



Fiordland Cruise Ships

Environment Southland Safety Management System Plan

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Harbour Safety Policy – Fiordland Cruise Ships

Environment Southland is committed to undertake and regulate marine operations for cruise ships in Fiordland, and will:

- Use the New Zealand Port and Harbour Marine Safety Code (and Guidelines) as a standard to measure itself and be measured by others;
- Enforce bylaws and harbourmaster directions;
- Ensure staff are properly trained;
- Address any conflicts of interest; and
- Adequately resource the management of navigation safety for cruise ships in Fiordland.

Environment Southland will ensure navigation safety is managed and provide long term satisfactory controls, on cruise shipping, in those fiords permitted to cruise ships through the Deed of Agreement between the New Zealand Cruise Ship Industry and Environment Southland (the “Deed of Agreement”). In particular Milford Sound, Poison Bay, Thompson Sound, Doubtful Sound, Breaksea Sound, Acheron Passage and Dusky Sound through the development of this SMS.

Environment Southland is responsible for navigation safety in all of the waters of Southland, as specified in the Southland Regional Council Navigation Safety Bylaws 2015 (revised), and also has overall responsibility for producing, maintaining and managing the separate SMS for Milford Sound.

Pilots are provided by Fiordland Pilot Services (a subsidiary of Port Otago) and South Port. Cruise ships are permitted to enter Fiordland provided the operator is a signatory to the Deed of Agreement between the NZ Cruise Ship Industry and Environment Southland.

Port Otago owns the sole pilot launch and it is operated under contract by a local launchmaster – Danny Hyland. Cruise ship passenger transfers (up to 200 passengers transfer to or from Queenstown by road) use Real Journeys or Cruise Milford vessels.

Superyachts greater than 1000GT are included as cruise ships, as they are required to sign the Deed of Agreement and operate in the same manner as international cruise ships.

The Safety Management System for Cruise Ships in Fiordland

This document presents the Environment Southland Safety Management System (SMS) Plan for international cruise ships operating in Fiordland from October to April each year. It has been developed in accordance with the New Zealand Port and Harbour Marine Safety Code (2016 edition) and following the *Guidelines for Port & Harbour Risk Assessment and Safety Management Systems in New Zealand*.

The Safety Management System comprises a number of interlinked documents:

1. The Fiordland Cruise Ships Environment Southland Safety Management System Plan (this document).
2. The Risk Register - Cruise Ship SMS Fiordland.
3. The Risk Matrix for Fiordland Cruise Ships
4. Pilot Training Programme and Proficiency Plan - Fiordland Pilotage Areas
5. Fiordland Pilots Instructions and Standard Operating Procedures
6. The Deed of Agreement between The New Zealand Cruise Ship Industry and Environment Southland. (This agreement is currently under its 10 yearly review)
7. New Zealand Police Fiordland / Coastal Passenger Ship Emergency Plan

Complex situations, with several stakeholders, such as occur in Fiordland, need to be managed by means that may be different from other ports; and a contemporary safety management approach has been developed for cruise ships in the fiords that addresses this level of complexity.

The SMS Plan describes the Safety Management System for Cruise Ships in Fiordland and is regarded as a living document that is subject to regular review. This is intended to be through an Annual Review meeting with the Fiordland Pilotage Group, as well as workshops, on an as required basis with the major interested groups, to discuss and re-evaluate the risks listed in the assessment and managed in the SMS. Meetings & workshops are documented and stored in Objective.

The SMS Plan sets out the operators' safety management regime, and risk management, as well as setting the framework to develop and maintain the Codes of Practice that describe common procedures to ensure safe operations, for all of fiords permitted to cruise ships. Through workshops the SMS Plan identifies and notes the management of known hazards, as well as a brief analysis of global incidents involving cruise ships.

Cruise ship safety in Milford Sound is covered by a separate SMS, and operational communication with the cruise ship system is maintained by having a cruise ship pilot in the Milford Sound SMS Group.

1. Introduction

The Fiordland marine environment is potentially dangerous due to its heavy rainfall, sometimes extreme weather conditions, isolation, and a range of navigational hazards. Consequently, there is the potential for both minor and significant safety incidents and accidents to occur whilst cruise ships are transiting, manoeuvring and conducting other operations such as passenger and crew transfer.

Cruise ships visit and enter the internal waters of Fiordland in a number of areas, including Milford Sound, Thompson Sound, Doubtful Sound, Breaksea Sound, and Dusky Sound. Cruise ships entering Fiordland waters pose an inherent threat to the environment whilst the hazardous features of the environment create risk to all vessels. The consequences of any incident involving large vessels are potentially of much greater significance than that of smaller vessels due to the large number of passengers and the type and quantity of fuels on board.

The key risk control is that all cruise ships entering pilotage areas in Fiordland are required to use licensed Fiordland pilots, who are experienced and have expert knowledge of the areas and in manoeuvring in narrow fairways.

Additionally, only Cruise Ships that are signed to the Cruise Ship Deed of Agreement with Environment Southland are permitted to pass through the internal waters of Fiordland and no more than two cruise ships can enter the same stretch of water at any one time.

This safety management system (SMS) is a means of reducing environmental risk to a level that is acceptable to the New Zealand public and ensuring that the safety risk to crew and passengers is as low as reasonably practicable. It provides a framework for the safe management and coordination of marine activities.

To work well an SMS needs to become part of the culture of all who manage the risk and must encourage the reporting of issues that indicate risk to enable response to change.

The SMS describes the overall framework for managing and coordinating cruise ship activities in Milford Sound, Poison Bay, Thompson Sound, Doubtful Sound, Breaksea Sound, Acheron Passage and Dusky Sound.

This is in accordance with the guidelines issued by Maritime New Zealand, which recommends that Regional Councils should base policies and procedures relating to navigation safety on a formal assessment of hazards and risks.

1.1 General application

Environment Southland has determined that the New Zealand Port and Harbour Marine Safety Code should be applied only to marine operations within the Southland pilotage areas defined in Maritime Rules Part 90. This is in accordance with the recommendation in the Code that the first priority should be for harbours within existing pilotage limits, and after consideration of the risk assessment information.

There are 15 harbours designated as pilotage areas in Southland, 13 of which are in Fiordland. This SMS applies only to those fiords described below in section 1.2. Recreational boats operate within Fiordland, and are managed through the provisions of the navigation safety bylaws.

1.2 Description of Areas of Operation

The geographic scope of the SMS is based on selected Fiordland pilotage areas defined in Maritime Rules Part 90, and shown on Charts NZ 7621 Milford Sound / Piopiotahi; NZ 7622 Milford Sound/Piopiotahi to Sutherland Sound; NZ 7625 Thompson Sound and Doubtful Sound/Patea; NZ 7653 Breaksea Sound and Dusky Sound

Milford Sound

The area of the sea and tidal waters of Milford Sound south of a straight line drawn from St Anne Point, in a direction 090 degrees true direction to the opposite shore, and including the wharf limits at Deep Water Basin.

Poison Bay

Being all that area of the sea and tidal waters inside a straight line from Seabreeze Point, in a direction 215 degrees true to the opposite shore.

Doubtful Sound/Patea and Thompson Sound

Being all that area of the sea and tidal waters inside a straight line from Febrero Point, to Southwest Point on Secretary Island and from Colonial Head to Shanks Head.

Breaksea and Dusky Sounds

Being all that area of the sea and tidal waters inside a straight line from Rocky Point to North Point of Breaksea Island and from the West Point of Breaksea Island in a direction 180 degrees true to the opposite shore and from Five Finger Point to South Point.

Cruise ship operations in Poison Bay, Doubtful, Thompson, Breaksea and Dusky Sounds are further restricted by the Deed of Agreement:

Poison Bay

Entry with prior approval from harbourmaster

Thompson Sound

All of Thompson Sound to the southern extremity, then inside a line drawn from Richards Point, in a direction 160 degrees true to the opposite shore, to exclude Bradshaw Sound.

Doubtful Sound

Seaward of lines drawn from Espinosa Point to Joseph Point to exclude Malaspina Reach, thence to Rogers Point to exclude First Arm.

Breaksea Sound

The outer area of Breaksea Sound seaward of a line drawn from the western extremity of the entrance to the Breaksea Sound channel east of Entry Island in a direction 0 degrees true to the opposite shore.

All of the Acheron Passage seaward of a line drawn from the western extremity of the entrance to Wet Jacket Arm, in a direction 0 degrees true to the opposite shore at Muscle Cove.

Dusky Sound

All of Dusky Sound seaward of Cooper Island.

1.3 Other types of maritime activities within Fiordland

- *Commercial Fishing*

Fishing vessels that operate in Fiordland are generally based in Milford, Doubtful Sound, and Riverton, and, most commonly are up to 20m LOA.

- *Passenger Vessels*

A number of tourist passenger vessel companies operate from Fresh Water Basin in Milford, and in Doubtful Sound, based in Deep Cove.

Passenger vessels are generally in the 10-40m LOA range, and require coastal permits issued by Environment Southland to operate in Milford Sound. Shipping movements in and out of Fresh Water Basin are under the direction of a Harbour Controller, who reports to the Milford Sound Tourism Ltd (MSTL) Manager and is funded partly by Environment Southland.

- *Commercial kayaking companies:*

Kayaking is popular in the fiords, and commercial operators are based in Deep Water Basin, Milford Sound, and in Deep Cove, Doubtful Sound.

- *Commercial dive companies*

Diving is a popular recreational activity in Fiordland and commercial dive companies frequently bring their clients to the more accessible Milford and Doubtful Sounds as well as to other fiords.

- *Recreational vessels*

Recreational vessels may be encountered anywhere in Fiordland and range in size from small runabouts which are launched in Deep Water Basin, or in Deep Cove, Doubtful Sound to larger ships, often ex-fishing vessels owned by a syndicate and moored in Deep Cove.

2. Organisation and Responsibilities

2.1 Environment Southland Management Structure – Navigation Safety

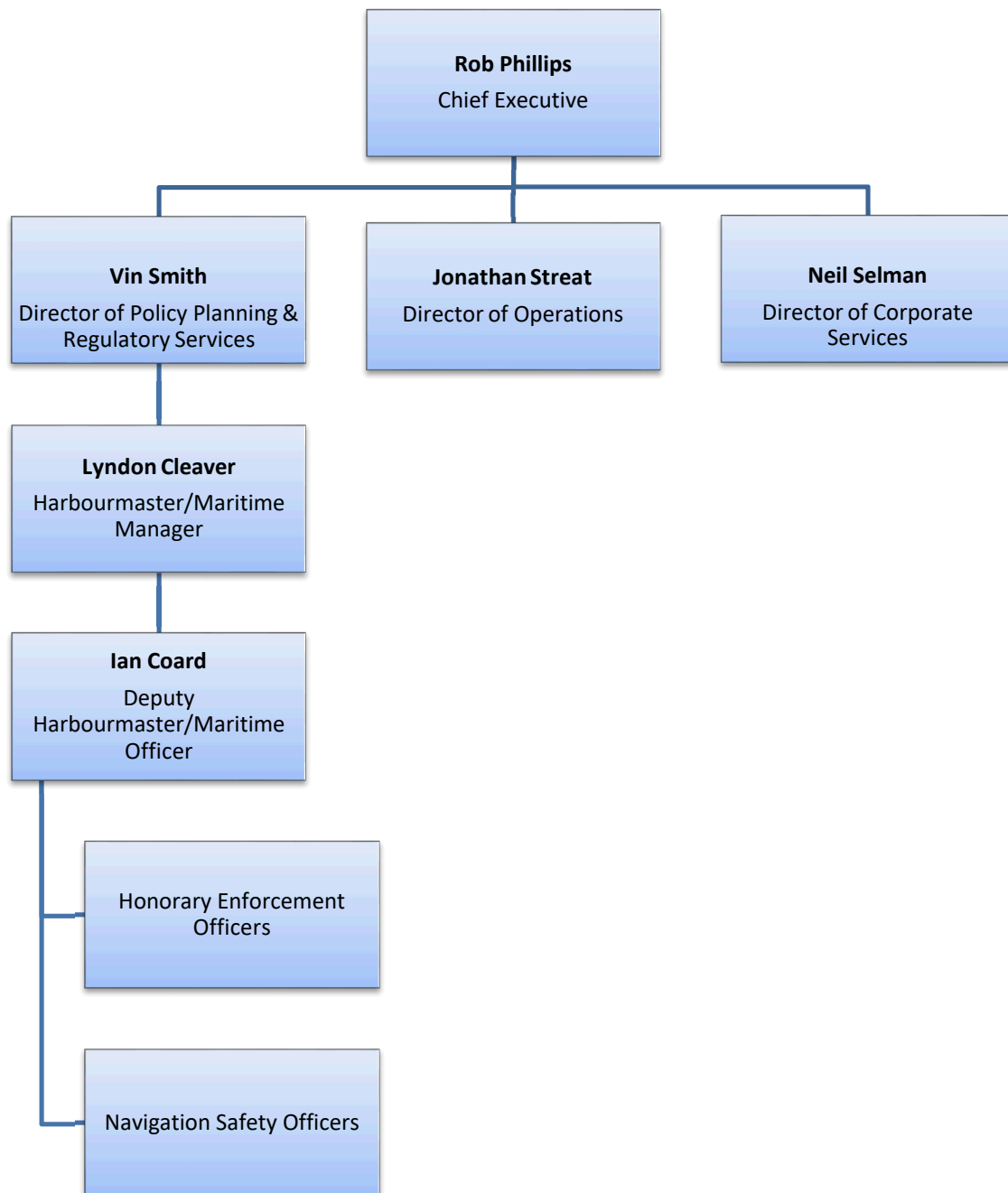


Figure 1: Environment Southland Management Structure – Navigation Safety

2.2 Duties and Responsibilities

Environment Southland

In accordance with the revised New Zealand Port and Harbour Marine Safety Code (the Code) the Harbourmaster is appointed by the Council to manage maritime safety in relation to ports, harbours and the wider waters of the region. Accordingly, Environment Southland has appointed a Harbourmaster and deputy to fulfil this function.

The Harbourmaster generally reports on navigation safety issues to the Strategy and Policy Committee, but may report directly to Council in some circumstances (for example the approval for consultation on revised Navigation Safety Bylaws). The Harbourmaster job description is held by the Council's Human Resources officer and is filed electronically.

In the Code it is noted that "the Council's focus is on port and harbour marine safety, which covers all activities associated with the safe movement of ships entering, leaving and navigating within ports and harbours, and includes navigation safety." As the Chair and councillors are accountable for this function the Fiordland Cruise Ship SMS will be agreed to (and signed off) by the Chair and Chief Executive of Environment Southland.

Various Environment Southland staff members (including general Compliance Officers) hold warrants as Enforcement Officers for navigation safety. Some of these staff hold permits to operate the Council vessels approved under the Council's Part 35 exemption from the Maritime Transport Act and are rostered on as Navigation Safety Enforcement Officers, particularly during holiday periods. The Council vessels are used around Southland, including Milford Sound.

Environment Southland has two vessels under Maritime Operator Safety Systems:

Vessel Name	Vessel Size	Survey Company
(under construction)	7.6 metres	Marinecraft & Fibreglass Ltd
Toroa	5.6 metres	Marinecraft & Fibreglass Ltd
Hoiho	4.2 metres	Marinecraft & Fibreglass Ltd

Harbourmaster

The role of Regional Harbourmaster is defined in the Job Description Purpose of Position as:

To ensure that Environment Southland's maritime and harbour responsibilities are fulfilled in accordance with the relevant legislation that includes Resource Management Act, Maritime Transport Act, Biosecurity Act, Maritime Rules and Bylaws, and Councils' objectives as they relate to all coastal waters, lakes and navigable waters and waterways within the Southland region.

The duties and responsibilities of the Environment Southland Regional Harbourmaster are set out in the Maritime and Harbours Management section of the Work Profile in the Job Description for this position:

- undertake Harbourmaster responsibilities as defined in Part 33 E, Maritime Transport Act 1994;
- recommend, prepare, and maintain bylaws where necessary;
- implement and enforce legislation and bylaws;
- administer relevant maritime and coastal management mechanisms;
- co-ordinate examination and appointment of pilot and exemptions;
- administer relevant navigation safety matters;
- maritime monitoring;
- responsible for the NZ Port and Harbour Marine Safety Code in Southland;
- responsible for surface water activities;
- Port and Harbour Risk Assessment and Safety Management Systems.

Figure 2 describes the various aspects of the harbourmaster's role in Fiordland:

- The overall management of the Fiordland Cruise Ships Safety Management System
- Working with the Fiordland Cruise Ships Safety Management System Group to establish work programmes, organise Group meetings, and provide general administration
- Managing Milford Harbour Control jointly with MSTL, and liaising with the MSTL Management Committee on navigation safety issues
- Provide boating education for recreational users, undertake the regulatory functions required by bylaws and give harbourmaster directions where needed
- Examine Fiordland pilots (and candidates for Pilotage Exemption Certificates)) and make recommendations to Maritime New Zealand regarding pilot proficiency.
- Manage cruise ship schedules for Fiordland, liaise with cruise ship pilots and monitor compliance with the Cruise Ship Deed of agreement

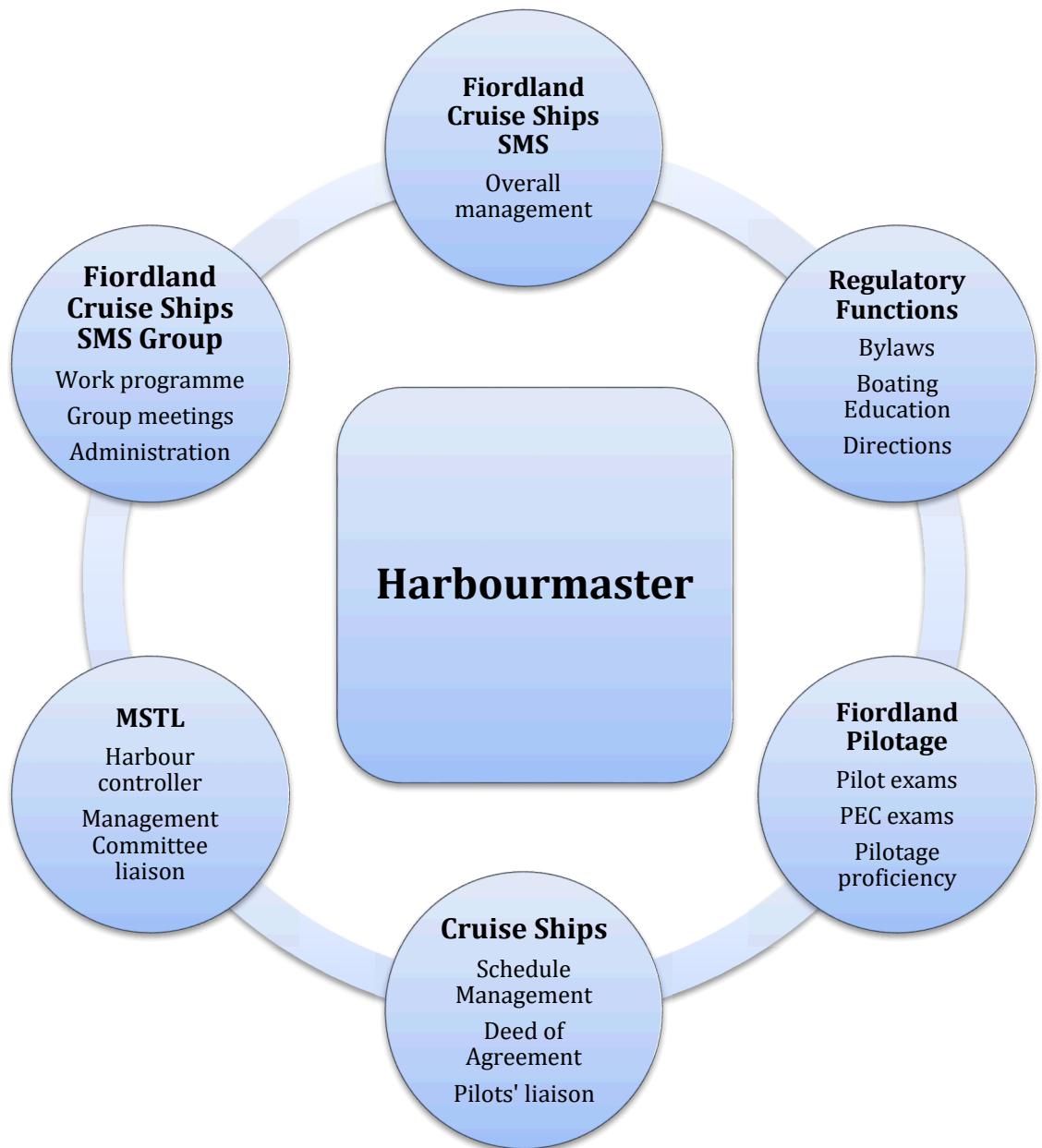


Figure 2: Harbourmaster Role Fiordland

Harbourmaster Handover Procedure

A handover procedure between the Harbourmaster and Deputy has been put in place so that the Deputy can assume full Harbourmaster responsibilities when the Harbourmaster is unavailable to carry out his duties for whatever reason. This process is outlined in the Environment Southland central online process management software system Promapp.

Milford Sound Tourism Limited (formerly Milford Sound Development Authority)

Responsible for the infrastructure in Fresh Water Basin, that supports the tourist passenger vessels, and provides the services of harbour controllers to control shipping in and out of Fresh Water Basin. Harbour Control procedures are set out in the Fresh Water Basin Code of Practice.

In 2011 Environment Southland and the then MDA signed a Memorandum of Understanding (referred to in 2.7) to:

“...define and agree upon the responsibilities of the Southland Regional Council ("Environment Southland") and the Milford Sound Development Authority, for Milford Sound, as set out in the New Zealand Port & Harbour Marine Safety Code ("the Code").”

2.3 Environment Southland Standard Operating Procedures

Current SOPs that are in place are listed below and are held in the Environment Southland Promapp or Objective electronic on line repository:

- Harbourmaster Call in Procedures
- Harbourmaster handover procedure
- Council vessel operations
 - Boat operating training scheme
 - Boat ramp and manning procedures
 - Boats safety operation procedures
 - Carrying out boat checks for Council vessels
- Pilotage and PEC training manuals and procedures including examinations
- Log/Debris Retrieval
- Infringement Notices and warnings records
- Tsunami Events
- Accident/Incident Reporting
- Hot Work Permits and Requests for Immobilisation

Standard Operating Procedures to be developed or under development are:

- Wrecks
- Hazardous Cargo
- Use of Harbourmaster directions
- Maritime incident response (describing how the Harbourmaster actions tie in with Southland emergency systems)
- Notices to Mariners

2.4. Navigation Safety Bylaws

The Southland Regional Council Navigation Safety Bylaws 2009 (revised 2015) provide rules for compliance with navigation safety by all users of Southland waters, including Milford Sound. These bylaws have been enacted to make activities in the water safe for everyone.

The full set of bylaws can be downloaded at: <http://tinyurl.com/zav595l>

General Provisions

Many of the bylaws set out are national requirements – for example the requirement not to exceed 5 knots within 200 metres of shore, (amended in Milford Sound to 100 metres from shore, with conditions). Masters of vessels must adhere to all of these rules in Fiordland. Environment Southland pamphlets for various locations provide brief outlines of navigation safety rules and the infringement fees that will be levied for contravening any of these rules.

Location Specific Provisions

The bylaws also contain provisions specific to various locations:

- Section 7 has special provisions for all of Milford Sound setting out the direction of travel and the maximum speed when operating within 100 metres of shore in Milford Sound.
- Schedule 1 of the bylaws reiterates the compulsory pilotage limits set out in Maritime Rules Part 90 for all of the Fiordland pilotage areas.
- Section 8 has special provisions for Doubtful Sound - the operation of any vessel in Hall Arm, Doubtful Sound, southwest of the Narrows at more than 5 knots, is a prohibited activity.

2.5 Environment Southland Staff Training

Environment Southland staff involved in navigation safety (and without nationally recognised qualifications) receive training, both theoretical and practical, from the NZ Coastguard Boating Education Service. This training includes Day Skipper or Boatmaster Certification, practical courses, and on-the-job training.

The Harbourmaster and Deputy Harbourmaster are required to carry out continuation and on-the-job training when available; this training is carried out at a Maritime School or locally with council vessels. It is envisioned that the Deputy Harbourmaster will carry out secondments to other regions, so as to work alongside other Harbourmasters and gain experience. Pilot observation and familiarisation roles will also be carried out on a regular basis.

2.6 Conflict of Interest

The Milford Harbour Controller is employed by Milford Sound Tourism Limited, in a position partly funded by Environment Southland. Conflict is resolved through a memorandum of understanding described below.

Environment Southland is a member of New Zealand Cruise Association, and in the past the Harbourmaster has been a member of the Board, and Chair of this organisation. No real conflict of interest as the Deed of Agreement is with the cruise ship companies, not New Zealand Cruise Association.

2.7 Memoranda of Understanding and Agreements

Environment Southland and Milford Sound Tourism Limited

Environment Southland and Milford Sound Tourism Limited (MSTL) have an agreed Memorandum of Understanding (MoU) relating to Milford Sound, and Freshwater Basin in particular. MSTL is deemed to be a Port Company under the definition listed in the MoU, and in the New Zealand Port & Harbour Marine Safety Code.

The MoU requires that MSTL:

- ensures that the port is in a fit condition for use by vessels;
- provides port users (and the Harbourmaster) with adequate information about conditions relating to port facilities;
- ensures the provision of port related aids to navigation (defined in Appendix 1 of the MoU).

MSTL provides duty Harbour Controllers to manage shipping movements in and out of Fresh Water Basin – these positions are partly funded by Environment Southland. The MSTL Board meets annually with the harbourmaster, and the MSTL Management Committee, which comprises representatives from all the users of the Fresh Water Basin wharf facilities, invites the harbourmaster to participate in the harbour control items at regular meetings.

Environment Southland and Cruise Ship Companies

Cruise ship companies are only permitted to operate within Fiordland under the terms of the Deed of Agreement with Environment Southland. A copy of the Deed can be downloaded at:

[Deed of Agreement](#)

The areas of operation for cruise ships include part of Dusky and Breaksea Sounds, Doubtful and Thompson Sounds, Poison Bay and Milford Sound, where the ships pick up or disembark pilots as well as passengers.

Environment Southland and Other Parties

Environment Southland has in place contracts for the provision of expert advice and maritime assistance from two Master Mariners – one a former cruise ship master, the other a former Bluff pilot. This advice may include the provision of SMS audits, and pilot reviews.

3. Fiordland Cruise Ship SMS Regime

The Fiordland Cruise Ship SMS regime includes the SMS Manual itself as well as elements covered by other relevant documents, including the Pilot Training Programme and Proficiency Plan for Fiordland Pilotage Areas and the Fiordland Pilots Instructions and Standard Operating Procedures (SOP). These are underpinned by the Deed of Agreement between The New Zealand Cruise Ship Industry and Environment Southland. The purpose of the Fiordland Cruise Ship SMS is to manage those aspects of risk and safety that affect cruise ships transiting or otherwise operating in the Fiordland pilotage area.

The day to day management of risk is codified in the SOPs, while the ongoing identification and assessment of overall operational risk is to be undertaken by means of a post-season risk review (see Section 6.3). The Group (see [Fig 2](#)) may choose to undertake an annual risk assessment process themselves or have this process completed by an independent party.

The scope of the safety regime and associated documentation, including operational procedures, is defined as:

Collaborative safety management and environmental protection.

Thus the Fiordland Cruise Ship SMS regime covers rules, planning, processes, and practices that control non real-time activity and links to operating procedures related to the real-time operation, controls of vessels or emergency response. These real-time operations are largely covered by the SOPs, emergency operating procedures and other documentation as referenced in this SMS document.

4. SMS Purpose and Outline

At the highest level the important elements of an SMS are **leadership, competence, supervision** and **control**. At a more detailed level an SMS:

- Creates a common method to manage risk
- Prompts and manages the identification and assessment of risks (including change) and the implementation of suitable controls
- Implements effective communications across all stakeholders
- Implements a process to identify and correct behaviours/errors/findings
- Implements a continual improvement process

The purpose of the Fiordland Cruise Ship SMS is to provide a systematic method to identify and control risk and to do so on an ongoing basis. It is a means of maintaining assurance that risk controls are effective during cruise ship pilotage and operation in Fiordland waters. The SMS also provides for goal setting and planning, and is intended to ensure continuous improvement of operating procedures.

The safety of other commercial vessel operations whilst in Milford Sound is covered by a separate safety regime (the Milford commercial operators' SMS). However the two regimes are designed to work together. The Fiordland Cruise Ship SMS is

applicable in all pilotage areas in Fiordland and so has a wider geographical scope than the Milford commercial operator's SMS.

Figures 1 and 2 illustrate the structure of the SMS and its relationship with the Milford Sound SMS.

Figure 1 Oversight and direction



5. Safety Policy & Accountability

The Fiordland Cruise Ship SMS provides a framework to enable all operational stakeholders and their service providers to ensure they are able to meet their own responsibilities for the safety of their operational activities in the marine environment related to cruise ship operations in Fiordland. Operational stakeholders include:

- Port Agents (on behalf of Cruise ship owners, masters and crew)
- Pilotage service providers
- Fiordland licensed pilots
- Environment Southland
- Maritime New Zealand
- Police and other emergency services

5.1 A Shared Commitment

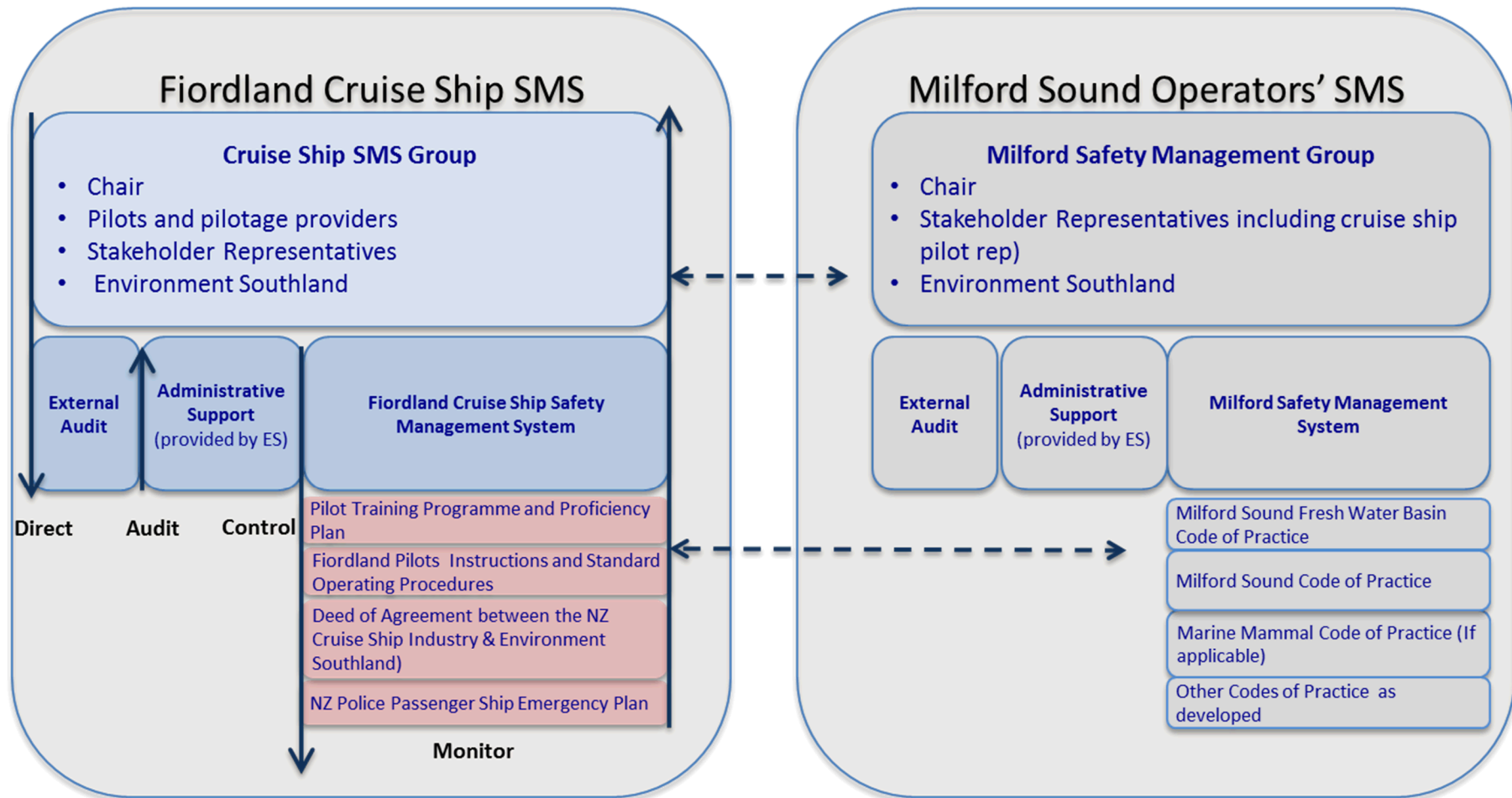
All masters, pilots, pilotage providers, and other stakeholders must recognise that the marine environment is dynamic and the operations in Fiordland waters inherently hazardous. Some activities are self-evidently hazardous, while other hazards and risks may not be easily recognised. The SMS is underpinned by:

- Fiordland pilots' expert knowledge of Fiordland waters, experience manoeuvring in narrow fairways, knowledge of weather patterns, tides and currents, communication procedures, and traffic flows.

- Masters ensuring their vessels and crews are prepared for and able to manage the potential conditions and all situations they may face whilst operating in Fiordland waters.
- Cruise ship operators' ensuring their vessels and crews are capable to undertake operations under all conditions that may be experienced in Fiordland waters.
- Emergency service providers being aware of the range of situations that could develop during cruise ship operations in the Fiordland waters and having plans and the capability to respond accordingly.

A truly safe environment can only be achieved if all stakeholders work as a team and operational stakeholders are committed to acting professionally under all circumstances to ensure safety is maintained and the environment protected.

Figure 2 Structure of the Fiordland Cruise Ship SMS and connection to the Milford Sound operator's SMS



6. Oversight of the Fiordland Cruise Ship SMS

The Fiordland Cruise Ship SMS Group (*the Group*) will oversee the implementation and ongoing performance of the Fiordland Cruise Ship SMS regime and engagement with stakeholders. The Harbourmaster will work with the group to facilitate a supportive regulatory environment.

Group membership:

- Chair (may be elected from within group or be an independent person)
- Pilots and pilotage providers
- Representative: Cruise ship Port agent
- Representative: Milford Operators SMS Group
- Representative: Maritime New Zealand (ex-officio)
- Pilotage Auditor (by invitation)
- Regional Harbourmaster
- Environment Southland (Meeting Secretariat and administrative support)

6.1. Management Review

The effectiveness of the safety regime and the safety and environmental performance of cruise ships while in Fiordland waters is to be reviewed by the Group post-season. The scope of this review includes consideration of safety performance (see Section 7.1) and initiating the risk review and consideration of its findings.

6.2. Continuous Improvement of the Safety Regime

The Fiordland Cruise Ship SMS and the SOPs require constant attention and improvement to both maintain currency and incrementally drive safety performance and environmental protection.

Environment Southland is the administrator for the reporting system and analysis of incident information. The Group will prepare an annual improvement plan and programme to drive improvement and manage the change in risk associated with formalised improvements to the Fiordland Cruise Ship SMS and associated SOPs as well as any other identified change.

6.3. Monitor & Review of Procedures

A risk review is to be carried out at the end of each season and must include consideration of changes and any additional risks developing within the Fiordland operating environment and the classification and assessment of extant risks as recorded within the risk register. The changing social 'acceptability' of overall risk should also be considered. This will inform the annual review of the current SOPs to see what has been, or can be, learnt from occurrences and hazards and to implement any lessons from the previous period. Analysis is to be used by the Group, along with developed risk registers, to assist in updating the SMS and related operational procedures.

The Group will review and measure the safety and environmental performance of cruise ship operations frequently enough to develop intervention actions to avoid accidents. This will be aided by use of a reporting, and occurrence and incident

monitoring system (Section 7.2). The review should occur at least once annually or more frequently if operating patterns change or a near miss or incident occurs.

The Group will aim to go beyond minimum regulatory requirements with its safety performance. Adoption of continuous improvement and best practice will be the means to Zero Harm in both environmental and safety terms.

6.4. Pilot Audit Programme

From time to time, a person or persons (designated by Environment Southland) is to observe (or 'audit') Fiordland pilots. The audit will determine whether cruise ships are being piloted in accordance with SOPs and other rules and directives. The audits will also be used to help maintain reasonable consistency between pilots. The auditor is to consult with the master and pilot during the audit and keep the associated notes from the audit confidential between these parties. The auditor will provide a report on each pilot's audit confidential to the individual pilot and to Environment Southland.

7. Performance

7.1. Monitoring & Measuring Performance

Pilots should complete a voyage report for each visit or passage. The voyage report allows the pilot to record any incidents of note or any way the integrity of the operation was (or could have been) compromised. Pilots should record potential hazards from all aspects of the trip, including:

- passage planning
- approach,
- manoeuvring,
- transfers,
- communications,
- boarding/disembarking, and
- any operational and external factors observed.

The voyage report template is [Appendix A](#). The Group's management oversight and review process is to ensure timely collation of voyage reports. The Group will then prepare performance information and analysis ahead of each seasonal review.

The Group is to communicate the outcomes to the Harbourmaster and Maritime New Zealand as appropriate. The Group must prepare and implement an associated action plan covering identified improvements and agreed changes. Changes, particularly those relating to procedures, are to be reflected in the SOPs and could also involve changes to navigational marks. Minutes of the Annual Fiordland Pilots meeting (the Group) are saved in Objective.

7.2. Performance Analysis System & Reporting

The actual number of local incidents has been historically low. Consequently, risk analysis requires consideration of relevant incidents from elsewhere. [Appendix B](#) provides global information on previous cruise ship incidents.

Nevertheless, local occurrence and incident information is of particular value in understanding risk and pre-empting more serious incidents. Accordingly, incident recording and reporting must be rigorous and disciplined.

Under the Maritime Transport Act 1994, the master of any ship that is involved in serious harm to a person, an accident, or an incident, shall notify the mishap, accident, or incident to Maritime New Zealand as soon as practicable. An incident includes a near collision or near grounding.

Under the Southland Regional Council Navigation Safety Bylaws 2009 (revised 2015), the master of any vessel that:

- has been involved in a collision with any ship or property that involves damage to that ship that affects or is likely to affect its seaworthiness or has been sunk or grounded or become stranded in any harbour within the region;

- by reason of accident, fire, defect or otherwise is in such a condition as to affect its safe navigation or to give rise to danger to any person, other ships or property;
- in any manner gives rise to an obstruction; or
- causes damage to any navigation aid or structure or anything on that structure;

must, as well as complying with any accident reporting requirements of the Maritime Transport Act 1994, as soon as practicable report the occurrence to the Harbourmaster or Enforcement Officer and as soon as is practicable, but within seven days, provide the Harbourmaster or Enforcement Officer with full written details of the occurrence.

If an accident as described above involves damage to a ship that affects or is likely to affect its seaworthiness, the Master shall not move the ship except:

- to clear the main navigational channel or to moor or anchor in safety; or
- in accordance with the directions of the Harbourmaster.

Any such report must include:

- the names and addresses of any persons killed or injured; and
- a full description of any damage to vessels or structures; and
- the name(s) and address(es) of person(s) in charge of the vessel

For an SMS to be effective and risk understood, information must also be collected on the precursors of serious incidents. All Group stakeholders must therefore report separately to the Group all occurrences, near misses, and observations to enable a fuller picture of risk to be developed. This may be via routine voyage reporting and or specific reports to the Chair of the Group or the Harbourmaster.

Feedback through the pilot services must be provided to those persons who have provided incident reports. Feedback is important as it encourages further effective reporting. Feedback should include an acknowledgement of receipt of the report, its status, and (in time) any final actions taken or recommended.

7.3. Continuous Improvement of Safety Performance

Reporting and analysing carried out within the analysis system will, over time, enable the Group to see where the shifts in operational integrity are occurring and the potential for increased risk to continued safe and clean operations.

Measurement of performance will be as described in Section 7.1.

8. Development Control

A key feature of the Fiordland Cruise Ship SMS is that all of the safety management activities are documented and visible to provide a foundation for associated documentation such as the SOPs. This is important to ensure consistency and alignment and to show how safety activities integrate with the pilots' activities. The purpose of this is to assure that the pilots and other stakeholders are informed in time of new and/or altered documents.

The following section contains the two broad categories of documentation (common documentation and pilot documentation):

8.1. Common Documentation

Common documents aim to ensure all operators work together to ensure effective safety management across all pilotage of all cruise ships in Fiordland waters.

These are:

- Fiordland Cruise Ships Environment Southland Safety Management System Plan
- Fiordland Pilots Instructions and Standard Operating Procedures (SOPs)
- Deed of Agreement between the New Zealand Cruise Ship Industry and Environment Southland
- Pilot Training Programme and Proficiency Plan – Fiordland Pilotage Areas
- Risk Register
- Voyage Report template (see Appendix A)
- Bench marking / analysis output
- Any safety notices, memos, and other safety related communications put out by the Group

8.2. Pilot Documentation

The pilotage service providers are responsible for advising and distribution of documents to pilots as required. Pilots are responsible for maintaining their personal copies of the nautical charts.

The Group will document and apply policies and controls that pilots and pilotage providers develop as part of the SMS regime.

9. Policies

9.1. Health & Safety Policies

Health and safety and maritime legislation sets in place compliance requirements that must be met. These are typically expressed via rules and regulations that must be adhered to by individual cruise ships whilst in New Zealand waters. However, for complex and multi-stakeholder situations - such as in Fiordland - safety needs to be managed by additional means.

This manual describes the SMS that has been developed to aid the management of safety of cruise ships while in Fiordland pilotage areas. The safety of other commercial vessel operations in Milford Sound are, or will be, covered by separate safety regimes (SMS and CoPs).

This SMS is a systematic method to identify and control risk and for maintaining assurance that these risk controls are effective. It provides for goal setting, planning, and measuring performance. The SMS needs to become part of the culture, “the way we do things whilst operating near the Fiordland coast”.

To work well, reporting of issues that indicate risk – for example, by including an effective near miss reporting system, must be encouraged. An open and trusting environment should be fostered, to encourage reporting and effective responses.

Given the potential exposure to harm for tourists and the high value placed on the Fiordland environment by New Zealanders, the aspirational goal of cruise ship pilotage in Fiordland for both safety and environmental impact, must be ‘zero-harm’. This SMS is a means of maintaining that goal. Pilots’ employers have a responsibility to ensure that pilots are adequately trained to carry out their duties safely, as well as other responsibilities under the Health and Safety at Work Act 2015 - New Zealand's workplace health and safety law.

The Resource Management Act, the Building Act, the Fire Service Act, the Hazardous Substances and New Organisms Act, and the Injury Prevention, Rehabilitation, and Compensation Act also include health and safety compliance requirements. Stakeholders are responsible for meeting any relevant legislative requirements under these Acts.

9.2. Professionalism Policy

Maritime pilots and co-workers in the supporting services, including crew members, are expected to maintain a professional attitude at all times, particularly in relation to all communication with the ship’s master and crew.

9.3. Drug & Alcohol Policy

From both all maritime pilots and co-workers in the supporting services, including crew members, it is expected that they:

- are not under the influence of alcohol and/or drugs during their activities for the pilot service;

- are not using any alcohol or drugs during their duties (other than drugs prescribed by a health provider which do not interfere with the pilot's ability to carry out his/her duties);

9.4. Fatigue Management Policy

The following factors disrupt the body's internal timing mechanism and typically lead to impaired performance:

- night work,
- extended shifts,
- numerous consecutive work periods,
- restricted recovery time between subsequent shifts,
- the necessity to sleep during the daytime, and
- unpredictable work schedules.

Scientific literature, such as studies by the Massey University Sleep/Wake Research Centre, indicates that fatigue issues associated with the above factors increase the likelihood of incidents, accidents, and injury at work.

Pilots and co-workers in the supporting services, including crew members, must be well rested at all time and take guidance from the minimum rest periods for persons assigned to watchkeeping duties, as per Maritime Rules Part 31: Crewing and Watchkeeping.

Pilots are responsible for minimising the risk associated with non-work related sources of fatigue; while management will ensure that adequate rest hours are scheduled.

Pilots, and crew members will immediately advise their supervisor when they feel fatigued or stressed, caused by work or non-work related circumstances and should not undertake pilot duties if in doubt as to their fitness to do so. Where possible the advice should be timely to enable a replacement pilot to take over the duty.

Pilots are to include any observation of fatigue or stress related behaviour in themselves as well as the Master or on watchkeepers of the cruise vessel, in their voyage report.

9.5. Aids to Navigation Policy

There are various aids to navigation (AtoN) throughout Fiordland, most of which are owned and operated by Maritime New Zealand. In some cases Environment Southland has elected to provide new AtoN where they are needed following consultation with the community, including mariners. Consequently Environment Southland owns and maintains AtoN in Doubtful Sound (a virtual aid marking Tarapunga Rock), at the entrance to Breaksea Sound, in Paget Passage and Cascade Cove in Dusky Sound.

The need for further AtoN is evaluated from time to time, and if it is justified, a risk assessment will commence to determine the type of AtoN, the location and the benefits to the maritime community. The 2018 Fiordland Cruise Ship Risk Assessment is saved in Objective A475809.

9.6. Hydrographic Surveying Policy

Charting the fiords has been carried out since the early days of visits by European explorers, but detailed surveys had not happened in a systematic way until recently when Land Information New Zealand (LINZ) surveyed the fiords, beginning with Milford Sound.

Environment Southland participated in pre-charting studies to assist LINZ in providing better accuracy. The fiords that cruise ships transit have been covered by intensive multi-beam scanner analysis, and include Milford, Doubtful, Breaksea and Dusky Sounds. More recently, in 2013-14, Preservation and Chalky Inlets were surveyed, as they have the potential for cruise ship visits, if there is an extension to the Deed of Agreement. These areas are commonly used by fishing vessels and charter boats too, so it is important that they are accurately charted for all users.

In the longer term Environment Southland will continue to work with LINZ to increase the areas in the fiords surveyed to a greater degree of accuracy.

10. Risk Management

Understanding and controlling the risks of cruise ships in Fiordland waters is important to ensure the safety of passengers and other visitors and to protect the environment. The Group provides the framework, information and oversight required to enable cruise ship pilots and their employers to establish their own documentation for risk management. This SMS is part of that framework.

It is the responsibility of each stakeholder to identify, own, and manage those aspects of risk that they are best able to manage.

Each stakeholder must document the procedures to deal with risks both reactively and proactively. The aim of reactively responding to an event is first to ensure immediate safety and then by risk assessment and mitigation to prevent similar incidents occurring in the future. The goal of proactively identifying and managing safety risk is to prevent events or incidents occurring in the first place.

Safety in Fiordland is reliant on cruise ships being fit for the environment and the nature of their operations, cruise ship pilots following the applicable SOP that forms part of this SMS, and all stakeholders actively engaging in the management of safety, and following proper behaviours.

10.1. Hazard Identification

It is the general duty of all stakeholders to take all practicable steps to prevent harm and implement emergency procedures to limit the consequences of an emergency. The Group incident recording system allows group wide reporting (see Section 7.2).

10.2. The Management of Change

A recognised and significant cause of risk is 'change'. Thus the careful management of change is important to ensure that any changes are understood and managed. The group should assess implications of any changes to safe operations whenever changed circumstances become evident (e.g. cruise ship sizes increase, new operators start visiting Fiordland) or prior to a planned change in operations being made (e.g. alteration to standard routing). When change is observed, processes should ensure the following points are considered:

- Is the process for managing the change documented?
- Does the management plan include inputs from all affected parties and subject matter experts?
- How are the risks associated with the proposed changes identified, assessed and recorded?
- Who is responsible for managing, communicating, and coordinating the change?
- Have criteria such as the transition period, process and documentation changes, new equipment, human factors, and training issues been identified and addressed during the change management process?
- Who else needs to know?
- How will any required changes to the SOPs be managed?

10.3. Incident Investigation

This section provides information and guidance for incident investigation and reporting by the Group. The purpose of a safety investigation is to identify contributing or causal factors and corrective actions needed to avoid a repeat occurrence.

Due to the potential consequences of any incident involving a cruise ship, it is expected that Maritime New Zealand and/or Environment Southland would lead the investigation of most incidents rather than other members of the Group. Incident reporting requirements are outlined in section 7.2.

10.4. Communication of Safety Critical Information

Communicating critical safety information between stakeholders is an important aspect of the shared management of safety. The focus of such communication is to ensure operational safety is maintained. Stakeholder communication has a focus of sharing lessons learned across all operators.

Components of safety communication include:

- Communicating commitment, safety goals, and strategies
- Key risk information, identified risks, methods of control, and treatment
- Identified hazards and required controls
- Safety reporting trends and statistics
- Results of investigations and audits and associated corrective and preventive actions
- Dissemination of information to base safety decisions
- Changes to SOPs
- Changes to operational activities that will affect safety
- Outcome of safety investigations, reports, and audits
- Lessons learnt from analysis of previous incidents and hazard reports and solutions to hazards and risks faced
- Foreseeable future risks associated with change
- Arrival of new operators or changes in key personnel

Annual meetings, timely group level communications and informal communication between members of the Group are required to facilitate the sharing of safety critical information and maintenance of safety. The promotion of safety via such communication means will support safety objectives and better link all stakeholders under the safety regime. This communication should be supported and complemented by education and training.

10.5. Coordinated Emergency Response Planning

An effective emergency management system is in place and will be referenced, as relevant, within the SOPs and elsewhere.

Because of the isolation of Fiordland, the sheer and rugged nature of the terrain and the general lack of community infrastructure in the region, a vessel in an emergency situation will, in the initial stages of the emergency, be reliant on its own resources to

contain and limit the consequences of the situation. This may be through manipulation of its steering and propulsion equipment to protect the ship, avert serious damage to life, environment or property, or by employment of its internal emergency procedures and apparatus to contain the effect of the particular emergency.

Beyond this immediate on scene mitigation, vessel pilots and masters experiencing an emergency in any of the internal waters of the Fiordland coastal marine area should be conversant with the Southern Police District Fiordland/Coastal Passenger Ship Emergency Plan.

11. Emergency Response

11.1. Emergency Response Exercises

Emergency exercises (other than oil spill response exercises) are held annually in Milford Sound, under the auspices of MSTL. These exercises will be directed in future by the Milford Sound SMS Group and individual companies operating in Milford Sound.

11.2. Regional Marine Oil Spill Contingency Plan

This plan covers the entire coastal marine area of Southland, as defined under the Resource Management Act, through the Southland Regional Coastal Plan. Each year tabletop and on-site exercises are held to test the Plan. The practical component is usually held in Bluff, using Environment Southland staff and Maritime New Zealand oil spill response equipment, as well as staff based with the response contractors, Port Maintenance Limited. Although these contractors, as well as Environment Southland staff, may respond to oil spills in Milford, for simplicity practical exercises are held closer to Invercargill.

As well as the Regional Plan, there is a specific Fiordland Marine Oil Spill Contingency Plan.

12. Audit and Review

This section details the procedures used to audit the Safety Management System.

12.1. Internal Audits

Internal audits will be carried out by the Harbourmaster or Deputy.

12.2. External Audits – Environment Southland

In accordance with the objectives and policies of this SMS Plan, Environment Southland will initiate planned annual audits of the overall SMS by a suitably qualified person, to ensure compliance with the Code, monitor the overall effectiveness of the SMS and review marine operations procedures to determine whether they are effective.

The programme for external auditing of the SMS will be carried out annually.

12.3. Safety Management System Review

This continuing review of new and existing hazards and their control measures is identified at the Fiordland Pilotage Group Meetings through the participants' input gained from formal recording of incidents, or informal reporting of minor incidents.

It is proposed that a formal review of the SMS will be carried out annually (after the initial review by a panel convened by Maritime New Zealand). The purpose of this annual review is to identify any other items for the SMS and to consider the performance of the SMS during the preceding year.

13.Consultation and Information

13.1. Fiordland Pilotage Group

As part of the consultative process that culminated in this Safety Management System, a Fiordland Pilotage Group (“the Group”) was formed comprising all Fiordland pilots and Fiordland pilotage providers, as well as Maritime New Zealand representatives and the harbourmasters.

The Group meets annually, and a smaller group of Fiordland pilots will meet more frequently, with the harbourmasters to discuss issues relating to cruise ship navigation safety, to look at any risks that may have arisen, but not yet included in the Risk Register, and to update incident lists.

13.2.Other Information

SMS Policies require that information on navigation, tidal and weather information is promulgated to all harbour users. Wind direction and speed from the Copper Point weather station in Milford Sound is provided for Milford users through continual computer generated updates on Channel 21, and through a link on line at [Copper Point](#). This information is also displayed in the Fresh Water Basin Visitor Centre for skippers information.

Environment Southland has installed another weather station at St Anne Point, at the entrance to Milford Sound to complement the Copper Point station. This station provides a web cam refreshed every 10 mins to monitor conditions at the entrance to Milford Sound, as well as providing more technical environmental data such as wind speed/direction, air temp/humidity and precipitation. The information is satellite linked <https://www.metdata.net.nz/es/stanne/>

Shipping direction in Milford Sound is given on Harbour Control VHF Radio Ch 14; radio channels used by the various companies and groups are shown in the Milford Sound Code of Practice. In other fiords communication is directly from ship to ship.

Environment Southland provides general information to recreational users and specific information for various popular launching areas:

Although these brochures and hand-outs do not specifically mention Fiordland. <https://www.es.govt.nz/services/navigation-safety/Pages/Rules-and-safety-information.aspx>

Cruise ship schedules are sent each year to the Milford Sound Development Agency Manager and to the Milford Harbour Controller, so they are aware of any of these ships that may be in Milford Sound on any day from September to April.

14.Document Control

This section outlines the system for managing documents, including the methods and frequency of review.

14.1.Maintaining Records

Section 17 of the Public Records Act 2005 requires local authorities to maintain records, including protected records:

17. Requirement to create and maintain records—

(1) Every public office and local authority must create and maintain full and accurate records of its affairs, in accordance with normal, prudent business practice, including the records of any matter that is contracted out to an independent contractor.

(2) Every public office must maintain in an accessible form, so as to be able to be used for subsequent reference, all public records that are in its control, until their disposal is authorised by or under this Act or required by or under another Act.

(3) Every local authority must maintain in an accessible form, so as to be able to be used for subsequent reference, all protected records that are in its control, until their disposal is authorised by or under this Act.

Accordingly, Environment Southland has procedures in place for maintaining documents securely. These procedures include secure locations to hold documents (secure File Room) and archives.

Environment Southland Management Policy MP 30.1 Recording keeping states that

From April 2012 documentation is held in electronic format captured and stored by individual staff in Council's Corporate Recordkeeping System (Objective EDRMS).

Consequently hard copies of any of the Safety Management System documents will not be maintained or stored. Access to these documents is only through Objective.

15. Safety Management System Documents

Other documents that form the Fiordland Cruise Ship SMS are:

- a) Risk Register and Risk Matrix
- b) Pilot Training Programme and Proficiency Plan – Fiordland Pilotage Areas:
MNZ No: PL0005/12, 16 May 2012
- c) Fiordland Pilots Instructions and Standard Operating Procedures:
Environment Southland, September 2012. Updated May 2018
- d) Deed of Agreement between The New Zealand Cruise Ship Industry and
Environment Southland; Environment Southland, 1 October 2008
(Amendment 10 August 2012)
- e) Fiordland/Coastal Passenger Ship Emergency Plan

a) Risk Register and Risk Matrix

Identifying and Assessing Risk

The SMS Manual's Risk Register describes a significant number of issues, causes and the potential impact of these risks. This is a comprehensive list of risks but it is recognised that new issues may be identified that should be added to the Register.

A subset of the "top 10" risks has been described more fully in the Risk Matrix. This subset was derived from the overall Risk Register using a Consequences and Likelihood Risk Matrix to assign values to each risk.

	Negligible	Minor	Major	Severe	Catastrophic
Frequently	Low ³	Moderate ⁹	High ²⁷	Extreme ²⁴³	Extreme ²⁴³
Likely	Low ³	Low ³	High ²⁷	Very High ⁸¹	Extreme ²⁴³
Possible	Very Low ¹	Low ³	Moderate ⁹	Very High ⁸¹	Extreme ²⁴³
Low Likelihood	Very Low ¹	Very Low ¹	Moderate ⁹	High ²⁷	Extreme ²⁴³
Improbable	Very Low ¹	Very Low ¹	Low ³	Moderate ⁹	High ²⁷

Participants at further Fiordland Pilotage Group meetings and workshops will re-evaluate the risk ranking in both the Risk Register and Risk Matrix and recommend changes to the Fiordland Pilotage Group where necessary.

The Risk Register will be evaluated annually by the Fiordland Pilotage Group (including the Harbourmaster) and an assessment of the relevance and relative importance of the listed risks. At that time new issues may be identified, evaluated, and, if found to be worthy of inclusion, will be added to the Risk Register.

The Group, and the Harbourmaster, may consider other issues that arise between the annual evaluation of risk and, again, if significant, will carry out an interim assessment to decide if the issue should be incorporated into the Risk Register.

Managing Risk

The risks, were identified for the Risk Register through a series of workshops over several years, and are controlled by a series of Standard Operating Procedures (SOP), developed by Fiordland pilots. The SOP are sets of written instructions that document a routine or repetitive activity followed by each operator. The development and use of SOPs is an integral part of a successful safety management system as it provides individuals with the information to perform a job properly and facilitates consistency in the quality and integrity of a product or end-result.¹

In some cases other operators' SOP will integrate with pilots' SOP to manage risk.

¹ *Guidance for Preparing Standard Operating Procedures* - United States Environmental Protection Agency, 2007

b) Pilot Training Programme and Proficiency Plan Fiordland Pilotage Areas

The Fiordland pilot training programme is also part of the documentation that forms the Fiordland Cruise Ship SMS, and refers to the underlying philosophy behind training pilots which is at the heart of the development of risk mitigation for cruise ship operations in Fiordland

Training Philosophy

Pilotage is a risk management process and a specialised operation. It implies the requirement for a specialist with a high level of technical and communication skills, and the ability to work in a team environment. In practice this requires the Pilot to:

- communicate, operate and make decisions in a timely manner;
- elicit close and interactive co-operation from the ship's bridge team, using Bridge Resource Management techniques;
- have detailed local knowledge and shiphandling skills for the purpose of safely navigating the movement of ships.

The programme is designed to develop a selected candidate's necessary skills to ensure the complete safety of vessels he/she will navigate in the Fiordland area.

The training programme will also ensure that the Trainee Pilot has the knowledge and background to deal with any event that may arise during the course of being engaged as a Pilot within this pilotage area.

Training Procedures

The pilot training programme is for master mariners who are generally already working as pilots in other locations, and comprises stepped modules that must be completed before progressing to the next series of tasks. When the modules are completed the trainee may elect to be examined by Fiordland pilots under the direction of the harbourmaster. Satisfactory completion of the examination will lead to a recommendation to Maritime New Zealand that the trainee is granted a pilotage licence for various pilotage areas in Fiordland with restrictions (Grade 2 - Vessels up to 70,000 GT or 250 m LOA, whichever is greater).

After further solo transits as a Grade 2 Fiordland and transits under the supervision of senior Fiordland pilots the pilot may progress to an examination for a Grade 1 Unlimited Fiordland pilotage certificate.

Pilotage Exemption

From time to time other individuals or organisations apply to Maritime New Zealand for a pilotage exemption certificate (PEC) for a master for the Fiordland pilotage areas. These individuals or organisations submit evidence of the process for training, review and maintenance of currency, as required by the Harbourmaster and Maritime New Zealand. In some cases PEC may be issued to the master of a small cruise ship following training and an examination by Fiordland pilots and the harbourmaster.

c) Fiordland Pilots Instructions and Standard Operating Procedures

This document forms part of the Fiordland Cruise Ship SMS and is another major foundation in mitigating risk, as it “covers the operational aspects of providing safe pilotage for vessel accessing Fiordland”.

It is held separately from the main SMS

d) The Deed of Agreement between The New Zealand Cruise Ship Industry and Environment Southland

The Deed of Agreement provides the framework for cruise ships permitted to enter the internal waters of Fiordland, and is also held separately.

e) New Zealand Police Fiordland / Coastal Passenger Ship Emergency Plan

The Emergency Plan is compiled by the New Zealand Police and sets out the regional and national multi-agency response in the event of a significant emergency on a cruise ship.

Appendix A: Voyage Report

Pilots should complete voyage reports on completion of each duty. The key facts to be recorded and questions to be considered are:

Record of trip:

Master's name:	
Date of embarking:	
Date of disembarking:	
Route and destination:	
If the vessel anchored, where was this?	
Ref any other reports made	

Specific questions:

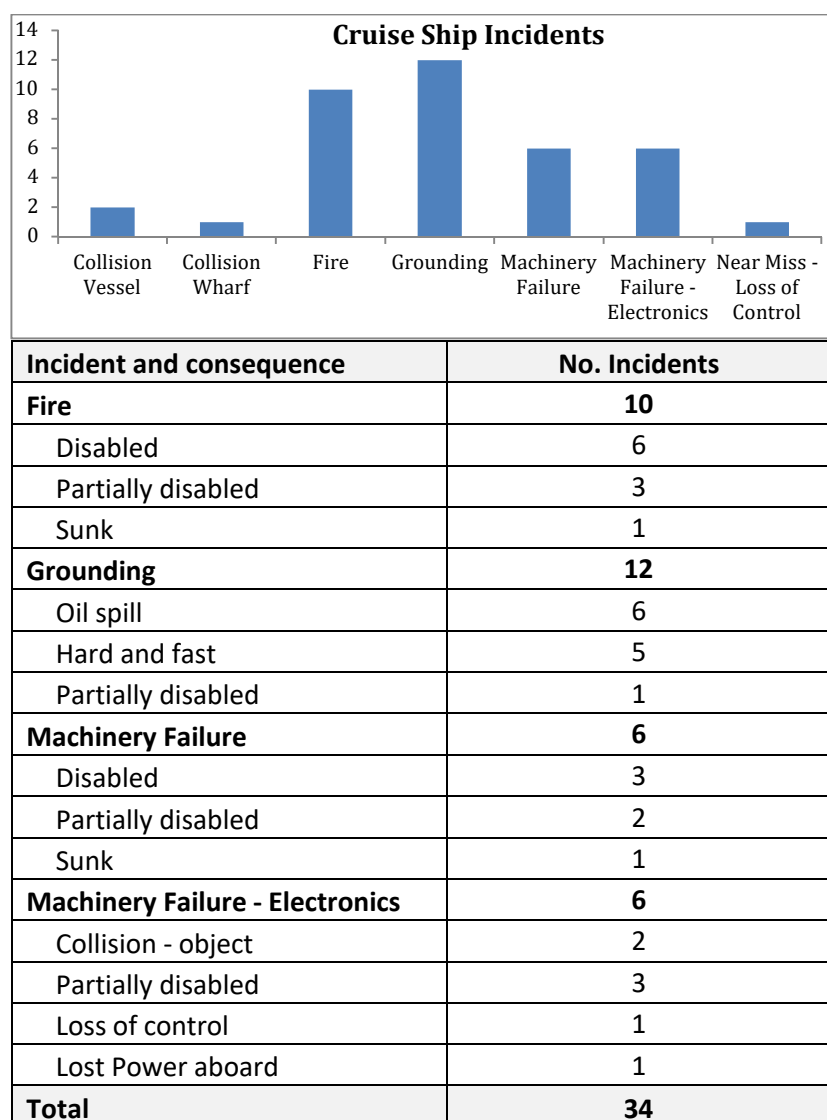
1. Were there any language difficulties with skipper?	
2. Were crew disciplined and orders carried out without delay?	
3. Were there times where wind was found to be a problem?	
4. Any issues with boat transfer?	
5. How far did vessel enter?	
6. What were the weather conditions?	

Appendix B: Incident Analysis

Global cruise ship data has been analysed to gain insight into possible incidents that could occur in Fiordland and the potential consequences. Global data (from internet searches) has been used due to the low number of cruise ship incidents that occur annually.

The following graph of incidents for cruise ships is not exhaustive but shows the types of major incidents that have occurred in the last ten years. Groundings and fire are the predominant hazards reported from global data.

The following table shows the consequences from the top four incident types. A disabled cruise ship and a significant oil spill represent substantial risks. In the narrow profile of the fiords, being disabled from fire would represent a major concern. Having a significant oil spill from a grounding event in the pristine Fiordland environment would similarly have major effect for operators, the environment, and New Zealand's image as a whole.



Appendix B: Annual Improvement Plan

[illegible]