THE MARITIME
SAFETY MANAGEMENT
SYSTEM MANUAL

For
Marlborough District Council
as
Harbour Authority
# Table of Contents

**Definitions** ................................................................................................................. 1

**Introduction** ............................................................................................................... 2

  Navigational Safety Management System Principles ......................................................... 3

**Commitment Statement** ........................................................................................... 5

  Port and Harbour Marine Safety Code Requirements ......................................................... 5

  System Components ........................................................................................................... 5

**Policy** ......................................................................................................................... 7

  Policy Development and Communication ........................................................................... 8

  Purpose and Use of the Policies ............................................................................................ 8

  Maritime Safety Policy and Supporting Marine Policies ..................................................... 9

  Maritime Safety Policy ........................................................................................................ 9

  Vessel Traffic Monitoring Policy ........................................................................................ 11

  Pilotage Policy .................................................................................................................... 12

  Towage Policy .................................................................................................................... 12

  Removal of Wrecks, Abandoned Ships and Ships Illegally Occupying a Mooring Policy ...... 12

**Enforcement Policy** ...................................................................................................... 14

**Policy Review** ............................................................................................................. 14

**Organisation** .................................................................................................................. 14

**Responsibilities** ............................................................................................................. 16

  The Council ........................................................................................................................ 16

  Harbour Master .................................................................................................................. 17

  Maritime Management Team .............................................................................................. 17

  Maritime Advisory Panel .................................................................................................... 18

  The Port Company .............................................................................................................. 18

**Implementation** ............................................................................................................ 19

  Maritime Safety Plan .......................................................................................................... 19

**Maritime Safety Management System DATA** ............................................................... 19

  Safety Management Archive - HAZMAN ............................................................................ 19

**Risk Control Measures** ............................................................................................... 21

  Documentary Risk Controls ............................................................................................... 21

  Hardware Risk Controls ..................................................................................................... 21

  Vessel Traffic Monitoring ................................................................................................. 21

  Harbour Service ............................................................................................................... 22

  Marine Services – Harbour Master Systems ..................................................................... 22

  Marine Services - Port Company ........................................................................................ 27

**System Operation And Control** .................................................................................. 28

  Maritime SMS Review Processes ....................................................................................... 28

**Risk Assessment Standards** .......................................................................................... 29
<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Harbours</td>
<td></td>
</tr>
<tr>
<td>Methodology</td>
<td>29</td>
</tr>
<tr>
<td>Risk Level Criteria</td>
<td>29</td>
</tr>
<tr>
<td>Training</td>
<td>30</td>
</tr>
<tr>
<td>Performance Monitoring and Reporting</td>
<td>32</td>
</tr>
<tr>
<td>Performance Measures</td>
<td>32</td>
</tr>
<tr>
<td>Compliance Monitoring and Enforcement</td>
<td>32</td>
</tr>
<tr>
<td>Reactive Monitoring</td>
<td>33</td>
</tr>
<tr>
<td>Complaints</td>
<td>34</td>
</tr>
<tr>
<td>Complaints against Staff</td>
<td>34</td>
</tr>
<tr>
<td>Complaints about maritime operations</td>
<td>34</td>
</tr>
<tr>
<td>Audit and Review</td>
<td>35</td>
</tr>
<tr>
<td>Audit</td>
<td>35</td>
</tr>
<tr>
<td>Objectives</td>
<td>35</td>
</tr>
<tr>
<td>Independent Audits</td>
<td>35</td>
</tr>
<tr>
<td>Review</td>
<td>35</td>
</tr>
<tr>
<td>Annual Review of the SMS</td>
<td>35</td>
</tr>
<tr>
<td>Three Yearly Review of the SMS</td>
<td>35</td>
</tr>
<tr>
<td>Consultation Policy</td>
<td>36</td>
</tr>
<tr>
<td>REV</td>
<td>DATE</td>
</tr>
<tr>
<td>-----</td>
<td>------------</td>
</tr>
<tr>
<td>A</td>
<td>2006</td>
</tr>
<tr>
<td>Rev 1</td>
<td>November 2010</td>
</tr>
<tr>
<td>Rev 2</td>
<td>2014</td>
</tr>
</tbody>
</table>

All accepted issues and versions of this document will be stored in the Councils electronic filing system (TRIM). Only authorised personnel may edit this and each edit is stored as a new version. The Harbour Master is the only authorised editor for this manual.
Definitions

AIS – Automatic Identification of Ships

AtoNs – Aids to Navigation

EPA – Environment Protection Agency

Guidelines – Documents supporting the NZ Port and Harbour Marine Safety Code

LPS – Local Port Service

IMO – International Maritime Organisation

MNZ – Maritime New Zealand

(M)SMS – (Maritime) Safety Management System

MTA – Maritime Transport Act 1994

Introduction


The purpose of this document is to describe the overall framework for the management and coordination of marine activities necessary to facilitate maritime safety. The Maritime SMS arrangements referred to in this manual comply with the Code.

Port Marlborough and the Harbour Authority will work together to implement the controls and procedures required by this Maritime Safety Management System (MSMS) Manual. The relationship between the Council and Port Marlborough is shown in the diagram below.

In accordance with the Code, each organisation will develop its own MSMS document with the Port Company document forming a separate section once it has been completed\(^3\).

---

\(^1\) Section 33C, of the Maritime Transport Act 1994 (Amended 2013)

\(^2\) The Marlborough Harbour is defined within the Marlborough District Council Navigation Bylaws, 2002

\(^3\) The Port Marlborough SMS should be fully integrated to MDC SMS by December 2014
Navigational Safety Management System Principles

As Harbour Authority, the Marlborough District Council’s Maritime SMS is designed to deliver the relevant requirements of the Code.

The Harbour Authority’s Maritime Safety Policies define the organisation and arrangements that are planned to monitor, promote and proactively manage the conduct of navigation and associated marine activities so that safety of any maritime activity is enhanced. The system is open to Audit, which will also review maritime policies that have been successfully implemented.

The SMS is structured into four levels as is indicated in Figure 1. This document represents Level 2, the Maritime Safety Management Manual and will, in due course, include a section relating to Port Marlborough, Level 1 outlines the risk assessment process, Level 3 outlines the processes of harbour regulation management and operation and Level 4 sets out the on-going planning and review systems.

![Figure 1: Components of the Maritime Safety Management System](image)
Figure 2 shows the links between Policy, the organisational structure and the administration of the Navigational Safety Management System.

Figure 2: Components of the Navigational Safety Management System
Commitment Statement

As Harbour Authority, the Marlborough District Council, as “Duty Holder” under the New Zealand Port and Harbour Marine Safety Code, and the body with ultimate responsibility for maritime safety within the Marlborough region, has committed itself to comply with the requirements of the New Zealand Port and Harbour Marine Safety Code4.

Furthermore, it is committed to ensuring that the appointed Harbour Master is adequately resourced and funded to exercise the statutory powers and functions towards delivering the maritime safety obligations5.

One purpose of this document is to show a link between the policies set by the Harbour Authority, the Harbour Master Group management arrangements, controls and provisions that discharge those policies.

Port and Harbour Marine Safety Code Requirements

Maritime SMS procedures and guidelines fulfil the requirements of the Code including but not limited to, the following:

- Making risk control the basis of all maritime activities, procedures, Bylaws and Directions.
- Using risk assessment to identify the requirement for navigation aids.
- Applying risk assessment to all proposed harbour developments affecting maritime safety.
- Subjecting wrecks, abandoned and derelict vessels to risk assessment.
- Maintaining systems to implement the findings of risk assessments
- Periodically reviewing the provision of safe anchorages.
- Identifying and designating safe pilot boarding and landing areas.
- Applying current pilot transfer arrangement standards by the pilot service operator.
- Reporting of deficiencies on visiting vessels.
- Providing procedural advice for giving Harbour Master Directions in relation to dangerous vessels or substances.
- Regulating the use of harbour craft.
- Ensuring powers are sufficient to govern the mooring of vessels.
- Maintaining and developing a competence based training scheme, with continual professional development, designed to support the delivery of all Harbour Department functions.
- Maintaining appropriate plans and procedures for emergency response and associated training exercises.
- Using both internal and external verification and audit systems.

The Harbour Master Group will be subject to a formal external review every three years to identify the level to which it meets the requirements of the Code. During the intervening years, internal audits will be undertaken in this context.

System Components

The Marlborough Sounds Maritime Safety Management System focuses on the operational and administrative output of the Harbour Master Group.

It includes the following components:

---

4 Ref. PHMSC 1.4.3 a-d
5 Ref. PMSC 1.4.3 e
Risk Control Measures will fall into two broad categories, some of which are planned for the future:

- **Documentary -**
  - Regulatory Framework
  - Accurate Charts and other Navigational Information
  - Designated Anchorage areas
  - Operational Manuals & Guidelines
  - Port Information Guide
  - Pre-arrival Documentation/Form
  - Standard Operating Procedures
  - Emergency Plans and Procedures
  - Harbour Notices to Mariners
  - Formalised Training and Assessment

- **Hardware -**
  - Radars
  - VHF Communication
  - VTM System
  - Tide Gauges
  - Remote Weather sensing systems
  - Aids to Navigation
  - Harbour Patrol Craft

* For future consideration
The Maritime Safety Policy sets out Marlborough District Council’s intentions (in its statutory role as Harbour Authority for the Marlborough Sounds Harbour) and its commitment to maritime safety. It also describes the organisational responsibilities and arrangements established to ensure that the Policy is implemented. The Policy, with its supporting policies (e.g. VTM, Pilotage, and Enforcement) contributes to operational objectives and states the Harbour Authority’s commitment to meet its statutory responsibilities. The fundamental objective of the Maritime SMS is to demonstrate the consistent application of these Policies.

The management of maritime safety is predicated on the protection and preservation of persons, property and environment. Those persons and that property referred to are not limited to employees of the Harbour Authority or the port, or indeed to port property, but in fact stretch to all users, stakeholders and visitors to the harbour/port.

Visitors to the harbour/port includes, as a necessity, vessels calling at the port. There is a very clear duty of care towards visiting vessels which is exercised on behalf of the harbour/port by the Harbour Master.

A duty of care is also exercised in the protection of the environment which may suffer adverse impact from any number of sources, including visiting vessels that may be unsuitable in terms of their physical size, general condition and serviceability, draft, state of maintenance, level of insurance and potential pollutants carried on board. Therefore, to establish the level of risk created by each vessel, information as to the condition of that vessel as outlined above must be provided by the appropriate entities to the Harbour Master.

In law, if a vessel declares an ETA at a port, and there is no effort to establish the risk posed by that vessel and no direct contact by the person responsible for maritime safety, there will exist an implied agreement that the vessel can enter the jurisdiction. This exposes the Harbour Authority to unnecessary risk.

To minimise this risk and to give assurance that all reasonable steps have been taken, information for every vessel will be sought from the ship, via its agent, not less than twenty four hours in advance of arrival. This will ensure that the Harbour Authority is fully informed in the manner necessary to discharge its duties.

The duty of care does not finish with the establishment of the fact that it is in order to accept the vessel into the jurisdiction. The duty of care centres on the vessel in terms of ensuring all operations are carried out in a way which does not detrimentally affect the vessel, other stakeholders and the environment.

As a component of this there is a duty to ensure the safety of a vessel and its passage from the Harbour Limit of the jurisdiction to the berth and vice versa. This leads to examining the provision of service to that vessel for the purpose of facilitating its passage within the harbour/port as these services affect levels of safety in positive and negative ways. This brings the quality and provision of pilotage and towage services provided to a vessel, into the operational duties of the Harbour Master.

As the person solely responsible for the management of safe navigation, and to meet the Harbour Authority’s Maritime Safety Policies, the Harbour Master must be satisfied that the providers of these services are competent, carry out the provision of services in an approved manner and that the equipment used by providers is fit for purpose and capable of supplying the requirements of the vessel.

To correctly fulfil this important function, the Harbour Master must establish, through documentary evidence and independent audit, the competence of the individuals providing both pilotage and towage services. There must be records of competencies and further, if there are deficiencies, recommendations for improvement (extra training etc.). There must also be regular, independent audits of competencies with copies of those results provided to the Harbour Master.
In relation to equipment used in the provision of service, such as tugs, the Harbour Master must be satisfied that the tugs are fit for the purpose intended, if appropriate are in class, generate the bollard pull required and are operated in a safe manner\(^6\). Documentary evidence such as Bollard Pull certificates and Standard Operating procedures and Method Statements are produced and copies should be held by the Harbour Master. The Harbour Master must agree to the Operating procedures as being suitable for the area of jurisdiction and, if necessary, impose changes considered prudent.

**Policy Development and Communication**

The Maritime Safety and associated Marine Policies are developed by the Maritime Management Team and are submitted for approval by Council. The Council is committed to working closely with harbour stakeholders in the further development of the Maritime SMS, which will contribute to continued compliance with the Code, consulting on the development of future policies as they are required.

The Policies are promulgated to Harbours staff, Port Company, Marlborough Sounds users and other interested parties and posted on the Marlborough District Council website and Staff Intranet. Copies of all Maritime Safety and Marine Policies are freely available to all and there is a continuing process of circulation of changes and publication of information with regard to maritime safety.

**Purpose and Use of the Policies**

The primary purpose of these Maritime Safety and Marine Policies is to provide an overall standard for marine operations in relation to maritime safety throughout the Marlborough Sounds Harbour. They also provide a reference point for a variety of operational decisions including the selection of resources and the design and implementation of safe working practices.

\(^6\) P&HMSC 2.7.2 Tugs
Maritime Safety Policy and Supporting Marine Policies

Maritime Safety Policy

As Harbour Authority, Marlborough District Council has a primary responsibility to facilitate maritime safety. The area of jurisdiction, commonly referred to as ‘Harbour Limits’, is defined within the Navigation Bylaws.

To this end, it is the Council’s policy to:

1. Establish, fund and maintain an effective Maritime Safety Management System, based on a continuing, formalised assessment and mitigation of risk in consultation with maritime users.
2. Review regularly\(^7\) the effectiveness of, and if necessary seek amendments to, its legal powers, Bylaws and Directions in respect of navigational safety.
3. Maintain formal Policy towards the provision of Vessel Traffic Monitoring, and periodically review the feasibility of management of the navigation of ships within the Harbour Jurisdiction.
4. Implement and maintain an effective policy dealing with entry of international shipping into the Marlborough Sounds Harbour.
5. Provide a patrol service to all areas of the Sounds proportionate to maritime use, including:
   - Week-end patrols between Labour week-end and Easter
   - Daily patrols from mid-December through to the end of January the following year
   - As required during the remainder of the year.
6. Maintain formal Policy towards Pilotage and Towage and periodically review the level and competence of the pilotage service in accordance with Maritime Rule Part 90 and towage service in accordance with International Best Practice.
7. Implement such hydrographic surveys as are necessary for safe and efficient navigation within harbour limits to:
   - provide harbour users with up-to-date, timely and accurate hydrographic information, where appropriate through harbour Notice to Mariners and/or broadcast navigation warnings;
   - provide accurate tidal data;
   - maintain an overview of or require maintenance dredging, as appropriate.
8. Maintain a formal policy for the removal of sunken, derelict or abandoned ships and other obstructions that are, or may become, an impediment to maritime safety.
9. Ensure the provision of necessary aids to navigation within harbour limits and maintain a close liaison with MNZ in respect of other aids which MNZ maintains within Marlborough harbour limits.
10. Make available relevant maritime information to all harbour users though posting on the Council’s internet webpage, Harbour Master Notice to Mariners, Navigation Warnings and safety broadcasts.
11. Develop and maintain good liaison with harbour user groups for both recreational and commercial users and seek input as required on matters influencing maritime safety.
13. Maintain, and regularly review, a formal Policy towards Enforcement.

---

\(^7\) “Regularly” means a maximum of ten years for Bylaws and three years for Directions between reviews, in accordance with the Harbour Safety Plan.
14. Maintain education of the recreational user sector through distribution of the annual Safe Sounds Boating brochure, safety related information and interaction with this sector.

15. Schedule regular marine farm lighting audits.

16. Ensure the establishment and maintenance of water ski and swimming lanes between Labour week-end and Easter of the following year.

17. Record and analyse information relating to accidents and incidents that are reported.

18. Maintain policy towards the authorisation of engine immobilisation.

19. Provide procedures for the issue of Hot Work permits.
Vessel Traffic Monitoring Policy

In order to provide for maritime safety in the Marlborough Sounds, the Harbour Authority, in implementing the risk control measures outlined in the Risk Assessment, will:

- Provide effective Vessel Traffic Monitoring (VTM);
- Through the Port Operator, provide Local Port Services (LPS).

Local Port Services is an organisation ashore that only provides information to the bridge team of a ship but does not interact with traffic. LPS is designed to improve port safety and co-ordination of port services by dissemination of port information with vessels and berth or terminal operators. It is concerned with the management of the port, by the supply of information on berth and port conditions. LPS can also provide liaison between ships and allied services.

Examples of LPS may include:
- shipping schedules;
- meteorological and Hydrological data affecting the port area;
- berthing information
- availability of port services

LPS is not an authorised VTS and does not have the authority or capability to respond to developing traffic situations, nor is there a requirement for a traffic image. LPS does not meet international (IALA) standards and training requirements are therefore less comprehensive but should, as a minimum, meet local requirements.

To this end it is Council policy that the Harbour Master Group, in accordance with the harbour safety plan, will:

- Through Port Marlborough ensure that there is a 24 hour LPS to support the published Maritime Safety Policy.
- Strive to ensure that the LPS capability is 100% operational at all times, and in so doing, monitor movement of all appropriate commercial vessels within the port area and maintain VHF communication with such vessels.
- Immediately inform all users of any temporary reduction in service and/or coverage.
- Maintain records of all commercial ship movements in the port area.
- Regularly review the performance of the system and seek improvements through technical enhancement, staff development, training and effective management as necessary.

To ensure the promulgation of relevant information relating to maritime safety of the harbour/port that falls outside the scope of the LPS operation, the Harbour Master will, from time-to-time, provide messages that will:

- Provide timely navigational information as required; and
- Assist RCC NZ in providing effective management and co-ordination in respect of the harbour response to emergency incidents within the harbour jurisdiction.

To achieve this, the Harbour Master will, in conjunction with Port Marlborough:

- Adopt an agreed standard for training of personnel and advocate Continued Professional Development.
- Ensure that all relevant video, VHF and telephone communications are recorded as an aid to enforcement, incident reconstruction and investigation.
Pilotage Policy

Responsibilities related to Pilotage are vested in Maritime NZ through Rule 90. Rule 90 defines the Marlborough Pilotage District and the requirements for compulsory pilotage within it.

As Harbour Authority, the Council assists Maritime NZ in the management of pilotage standards within the compulsory pilotage limits for the Marlborough Sounds. The maritime rule also lays down requirements under which Pilotage Exemption Certificates (PECs) are issued. Delegation from the Director to the Harbour Master enables the conduct of examinations for pilot licences and pilot exemptions at a local level.

The Council’s policy in respect of pilotage is to:

- Ensure that the operation of any pilotage service is compliant with national regulations and guidelines;
- Monitor pilotage activity and personnel to ensure there is an appropriate level of service and competence in accordance with Maritime Rule Part 90.
- Keep the requirements for boarding and landing pilots under review to ensure that safety remains central to operations and transfers are always carried out in the safest way possible.
- Maintain an overview of pilotage standard operating procedures, providing input and guidance to ensure consistency of approach to acts of pilotage.
- Administer a PEC monitoring system to ensure that all PEC applicants and holders fully meet the requirements laid down in Pilotage Directions.
- Inform Maritime NZ of identified gaps within Rule 90 as applicable to the Marlborough Sounds compulsory pilotage area, outlining possible corrective recommendations.

Towage Policy

In accordance with its responsibilities related to Pilotage, the Council also administers the rules related to towage. Within its jurisdiction the Council will:

- Ensure that the operation of any towage service is compliant with national regulations and guidelines.
- That all vessels used in delivering towage services are part of approved Safe Ship Management systems and maintain this at all times.
- Monitor towage activity and personnel to ensure there is an appropriate level of service and competence, in accordance national and international best practice.
- Before any tug initially commences operations within the harbour/port, the Master must demonstrate his knowledge of local conditions and in particular the dangers associated with manoeuvring in close proximity to large ships while underway.
- All tugs underway shall operate a Class B AIS Transponder as a minimum.
- When required by the Harbour Master, undergo a Bollard Pull test in the presence of the Harbour Master or their designated representative.

Removal of Wrecks, Abandoned Ships and Ships Illegally Occupying a Mooring Policy

Wrecks

The statutory power for the removal of wrecks is set out in s33J of the Maritime Transport Act (1994) where such a wreck presents a hazard to navigation.

Where a wreck has been identified as presenting a hazard to navigation, it is Harbour Authority policy that the Harbour Master Group shall:
• Make reasonable effort to identify and find the owner or agent of the wreck.

• In writing, require the owner or agent of the wreck to remove the wreck from the waters of the region within a specified time frame and in a satisfactory manner.

• Where the owner or agent cannot be found or where the owner or agent has failed to remove all or part of the wreck within the specified time-frame:
  - Take possession of the wreck,
  - Remove, destroy or dispose of the wreck,
  - Recover actual costs incurred in the removal of the wreck as a debt to the Harbour Authority.

**Abandoned Ships**

Where any vessel, whether at anchor or moored, in the waters of the region, appears to be abandoned, it is Harbour Authority policy that the Harbour Master Group shall remove, store or dispose of the vessel if:

• The Harbour Master Group has advised the NZ Police of the proposal to move the vessel.

• Reasonable efforts have been made to identify and locate the owner of the vessel.

• A notice, advising the owner (or agent) that the vessel may be removed and sold or otherwise disposed of, has been affixed to the mast of that vessel (where there is no mast, some conspicuous place on board the vessel) for more than one month.

• Publicly notify the intention to sell or otherwise dispose of the vessel in two issues of the daily newspaper.

• More than one month has passed since the 2nd notice referred to above.

• Where the vessel is subject to a security interest, notify the holder of that interest of the intent to sell or dispose of the vessel.

• Where costs have been incurred in the removing, storing and selling of the vessel, these are recovered from the sale or disposal of that vessel or from the owner of that vessel.

**Illegal Mooring Occupation**

Where any vessel illegally occupies a mooring, thereby depriving the lawful owner from use of that mooring, it is Harbour Authority Policy that the Harbour Master Group shall:

• Remove the illegally moored vessel from the mooring as soon as possible and secure that vessel in a safe location. This may include removal of that vessel from the waters of the region.

• Place a notice on board the vessel attached to the mast or, where there is no mast, a conspicuous place on board the vessel, advising the owner of that vessel that the vessel was moved pursuant to s33F(e) of the Maritime Transport Act (1994) and advising the owner of the vessel that the vessel may not be moved without prior permission of the Harbour Master. The notice advising the owner must also outline the penalties that may be incurred if the vessel is moved without prior written approval of the Harbour Master (s33F(6) MTA).

• Make reasonable efforts to identify and locate the owner of the vessel.

• Issue an Infringement Notice.

• Where costs have been incurred these are recovered from the owner of the vessel prior to authorising release of the vessel.
Enforcement Policy

The Marlborough Sounds Harbour Authority is empowered to prosecute offenders for breaches of Bylaws and Directions made under the Maritime Transport Act and, where appropriate, support Maritime NZ in any investigation under the Maritime Transport Act. In order to ensure compliance with the provisions of such statutes, Bylaws and Directions, particularly where maritime safety and protection of the environment are concerned, it is necessary that an effective enforcement regime be maintained and publicised to encourage compliance, to deter non-compliance and to punish offenders.

To this end, it is Harbour Authority policy that the Harbour Master Group shall:

- Develop and maintain effective enforcement based on a continuing review of relevant legislation and the provision of appropriate training for its staff.
- Provide regular patrols throughout the Marlborough Sounds;
  - Week-end patrols between Labour week-end and Easter
  - Daily patrols from mid-December through to end of January
  - As required during the remainder of the year.
- Maintain an effective surveillance regime to monitor compliance with, and detect breaches of the Bylaws and Directions.
- Investigate all alleged breaches of Council Bylaws and Harbour Master Directions using best endeavours to collect evidence.
- Maintain appropriate records of all investigations.
- Where appropriate, work with and inform other Authorities of investigations;
- Respond to breaches of Bylaws and Directions, as justified by the evidence and other circumstances, by the use of formal warnings and/or infringement notices. Where prosecution is justified by the circumstances, provide the necessary reports to the Council’s Prosecution sub-Committee;
- Where the evidential burden is met and the Prosecution sub-Committee approval is obtained, bring prosecutions in an appropriate court against offenders, keeping the Council informed at all times.

Policy Review

The Maritime Management Team will undertake a formal review of all Marine Policies on an ongoing basis and at a maximum review period of three years. To achieve this, it will seek input from Harbour User Groups and independent expertise, as appropriate.

Organisation

Functional Structure for the Management of Maritime Safety

The Organisational structure connecting the Council Management System, the Council itself (both the Council and its Environment Committee) is shown in Figure 3.

The Harbour Master Group (being developed as part of this SMS) will have the structure as shown in Figure 4.
Figure 3: – Harbour Regulatory Structure
Responsibilities

The Council

In respect of maritime safety, the Marlborough District Council:

- Discharges the duties and exercises the powers given to it, both directly and by delegation in accordance with the Maritime Transport Act 1994;
- Discharges the function of "Duty Holder" as defined of the Code by ensuring compliance with the Code, and the management of maritime safety;

---

8 NZ P&HMSC 1.4.3
• Approves the strategy, policies, plans and budgets of the Harbour Master Group, together with its strategic objectives;
• Reviews the performance of the Harbour Master Group against its strategic and operational objectives, plans and budgets.

Harbour Master

The Harbour Master is appointed by Marlborough District Council to discharge the statutory role of Harbour Master in accordance with the Maritime Transport Act 1994 and the Code. The Harbour Master is responsible for delivering maritime safety policy, keeping the Chief Executive advised and Council informed. This role is key to ensuring that the Maritime SMS fulfils the marine aspects of the Council’s statutory duties and relevant non-statutory obligations.

Designated Person (DP)

In meeting its obligations under the Code, the Council has appointed a ‘Designated Person’, the Harbour Master, who maintains a right of direct access to the Council and/or the Chief Executive, as appropriate.

The role of the ‘Designated Person’ is to:

• Provide independent assurance that the Council has an effective and appropriate Safety Management System.
• Provide the Council with independent professional advice regarding the Council’s overall compliance with the requirements of the Port and Harbour Marine Safety Code.

Maritime Management Team

The Maritime Management Team provides an interface with users or specialist expertise. This involves the wider marine experience available to the Harbour Master and his officers. Its key role is to provide technical advice and recommendations to the Marlborough Harbour Master System, enhancing the quality of decision-making.

The Maritime Management Team Terms of Reference are:

1. To review and recommend appropriate action for the Marlborough Harbour Master in respect of:
   • All maritime safety incidents and occurrences and the associated recommendations of the investigating Harbour Officer or Maritime New Zealand.
   • Any identified trends in the nature or frequency of maritime incidents and occurrences.
   • The programmed assessment of hazards and associated risk control measures.
2. Develop draft strategy and policies in respect to maritime and conservancy issues and operations.
3. Oversee regular reviews of the Council’s maritime regulatory and enforcement framework to ensure continued fitness for purpose.
4. To monitor and advise on the development of operational procedures, guidelines, recommendations or “lessons learned” arising from local, national, or international incident investigations and programmed reviews of hazards and risk control measures.
5. To monitor maritime safety performance measures.
6. Continue to develop and expand the Council’s understanding of the Sounds maritime environment and use this knowledge to manage maritime operations in accordance with best environmental practice.
7. To keep under review national (or international) best practice to advise the Harbour Master system accordingly.
8. To provide advice into the review of the Council Navigation Bylaws as it affects maritime safety in order to ensure its continuing fitness for purpose.
9. To monitor progress in completing the relevant objectives as identified in the Annual Safety Plan.
10. To seek direct input from harbour users as appropriate.

Maritime Advisory Panel

The Maritime Advisory Panel consists of practicing mariners whose knowledge and experience is relevant to the nature of any particular hazard, risk control measure, or new circumstance which such panel is convened to consider. Following any incident or change in circumstances the Harbour Master will consider the need to establish a Maritime Advisory Panel.

The Maritime Advisory Panel comprises:

- Harbour Master
- Deputy Harbour Master
- Port Company Appointee – Pilot, as standing members.
- Other members as may be required by the circumstances of the matters being considered.

Standing members of the Maritime Advisory Panel will meet on a minimum six monthly basis or more frequently as the Harbour Master determines, dependant on the matters being considered.

The Port Company

Port Marlborough Limited operates the key terminals within the Marlborough Sounds Harbour. It is the entity with close links to the delivery of Pilotage and has a responsibility to put in place systems integral to the Harbour Safety Management System. The involvement of Port Marlborough in the work of Maritime Advisory Panel is vital to the successful delivery of the Marlborough Harbour Maritime Safety Management System. The structure for overall harbour safety is shown below.
Implementation

Maritime Safety Plan

In association with its duties and responsibilities, the Harbour Master Group is responsible for developing a Harbour Maritime Safety Plan. The overall purpose of the plan is to collate all actions required to be implemented and to set target completion dates.

To achieve this, a long term plan for implementation of the Marlborough Harbour Maritime Safety Management System is developed and is reviewed annually to produce Strategic Objectives for the forthcoming 12 month period. The strategic objectives seek to:

- Ensure all reasonably practicable steps are taken to identify the hazards and risks arising from operational activities in the Marlborough Sounds.
- Reduce risks to as low as is reasonably practicable (ALARP).
- Ensure conformance with the maritime safety and marine policies, associated operating controls and applicable port and marine legislation and non-statutory obligations.
- Periodically review data gathered from audits, inspections, incidents and any other concerns raised to evaluate and determine where improvements and changes need to be made.
- Implement employee competence training and Maritime Safety Management System awareness programmes.
- Facilitate port user involvement in the maintenance of the Maritime Safety Management System and the overall improvement in the provision of maritime safety.
- Communicate to all stakeholders Marlborough District Council’s on-going efforts and achievements in facilitating maritime safety.
- Review the effectiveness of safety measures and continually improve the Maritime Safety Management System.

Overall Plan Review

The Overall Harbour Safety Plan is reviewed every three years and periodically in between this as driven by the achievements of the Annual Safety Plan and annual planning activity.

Annual Plan Review

The Annual Safety Plan is reviewed and reissued prior to the commencement of the Council’s Financial Year. Its review is undertaken in order to facilitate financial planning for the forthcoming financial year.

Maritime Safety Management System DATA

The Safety Management System has been informed by a comprehensive maritime risk assessment undertaken in 2005, revised in 2009 and again in 2013. A summary of the Key Hazards arising from the 2013 revision are presented at Annex A. The full record of the 2013 risk assessment should be referred to for the complete hazard list.

Safety Management Archive - HAZMAN

An on-line Hazard Management database (Hazman) contains details of all identified hazards, together with the associated risk control measures employed to mitigate those hazards. Both hazards and risk control measures have a designated ‘owner’. All hazards are maintained within the system in ranked order, based on the outcome of the risk assessment process. This ranking structure will change with time as the hazards and risk controls continue to be reviewed, reassessed and re-scored.

The archive also includes a comprehensive audit record, which documents the outcome of the scheduled proactive hazard review process, any incident review, and the addition of any new
risk and its associated assessment. In each case the outcome of the review is recorded and includes:

- The action taken and recommendations made by or to the Harbour Master;
- Whether the Maritime Advisory Panel reviewed any aspect;
- The names of those involved and their recommendations; and
- Subsequent recommendations from Maritime Advisory Panel.

The day to day administration of Hazman is the responsibility of the Deputy Harbour Master. In particular, the position-holder:

- Maintains, administers and interprets the Hazman database to ensure effective support to the Harbour Master;
- Maintains, administers and interprets the Hazman database to ensure the effective recording, availability and archiving of maritime incident information;
- Constructs and presents Hazman information and reports as required in an effective and appropriate format, such that the overall maritime safety performance of the harbour may be reviewed and assessed.

Once a record has been initiated, additional information is included in respect of the outcome of the Harbour Master’s initial regulatory investigation, and subsequently details of any follow-up disciplinary action and/or prosecution.

**Computerised Incident Database**

The Harbour Master Group maintains a database holding all reported maritime incidents and other occurrences having significance to the maintenance of maritime safety. The inputs are provided by the Harbour Master as part of the normal filtering of reports to categorise incidents against near misses or items unrelated to safety. It will be the responsibility of the Deputy Harbour Master to ensure that incident data is accurately recorded and the database remains current.
Risk Control Measures

The generic risk control measures employed by the Marlborough District Council can be categorised as follows:

**Documentary Risk Controls**

- Regulatory Framework – Includes the Act, Bylaws and Harbour Master’s General Directions.
- The provision and promulgation of accurate charts, tidal and other navigational information, navigation warnings and weather advice.
- Port Information Guide
- Departmental Operational Manuals & Guidelines.
- Task specific Standard Operating Procedures (such as Patrol Craft Standing Orders).
- Emergency Plans and Procedures
- Notices to Mariners – general navigational guidance and advice.
- Ship Transit Recording (AIS).
- Formalised Training and Assessment – See Section 8 and the various departmental operational manuals.

**Hardware Risk Controls**

- AIS Receivers and WLAN.
- Radars – radar coverage is being planned to provide effective coverage of waters in known risk areas, such as, but not limited to, Tory Channel Entrance and Dieffenbach. Further areas may be identified through risk reviews*
- VHF Communication –
  - A marine radio network covering VHF Channel 19 (port operations), providing effective Harbour communications for shipping through the LPS and all harbour users.
  - Marine VHF Channel 16 (Emergency and Distress frequency) for monitoring of and assisting with maritime emergencies
  - Recording of radio messages on relevant channels to allow for the reconstruction of incidents as appropriate
- PC based integrated traffic display system operated at the Harbour Office at Picton.
- Tide Gauges – Introduce a system of multiple tide gauges located throughout the harbour providing live tidal information.
- Remote weather sensing – implement a system of remote weather stations feeding back into the Harbour office allowing for decisions based on current conditions to be made
- Wave Rider buoy – through NIWA enable the accurate assessment of current wave patterns to seaward of Tory Channel to base Tory Channel Entrance closure decisions on real-time data.
- Aids to Navigation – Buoys, beacons, marks and lights etc. maintained by the Council. MNZ has responsibility for some lights in the Harbour approaches.
- Moorings/Anchorages – Short and long term anchorages are strategically located throughout Queen Charlotte Sound and Cloudy Bay. Their continued relevance and utility are subject to on-going review and assessment.

**Vessel Traffic Monitoring**

A passive vessel traffic monitoring system has been progressively introduced throughout harbour limits with the primary focus remaining in the areas of known risks and greatest traffic density, Queen Charlotte Sound and Tory Channel. The Harbour Office, through the PC-based integrated traffic display system enables passive traffic monitoring within the jurisdiction and provides, in addition to the LPS:

* Deferred pending further investigation
• The ability to record VHF channels 01, 16, 19, 63 and AIS signals broadcast by ships carrying AIS transmitting units.
• Through the LPS, generate VHF broadcasts that promulgate known hazards to maritime safety which are of a temporary nature and not covered in any local Notice to Mariners.
• Remote meteorological and swell condition sensing, making data available through the Harbour web-site.
• Through the port operator ensure that staff trained to provide and implement an effective LPS which will include:
  • Manual operation of light signals with respect to ferry departures within Picton Harbour where required
  • Maintaining records of all known ship traffic within port area
  • Maintaining records of person numbers on board vessels required to participate in the vessel reporting system
  • Maintaining records of the exercise of ferry master pilot exemptions.
• Provide assistance to RCCNZ in the event of emergencies arising within the Harbour Authority’s area of jurisdiction and support to the Regional On-Scene Commander in the event of a pollution incident within the Marlborough territorial sea area.
• Guidance and instruction for operation and maintenance of LPS and training of staff will be addressed in the Training Manual

Harbour Service

The Harbour Master will maintain regular harbour patrol services and supporting administrative and regulatory functions to assist in the effective regulation and enforcement of navigational safety policy.

Marine Services – Harbour Master Systems

Aids to Navigation (AtoNs)
The Council owns, operates and maintains an extensive network of AtoNs throughout the Marlborough Sounds. In addition, there are also AtoNs on Port Marlborough facilities as well as those owned and managed by Maritime NZ (MNZ).

Maintenance of Council and Port Marlborough’s AtoNs is undertaken by the Harbour Master Group. AtoNs owned and managed by MNZ are maintained by that organisation.

All Council and Port Marlborough AtoNs are categorised in accordance with the standards set out by IALA\footnote{International Association of Lighthouse Authorities} - Categories 1, 2 or 3 and response to outages and failures are similarly based on IALA standards, with category 1 AtoNs requiring an immediate response where this is possible.

Owing to the Sounds topography and the weather conditions, responding to an AtoN failure may not be immediately possible on the grounds that the health and safety of personnel may be seriously compromised.

The Deputy Harbour Master is the person responsible and the management of all aspects of AtoNs including the maintenance of an AtoN register, overseeing the repairs and maintenance of AtoN, the recording of failures and the undertaking of any consequential repairs required.

Reports of AtoN failures are usually reliant on reports from Harbour users. However, with advances in technology it is now possible for failures, particularly in remote areas, to generate cellular technology alerts. It is the long-term intention to introduce this technology as the replacement of lights is required, with priority being given to the more remote AtoNs.

Where an AtoN failure does occur and it is not possible to effect repairs before nightfall, a Navigation Warning is issued and promulgated through Picton Harbour Radio and Marlborough Marine Radio. The extent of the promulgation is dependent on the location of the AtoN failure.
For example, an AtoN failure in the Pelorus Sounds not necessarily promulgated in Queen Charlotte Sound and Tory Channel, and vice-versa,

The adequacy of the network is reviewed concurrently with the risk assessment on a 3 year cycle. This does not, however, preclude intermediate reviews resulting as a consequence of an incident.

The process for establishing a new AtoN, or amending the characteristics of an existing AtoN is in accordance with the requirements of s 200(7) of the MTA.

**Maintenance and Inspection**

All AtoNs are inspected twice annually, with the exception of the Leading Lights at Tory Channel, these are inspected quarterly.

Maintenance and inspections follow a set routine and forms part of a standard operating procedure. Records are stored both electronically and in hard-copy format.

**Wrecks**

The Harbour Authority has statutory powers to remove wrecks and obstructions that are deemed to be hazards to navigation. Power to undertake this is found in the Local Maritime Transport Act 1994 as well as Navigation Safety Bylaws.

**Marine Pollution**

Section 289 of the Maritime Transport Act requires a Regional Council to develop and maintain a Regional Marine Oil Spill Contingency Plan. The Regional On-Scene Commander has the responsibility to maintain this Plan and to schedule and manage associated desk-top and equipment exercises to test the Plan.

**Marine Farms**

The Marlborough Harbour area is widely utilised for marine aquaculture including the farming of both shell and fin fish species. There are currently in excess of 600 marine farm units spread throughout the greater Marlborough Harbour, the majority being found in the Pelorus Sound.

Marine farming is approved through the resource consent process and the role of the Harbour Master Group in this context consists of:

- Provision of maritime safety comments on all applications received. The comments follow a standard format and follow the ‘Aquaculture Management Areas & Marine Farms Guidelines’. Copies of comments are filed electronically under both the unique application number as well as the Harbour Management – Navigation Safety folder (H100-005-<<yy>>)

- Determination of lighting requirements for each application and subsequently approving these under delegation pursuant to s 444(2) of the MTA.

The Harbour Master Group undertakes audits of a set number of marine farms on an annual basis. The audits follow an established process and reporting format (Marine Farm Light Audit Field Sheet). Reports and records are initially maintained in hard-copy format until scanned into the Council’s electronic filing system (H100-004-003-<<yy>>). Each farm audited is reported on to the resource consent holder.

To enhance lighting and marking compliance, the industry has established an approved ‘Lighting Scheme’ placing a responsibility on individual farm owners to audit and report on lighting and marking compliance quarterly. Quarterly summaries are provided to the Harbour Master by the Scheme Manager. The Scheme Manager randomly audits at least 10% of farms and reports the results to the Harbour Master.

Full details of the Scheme are kept in both hard and electronic format.
Pilotage and Pilotage Exemption
Maritime NZ is the pilotage authority for New Zealand and administers this function through maritime rule part 90. The rule, amongst other matters defines the compulsory districts for Marlborough as follows:

Pelorus Sound, Admiralty Bay and French Pass:
All that area contained within Pelorus Sound having as its seaward boundary, in the north a straight line drawn in a direction 353º true from high water mark at Alligator Head (40º 58’.1S 174º 09’.3 E) to high water mark at Sentinel Rock (40º 53’.9 S 174º 08’.6E) then in a direction of 277º true to high water mark at Bonne Point D’Urville Island (40º 51’.6S 173º 54’.8E) and in the south a straight line drawn in the direction of 005º true from high water mark at Okuri Point (40º 58’.4S 173º46’.0E) to high water mark at Sauvage Point, D’Urville Island (40º 56’.5S 173º 46’.2E)

Queen Charlotte Sound
All that area of water inside a line drawn from Cape Koamaru to Kemp Point at the seaward limit and north of a line from Dieffenbach Point in a direction of 090º true to the shore of Arapawa Island at the western end of Tory Channel

Tory Channel
All that area of water within Tory Channel bound at the seaward limit by the arc of a circle 3.5 miles, centred on West Head Light (41º 12’.8S 174º 18’.9E) and south of a line from Dieffenbach in a direction of 090º true to the shore of Arapawa Island at the western end of Tory Channel

Pilotage
Marlborough Sounds Maritime Pilots Ltd, (MSMP) is a wholly owned subsidiary of Port Marlborough NZ Ltd and is the pilotage provider for the Marlborough Sounds pilotage district. It has responsibility for the deployment of pilots to ships subject to pilotage requirements that are transiting the Marlborough Sounds pilotage district to access Port Marlborough’s wharves or for scenic cruising. Pilots (and agents) are required to report the movement of any vessel to the LPS that is not terminating its passage at any of the Port Operator’s facilities.

Training
MSMP have an approved Pilot Training and Proficiency Plan (Rev2) this was approved by MNZ on 18 June 2012.

Standard Operating Procedures
MSMP have further developed and revised the pilot standard operating procedures. Currently Revision 12 is held by the Harbour Master in hard-copy format.

Pilot Exemption Certificates (PEC)
Maritime rule part 90 requires that the Master of any ship that meets or exceeds any limits for a pilotage area must ensure that a pilot is carried unless the Master is exempt by law.

In accordance with the requirements of the rule (90.103), Marlborough District Council has prepared a ‘Structured Training Programme and Proficiency Plan’ which was approved by the Director MNZ on 1 September 2011. The purpose of the programme is to facilitate the issuing of “Pilot Exemption Certificated” (PEC) to Masters of ships calling into the area frequently – for example inter-island vessels.
To assist Candidates in preparing for examination, an information booklet ‘Port, Navigation and Examination Information’ has been developed and kept updated. The booklet and two blank charts are supplied to individuals wishing to be examined for a PEC. The Harbour Master conducts the examinations under delegation pursuant to s444(2) of the MTA.

The process of application, determination of eligibility and examination form part of a standard operating procedure that is maintained in electronic format but printed on receipt of each application.

Following completion of examinations, all documentation scanned and filed on Council’s electronic filing system (H100-003-001-01).

Pilot Exemption for Super Yachts
This is a training scheme that provides a pathway for the master of a “super yacht” to undertake a training scheme, examination(s) and assessment(s) for the issue of a Master’s Pilotage exemption for a named super yacht. Under this training scheme a Master’s Pilotage Exemption may be obtained for super yachts 1000 gross tonnage or less, and 90 metres length overall or less. The training scheme was developed in conjunction with other Regional Harbour Masters.

The training scheme sets out the required standards and is used to record the training, examination(s) and assessment(s) successfully completed by the applicant. It may be used to demonstrate completion of certain requirements for more than one of the pilotage areas.

Anchorages
There are three identified anchorage areas within the inner Queen Charlotte Sound:

- The quarantine anchorage west of Mabel Island, suitable for ships up to 120 metres
- The anchorage to the NNE of Wedge Point – no length limitation
- The anchorage to the N of Allports Island – no length limitation

In addition, there is a promulgated anchorage area in Cloudy Bay that is frequently used by vessels awaiting berth availability at Shakespeare bay. The anchorage is also used by vessels awaiting a berth in Wellington, particularly during poor southerly weather conditions.

There is a process in place whereby short-term anchorage can be approved in the Northern Entrance, particularly for vessels having a berth delay of up to 12 hours. Requests for this anchorage are usually made through the ship’s Agent.

Hydrographic Information
The Council has a duty of care to ensure that the harbour waters remain in a fit condition for use by all vessels. The majority of the depths promulgated for the Marlborough Sounds waters remain relatively static, but there are areas where changes occur relatively frequently, particularly in the Havelock Channel area.

To maintain the currency of information in these areas the Council will engage an experienced Hydrographer to conduct appropriate surveys as necessary, particularly where any vessel informs the Council of a significant discrepancy between charted and actual depth.

The Council and Port Marlborough have agreed to jointly survey the Havelock Channel, from the marina entrance to Shag Point light. Surveys of this area will be more frequent and subject to a separate programme of assessment for the 2014-2016 period to determine an appropriate survey interval.

The Council and Port Marlborough have agreed to freely share hydrographic survey data results.
All hydrographic surveys will be in accordance with the Guidelines of Good Practice for Hydrographic Surveys in New Zealand Ports and Harbours and in a format that can be used by LINZ for the purpose of chart amendments.

Where hydrographic surveys identify obstructions that may impinge on the safety of vessel operations, these will be advised to harbour users by way of a Harbour Master Notice to Mariners

**Emergency Preparedness and Response**

Marlborough District Council has established emergency response plans and procedures to address specific marine emergency incidents. Training exercises and seminars are programmed on an annual basis to familiarise and update staff on these emergency procedures and to exercise individual response actions. Appropriate Staff training and emergency exercise records are maintained.

**Environmental Management**

Marlborough District Council maintains effective procedures and control measures designed to ensure that the potential impact on the environment is fully considered when planning or approving commercial and recreational activities within the port.

**Harbour Patrol Vessels**

The Harbour patrol vessels are regulated through the Safe Ship Management system. Each vessel has a manual outlining policies and hazard identification procedures that are vessel specific ensuring that the vessels are operated in a safe manner.

**Passage Planning**

The purpose of a passage plan is to establish the most favourable route for transiting the Sounds whilst maintaining appropriate margins of safety and safe passing distances from the adjacent land.

Navigation Bylaws lay down the requirements for passage planning by both Pilots and Ferry operators. Marlborough Sounds maritime Pilots promulgate co-ordinates of their passage plan on line in order to assist visiting ships in the preparation of berth-to-berth passage planning. Ferry operators, on the other hand, lodge a copy of their fleet passage plan with the Harbour Master. All changes to passage plans must be advised to the Harbour Master prior to being implemented.

**Environmental Information**

*Queen Charlotte Sound* extends about 25 miles in a south-westerly direction to its head.

The land is generally high, rising to over 600m, with greater elevations near Picton and on mountains to the NW of Queen Charlotte Sound. The higher parts, and islands, are generally covered with scattered scrub.

Queen Charlotte Sound is subject to heavy gusts off high land and from mountain gullies during strong winds in Cook Strait; these squalls give little or no warning of their approach.

*Tory Channel* is separated from Queen Charlotte Sound by Arapawa Island and is entered from Cook Strait in the East and at Dieffenbach Point, Queen Charlotte Sound in the West.

The Tory Channel route is most intensively used by inter island ferries. Specific regulations regarding traffic in Tory Channel are in place through Bylaw (Marlborough District Council Navigation Bylaw 2009).

Prevailing winds between October through January tend to be most frequent from the Northerly quarter, whilst between May and August winds tend to be predominantly
from the Southerly quarter. Because of the distance from Cook Strait, weather experienced in Picton is not necessarily representative of actual conditions in the Strait.

A wave rider buoy has been established to seaward of the Tory Channel Entrance providing significant as well as maximum swell height. A graphic display is available on the Harbours web site.

Weather stations have been established at both West Head Tory Channel and Motuara Island. Both stations will ‘go live’ during the 2014/15 financial year, with information being available on the Harbours web site (www.pictonharbour.co.nz) website.

**Marine Services - Port Company**

Port Marlborough, the port operator, is responsible for accesses to their terminals and will follow the overall policies and principles outlined in their section of this SMS manual.

The organisation of the Marlborough Sounds Pilotage Service is the subject of a recommendation that developed out of the 2005 navigational risk assessment and the completion of this has been reflected in this (M)SMS manual.
Harbours

System Operation And Control

Maritime SMS Review Processes
The identification and assessment of maritime hazards is central to the effective maintenance of the Maritime SMS. The Marlborough District Council uses Hazman as the basis for its continuing review of both new and existing hazards and their preventative control measures.

Reviewing identified hazards and risk control measures will involve Harbour Master Group and practising port users as appropriate. It may also, on occasions, involve external specialist consultants.

The review of hazards and control measures are prompted by three circumstances:

1. Planned, periodic, formal review of established hazards and risk controls, initiated by the Hazman software;
2. Review of hazards and associated risk controls following an incident; and
3. The identification and assessment of any potential hazards arising from changes to circumstances including the introduction of a new trade and/or marine operation.

Periodic Monthly Reviews - Proactive
The MSMS review schedules revision of individual hazards and their associated risk control measures for on-going review. This is set up electronically within the Hazman software.

This schedule ensures that all currently identified hazards are reviewed over a three-year period, some more frequently than others. The individual periodicity of review is dependent upon the ranking of the hazard or the potential consequence of hazard realisation. The 20 highest ranked hazards are reviewed twelve-monthly, the lowest three-yearly.

All hazards and risk control measures have been allocated an ‘Owner’, normally the Harbour Master or their Deputy, Port Marlborough, or a delegated specialist appointee. The Harbour Master will retain responsibility for allocating any entity undertaking the hazard review, which could be an external organisation. A review will be undertaken in consultation with staff members, Port Marlborough limited and port users as appropriate.

Post-Incident Reviews - Reactive
Following a maritime incident, the Harbour Master decides whether investigative action is warranted and liaises with Maritime New Zealand. The Harbour Master will also establish whether there is a need to review the relevant hazard in the Hazman software package and its associated control measures. This review may involve staff or members of the Maritime Advisory Panel, dependent upon the nature and outcome of the incident.

New Risk Assessments
Whenever circumstances change to bring in activities outside the existing scope of the Maritime SMS, the Harbour Master will, in full collaboration with the relevant stakeholders, undertake a risk assessment of the intended operation. This process is likely to include the activation of a meeting of the Maritime Advisory Panel.

Documentary Control
The document control procedure for the Maritime Safety Management System will be in accordance with the requirements of the Harbour Master. All documents within the Harbours Department Maritime MSMS are reviewed and approved, as appropriate, by the Harbour Master prior to issue.
Risk Assessment Standards

Methodology

The general risk assessment process used is based on the standards published by Maritime New Zealand. This formal approach involves the following five sequential assessment stages, applied in appropriate depth:

- **Data gathering and familiarisation**
  Review of the existing management structure, risk control arrangements, policies, procedures and operational functions.

- **Hazard Identification**
  Identification of potential hazards and mapping of existing control measures.

- **Risk Analysis**
  Consideration of the likelihood of identified hazardous incidents and their associated potential consequences, including prioritising of their risk factors.

- **Risk Assessment**
  Comparison of risk factors with effectiveness of existing risk control arrangements, and subsequent determination of additional control measures.

- **Risk Control**
  Judgement and endorsement of specific control measures to be implemented and managed through the Maritime SMS.

Risk Level Criteria

The resulting risk level from each identified hazard is determined by numerically comparing the potential severity of the consequences (against life, the environment, property and stakeholder) and the likelihood of that hazard occurring.

Hazards are then ranked according to their numerically scored risk level. It is the principle aim of the on-going hazard review process to actively manage the risk control measures associated with each hazard and attempt to reduce the level of risk, and therefore the ranked score, at each review.
Training

Competence Assurance
The competence assurance process is linked directly to considered personnel selection and recruitment procedures, relevant job descriptions and appropriate pre-determined recruitment selection criteria.

Typically, the process comprises four stages:

Stage 1: Pre-Job
A person shall not be permitted to undertake work until the entry-level criteria have been satisfied. Entry-level requirements are normally defined within the relevant job description and vacancy notice.

Stage 2: Induction Training
All new staff, including any temporary personnel, will receive appropriate induction training. This will take the form of general induction training common to all new staff, followed by departmental induction training and operational briefings as appropriate. Relevant departmental managers are required to record that induction training has been completed.

Stage 3: Supervision and On the Job Training (OJT)
Once a person has been identified as suitable to fulfil a specific job function, that person will be placed under the supervision of a competent person, who will recommend when the person is considered competent. Alternatively, in certain cases, this period of supervision may take the form of On the Job Training, following which a formal assessment of competence is conducted.

Stage 4: Competence
A person may be considered competent once he/she has completed all necessary induction training, and has been assessed either by his/her supervisor, or by formal assessment on completion of On the Job Training.

The principles of competence assurance are followed when recommending authorisation of a Pilot Exemption Certificate.

Marine Training
Training is a key element within the Maritime SMS. In order to ensure that personnel are properly trained, the principles of job analysis and training design are followed. In particular, the person responsible for marine training will:

- Identify operational and safety training needs.
- Establish a skills matrix of competency levels required for key tasks.
- Plan how training requirements are to be met and when.
- Establish a process to appraise the effectiveness of training.

Safety Management Training
It is Council policy that all marine staff shall attend a Maritime Safety Management induction briefing to ensure that they are fully aware of the provisions of the Maritime SMS, and of specific roles and responsibilities assigned to them within this programme. The topics to be covered shall include:

- Overview of relevant Council Bylaws and General or Harbour Master’s Directions.
- Review of the Maritime Safety Policy.
- Outline of Management and Operating procedures, and their provisions.
- Principles of individual accountability and responsibilities.
- Formal and informal procedural controls in place.
- Outline of response to emergencies and contingencies.

**Continuing Professional Development (CPD)**

Continuing Professional Development (CPD) is the systematic maintenance and improvement of skills and competencies. It is focussed on maintaining and improving standards of competence and professionalism in order that the Harbour Master Group can deliver the Harbour Authority's commitment to meet its statutory responsibilities.

The Harbour Master will retain a register outlining each Staff member's qualifications and requirements for ongoing training.

**Training and Competence Records**

All training and instruction provided to Harbour Master Group Staff will be duly recorded and retained in a secure file. Training and instruction relevant to this SMS received by Port Marlborough Staff will be similarly retained by the Port Company.
Performance Monitoring and Reporting

The Council’s performance-monitoring and reporting programme is designed to progressively improve maritime safety. By measuring and reporting on key indicators, which reflect both the performance of the Council and that of port and harbour users, appropriate measures can be adopted and introduced which further improves maritime safety.

Performance Measures

The following measures are used to monitor and report to Council on maritime safety and the Harbour Master Group’s performance:

- Facilitating maritime safety within the Marlborough Sounds:
  - Number of maritime and safety incidents per month
  - Number of formal warnings issued
  - Number of HM Infringement Notices issued.
  - Number of ship engine immobilisations authorised
  - Number of Hot Work permits issued
  - Availability of a suitable patrol craft
  - Number of harbour patrols undertaken:
    - Week-ends – Labour week-end - Easter
    - Weekdays – December-January
    - Remainder of year
  - Distribution of safe boating brochure
  - Availability of key Vessel Traffic Monitoring equipment
  - Harbour Master Notice to Mariners and Navigation Warnings Issued
  - Inspections of swimming and water-ski lanes
    - Pre Summer season
    - during summer season
  - Number of marine farm audits undertaken
- Availability of navigation lights, beacons and buoys:
  - Availability of any Council Aid to Navigation
  - Summary of Mean Time to Repair
  - Keeping the adequacy of the Aids to Navigation network under review
  - Establishment of new Aids to Navigation
- Respecting Environment of Marlborough Sounds
  - Total number of reported pollution incidents
  - Number of attributable pollution incidents
  - Pollution response exercises undertaken
- Port and Harbour Safety Code requirements:
  - Review of Annual Harbour Safety Plan
  - Number of funded mitigation measures completed
  - Progress and achievement of key deliverables within the Harbour Safety and Harbour Master’s Group annual plans.

Compliance Monitoring and Enforcement

The day-to-day monitoring of maritime safety management controls and provisions is measured and checked through departmental monitoring regimes using the criteria laid out in Section 5 - Implementation.
Evaluation of the level of compliance is achieved through:

- Proactive systems that monitor performance in relation to objectives and operating standards.
- Reactive systems, which as far as possible investigate incidents and unwanted events.

**Reactive Monitoring**

**Incident Reporting and Investigation**

The Harbour Authority wishes to create an environment within which all maritime incidents are reported. Marlborough District Council Bylaws require that a Master provides a report should their vessel be involved in any incident. However, all are encouraged to report incidents, for only by understanding the causes and avoidance measures adopted in all such circumstances can more serious incidents be avoided.

**Incident**

In relation to the Maritime SMS an Incident is defined as:

"any occurrence, other than an accident that is associated with the operation of a ship and affects or could affect the safety of operation."

The above definition encompasses:

a) Injury or death to one or more persons;
b) Damage to property (i.e. vessels, port infrastructure or aids to navigation);
c) Damage to the environment;
d) Damage to port business (i.e. financial loss or damage to the Marlborough District Council’s or the Port’s reputation); or
e) Non-compliance with a statute or regulation.

**Near Miss**

Note that the inclusion of ‘liable to cause’ brings Near Misses into the definition of incident for the purposes of the SMS.

Examples of those to be considered include but are not limited to:

a) Situations where a vessel or craft needs to take unconventional avoiding action.
b) A vessel passing another so close as to create a risk of collision or interaction.
c) A vessel passing so close to shoal water as to create a risk of grounding.
d) A vessel or craft passing so close to a structure as to create a risk of contact.

Subject to statutory requirements and the limits of Harbour Master empowerment, the Harbour Master is responsible for the investigation of maritime incidents in the harbour, from the perspective of informing the Maritime SMS (i.e. the cause/circumstance of the incident and in the regulatory sense (whether there has been a breach of Council or other regulations).

In certain circumstances Maritime New Zealand (MNZ) may become involved.

In such cases, the Harbour Master Group will take a provisional view of any failings of the Maritime SMS and act upon them. A full appraisal of the final outcome of any external investigation (following the publication of any reports or the conclusion of any investigation, inquiry or prosecution) will subsequently be undertaken and any remaining issues considered at that time.

The Harbour Patrol forms an essential component of compliance monitoring and subsequent action where this is required.

Any breaches of Bylaws observed by the Harbour Patrol result in a report being submitted. All reports are considered by the Harbour Master and Deputy Harbour Master to determine an
appropriate response. This may range from no further action, a formal Harbour Master warning, the issuing of an infringement, or prosecution.

Cases where prosecution is considered, a report is prepared and submitted to the Prosecution sub-Committee who will determine whether the matter is to be submitted to the District Solicitor for further action.

Complaints

Complaints received by the Harbour Master Group generally fall within two distinct categories:

- Complaints against Staff
- Complaints about maritime operations

Complaints against Staff

The Harbour Authority has a recognised procedure for dealing with complaints made against a Staff member. Where appropriate, the Harbour Master will conduct an internal investigation and provide a confidential report on such complaints to the Chief Executive, recommending further disciplinary action where required.

Where a complaint is made against the Harbour Master, the internal process will be led by the Manager, Regulatory Department.

Complaints about maritime operations

A complaint about a maritime operation is dealt with as though it is a reported incident. The complaint will be assigned to an officer for investigation and follow-up. Where appropriate, a report will be prepared containing recommendations for further action. The report will be reviewed by the Harbour Master who will determine whether the recommended action is appropriate and will authorise or decline implementation.
Audit and Review

The auditing process of the Maritime SMS ensures that the Designated Person is able to properly discharge the responsibility in providing independent assurance to the Council that it remains in compliance with the Port and Harbour Marine Safety Code and that the Maritime SMS is functioning effectively.

Audit

Objectives

Audits are conducted to achieve the following objectives:

- To determine if the Maritime SMS is being operated in accordance with the Marlborough District Council’s Maritime Safety Policy and, the provisions of the P&HMSC.
- To monitor the overall effectiveness of the system.
- To identify and implement ways of improving overall performance.
- To confirm that SMS procedures are understood and being actioned by those involved.

The overall objective is to implement systematic, independent, audits to support the continuous improvement in navigational safety performance.

Independent Audits

In addition an independent Suitably Qualified Person shall undertake periodic audits of the Maritime SMS for the purpose of assessing the following:

- Whether Harbour Management in respect of marine operations and maritime safety remain appropriate and effective, thus comprising effective Maritime SMS components.
- Whether, overall, the Council and Port Company have in place an effective Maritime SMS, thus confirming compliance with the Port and Harbour Marine Safety Code.

Review

Reviews of SMS performance are carried out as follows:

- **Six Monthly** - to review individual incidents and any developments to the SMS arising from such incidents.
- **Annually** - to consider maritime and associated Performance Measures, and to identify any subsequent action,
- **Three Yearly** – To fundamentally review strategy and the need to revisit the risk assessment as a whole.

Annual Review of the SMS

This review will address the following:

- To review the outcomes of any previous annual review.
- A review of the annual performance of the SMS.
- An analysis of any trends in maritime incidents.
- Identification of any remedial action required.
- Consideration of the outcome of the Designated Persons report.
- Identification of additional items for the Rolling Annual Harbour Safety Plan.

The Harbour Master Group will carry out the Annual Review and members of the Maritime Management Team will be involved in SMS performance review.

Three Yearly Review of the SMS

This review will consider the fundamentals of policy and the strategic achievements of the SMS over this longer period. It will consider the need to review the risk assessment overall.
Consultation Policy

The Port and Harbour Marine Safety Code emphasises the importance of effective consultation with all maritime stakeholders. This includes all those who work in the Harbour or use the Marlborough Sounds in some way, as well as those that represent them.

It is therefore Council policy, that it shall publish matters of relevance to, and encourage comment and contribution from, stakeholders in maritime safety.

In particular, the Harbour Authority shall:

- Consult as early as is practicable with stakeholders when changes to Bylaws have been drafted for consideration.
- Include appropriate Council staff in the consultation process;
- Maintain effective consultation mechanism with appropriate stakeholders on maritime safety and other operational issues through standard procedures.