the vessel with other waste at port facilities.
- Major maintenance tasks are to be carried out whilst vessels are in port or scheduled for slipway tasks. All waste generated from shore side maintenance activities will be controlled in accordance with the slipway environmental management plan or local council waste management requirements.

Monitoring

Officers on board shall monitor work progress and ensure that crew follow procedures when performing maintenance tasks at sea or at port locations.

2.4.3 Hazardous / Dangerous Goods

Identified Risks

The following risk has been identified at the site, for hazardous and/or dangerous goods that may be held or transported on the vessels.

- Hazardous or dangerous goods freight that is delivered to the wharf in packaged form may be damaged in transit. Potentially could spill onto the wharf and into the waterways causing harm to the environment and the ecosystem.
- Leaking valves on containers holding dangerous goods in liquid form. Spill onto wharf and into waterways.
- Flammable vapours that can ignite resulting in a fire on the wharf or vessel as a result of a spillage of flammable liquids or damage to gas cylinders.

- Damage to DG containers by the wharf or deck crew due to operator or mechanical error resulting in a spillage of DG onto the wharf or the deck of the vessel and into the waterway.
- Using cleaning products in large quantities that is harmful to the environment and flushing it overboard. Accidental spill of cleaning products into the sea.

Controls Implemented

- Employees responsible for handling customer hazardous / dangerous goods attend awareness training and only deal with minor volumes of hazardous substances at the depot. Bulk hazardous substances are delivered directly to the wharf and loaded onto the awaiting vessel.
- Dangerous or harmful substances being transported in bulk are loaded onto the vessel by trained marine crew and separated according to the IMDG Code. All bulk flammable liquid substances containers are checked for in date inspection certificates / inspections.
- The chemical management program 'Chemwatch' is available on the vessel to assist employees with instructions on the safe handling and disposal of substances.
- Any leaking container found following an inspection is not to be loaded onto the vessel. Transporter to remove the container from wharf or ramp area. SOPEP gear is available on the wharf as well as on the vessel and all crew are familiar with the use of this equipment.
- All crew required to operate machinery are trained and assessed competent. Equipment pre-start checks are done and any defects reported to the supervisor and / or equipment tagged out.

Monitoring

Department HSR's and Supervisors conduct scheduled inspections of their respective areas, and report on hazardous substance / dangerous goods non-conformances. Employees participate in toolbox talks and other information / training sessions for the safe handling of hazardous and dangerous goods. IMDG code 2014 volumes are kept on board and used as a guide when loading/unloading of DG and in an emergency situation

2.4.4 Reducing the Carbon Footprint

Identified Opportunities

The following opportunities has been identified on the vessels, for positively participating in reducing the company's carbon footprint.

- Reducing the use of paper and printed material.
- Recycling / reusing materials used as dunnage, for freight management and engineering maintenance on board.
- Reduce the essential resource usage (fuels, electricity and water).

Controls Implemented

- Employees at the depot and on the vessels, are encouraged to reduce the amount of printed materials by using the email system to pass on information that would have been printed; print double sided where possible to reduce paper usage; control printing outputs to only printing what is necessary.
- Employees are encouraged to recycle non-confidential printed paper for their notetaking; printed paper that cannot be used is placed in a recycle bin. Confidential documents are shredded and/or placed in recycle bins and collected by a recycling contractor.
- Freight packaging material is re-used where possible; wooden pallets are repaired and returned for use; wood from unrepairable pallets is placed in a specific skip and collected by a recycling contractor.
- The engineering department has championed the recycle / re-use of vessel / equipment parts and metals to assist in reducing the maintenance costs for the depots. Used drums and other unusable metal is collected by a recycling contractor.

- Fuel burning company equipment is regularly maintained so as to ensure the efficient use of fuels; vessel fuel usage is monitored and reported on monthly.
- Employees are encouraged to turn off electrical items when not in use; lights and air-conditioners in rooms are turned off after their use or if not needed; air-conditioning temperatures are set moderately so that less electricity is used to cool areas.

Monitoring

Each department is challenged to assist in reducing the company's carbon footprint.

3 References

Environmental Protection Act 1994
Transport Operations (Marine Pollution) Act 1995
Environmental Protection (Waste Management) Policy and Regulation 2000.
International Maritime Dangerous Goods Code 2014

ANZ ISO 14001:2015
ANZ ISO 14004:2015

"Chemwatch" Sea Swift intranet
IMS-POL-001 Health and Safety Policy
IMS-POL-002 Environment Policy
IMS-POL-003 Quality Policy
IMS-POL-004 Customer Service Policy

IMS-SOP-008 Document Control
IMS-SOP-014 Incident and Non-Conformance Management.
IMS-SOP-015 Emergency Response and Recovery Planning

IMS-FRM-Job Safety Analysis
IMS-FRM-Toolbox Talk Template
IMS-FRM-Meeting Minutes Template
IMS-FRM-Employee Suggestion Sheet
IMS-FRM-Daily Communications Form
IMS-CHK-Oil-spill Emergency Checklist
IMS-CHK-Hydrocarbon Transfer Checklist
IMS-FRM-Hydrocarbon Transfer – Receiver Responsibilities Letter

IMS-Marine Emergency Preparedness Procedure

IMS-Vessel Emergency Response Manual