



Safety & Environment Management Plan

2011-12

Port of Melbourne
Corporation



Message from the CEO

As the key interface between land and sea transport in Victoria, the port provides the gateway for trade to and from the state and is a major strategic asset of the Victorian and Australian national economies. The delivery of effective safety and environmental management is paramount to the long-term protection and enhancement of the wider economic and community benefits of the port and the ongoing sustainability of the port environment, for its users, its neighbours and businesses which rely upon it. Safety and environmental management is therefore a high priority for the Port of Melbourne.

The complexity and diversity of the port's activities and stakeholders means that achieving the desired level of safety and environmental performance requires an integrated and cooperative approach. It is intended that this Safety and Environment Management Plan (SEMP) for the Port of Melbourne will provide a mechanism through which the management efforts of all port stakeholders can be coordinated and aligned.

The initial development of the SEMP was achieved through a significant amount of effort by the Port of Melbourne Corporation (PoMC) and many other port stakeholders who were engaged through the consultation process. The SEMP was built upon the large amount of previously existing risk management documentation, knowledge and processes, which were embedded into the port's operations. This SEMP provides the window through which the underpinning PoMC and port stakeholders systems can be viewed.

The SEMP takes a 'whole of port' perspective to the identification and management of the port's potential safety and environmental risks. This involves applying a risk-based approach to the analysis of all land and marine based activities within the port, as well as the risks at the land and water interface.

Working with the port's stakeholders has achieved greater clarity around the roles, responsibilities and arrangements for managing the identified port risks. The outcomes from these discussions form the basis of the SEMP and provide the platform from which ongoing processes for the active management and treatment of these risks can continue to be built.

The SEMP has total management and corporation-wide commitment. It is a significant instrument for PoMC and the wider port stakeholders in achieving the highest level of safety and environmental standards. This SEMP is also subject to constant review and improvement to reflect changing circumstances.

I acknowledge and thank the port stakeholders and community groups who continue to contribute to the ongoing improvement of the plan and would encourage their continuing participation in its implementation.



Stephen Bradford
Chief Executive Officer
Port of Melbourne Corporation

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List of June 2011 review amendments

Section		Description
	Glossary	Updates
1.	Executive Summary	Amendments related to legislation changes from Port Services Act 1995 to Port Management Act (PMA) 1995 and Transport Integration Act (TIA) 2010
	Port of Hastings	Statement placing responsibility for the Port of Hastings SEMP with Patrick Ports.
2.	Introduction	Statement referring to Ministerial Review of SEMP guidelines as yet not finalised
3.2	Safety and Environment Systems	Inclusion of Policy Statement and listing of related PoMC policies. Figure 3. New Continuous Improvement diagram
3.3	Risk Management	Figure 6. New Whole of Port Safety and Environment Management Framework diagram
3.4	Roles and Responsibilities	Removal of Channel Deepening Project as a distinct entity
3.4.2	Port of Melbourne Corporation	Inclusion of objectives and vision statement from the TIA
3.4.3	Parks Victoria	Removal of specific references to areas upstream of the Port of Melbourne
4.2	Port boundaries and land uses	Updated maps
4.3	Port precincts	Updated activity descriptions
4.6	Port Services Providers	Clarification and distinction between port services providers which PoMC has control under contract or influence only.
4.7	Dangerous goods and hazardous cargo	Updated descriptions and maps
5.1	Risk management approach	Update to references to Standards and Legislation. Inclusion of Quantitative Risk Assessment.
5.2	Risk management steps	Inclusion of Objective setting and Measurement and Monitoring
6	Summary Port Activity Map	Updated to include changes from workshops conducted with Health and Safety, Environmental Services and Marine and Navigation. Input also from Property and Asset Management.
Table 7	Inclusion of new Activity and Risks	3.9 Submerged Pipelines 3.10 Heritage Shipwrecks and other 3.11 Use of Airspace 3.12 Resource Use

7.2	Sustainability	Minor wording changes
7.3	Contaminated Land Strategy	Minor wording changes
7.4	Channel Deepening Project	Inclusion of remnant CDP programs into PoMC Operations
7.5.1	Health and Safety Monitoring	Inclusion of programs and description
7.5.2	Environmental Monitoring	Inclusion of programs and description
Table 9	PoMC Treatment Plan	Transfer of completed treatments to Appendix A Status update of continuing treatments Inclusion of new treatments.
7.7	Role of stakeholders	Updated and minor wording changes
8	Managing residual risk	Updated and minor wording changes
8		Inclusion of lead agency for Marine Casualty – non Search and Rescue
Appendix A	CDP EMP	Removed
Appendix B	PoMC Risk Management Policy	Removed
Appendix A	PoMC treatment Plan	Inclusion of completed or superseded or withdrawn treatments
Appendix B	PoMC Organisation Chart	Updated

For authorisation by: Keith Gordon EGM Port Operations June 2011
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List of April 2009 review amendments

Section		Description
	Message from the CEO	Minor wording changes
	Disclaimer	Minor wording changes
1.	EXECUTIVE SUMMARY	
	Background	Minor wording changes
	Intent and management framework	Minor wording changes
	Development process	Minor wording changes
	PoMC Policies	Policy Statement and listing a related policies
	Risk management	Minor wording changes
	Certification	Minor wording changes
	Review and revision	Changed to reflect latest audit
	Compliance audit	Changed to reflect latest audit
2.	INTRODUCTION	
	Background and legislative context	Minor wording changes
	SEMP objectives	Minor wording changes
	Development process	Reword paragraph
	a. Approach	Minor wording changes
	b. Consultation and stakeholder engagement	Minor wording changes
	SEMP structure	Table 1 – SEMP structure, deleted. Table 2 now Table 1 – SEMP reference guide, updated
3.	SAFETY AND ENVIRONMENT MANAGEMENT FRAMEWORK	Words 'Safety and Environment' added to Section title
3.1	Intent of the SEMP	Title amended from 'PoMC's intent for the SEMP'
3.2		Minor wording changes
3.3	Safety and Environment Management System (SEMS)	Addition of new section Addition of Figures 3 and 4
	Risk Management Process	Title amended from 'Management framework in context'
		Minor wording changes
		Table 3-1 – PoMC mechanism for control and influencing port users, deleted
3.4	Channel Deepening Project	Updated to reflect status of project
3.5	Roles and responsibilities	
3.5.1	Overview	Minor wording changes.
3.5.2	Port of Melbourne Corporation (PoMC)	Minor wording changes.

3.5.3	Government agencies	Minor wording changes.
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Section		Description
3.5.4	Local councils	Description of councils added. Figure 7 added
3.5.5	Infrastructure services	Minor wording changes
3.5.6	Port users and service providers	Minor wording changes
3.6	PoMC SEMP nominated representatives	Minor wording changes
4.	PORT DESCRIPTION	
4.1	Overview	Updated to reflect current status of the port
4.2	Port boundaries and land uses	
Figure 8	PoMC Declared Lands	Updated to improve clarity of boundaries shown
Figure 9	PoMC Declared Waters	Diagram updated
Figure 10	Port of Melbourne Activities	Diagram updated
Figure 11	Dangerous goods storage and Handling Areas	Diagram updated and location of dangerous goods pipelines added
Figure 12	Ecologically significant areas (land and water)	Diagram added
4.3	Port Precincts	
Table 2	Precinct activities	Updated to reflect current status of activities
4.4	Port facilities and services	
4.4.1	Port facilities	Minor wording changes
Table 3	PoMC berths and uses	Updated to reflect current status of berths
4.4.2	Channel services	Minor wording changes
4.5	Identification and location of all key tenancies in the port	Information regarding lease agreements and licence agreements updated
4.6	Port service providers	Minor wording changes
4.7	Location of dangerous goods and hazardous cargo areas	Reference to Figure 11
4.7.1	Coode Island	Updated to reflect current status of area and reference to Figure 13 added
4.7.2	Gellibrand Pier – Williamstown	Updated to reflect current status of area and reference to Figure 14 added
4.7.3	Holden Dock – Yarraville	Updated to reflect current status of area and reference to Figure 15 added
4.7.4	Yarraville No. 6 Berth	Updated to reflect current status of area and reference to Figure 16 added
4.7.5	Swanson Dock	Updated to reflect current status of area and reference to Figure 17 added. Information regarding Webb Dock moved to a new section (4.7.6)

4.7.6	Webb Dock	Updated to reflect current status of area and reference to Figure 18 added
4.7.7	Other areas within port	Minor wording changes
4.7.8	Dangerous goods pipelines	New section added
Figure 13	Bulk liquid storage, pipelines and No. 1 Maribyrnong berth at Coode Island	Previously Figure 9: Passenger Operations – Port Melbourne (Station Pier)
Figure 14	Bulk liquid operations and oil industry pipeline Gellibrand Pier	Previously Figure 10: Container and General Cargo Operations - West Melbourne (Swanson Dock)
Figure 15	Bulk liquid operations and oil industry pipelines – Holden Dock	Previously Figure 11: Bulk Liquid Operations - Coode Island (No. 1 Maribyrnong)
Figure 16	Bulk Liquid Operations and Industry Pipelines Yarraville No. 6	Previously Figure 12: Bulk Liquid Operations – Yarraville (Holden Oil Dock)
Figure 17	Container and general cargo – Swanson Dock	Previously Figure 13: Bulk Liquid Operations – Williamstown (Gellibrand Pier)
Figure 18	Coastal and general cargo – Webb Dock	
Figure 19	Passenger terminal – Station Pier	
5.	RISK IDENTIFICATION AND MANAGEMENT	
5.1	Risk management approach	Minor wording changes
5.2	Risk management steps	Minor wording changes
5.2.1	Identification and description of port activities	Minor wording changes
5.2.2	Definition of roles and responsibilities	-
5.2.3	Risk identification	Minor wording changes
5.2.4	Control measures	Minor wording changes
5.2.5	Risk assessment workshops	Minor wording changes
5.2.6	Risk treatment	Minor wording changes
6.	SUMMARY PORT ACTIVITY MAP	Minor wording changes
Table 5	Summary Port Activity Map	Minor wording changes
Table 6	Port of Melbourne core activities	Addition of activity numbers Updating Description in line with changes in PAM Re-wording of 'generic activities'
Figure 21	Activities	Updating text boxes in line with changes in PAM
Risks (Figure)		Deleted
Table 7	Activity, risk and	Updating table in line with changes in

	responsibilities	PAM
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Section		Description
Table 8	Summary of PoMC controls / Summary of other party controls	Table revised
	Summary of significant risks (Table)	Deleted. Information consolidated into Table 7
7.	IMPLEMENTATION	
7.1	Overview	Minor wording changes
	Safety and Environment Management System (Section)	Consolidated into Section 3
7.2	Sustainability	Updated and expanded. Figure 21 added
7.2.1	Environment and community	New section added
7.2.2	Our people	New section added
7.2.3	Trade profile	New section added
7.2.4	Climate change and water shortages	Updated and expanded
	Water and Energy Management Strategy (Section)	Deleted
	Dredged Materials Strategy (Section)	Deleted
	Other PoMC sustainability initiatives (Section)	Deleted
7.3	Contaminated Land Management Strategy	Minor wording changes
7.4	Treatment measures and strategies	Minor wording changes
A	PoMC treatment measure implementation plan 2005 (Table)	All complete and superseded treatment measures moved to Appendix C. Ongoing and new actions detailed in Table 9
B	PoMC treatment measure implementation plan 2007 (Table)	
C	PoMC treatment measure implementation plan 2008 (Table)	
7.5	Role of stakeholders in SEMP implementation	Addition of paragraphs on WoPHSEC and Community Relations Strategy. Minor wording changes
7.5.1	Whole of Port Health Safety and Environment Committee (WoPHSEC)	
7.5.2	Community Relations Program	
8.	MANAGING RESIDUAL RISKS	Minor wording changes
8.1	Emergency preparedness,	Minor wording changes

	response and recovery	
8.2	Port security	Minor wording changes
8.3	Incident register	Minor wording changes
8.4	Incident investigation	Minor wording changes
Section		Description
9.	REVIEW AND REVISION	Minor wording changes
10	DOCUMENT CONTROL AND AVAILABILITY	
10.1	Document control	Minor wording changes
10.2	Publication and availability	Minor wording changes
11.	GLOSSARY	List updated and moved forward
Appendix A	Applicable legislation and standards for port activities	Deleted
Appendix B	List of tenants and land users	Deleted
Appendix C	PoMC Risk Management Policy	Appendix B. Minor wording changes,
Appendix D	Organisation chart	Appendix D. Minor wording changes.
Appendix E	CDP EMP	Appendix A.
New	PoMC Treatment Measure Implementation Plan (completed and superseded).	Appendix C. Minor wording changes,
New	List of current port managers	Appendix E.
General		Table and figure numbering made consistent

Authorised by: Keith Gordon EGM Port Operations April 2009
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List of January 2008 review amendments

Section		Description
	Index	List of Figures
	Index	List of Tables
1.7	Executive Summary (new)	Insertion of Compliance Audit
3.3	Channel Deepening Project	Insertion of statement on the Channel Deepening Project
Fig. 9	New Port Detail Map	Passenger Terminal
Fig. 10	New Port Detail Map	Container and General Cargo
Fig. 11	New Port Detail Map	Bulk Liquid Berth No. 1 Maribyrong
Fig. 12	New Port Detail Map	Bulk Liquid Berth Holden Dock
Fig. 13	New Port Detail Map	Bulk Liquid Berth Gellibrand Pier
Table 9	Summary Activity, Risk, and Compliance agency and treatments	Renumbered Simplification of risk summary by grouping PoMC and other parties control treatments
Table 10		Renumbered
Table 11		Renumbered
Table 12		Renumbered
7 & 8	Residual risk and Implementation	Interchange of Section 7 and Section 8 so that Implementation is before Residual Risk
7.2	Safety and Environment Management System (new)	Inclusion of section describing PoMC's Safety and Environment Management System (SEMS) implementation
7.3	Sustainability (new)	Inclusion of section describing PoMC's role in port sustainability
7.4	Contaminated Land Management (new)	Inclusion of section describing PoMC's role in understanding and management of contaminated land
7.6	Role of Stakeholders	Update of WoPHSEC role and inclusion of other forums
Fig. 18	SEMS webshare	Home page of PoMC SEMS webshare
8.4	Incident Investigation (new)	Insertion of Incident Investigation
	Appendix E	Inclusion of Channel Deepening Environmental Management Plan

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January 2008

List of March 2008 review amendments

Section		Description
3.5	PoMC SEMP nominated representatives (Page 22)	Update section to reflect department structure change
4.1	Overview (Pages 23 & 24)	Delete reference to statistical data on port business
7.5	Treatment measures and strategies (Pages 70 to 74)	Table 12 amended header – Deleted words 'Responsible Agency' and inserted 'Responsible Manager' Include Responsible Managers in this column Update - 2008 Status column
10.1	Document Control	Update section to reflect department structure change
11	Glossary	Added new departmental sections
Appendix D	Organisation Chart'	Update to reflect current department structure

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Keith Gordon EGM Port Operations
March 2008

List of May 2007 review amendments

Section		Description
1.5	Executive Summary (new)	Insertion of Certification
1.6	Executive Summary (new)	Insertion of Review and Revision
3.3	Roles and Responsibilities	Minor organisational changes without affecting responsibility
4.0	Port Description	
4.1	Overview	Trade figures
4.2	Land Use and Boundaries	Updated maps and precinct descriptions
4.3	Port Facilities, Services and Uses	Minor changes
4.6	Dangerous goods and hazardous cargo areas	Update of dangerous goods and hazardous cargo areas and descriptions
5.2.1	Identification and description of port activities	Restructure of port activities into three core subsets
Table 8	Port of Melbourne core activities	Restructure of port activities into three core subsets
Fig. 15	Summary Activities	Restructure of port activities into three core subsets
Fig. 16	Summary Risks	Restructure of port risks into the three core subsets
Fig. 17	Summary Risk, Control, compliance agency and treatments	Summary extract from revised Port Activity Map with updates to activities, risks, controls and treatments
Table 9	Summary of Significant Risks	Updated to reflect new significant risks (very high and high)
7	Managing Residual Risks	
7.1	Emergency preparedness, response and recovery	Minor wording changes
7.2	Port Security	Minor wording changes
7.3	Incident Register	Minor wording changes
Table 10	PoMC treatment measure implementation plan	Table 10A Status update to 2005 treatments Table 10B New 2007 treatments
11 Glossary		
Appendix A	Applicable legislation and standards for port activities	Updated as at March 2007
Appendix B	List of tenants and land users	Updated as at March 2007
Appendix C	PoMC risk management policy	PoMC Risk Policy updated
Appendix D	Organisation Chart	Updates as at March 2007

Authorised by:
Keith Gordon EGM Port Operations
May 2007

Contents

Message from the CEO	iii
Glossary	xviii
1 Executive summary	1
2 Introduction.....	4
Figure 1 –SEMP development and renewal	6
Table 1 – SEMP reference guide.....	8
3 Safety and Environment Management framework.....	9
3.1 Intent of the SEMP	9
Figure 2 - PoMC safety and environmental management framework	10
3.2 Safety and Environment Management System (SEMS).....	11
Figure 3 - Continual improvement cycle	11
Figure 4 - Safety and Environment Management System components.....	12
3.3 Risk management process	14
Figure 5 – The ALARP principle.....	14
Figure 6 – Whole-of-Port Safety and Environment Management Framework.....	15
3.4 Roles and responsibilities	15
3.4.1 Overview.....	15
3.4.2 Port of Melbourne Corporation (PoMC).....	16
3.4.3 Government agencies	17
3.4.4 Local councils	21
Figure 7 - Locations of Councils that Border the Port.....	23
3.4.5 Infrastructure services.....	24
3.4.6 Port users and service providers.....	24
3.5 PoMC SEMP nominated representatives.....	25
4 Port description.....	26
4.1 Overview.....	26
4.2 Port boundaries and land uses.....	27
Figure 8 –PoMC Declared Lands	28
Figure 9 – PoMC – Declared Waters.....	29
Figure 10 – Port of Melbourne Activities	30
Figure 11 – Dangerous goods storage and handling areas.....	31
4.3 Port precincts.....	33
Table 2 – Precinct activities.....	33
4.4 Port facilities and services.....	38
4.4.1 Port facilities	38
Table 3 - PoMC berths and uses	39
4.4.2 Channel services.....	39
4.5 Identification and location of all key tenancies in the port	40
4.6 Port service providers	40
4.7 Location of dangerous goods and hazardous cargo areas	41
4.7.1 Coode Island.....	41
4.7.2 Gellibrand Pier - Williamstown	41
4.7.3 Holden Dock – Yarraville	41
4.7.4 Yarraville No. 6 berth	42

4.7.5	Swanson Dock	42
4.7.6	Webb Dock.....	42
4.7.7	Other areas within port	42
4.7.8	Dangerous Goods Pipelines	43
	Figure 13 – Bulk Liquid Storage, Pipelines and No.1 Maribyrmong Berth at Coode Island	44
	Figure 14 – Bulk Liquid Operations and Oil Industry Pipeline Gellibrand Pier	45
	Figure 15 – Bulk Liquid Operations and Oil Industry Pipelines Holden Dock..	46
	Figure 16 – Bulk Liquid Operations and Industry Pipelines 6 Yarraville	47
	Figure 17 – Container & General Cargo - Swanson Dock.....	48
	Figure 18 – Coastal & General Cargo – Webb Dock.....	49
	Figure 19 – Passenger Terminal – Station Pier	50
5	Risk identification and management.....	51
5.1	Risk management approach	51
	Figure 20 – Activity-based risk management concept	51
5.2	Risk management steps.....	52
	Table 4 – SEMP risk management steps.....	52
5.2.1	Identification and description of port activities.....	53
5.2.2	Definition of roles and responsibilities	53
5.2.3	Risk identification	53
5.2.4	Control measures	54
5.2.5	Risk assessment workshops	54
5.2.6	Risk treatment.....	55
6	Summary Port Activity Map (PAM).....	56
	Table 5 - Summary PAM.....	56
	Table 6 – Port of Melbourne core activities.....	58
	Figure 21 – Activities	59
	Table 7 - Activity, risk and responsibilities	60
	Table 8 – Example of existing control measures	73
7	Implementation.....	74
7.1	Overview	74
	Figure 22 – Port of Melbourne Sustainability Management Framework	74
7.2	Our people	75
7.3	Trade profile	75
7.4	Environment and community	75
7.5	Sustainability	76
7.6	Climate change.....	76
7.7	Contaminated Land Management Strategy	77
7.8	Channel Deepening Project	77
7.9	Program Monitoring.....	77
7.10	Treatment measures and strategies	82
	Table 9 – PoMC treatment measure implementation plan.....	83
7.11	Role of stakeholders in SEMP implementation	86
7.11.1	Whole of Port Health Safety and Environment Committee (WoPHSEC).....	86
7.11.2	Other PoMC Consultation Forums.....	86
7.11.3	Community Relations Program	87

8	Managing residual risks	88
8.1	Emergency preparedness, response and recovery	88
8.2	Port security	89
8.3	Incident Reporting	90
8.4	Incident investigation.....	90
9	Review and revision	91
10	Document control and availability	92
10.1	Document control	92
10.2	Publication and availability	92
	APPENDIX A: PoMC treatment measure implementations register	93
	APPENDIX B: Organisation Chart	100
	APPENDIX C: List of current port managers	101

Glossary

Terms	Definitions
A&SD	Assets and Spatial Data (PoMC)
AAT	Australian Amalgamated Terminals
AIS	Automatic Identification System
ALARP	As Low As Reasonably Practicable
AMSA	Australian Maritime Safety Authority (Commonwealth Government)
AQIS	Australian Quarantine Inspection Services
AS / NZS	Australian Standard/New Zealand Standard
CCTV	Closed Circuit Television
CEO	Chief Executive Officer
CFS	Continental Freight Services
CoM	Committee of Management
DG	Dangerous Goods
DIT	Department of Infrastructure and Transport (Commonwealth Government)
DoT	Department of Transport (Victorian Government)
DSE	Department of Sustainability and Environment (Victorian Government)
EGM	Executive General Manager (PoMC)
EM	Environmental Management
EMMV	Emergency Management Manual Victoria
EMP	Environmental Management Plan
EMS	Environmental Management System
EPA	Environment Protection Authority Victoria (Victorian Government)
ES	Environment Services (PoMC)
FLAM	Freight, Logistics and Marine Division of DoT
GBE	Government Business Enterprise
GM	General Manager (PoMC)
H&S	Health & Safety (PoMC)
HSEMP	Health, Safety, Environment Management Plan
IALA	International Association of Lighthouse Authorities

Terms	Definitions
IMC	Incident Management Centre
IMDG	International Maritime Dangerous Goods
IMO	International Maritime Organisation
IMS	Integrated Management System
ISM	International Safety Management Code – international management code for the safe operation of ships and for pollution prevention
ISO	International Organization for Standardization
ISPS	International Ship and Port Security
ITS	Information Technology Services (PoMC)
M&NS	Marine & Navigation Services (PoMC)
MARPOL	IMO convention on marine pollution 1973, modified by protocol 1978
MCF	Melbourne Cement Facilities
MERCOM	Maritime Emergency Response Commander
MFB	Melbourne Fire Brigade
MHF	Major Hazard Facility
Ministerial Guidelines	The Ministerial Guidelines: Port Safety and Environment Management Plans (2009)
MoU	Memorandum of Understanding
MPEMP	Melbourne Port Emergency Management Plan
MSP	Maritime Security Plans
MTOFSA	Maritime Transport and Offshore Facilities Security Act 2003 (Cth)
OEM	Office of Environmental Monitor
OESC	Office of Emergency Services Commissioner
OHS / OH&S	Occupational Health and Safety
PAM	Port Activity Map
PDP	Port Development Plan
PoMC	Port of Melbourne Corporation
POWBONS	Pollution of Waters by Oil and Noxious Substances Act 1986 (Vic)
PPRMPCP	Port Phillip Region Marine Pollution Contingency Plan Group
PPSP	Port Phillip Sea Pilots

Terms	Definitions
PMA	Port Management Act 1995 (Vic)
RAMSAR	Convention on Wetlands of International Importance (RAMSAR), Iran 1971
SEES	Supplementary Environment Effects Statement
SEMP	Safety and Environment Management Plan
SEMS	Safety and Environment Management System
SEPP	State Environment Protection Policies
SMC	Shipping Management Centre (PoMC)
SMP	Safety Management Plan
SMS	Safety Management System
SOLAS	Safety of Life at Sea
SOP	Standard Operating Procedure
SP	Station Pier
SS&EM	Security, Safety & Emergency Management
STCW	International Convention on Standards of Training, Certification and Watchkeeping for Seafarers
SW	South Wharf
TIA	Transport Integration Act 2010
TSV	Transport Safety Victoria (Victorian Government)
UKC	Under Keel Clearance
VMS	Variable Message Signs
VRCA	Victorian Regional Channels Authority (Victorian Government)
VTS	Vessel Traffic Services
VWA	Victorian WorkCover Authority (Victorian Government)
WEMS	Water and Energy Management Strategy
WoPHSEC	Whole of Port Health, Safety and Environment Committee (PoMC)

1 Executive summary

Background

Port of Melbourne Corporation (PoMC) considers safety and environmental management to be a high priority in the ongoing management of the port of Melbourne.

Under the *Transport Integration Act 2010* (Vic) (TIA) (which commenced on 1 July 2010) PoMC is defined as a 'transport body'. This means that PoMC is governed by the TIA as well as the *Port Management Act 1995* (Vic) (PMA). Under section 24 of the TIA, PoMC is required to have regard to the transport system objectives, decision-making principles and any specified policy principles when performing its functions or exercising its powers under any transport legislation. The transport system objectives include:

- actively contributes to environmental sustainability; (s10 TIA)
- effective integration of transport and land use, including minimising minimise impacts of the port on adjacent land uses (s11 TIA);
- facilitate network-wide efficient, coordinated and reliable movements of goods at all times (s12 TIA) and
- be safe and support health and wellbeing (s13 TIA).

Under the PMA, a port manager must ensure that a safety management plan and an environment management plan are prepared and certified in accordance with Part 6A of the PMA for the port (s91C). PoMC has combined these two requirements into a Safety and Environment Management Plan (SEMP) for the Port of Melbourne. This SEMP complies with the PMA and the supporting *Ministerial Guidelines: Port Safety and Environment Management Plans (2009)*.

Intent and management framework

The SEMP applies a 'whole of port' approach to improving the safety and environmental performance of all operations within the Port of Melbourne, including those under PoMC's direct control as well as those activities over which PoMC only has influence (leased premises). The SEMP provides a mechanism through which PoMC can influence the safety and environmental performance of all businesses operating within the port, within the bounds of its current legal and commercial powers. It creates a framework to enable the alignment of existing and future safety and environmental management systems and processes for PoMC, port tenants, port users and service providers.

The SEMP is prepared as a high-level plan, which is underpinned at a detailed level by operational systems and processes, in particular PoMC's Safety and Environmental Management System (SEMS) which is aligned to AS 4801 Occupational Health and Safety Management Systems (2001) and ISO 14001 – Environmental Management Systems (2004). The SEMS provides the supporting processes to enable the ongoing implementation and review of the SEMP.

Development process

The development of the SEMP in early 2005 involved a detailed consultation process with a wide range of port stakeholders. The SEMP was developed by building upon the significant amount of knowledge, processes and existing risk management documentation that was already in place. The development process fostered discussions both within PoMC internally as well as with its stakeholders. The consultation involved regulators, government agencies, local government, adjacent port managers, tenants, community forums that included local residents, shipping forums, and direct meetings with major port tenants. The discussions centred around identifying all activities, defining the hazards and risks and existing controls, and achieving greater clarity in the roles, responsibilities and arrangements for managing safety and environmental risks. Most importantly the process detailed further improvements in safety and environmental management across the whole of the port.

PoMC Policies

PoMC understands the importance and criticality of defining clear management intentions relating to its activities. To this purposes PoMC has developed and communicated safety and environment related policies including;

- Occupational Health and Safety Policy
- Environmental Policy
- Climate Change Policy
- Contaminated Land Management Policy
- Land Acquisition Policy
- Emergency Management Policy
- Heritage Policy
- Asset Management Policy
- Contractor Management Policy
- Community Relations Policy
- Port Security Policy
- Risk Management Policy

These policies are supported where appropriate by procedures, guidelines and training.

Risk management

The SEMP applies an activity based risk management approach for the identification, assessment and control of risks within the port. This approach is consistent with AS/NZS ISO31000: Risk Management – Principles and Guidelines. The approach applied is structured around a comprehensive Port Activity Map (PAM), which details core activities including ships entering the port, berthing, ship to shore and land-based cargo transfer and management. The PAM also includes the identification and assessment of associated safety and environmental hazards and risks, respective roles and responsibilities, existing controls (PoMC and other parties) and future treatment strategies for

each of the port's core activities. The PAM represents a systematic process that enables each risk scenario to be clearly represented and communicated. The PAM is continually reviewed through risk workshops drawing together key PoMC staff and port stakeholders and building upon information contained in existing risk registers, previous reports and detailed 'on the ground' knowledge of the port's operations and previous incident history.

The underlying principle adopted by PoMC through the SEMP, is to reduce safety and environmental risks within the port to a level that is 'As Low As Reasonably Practicable' (ALARP). The risk assessment processes applied through the PAM identified existing controls and enabled additional risk treatment strategies to be identified. The identification of additional treatment strategies focuses on significant risks in the port over which PoMC has direct control. The treatment strategies are prioritised based on the findings of the risk assessment process and are assigned target timeframes. It is PoMC's intent to continue working in consultation with port stakeholders to ensure that over time, further treatment strategies are identified and increasingly mature systems are implemented, to deliver continued safety and environmental improvements port wide.

In areas where PoMC does not have direct control, a number of new risk treatments have been implemented through specific safety and environmental requirements in leases and the introduction of licensing arrangements.

The residual risk remaining after the application of the controls and treatment strategies is managed through the port-wide and respective site emergency and security management plans.

Certification

In accordance with section 91E of the PMA, the PoMC's SEMP was certified in June 2005 and re-certified in 2009.

Review and revision

In accordance with section 91D(3)(a) of the PMA, a SEMP certified in accordance with section 91E(1) remains in force for four years. Hence PoMC's certified SEMP will remain in force until 1 July 2013. PoMC will revise and update the SEMP on a periodic basis to accommodate changes in PoMC's risk profile, legislative responsibilities and management strategies. To facilitate transparency, the SEMP is a publicly available document.

Compliance Audit

The Minister for Major Projects, Ports, Racing and Regional Cities; the Honourable Dr Denis Napthine (the Minister) wrote to PoMC on 22 June 2011 outlining that the planned audit would now be delayed until 1 July 2012.

Port of Hastings

The ownership of the Port of Hastings assets was transferred to the Port of Hasting Development Authority on 1st July 2011.

2 Introduction

Background and legislative context

In 2003 the Victorian Government amended the requirements placed on Victorian ports with regard to safety and environmental management. New requirements were developed to address perceived gaps in the management of ports outlined in the independent review of Victorian Port Reform and subsequent report entitled *The Next Wave of Port Reform in Victoria*, 2001 (the Russell Report). A key part of the new requirements was an amendment in 2003 to the PMA to include a new Part 6A that set out the requirements for port managers to develop both an Environment Management Plan and a Safety Management Plan for the port. As outlined in the Ministerial Guidelines for Port Safety and Environment Management Plans (2009), “the port manager of a commercial trading port, is the person or body who effectively manages, superintends or controls the operation of the port or part of the port, but does not include a tenant or occupier of part of the port unless the tenant or occupier has entered into a port management agreement to manage the operations of that part of the port”. Section.91D(1) of the PMA sets out the legislated requirements as follows:

- A management plan must:*
- a identify by a description, map or plan the area or areas of the port lands and waters to which it applies;*
 - b identify the nature and extent of those hazards and risks associated with the operation of the port;*
 - c assess the likely impact of those hazards and risks on the port and the surrounding area;*
 - d specify the measures and strategies to be implemented to prevent or reduce those hazards or risks;*
 - e nominate the person who is to be responsible for implementing those measures and strategies;*
 - f set out the processes to be followed to involve tenants, licensees and service providers in the port with the implementation of the management plan; and*
 - g set out the procedures to be followed for implementing, reviewing and revising the management plan.*

The Ministerial Guidelines: Port Safety and Environment Management Plans (2009) allows for port managers to prepare a single integrated Safety and Environment Management Plan if they wish, providing the plan can be separately certified and audited with respect to safety and environmental requirements. PoMC, in the development of the Port of Melbourne SEMP, has adopted this integrated approach.

In 2010 the Department of Transport commissioned a review of the Ministerial Guidelines for Port Safety and Environment Management Plans. This SEMP at the time of completion (June 2011) conforms to the 2009 ministerial guidelines.

A revision to the new guidelines will be undertaken in early 2012.

SEMP objectives

PoMC's continuing objective is to have in place a comprehensive and integrated SEMP to protect and enhance the safety and environmental values of the Port of Melbourne, that:

- clearly identifies the roles and responsibilities of organisations and agencies with regard to environmental and safety management
- identifies hazards and risks associated with the operation of the port and assesses the likely impact of those hazards and risks on the port and the surrounding areas
- specifies strategies to prevent or reduce those hazards or risks
- enables safety and environmental risk management information to be communicated within PoMC, to its tenants, service providers, port users and the wider port community
- establishes processes to promote continual improvement in safety and environmental risk management and to strive for best practice across the whole of port
- enables PoMC to achieve compliance with the PMA, TIA and Ministerial Guidelines: Port Safety and Environment Management Plans (2009) and other relevant safety and environmental legislation and policies.

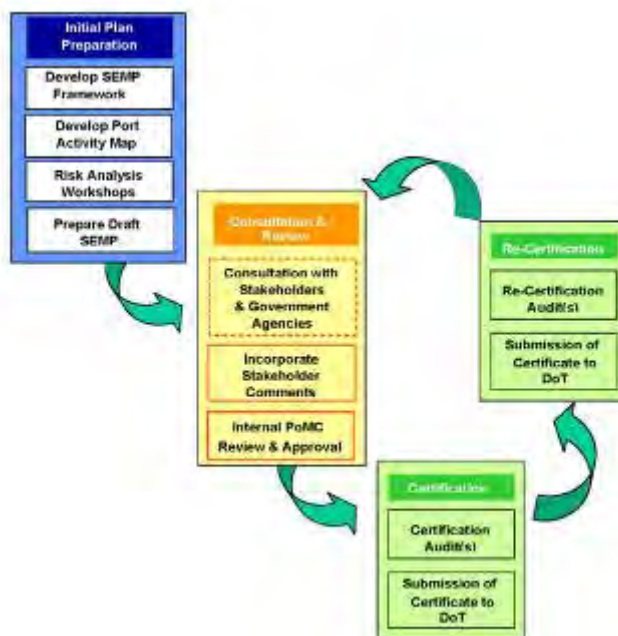
Development and renewal process

a Approach

The SEMP was developed by building on the safety and environmental management systems already in place for the port. Risk registers prepared under the safety and environmental management system framework provided the basis upon which the SEMP could be developed. Risk assessment workshops were held with key personnel to allow the PAM to be formulated. The information contained in the Port Development Map was further refined throughout the consultation phase of the project which is described in greater detail below. A range of measures was identified to reduce and/or mitigate risks in the port which were consolidated into an implementation plan.

The key steps in the SEMP development and renewal process are summarised in [Figure 1](#).

Figure 1 –SEMP development and renewal



b Consultation and stakeholder engagement

The SEMP is maintained with input from the wider port community through a detailed consultation program. PoMC's intent for the consultation program is to maintain a responsive and open approach throughout all stakeholder interfaces, ensuring that where possible all queries and comments are addressed in full. Significant effort is made to obtain input from as many port stakeholders as possible. Port stakeholders provided time and effort in attending briefings and reviewing and commenting on draft versions of the plan, particularly the PAM.

The primary objectives of the SEMP consultation program are to:

- generate a PAM by engaging port tenants, service providers, licensees and government agencies to identify the key hazards, risks and roles and responsibilities. This is an ongoing process, with increased involvement from stakeholders listed on the WoPHSEC communications register.
- inform key stakeholder groups (i.e. local government, community, etc.) of the SEMP intent, process and implementation strategies
- lay the foundations for open and ongoing dialogue with stakeholders to improve overall safety and environmental management within the port

- comply with the requirements for engagement outlined in s. 91D of the PMA and the Ministerial Guidelines
- generate an ongoing dialogue with key government agencies to ensure issues associated with the SEMP development and renewal process or content are resolved quickly, and ensure that PoMC can achieve certification.

Under PoMC's consultation programs, PoMC consults key stakeholders through the use of forums including:

- Industry Group Forums
- Whole of Port Health Safety and Environment Committee.

In addition targeted consultation is undertaken with:

- government agencies
- PoMC employees
- service providers
- tenants
- shipping owners and agents
- local government
- adjacent port managers
- emergency services.

SEMP structure

The SEMP has been structured to address the requirements outlined in the PMA and the Ministerial Guidelines. A reference guide for the SEMP sections against the PMA and Ministerial Guidelines is included in Table 1.

Table 1 – SEMP reference guide

Port Management Act 1995	SEMP Ministerial Guidelines	SEMP section	Safety issues	Environment issues
	3.1.3 Cooperation between port managers.	Section 3	Process requirement of Ministerial Guidelines	
s.91D (a)	5.3 – Description of port areas.	Section 4	✓	✓
s.91D (b)	5.4 – Identification of hazards and risks.	Section 5	✓	✓
	5.4 – Port Activity Map.	Section 6	✓	✓
s.91D (c)	5.5 – Risk assessment.	Section 5 Section 6	✓	✓
s.91D (d)	5.6 –Prevention or reduction of hazards and risks.	Section 5 Section 6 Section 7.4	✓	✓
	5.6 – Residual risk and emergency response.	Section 8	✓	✓
	6.2 – Incident register	Section 8.3	✓	✓
s.91D (e)	5.7 – Nomination of responsible person(s).	Section 3.5 Section 6 Section 7.4	✓	✓
s.91D (1)(f)	6.1.2 – Taking ‘reasonable steps’ to involve tenants licenses and service providers.	Section 1 Section 2 Section 3 Section 7.5 Section 8.3	Process requirement of Ministerial Guidelines	
s.91D(1)(g)	6.2 – Procedures for implementing, reviewing and revising Management Plan.	Section 7 Section 9	✓	✓
	6.2 - Document control.	Section 10.1	Process requirement of Ministerial Guidelines	
s.91G(1)(e)	7.1 – The process for consultation.	Section 1 Section 2 Section 8.3	Process requirement of Ministerial Guidelines	
s.91G(1)(f)	7.2 – Publication and availability of management plan.	Section 10.2	Process requirement of Ministerial Guidelines	
s.91C(4)	7.3 – Copies of documents for inspection.	Section 10.2	Process requirement of Ministerial Guidelines	

3 Safety and Environment Management framework

3.1 Intent of the SEMP

PoMC considers safety and environmental management to be a high priority in the ongoing management of the Port of Melbourne. This is reflected through PoMC's OHS and Environment Policies, which are endorsed by the PoMC Board and which commit PoMC to ensuring the health, welfare and safety of employees, contractors, and visitors to the workplace and to operate in a manner that is environmentally sustainable for the present and future generations.

The SEMP covers land and water operations in the whole of the Port of Melbourne's 'declared area' as depicted in [Figure 8](#) and [Figure 9](#).

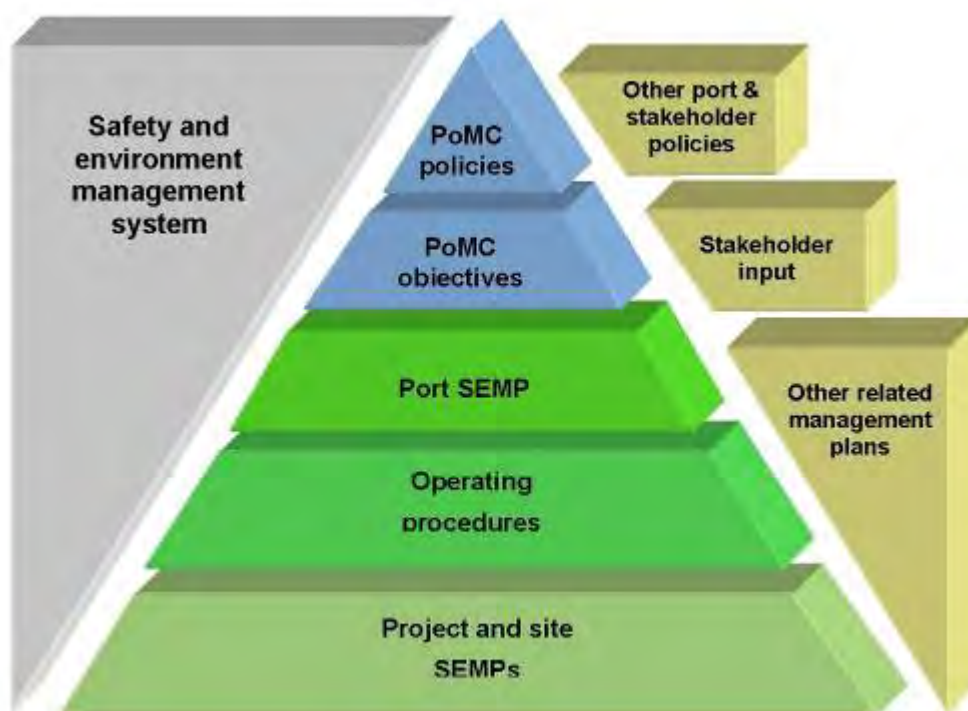
The SEMP sets out the framework, principles and objectives for sound safety and environmental management within the Port of Melbourne.

Major projects within the port may require specific hazard and risk assessments to determine safety and environmental impacts, and may involve project specific processes such as stakeholder consultation, performance monitoring and auditing. Where project specific safety and environmental management processes outside of the SEMP exist they will be described in [Section 3.4](#).

The process for developing the SEMP has fostered discussions both internally within PoMC and with its stakeholders on safety and environmental matters. The SEMP creates a high-level framework and mechanism to enable alignment of the existing safety and environmental management systems, processes and procedures of PoMC and port tenants, licensees, users and service providers, as well as setting the framework for continual improvement.

The SEMP review process identifies new risk treatments through regular review. The SEMP relies on the underpinning safety and environmental management systems for its implementation and review. It also improves clarity around the roles and responsibilities of PoMC, government agencies and other organisations. The SEMP documents the port and its stakeholders' efforts in safety and environmental management. The position of the SEMP within PoMC's safety and environmental management framework is illustrated in [Figure 2](#).

Figure 2 - PoMC safety and environmental management framework



The SEMP is a significant tool for PoMC and port stakeholders to achieve the highest level of safety and environmental standards.

The intent of the SEMP is that it is a 'living' document subject to continual improvement and used on a regular basis to guide and inform safety and environmental planning in the port. Similar to other components of PoMC's management systems, the SEMP is reviewed and updated to keep pace with any significant changes within PoMC's risk profile, management strategies or legislative requirements.

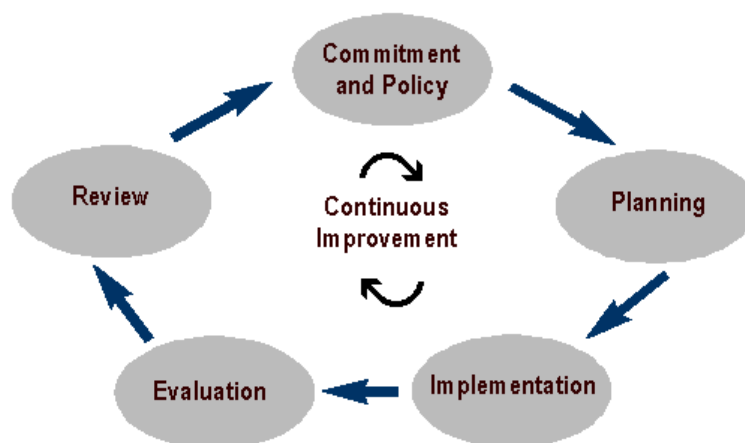
The SEMP provides a tool for PoMC to work through particular safety and environmental risks, with its stakeholders, on an ongoing basis. For this reason, the certified SEMP is made available to all stakeholders, in particular those allocated with particular responsibilities in the PAM, to facilitate improved understanding and cooperation within the port. The 'whole-of-port' approach is undertaken to ensure that stakeholders are given the opportunity to have regular input into reviewing the port's risk profile so that all risks are identified and adequately managed by all parties involved.

3.2 Safety and Environment Management System (SEMS)

To give effect to PoMC's SEMP, safety and environmental policies and plans, and comply with our legal obligations, PoMC has developed a Safety and Environment Management System (SEMS). The SEMS provides the framework to identify PoMC's environmental and safety hazards and put in place reasonable and practical measures to reduce hazards and risks that may affect employees and contractors in the port, the port environment and the surrounding community.

The SEMS is aligned with ISO 14001 – Environmental Management Systems (2004) and 18001:2007, 4801:2001 Occupational Health and Safety Management Systems and follows the accepted management cycle where measurement, evaluation and review facilitate continual improvement (Figure 3). Objectives and targets for safety and environment are set to ensure PoMC is addressing priority issues and improving performance.

Figure 3 - Continual improvement cycle



The SEMS is designed to ensure the control measures are maintained to an effective level and the treatment measures identified are implemented. Figure 4 summarises the main elements of the SEMS and shows where integration exists between the safety and environmental components of the systems.

The SEMS requires that PoMC identifies safety and environmental hazards and risks that result from:

- the activities planned and carried out by, or on behalf of PoMC
- activities, services or projects over which PoMC has control and/or is expected to have an influence
- normal, abnormal and emergency conditions.

These activities then undergo risk assessment and decisions made on the need and form for controls through Standard Operating Procedures (SOP). Each SOP provides a method of undertaking PoMC's functions and activities to minimise the safety risk or environmental impact.

Figure 4 - Safety and Environment Management System components

SEMS	Element Description		
00	Safety and Environment Integration Scope		
Policy	01	ISO14001:1996	ISO18001:2007, AS/NZS 4801:2001
		Environmental policy	OHS policy
		Environmental guide	OHS guide
Planning	02	Legal register	
	03	Identification and analysis of needs	
	04	Issue Resolution	NA
	05	Aspects and impacts	Hazard and risks
		Objectives and targets	Objectives and targets
	06	Authority and responsibility	
Implementation	07	Document design and control	
		Contract review	
	08	Resources, Work environment, Awareness, Training and competence	
	09	Consultation / Reporting / OHS and EMS committees	
		Communication & Consultation	
	10	Operational control / Risk control Processes / Procedures / Plans / Controls	
11	Incident reporting		
	Emergency management		
Measurement & evaluation	12	Measuring devices / calibration	
		Monitoring and measurement	Monitoring and measurement
		Compliance reporting	Compliance reporting
		Target achievement	Effectiveness of controls
	13	Record control	
14	Internal audit		
	Non-conformance / Corrective and prevention action		
15	Management review		

Operational controls are in place for activities such as:

- channel management and shipping
- bulk liquid and dry bulk berths
- Station Pier cruise shipping
- common user berth operations
- incident and emergency management
- contaminated land management
- employee and contractor induction and workplace safety
- Health Safety and Environment management plans requirements for tenants
- permit to work system

PoMC understands the importance and criticality of defining clear management intentions relating to its activities. To this purposes PoMC has developed and communicated safety and environment related policies including;

- Occupational Health and Safety Policy
- Environmental Policy
- Climate Change Policy
- Contaminated Land Management Policy
- Land Acquisition Policy
- Emergency Management Policy
- Heritage Policy
- Asset Management Policy
- Contractor Management Policy
- Community Relations Policy
- Port Security Policy
- Risk Management Policy

These policies are supported where appropriate by procedures and processes. Employees with roles and responsibilities in these areas have clear objectives and have or receive the necessary training.

3.3 Risk management process

The business of the Port of Melbourne involves a large number of organisations and stakeholders. As the port manager, PoMC is committed to the continual improvement of safety and environmental management within the port through the SEMP. The implementation of a successful SEMP across the port is dependent on the commitment and support of all the stakeholders, tenants, third-party service providers and vessels using the port.

PoMC recognises that port stakeholders are subject to relevant safety and environmental management obligations imposed by legislation and regulated by the relevant authorities. Within the port there are areas and activities where PoMC has direct responsibility and control of operations and other areas and activities where PoMC has no direct control and can only influence safety and environmental outcomes.

PoMC's intent is to continually build on existing business and operational relationships with tenants, licensees and service providers. Currently these relationships include strategic business, high-level operations and day-to-day operational activities with these groups. Where appropriate these relationships provide opportunities to influence further improvements in safety and environmental management across the port.

The primary objective of the Risk Management process is to provide a structured and consistent approach to risk management that aligns strategy, processes, people, technology and knowledge, with the purpose of evaluating and managing the uncertainties that PoMC faces in order to create value. This will result in a risk management process that provides assurance that risks are effectively managed

The underlying principle in the management of safety and environmental risks is to reduce risks with detrimental outcomes to ALARP. PoMC is committed to reducing these risks in areas and activities that it controls and/or influences in line with this principle and managing the remaining residual risk through respective site and port emergency management plans. The ALARP principle is illustrated in [Figure 5](#).

Figure 5 – The ALARP principle

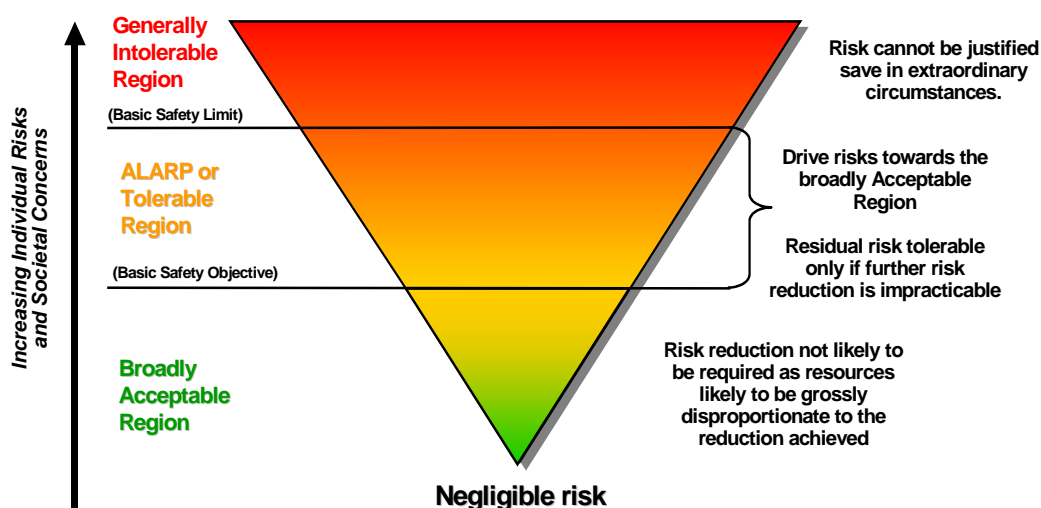
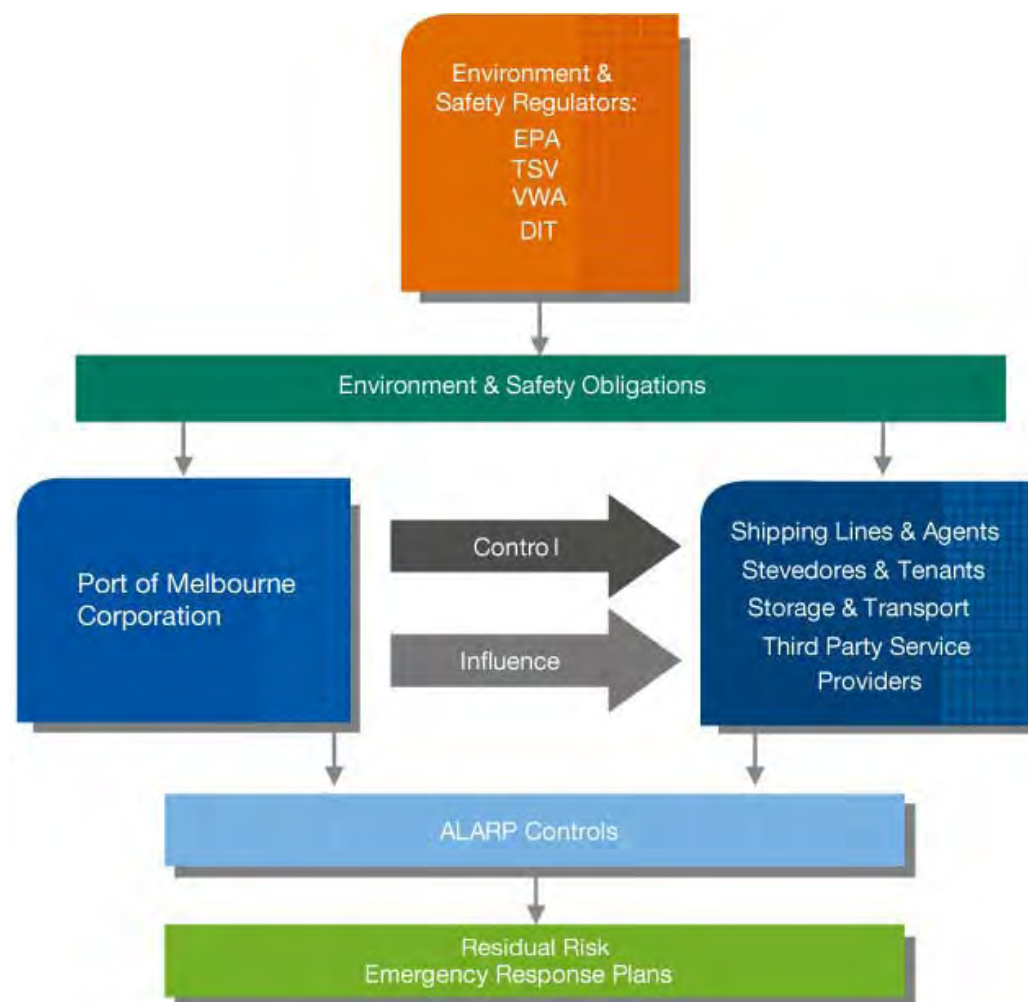


Figure 6 provides an outline of the management framework and identifies the control and influence linkages that apply to the management of environmental and safety risks across the port.

Figure 6 – Whole-of-Port Safety and Environment Management Framework



3.4 Roles and responsibilities

3.4.1 Overview

The following list summarises the main port functions and the party that provides or is responsible for them:

- All land within the port boundary is owned and/or managed by PoMC.
- Channels are owned by the State of Victoria and managed by PoMC. Channel management for commercial shipping is a responsibility of PoMC.
- Navigation aids located in port waters for channels and berths are provided, maintained and owned by PoMC. Land-based navigational aids are located on land under lease or licence from the Victorian or Commonwealth government.

- Infrastructure such as, but not limited to, railway tracks, roadways, water and power services are generally provided and owned by PoMC on port land and owned by occupiers on land leased by them.
- Dedicated loading and unloading services are owned and operated by private companies at leased premises subject to safety legislation.
- Pilotage is provided by a private company subject to licensing by Transport Safety Victoria (TSV).
- Towing and mooring is provided by private companies.
- Brokerage, agency, insurance and other commercial services are provided by private companies.
- Once vessels enter port waters, PoMC is responsible through the Harbour Master for ensuring that all safety and environmental requirements are adhered to with respect to the safe passage of the vessel to its berth. A full description of the Harbour Masters responsibilities and functions are contained in section 26 of the *Marine Act 1988* (Vic).
- The direction and control of all vessels in port waters is the responsibility of PoMC.
- A licensing, staffing and survey requirements for commercial vessels is the responsibility of TSV.
- Station Pier and Ann Street Pier's are managed by Committees of Management including PoMC.

The following section provides a more detailed description of the roles and responsibilities of the various stakeholders within the Port of Melbourne, with these also being examined within the Summary PAM.

3.4.2 Port of Melbourne Corporation (PoMC)

PoMC is a public authority governed by the TIA as well as the PMA. It owns and manages land in the Port of Melbourne. PoMC's statutory objectives and functions are set out in the TIA. Its functions include to plan for the development and operation of the PoMC ports (being the Port of Melbourne and the Port of Hastings) and to provide land, waters and infrastructure necessary for the development and operation of the PoMC ports.

PoMC manages leases and licences, provides cargo storage areas adjacent to common user wharves, provides wharf facilities and sets and monitors standards and guidelines for the handling of dangerous cargoes within its areas of direct control.

Channels are owned by the State of Victoria and licensed to PoMC. Channel management (including maintained depths) and commercial shipping is managed directly by PoMC.

The primary object of PoMC set in section 141D(1) of the TIA is to manage and develop the PoMC ports consistent with the vision statement and transport system objectives. The primary object includes:

- a to ensure, in collaboration with relevant responsible bodies, that the PoMC ports are effectively integrated with the transport system and other systems of infrastructure in the State;

- b to facilitate, in collaboration with relevant responsible bodies, the sustainable growth of trade through the PoMC ports;
- c to ensure that essential port services of the PoMC ports are available and cost effective;
- d to establish and manage channels in port of Melbourne waters and the port of Hastings waters for use on a fair and reasonable basis.

The vision statement contained in section 6 of the TIA reads: *“The Parliament recognises the aspirations of Victorians for an integrated and sustainable transport system that contributes to an inclusive, prosperous and environmentally responsible State.”*

The transport system objectives in the TIA provide for:

- Social and economic inclusion;
- Economic prosperity;
- Environmental sustainability;
- Integration of transport and land use;
- Efficiency, coordination and reliability; and
- Safety, health and wellbeing.

To assist PoMC in complying with all relevant legislation, PoMC maintains a register of legal and other requirements which is maintained through the SEMS.

3.4.3 Government agencies

Department of Transport (DoT)

DoT is responsible for the provision of essential infrastructure in Victoria, with responsibility for transport, major development, energy, and information and communication technology.

Freight, Logistics and Marine (FLAM) is a key division within the transport portfolio. The role of the division is to provide high quality support to the Secretary of the Department, the Minister for Roads and Ports and the Minister for Public Transport in developing and implementing the Government’s agenda for the freight and logistics, and ports and marine sectors. Consistent with the Victorian Government’s agenda, the division undertakes tasks at the regional, state and national levels to support the Minister on freight transport by rail and road, ports, marine and logistics issues and matters relating to the safety and environmental management of the marine environment.

Transport Safety Victoria (TSV)

TSV is Victoria’s transport safety agency and is responsible for the administration of the Marine Act and the Marine Regulations 1999 (Vic). The functions of the TSV Director Maritime Safety are detailed in Part 8, s. 65 of the Marine Act 1988 and are summarised below:

Marine Safety Victoria as the State's marine safety agency is responsible for the administration of the [Marine Act 1988](#) and the [Marine Regulations 1999](#).

The functions of TSV Director Maritime Safety are to:

- set standards for the design, construction and equipment of commercial vessels to maintain structural integrity and seaworthiness
- determine crewing for vessels and issue certificates of competency
- set safety standards related to recreational vessels and zoning rules
- license pilots and harbour masters and determine standards for the training of pilots, pilot exempt masters and harbour masters
- determine standards and procedures for navigation and maritime safety on State waters
- develop appropriate standards for the provision and maintenance of navigational aids for State waters
- develop appropriate standards for the dredging and maintenance of channels
- investigate marine incidents and accidents and implement appropriate action on the findings
- enforce and monitor compliance with prescribed standards
- develop, review, coordinate and manage the Victorian marine pollution contingency plan
- promote education and training and provide guidance and information on marine safety matters
- commission and sponsor research in marine safety matters.

Environment Protection Authority (EPA)

EPA is responsible for the administration and enforcement of the following primary legislation:

- *Environment Protection Act 1970 (Vic)*
- *Pollution of Waters by Oil and Noxious Substances Act 1986 (Vic)*
- *National Environment Protection Council (Victoria) Act 1995 (Vic)*.

The Environment Protection Act gives the EPA the power to license particular waste discharges to the environment. The Environment Protection (Scheduled Premises and Exemptions) Regulations 2007 (Vic) describes those scheduled premises that require EPA licences. Scheduled premises are required to apply to the EPA for works approval before the start of operations.

The Environment Protection Act also provides for a range of subordinate legislation such as waste management policies, State Environment Protection Policies (SEPPs) and regulations, as enforcement tools that can be used to regulate specific activities. This legislation protects the environment from a range of activities including the management of land and groundwater, stormwater discharges, prescribed waste and discharge of ballast water.

Victorian Workcover Authority (VWA)

VWA is responsible for administering and enforcing a range of legislation throughout Victoria, including the port of Melbourne. VWA's statutory obligations are detailed in several Acts of Parliament, which include:

- health, safety and welfare in the workplace under the *Occupational Health and Safety Act 2004 (Vic)*

- workers' compensation and the rehabilitation of injured workers under the *Accident Compensation Act 1985* (Vic) and the *Accident Compensation (WorkCover Insurance) Act 1993* (Vic)
- employer insurance and premium under the *Accident Compensation (WorkCover Insurance) Act 1993* (Vic)
- explosives under the Dangerous Goods (Explosives) Regulations 2000;
- dangerous goods under the *Dangerous Goods Act 1985* (Vic)
- the transport of dangerous goods by road in Victoria under the *Dangerous Goods Act 1985* (Vic)
- high-risk equipment used in public places and on private premises under the *Equipment (Public Safety) Act 1994* (Vic).

VWA is also responsible for the licensing of Major Hazard Facilities under the Occupational Health and Safety Regulations 2007.

Victoria's occupational health and safety and dangerous goods legislation applies to land-based activities within the Port of Melbourne and during the transfer of dangerous goods from ship to terminal. The Victorian legislation does not apply to ships within the Port of Melbourne that are not berthed. Dangerous goods on board the vessel are regulated by the International Maritime Dangerous Goods Code 2004.

- VWA is also responsible for administering a range of other supporting regulations (e.g. Occupational Health and Safety Regulations 2007, Dangerous Goods (Storage and Handling) Regulations 2000, Dangerous Goods (Explosives) Regulations 2000 and the Equipment (Public Safety) Regulations 2007 which impact on ports and port operations. It remains the responsibility of port managers to be aware of the specific requirements, which relate to the operations under their control.

VWA has two Memorandums of Understanding (MoU) in place which relate specifically to port operations:

- The first MoU is with Australian Maritime Safety Authority (AMSA), and is applicable when a ship is in port or berthed. If a Victorian worker boards the ship (which is then assumed to be their 'workplace') and is injured as the result of an incident, an investigation is undertaken by VWA and AMSA. The MoU is designed to determine agreed jurisdiction and responsibility for investigation and intervention.
- The second MoU is between VWA and MSV and is applicable to smaller commercial vessels (boats), e.g. tugs, fishing boats, etc. MSV license such boats, which are also classified as Victorian workplaces. The systems of work and activities undertaken should be in compliance with the Occupational Health and Safety Act. The MoU exists between VWA and MSV to reflect the interaction between the MSV licensed vessel and the fact that it is also classified as a Victorian workplace.

Department of Sustainability and Environment (DSE)

DSE is responsible for the sustainability of the natural and built environment and for overseeing the management of the land and resources of Victoria's coastal public land and marine waters for their environmental, conservation and recreational values. Ninety-six per cent of the coast is public land and state waters extend to 5.5 km offshore. Under the *Coastal Management Act 1995* (Vic)

ports that wish to conduct dredging activities, require the consent of DSE. Consent is also required for development on coastal Crown land - specifically within the River Yarra, Williamstown and Port Melbourne shipping channels and at Swanson Dock.

Victorian Regional Channels Authority (VRCA)

VRCA manages the commercial navigation of the channels in the Port of Geelong waters and the channel licences for the Port of Hastings and Port of Portland. The VRCA was established by the Victorian Government via amendments to the PMA.

In managing the Geelong channels, the VRCA's key responsibilities include:

- management of shipping control
- provision of navigation aids
- channel management
- marine environment protection
- safety and security.

A communications protocol between the harbour masters of the Port of Melbourne and Port of Geelong ensures that shipping movements into and from Port of Geelong waters and Port of Melbourne waters are managed to ensure continuity of safe ship transit.

Parks Victoria

Parks Victoria is the custodian of a diverse estate of significant marine parks in Victoria and of the recreational management of Port Phillip Bay, Western Port, the River Yarra and Maribyrnong River. Parks Victoria is responsible for the management of National Marine Parks at Port Phillip Heads and within Port Phillip Bay.

Parks Victoria manages the local port of Port Phillip under the provisions of the PMA. Parks Victoria's responsibilities encompass the management of:

- all areas reserved under the *National Parks Act 1975* (Vic)
- metropolitan waterways and adjacent land under the *Water Industry Act 1994* (Vic)
- nominated Crown land reserved under the *Crown Land (Reserves) Act 1978* (Vic)
- conservation reserves reserved under the *Crown Land (Reserves) Act 1978* (Vic) and managed in accordance with approved land use recommendations under the *National Parks Act 1975* (Vic)
- Areas reserved under the *Heritage Rivers Act 1992* (Vic)
- Planning for all Ramsar sites and management of some sites
- Piers and jetties in Port Phillip Bay and Western Port and recreational boating on these Bays
- Other areas as specified under the *Parks Victoria Act 1988* (Vic).

Australian Maritime Safety Authority (AMSA)

The *Australian Maritime Safety Authority Act 1990* (Cth) sets out the functions of the Australian Maritime Safety Authority (AMSA). Responsibilities include the protection of the marine environment from ship-sourced pollution. AMSA also

has responsibilities under a variety of legislation relating to marine safety and protection of the marine environment including the *Navigation Act 1912* (Cth), *Protection of the Sea (Prevention of Pollution from Ships) Act 1983* (Cth), *Occupational Health and Safety (Maritime Industry) Act 1993* (Cth).

AMSA administers the National Plan to Combat Pollution of the Sea by Oil and Other Noxious and Hazardous Substances. AMSA is responsible for coordinating, investigating and cleaning up oil spills of national significance.

Under 'Port State Control', AMSA conducts a program of inspections of foreign ships entering Australian ports based on their risk profile. These inspections are carried out to ensure that ships comply with the relevant requirements of the International Maritime Organisation (IMO), including MARPOL 73/78. Should a ship, the qualifications of its crew or shipboard safety management system, be found to not comply with the appropriate requirements, AMSA may require corrective action which can include detention of the ship until satisfactory repairs are carried out, or remedial action is taken.

AMSA monitors cargo operations on ships engaged in international and interstate trade and is responsible for certification of Australian seafarers under the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers, 1978.

Australian Quarantine and Inspection Service (AQIS)

AQIS is the lead federal government agency providing quarantine inspection services for the arrival of international passengers, cargo, mail, animals and plants and their products into Australia. AQIS is responsible for the management of ballast water issues, including monitoring of compliance of shipping with the Australian Ballast Water Management Requirements (AQIS) 2001 at each first port of call in Australia. AQIS also inspects and certifies a range of animal and plant products exported from Australia.

Australian Customs and Border Protection Service

The Australian Customs and Border Protection Service manage the security and integrity of Australia's borders. It works closely with other government and international agencies, in particular the Australian Federal Police, the AQIS, the Department of Immigration and Multicultural and Indigenous Affairs and the Department of Defence, to detect and deter unlawful movement of goods and people across the border. Customs undertakes a number of activities within the Port of Melbourne.

3.4.4 Local councils

The Port of Melbourne adjoins four local councils. The four local councils are the City of Hobsons Bay, City of Maribyrnong, City of Melbourne and City of Port Phillip as displayed in [Figure 7](#).

City of Melbourne

Port activities have the potential to affect four interface areas within the City of Melbourne:

- Swanson Precinct – Swanson and Appleton Docks and West Melbourne Industrial Area
- Docklands Precinct – Victoria Dock and Docklands
- South Wharf Precinct – South Wharf and Fishermans Bend
- Webb Dock Precinct – Webb Dock, Westgate Park and Fishermans Bend.

The Melbourne Planning Scheme recognises the importance of port activities and the value of the port to the city's economy and Victoria's transport system.

Overall, the City of Melbourne Planning Scheme provides policy support to ensure that development within the port environs does not impede the future operations of the port and recognises the need for port activities and expansion to protect the amenity of interface areas.

City of Port Phillip

Port activities have the potential to affect two interface areas within the City of Port Phillip:

- Webb Dock Precinct – Webb Dock and Garden City
- Station Pier Precinct – Station Pier and Beacon Cove.

The Port Phillip Planning Scheme provides strong support for the Port of Melbourne and recognises the importance of the port and its activities, acknowledging that it forms an important part of the industrial sector and its infrastructure contributes to the socio-cultural significance of interface areas. Important port assets, including Webb Dock and Station Pier are recognised through a number of Municipal Strategic Statement objectives related to foreshore protection, tourism enhancement and local transport and pedestrian network improvements.

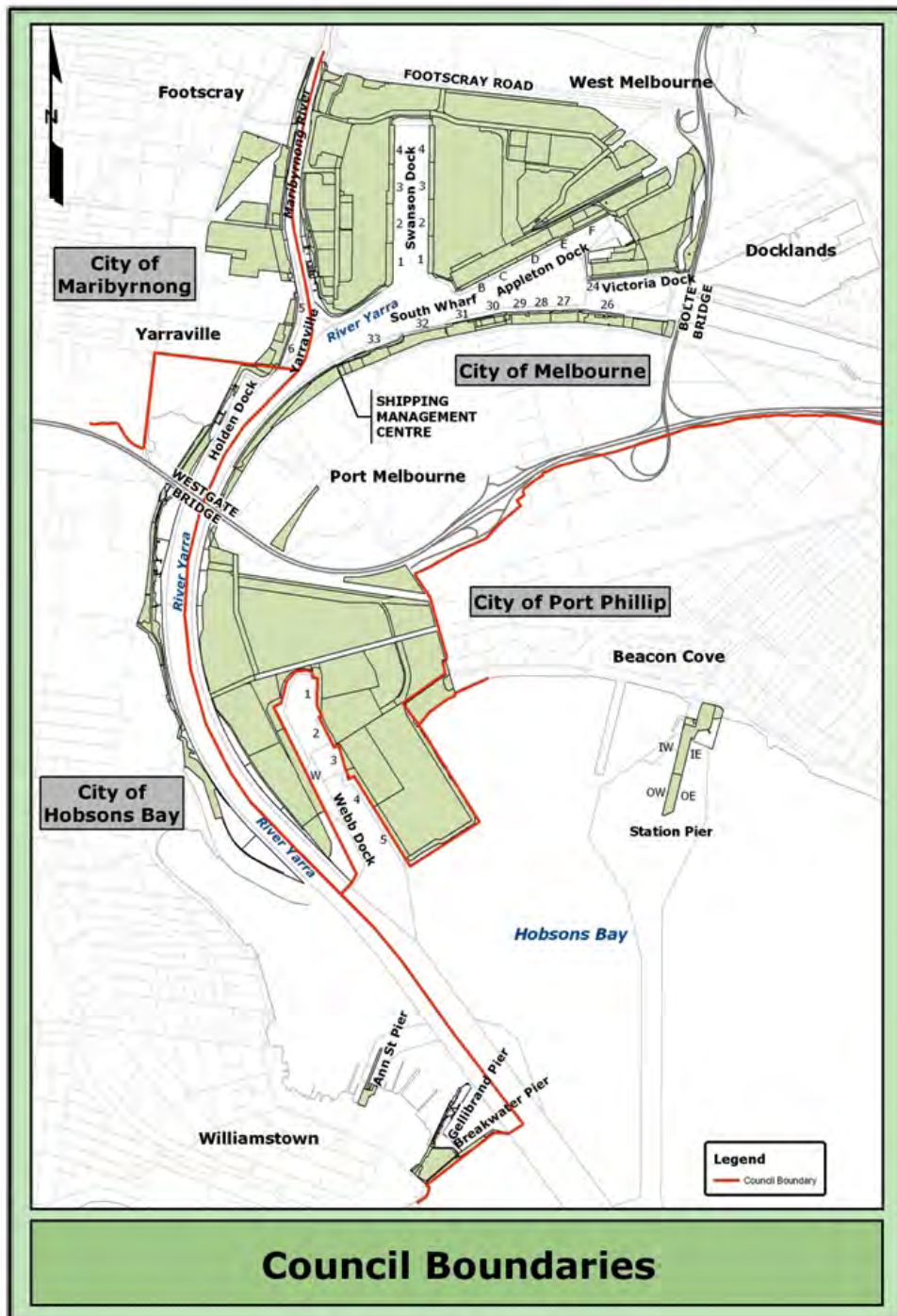
City of Hobsons Bay

Port activities have the potential to affect parts of Newport and Williamstown in the City of Hobsons Bay with Gellibrand/Breakwater Pier and Ann St Pier located within the municipality. The Hobsons Bay Planning Scheme acknowledges the operations of the port, of its location advantage and the economic value of freight operations to the state.

City of Maribyrnong

Port activities such as those conducted at Coode Island and the Swanson Dock container facility have the potential to affect parts of Yarraville and Footscray in the City of Maribyrnong. In addition PoMC land at 221 Whitehall Street and 111-151 Whitehall Street is covered by the Maribyrnong planning scheme. There is an MoU between PoMC and the City of Maribyrnong ensuring consultation on planning and development issues.

Figure 7 - Locations of Councils that Border the Port



3.4.5 Infrastructure services

Melbourne Water

Melbourne Water is responsible for the environmental management of waterways and major drainage systems within the Port Phillip catchment.

Melbourne Water's Waterways and Drainage Group is responsible for the environmental management of waterways, water quality, flood protection, floodplain management and regional drainage.

VicRoads

VicRoads is responsible for managing the Victorian road system and its use as an integral part of the overall transport network. It aims to protect the environment through responsible planning and management of the transport network.

VicRoads is also responsible for the management and operation of West Gate Bridge.

3.4.6 Port users and service providers

Shipping lines

It is the responsibility of ship masters to ensure compliance with port requirements including Harbour Master's Directions, relevant port rules and guidelines.

A range of international conventions and procedures apply to shipping, including the requirements of MARPOL 73/78, the annexes in force and the International Maritime Dangerous Goods Code as amended.

Shipping agents representing shipping lines are responsible for requests and permit applications to PoMC with respect to ship arrivals/departures, dangerous cargo declarations and requirements for port service providers.

Third-party port service providers

Third-party service providers (tugs, pilots, mooring companies, etc.) are generally engaged by shipping agents on behalf of shipping lines. The service provider must ensure they are operating in accordance with their contractual and legislative requirements. PoMC is not party to these contracts but may influence under agreed licence conditions.

Tenants

It is the responsibility of tenants to ensure they are operating in accordance with the conditions of their lease or licence and that their activities do not result in a breach of planning approvals, the Environment Protection Act, the Occupational Health and Safety Act, the Dangerous Goods Act and other subordinate legislation. This responsibility includes compliance with relevant State Environmental Protection Policies SEPPs.

Common user berths

Within the Port of Melbourne there are a limited number of common user berths. These berths are owned and maintained by PoMC and are made available for short-term hire by port users. Users can only operate at, and use, these berths provided they enter into a Common User Facility Licence Agreement with PoMC. This licence stipulates the safety and environmental obligations of the licensee and PoMC's expectations for operations at the berth. It also stipulates the roles and responsibilities of the licensee at the facilities.

Assistance from agencies

In cases where PoMC are unable to obtain cooperation from port tenants, licensees and service providers, despite reasonable efforts to do so, assistance is sought from the relevant agencies.

3.5 PoMC SEMP nominated representatives

The Executive General Manager Port Operations has the principal accountability for safety and environmental issues for PoMC. Authorisation and endorsement of responsibilities within the SEMP rest with this role. The Executive General Manager Port Operations is supported by the Security, Emergency, Health and Safety and Environment Groups, which are made up of personnel dedicated to supplying support to all stakeholders involved in safety and environmental management.

The General Manager Security, Safety & Emergency Management and the General Manager Environment Services are PoMC's management representatives tasked with the responsibility for implementing and maintaining the SEMP and associated Safety and Environmental Management Systems. They have responsibility for the day to day operations and application of this plan and its subsequent systems.

In addition to the principal role played by the Health and Safety, Emergency and Environmental Groups, all other functional areas of the port play a role in safety and environmental management and the implementation of the SEMP into the port's operations. This involves attendance at port related forums and interest groups where the application of the SEMP reaches the port stakeholders.

4 Port description

4.1 Overview

The Port of Melbourne is managed by PoMC. It is Australia's largest container and general cargo port.

The port is situated at the north of Port Phillip Bay. It is serviced by more than 100 nautical miles of shipping channels and fairways between the Port Phillip Heads and the berths on the Yarra and Maribyrnong Rivers, at Williamstown and Port Melbourne. The Port of Melbourne occupies defined precincts in and adjacent to the River Yarra within the cities of Melbourne, Hobsons Bay, Maribyrnong and Port Phillip.

The port waters of Melbourne cover an area of more than 1000 square kilometres which include the River Yarra, Williamstown, Port Melbourne and South channels, Port Phillip Entrance and three nautical miles to seaward from Port Phillip Heads. PoMC owns and manages 510 hectares of port land including 34 commercial berths at five docks and at river berths with a total length of nearly seven kilometres and an overall land/water interface of 50 km.

Two modern, purpose-built international container terminals at Swanson Dock are the centrepiece for Australia's international container trade and a number of multi purpose terminals handle cargo including timber, paper, iron and steel. The port also provides specialised berths for motor vehicles and dry cargoes including cement, sugar, grain and gypsum as well as berths for handling bulk liquids from petrochemicals to crude oil and molasses.

The port also provides berthing facilities that service the refineries and petrochemical industries in Melbourne and provides transiting shipping lanes to the Port of Geelong (predominantly bulk cargo). The port's importance to Victoria is evident as Australia relies on sea transport for more than 98 per cent of its trade. The Port of Melbourne handles a large range of manufactured goods, food grade commodities and bulk raw materials. The port activity also directly and indirectly creates employment for many thousands of Victorians.

Two major bridges span the River Yarra: the West Gate Bridge 2.6 km upstream of the river entrance, and the Bolte Bridge at Docklands, which marks the upstream boundary of the commercial Port of Melbourne. Both bridges are intrinsic parts of the road transport link between Melbourne's eastern and western suburbs.

4.2 Port boundaries and land uses

Figure 8 shows an aerial picture of the port indicating the Port of Melbourne ‘declared lands’ (i.e. port boundaries).

Figure 9 shows Port Phillip Bay and the boundaries of the Port of Melbourne ‘declared waters’.

Figure 10 indicates the land use activities within the Port of Melbourne.

Figure 11 shows the locations of berths and highlights the areas where dangerous goods and hazardous cargoes are handled and stored.

Figure 12 shows the proximity to Port waters of Commonwealth and Victorian recognised areas of ecological significance including internationally recognised Ramsar wetlands and State-managed Marine Sanctuaries and Marine National Parks.

The Ramsar wetlands are situated beyond the Port boundaries and are managed by the Port Phillip Bay (Western Shoreline) and Bellarine Peninsula Ramsar Site Strategic Management Plan 2003, which outlines that the role of the Melbourne Port Corporation (now PoMC) is to “manage the Port of Melbourne”. No PoMC monitoring requirements are stated within this Plan.

A proportion of the Port Phillip Heads Marine National Park falls within PoM waters. The Port Phillip Heads Marine National Park Management Plan 2006 outlines that Parks Victoria is the overall manager of this area of ecological significance.

Figure 8 –PoMC Declared Lands



Figure 9 – PoMC – Declared Waters

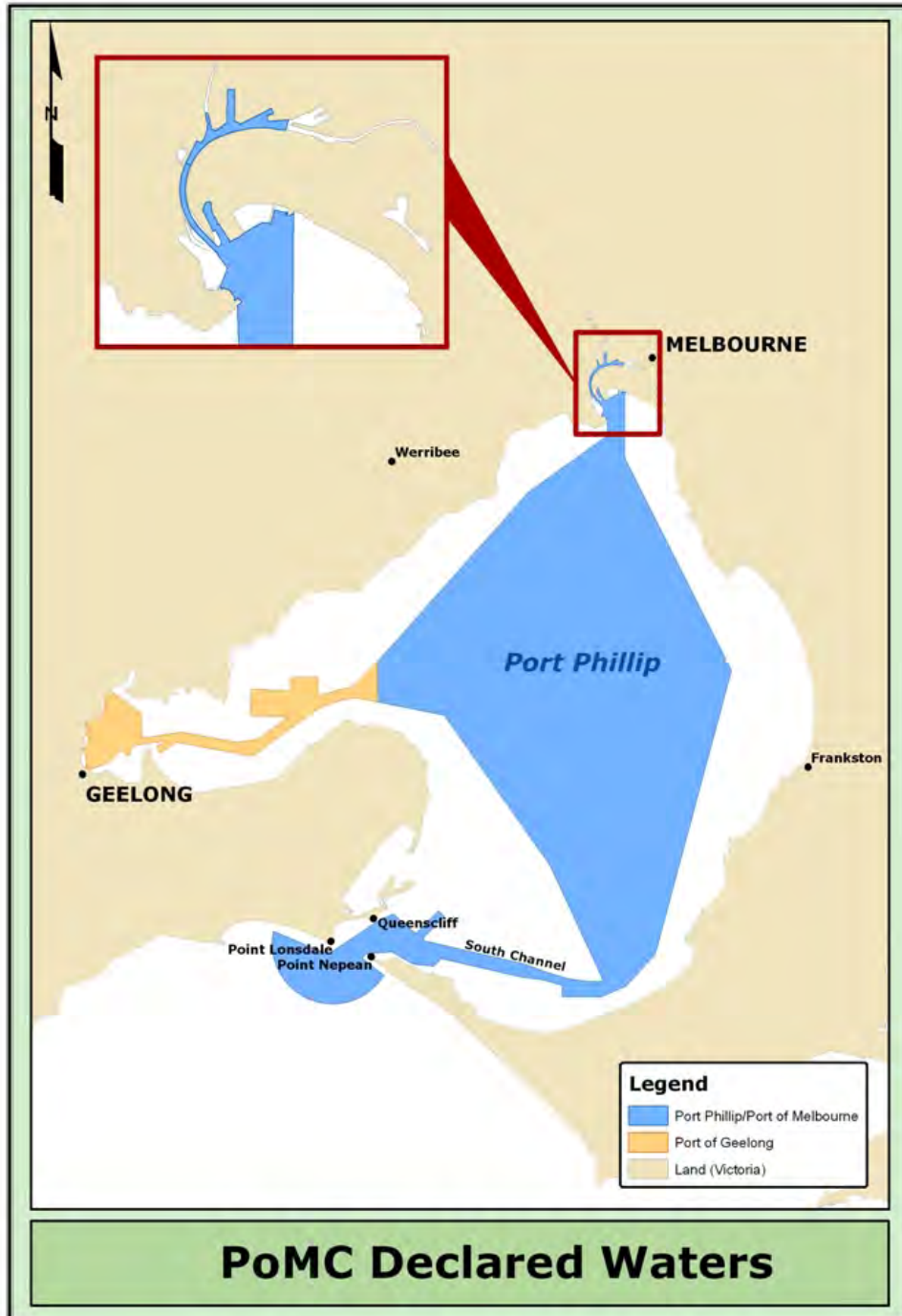


Figure 10 – Port of Melbourne Activities

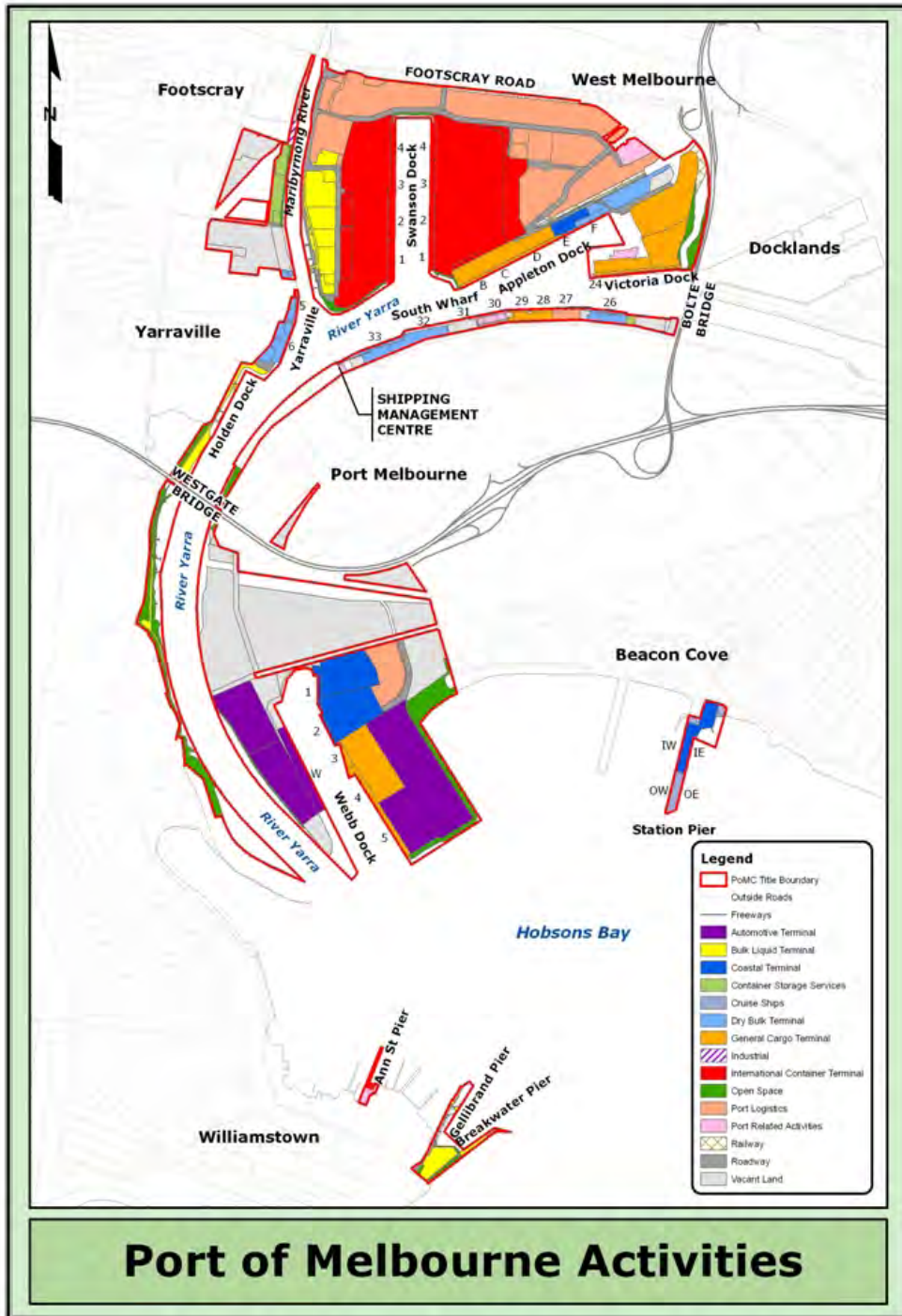


Figure 11 – Dangerous goods storage and handling areas

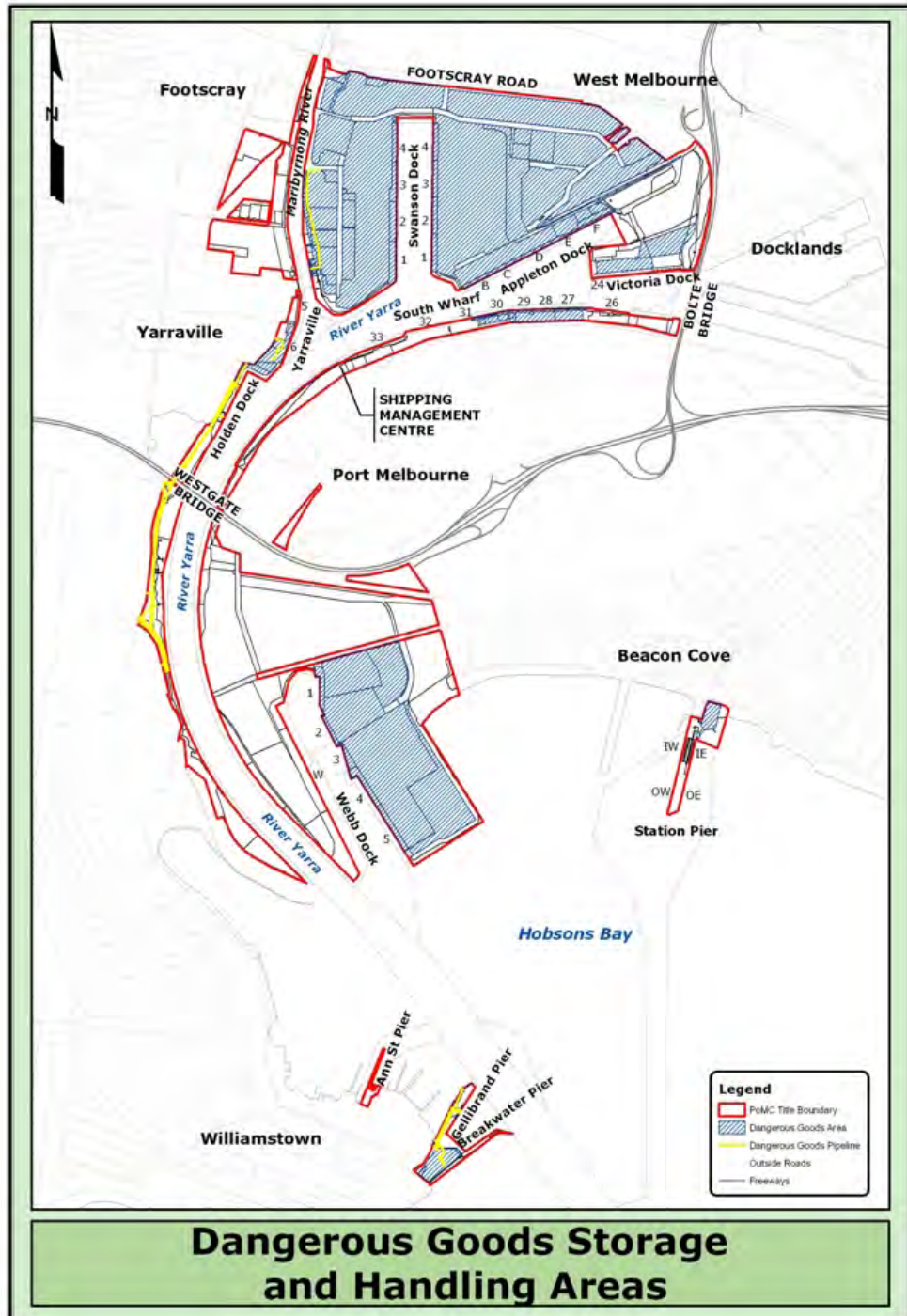


Figure 12 –Ecologically significant areas (land and water)



4.3 Port precincts

At a more detailed level and as part of the port land use planning, the port operations are geographically divided into precincts. These precincts amongst other factors help with the identification and management of key safety and environmental issues across the port. The precincts were identified taking into consideration the following:

- land use and industry types
- activity types
- safety risks
- environmental risks
- surrounding land uses
- geographical location.

The identified precincts and activities are described in [Table 2](#)

Table 2 – Precinct activities

Precinct	Activities
<p>Williamstown</p>	<p>Within the Williamstown precinct there are three key sites that form part of the port of Melbourne operations:</p> <ul style="list-style-type: none"> • Gellibrand Pier • Breakwater Pier • Ann Street Pier. <p>Gellibrand Pier is leased by Mobil Oil Australia Ltd (Mobil) primarily for importing crude oils and exporting crude oil derivatives. These products are transferred by pipeline between ships at Gellibrand Pier and the Mobil Altona refinery. The products are temporarily stored at Mobil’s Gellibrand Pier tank farm which is designated by VWA as a Major Hazard Facility (MHF).</p> <p>Breakwater Pier is no longer used for commercial ship operations. A section of the pier has been refurbished for use by marine contractors to temporarily moor dredges and barges.</p> <p>There is a port maintenance depot at Ann Street Pier. The depot is leased by PoMC to a marine services contractor under a tendered services basis. Ann Street Pier is part of the maintenance facility and is used for the mooring of marine contracting equipment.</p>
<p>Newport</p>	<p>Within the Newport precinct, PoMC acts as landlord for a strip of riverside land between Greenwich Bay and West Gate Bridge. This land is used by four oil companies that own and operate refined petroleum pipelines within the area:</p> <ul style="list-style-type: none"> • Shell Company of Australia Ltd (Shell) • BP Australia Ltd (BP) • Mobil

Precinct	Activities
	<ul style="list-style-type: none"> • Caltex Australia (Caltex). <p>The refined petroleum pipelines in the area intersect with distribution facilities known as 'Industry Cages', such as the facility known as the 'Y-cage' on port land. The pipelines are maintained by the individual oil companies.</p> <p>Scienceworks leases a jetty for ferry access for its patrons within the Newport precinct.</p>
Holden Dock	<p>The Holden Dock precinct is a common user bulk liquid berth owned and maintained by PoMC. The berth is used by the oil industry primarily for the transfer of refined petroleum products. The oil companies own, operate and maintain product transfer infrastructure and pipelines running from Holden Dock to off-port area storage and/or processing facilities. Mobil is the main operator of the facility. Mobil's Yarraville terminal situated next to Holden Dock on freehold land has storage facilities for approximately 100,000 tonnes of refined oil products (petroleum, jet fuel and diesel fuel).</p>
Yarraville	<p>The Yarraville precinct is located along the western bank of the Maribyrnong River from Holden Dock upriver to Somerville Road. Port and non-port land between Whitehall Street and the river is occupied by a number of business including:</p> <ul style="list-style-type: none"> • Albright and Wilson (Aust) Limited (Albright & Wilson) • Orica Australia Pty Ltd (Orica) • CSR. <p>While these business have storage and/or processing facilities on private land outside the port boundary, Albright & Wilson and CSR lease a strip of riverside land from PoMC. There are two operational berths within this area:</p> <ul style="list-style-type: none"> • Yarraville No. 5 berth is leased and operated by CSR's joint venture operation, Sugar Australia and is used for the import of raw sugar and gypsum for CSR Gyprock. • Yarraville No. 6 berth is a common user berth owned and maintained by PoMC. The berth is used for short-term hire, primarily by companies handling dry bulk commodities e.g. soy bean meal, and is also used for discharging bulk liquid acid. Sulphuric acid is imported by Orica and transferred by pipeline to nearby holding tanks on Orica land, and phosphoric acid is imported by Albright & Wilson and transferred by pipeline to nearby holding tanks on port land leased by Albright & Wilson. <p>The large parcel of land at 221 Whitehall Street at the northern end of this precinct is owned by PoMC.</p>
Maribyrnong	<p>The Maribyrnong precinct is located on the western bank of the Maribyrnong River north of Somerville Road to Shepherd Bridge.</p>

Precinct	Activities
	<p>The land is occupied and used by transport companies for storage of empty containers and a processed foods factory.</p> <p>PoMC is currently redeveloping Footscray Wharves as a small boat mooring facility</p>
Coode Island	<p>The Coode Island precinct is located on the eastern bank of the Maribyrnong River where Maribyrnong No. 1 common user berth and operator bulk liquid storage facilities are located.</p> <p>Coode Island is used as a transit storage facility for imported and exported chemical and food grade products. These products prior to export, or immediately following import can be stored for relatively long periods (3-4 months) with additional deliveries by truck to the users manufacturing plant on a 'just-in-time' basis.</p> <p>The storage operators that lease land within the Coode Island area are:</p> <ul style="list-style-type: none"> • Terminals Pty Ltd (Terminals) • Marstel Terminals Pty Ltd (Marstel) • Pacific Terminals (Australia) Pty Ltd (Pacific Terminals) • Anchor Tank Pty Ltd (Anchor Tank) • Gordon Brandon (Vic) Pty Ltd (Gordon Brandon). <p>Maribyrnong No. 1 berth is a common user berth owned and maintained by PoMC. The storage facility operators own, operate and maintain product transfer infrastructure and pipelines running from Maribyrnong No. 1 berth to the adjacent storage facilities.</p>
Swanson / Appleton / Victoria Dock	<p>The Swanson/Appleton/Victoria docks precinct includes the following areas.</p> <p><i>Swanson Dock</i></p> <ul style="list-style-type: none"> • Swanson Dock East international container terminal covers an area of approximately 41 ha. It is leased and operated by Patrick Stevedores Pty Ltd (Patrick) and is serviced by seven container cranes. • Swanson Dock West international container terminal covers an area of approximately 34 ha. It is leased and operated by DP World and is serviced by eight container cranes. • Container parks and other logistics facilities along Coode Road and Appleton Dock Road are leased to various companies. Rail sidings are located in depot sites in Coode Road at P&O Trans Australia and at Coode Rd / Appleton Dock (Patrick rail terminal). • Cold storage and food storage logistics facilities along the south side of Coode Road are leased and operated by Murray-Goulburn Co-operative Co Ltd, and Montague Cold Storage Pty Ltd. • Australian Customs Service operate a container X-ray and examination facility at Mullaly Close

Precinct	Activities
	<p><i>Appleton Dock</i></p> <ul style="list-style-type: none"> • Appleton Dock comprises five berths and two associated sheds and stacking areas and is used for handling dry bulk and general cargoes. • Berths B, C, D and E are leased and operated by P&O Automotive & General Stevedoring (POAGS). The site is a multipurpose facility offering general cargo handling and motor vehicle import facilities. • Berth F is a common user facility owned and maintained by PoMC and is also the preferred facility for grain exports and imports via the Melbourne Terminal Operations adjacent grain terminal. <p><i>Victoria Dock</i></p> <ul style="list-style-type: none"> • The 22-24 Victoria Dock area is leased by Westgate Ports as a multipurpose port and rail terminal to cater for general cargoes. • To the rear of the stacking area at 24 Victoria Dock is a PoMC marine maintenance facility comprising a small vessel slipway and associated straddle operation.
<p>South Wharf</p>	<p>The South Wharf precinct extends along the south-eastern bank of the River Yarra from the Bolte Bridge to the West Gate bridge. Thirteen hectares of port land is located between No's 25 to 35 South Wharf.</p> <p>Melbourne Cement Facilities (MCF), a joint venture between Independent Cement and Cement Australia, operates 26 South Wharf and the rear area for bulk cement imports and includes two large storage silos and cement despatch facilities.</p> <p>Continental Freight Services (CFS) operates the 27–31 South Wharf landside area mainly for cargo logistics operations and project cargoes.</p> <p>Steel Cement operates at the rear of 32 South Wharf for the storage and processing of imported blast furnace slag.</p> <p>Pozzolanic Enterprises Pty Ltd, part of Cement Australia, operates at the rear of 33 South Wharf for the storage, import and processing of bulk fly-ash.</p> <p>Other areas of South Wharf are used for port ancillary services such as towage operations and other port related activities such as ship lay-up and container storage.</p> <p>The South Wharf precinct also includes a number of mixed uses including commercial uses associated with the Pier 35 development as well as PoMC's Melbourne Vessel Traffic Services (VTS) and the Port Education Centre.</p>
<p>Webb Dock</p>	<p>The Webb Dock precinct includes both Webb Dock East and West areas and Williamstown Road and the west side of Todd Road areas. Webb Dock is used for both coastal and overseas shipping,</p>

	<p>the import and export of cars, general cargo and some container trades.</p> <ul style="list-style-type: none"> • Webb Dock No. 1 (leased by Toll Shipping) and Webb Dock No.2 (leased by SeaRoad Shipping) provide Roll On–Roll Off (Ro/Ro) daily shipping services between Melbourne and Tasmania. • Webb Dock Nos. 3-5 are leased and operated by Patrick. The berths include Ro/Ro facilities for motor vehicle imports and the area to the rear of berths 4 and 5 is used by Patrick as a car terminal. The berths also handle some containers and general cargo and include a container crane and a large mobile crane. • Webb Dock West is leased and operated by Australian Amalgamated Terminals (AAT). This is a Ro/Ro facility dedicated to motor vehicle imports and exports. <p>A small wharf is located at the riverfront near the end of Williamstown Road and is used for the loading of barges etc associated with marine maintenance activities.</p> <p>The Williamstown Road north area and the areas west of Todd Road are currently undeveloped.</p>
<p>Station Pier</p>	<p>Station Pier is a traditional timber pier used mainly as a sea passenger terminal and accommodates visiting cruise ships, Bass Strait ferry services, Royal Australian Navy and other non-commercial ships.</p> <p>Station Pier offers three berths (outer east and west and inner west) with a total length of 713 metres available for cruise ships. A fourth berth (inner east), is the permanent home of TT-Line’s <i>Spirit of Tasmania</i>, car and passenger daily ferry service between Tasmania and Melbourne.</p> <p>Station Pier provides full customs and quarantine security for cruise shipping. The pier can be physically isolated for security purposes.</p> <p>Station Pier's International Passenger Terminal has a corporate centre and office facilities.</p>
<p>Port Waters</p>	<p>In general terms, the Port of Melbourne waters extend from the River Yarra downstream of the Bolte Bridge and the Maribyrnong River from just upstream of the Maribyrnong No. 1 berth to Hobsons Bay and then incorporating the channels and fairways of Port Phillip that are used by commercial shipping to three nautical miles outside Port Phillip Heads.</p> <p>The port waters include channels leading to and around Station Pier. Waters within Port Phillip that are outside Melbourne port waters are separately managed by Parks Victoria. In addition to port activities these waters convey and discharge from the Yarra and Maribyrnong catchments, provide habitat for estuarine flora and fauna, are used for recreation purposes (e.g. sailing, fishing) and are a source of water supply for industry and a receptor for</p>

	<p>industrial discharges.</p> <p>Activities within port waters include provision of aids to navigation, Vessel Traffic Services and channel maintenance. PoMC has navigation aid maintenance agreements in place. Dredging services are contracted and managed under specific contracts and consents.</p>
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4.4 Port facilities and services

4.4.1 Port facilities

The Port of Melbourne has 34 commercial berths at docks, river wharves and piers (refer [Table 3](#)).

The berths service two modern, purpose-built international container terminals as well as multi-purpose berths that handle cargoes ranging from timber to motor vehicles and specialised berths for dry cargoes including cement, grain, sugar, fly-ash and gypsum, plus dedicated facilities for a variety of liquids, from molasses to crude oil and petrochemicals, using the latest handling methods.

Private terminal operators operate the main freight facilities. Common user facilities for general cargo are provided by PoMC for itinerant users on a licence basis.

The port provides five types of commercial shipping facilities:

- container terminals
- multi-purpose terminals (including general cargo, motor vehicles and coastal trade)
- dry bulk berths and storage
- bulk liquid berths and storage
- passenger berths.

Table 3 - PoMC berths and uses

Berth	Port uses include
B, C and D Appleton Dock	General cargo terminals
E Appleton Dock	Multi-purpose (coastal shipping)
F Appleton Dock	Dry bulk cargo terminal – common user
Gellibrand Pier	Bulk liquid terminal (Mobil)
Holden Dock	Bulk liquid terminal – common user
Maribyrmong No. 1	Bulk liquid terminal – common user
26 South Wharf	Dry bulk cargo terminal
27 South Wharf	Lay up berth
28 / 29 South Wharf	Multi-purpose cargo terminals
33 South Wharf	Dry bulk cargo terminal – common user
1 / 2 / 3 / 4 Swanson Dock East	Patrick international container terminal
1 / 2 / 3 / 4 Swanson Dock West	DP World international container terminal
24 Victoria Dock	Multi-purpose cargo terminal
1 Webb Dock East	Multi-purpose cargo (coastal shipping)
2 Webb Dock East	Multi-purpose cargo and containers
3 / 4 / 5 Webb Dock East	Multi-purpose cargo and containers
Webb Dock West	Multi-purpose cargo (cars)
5 Yarraville	Dry bulk cargo terminal - privately owned berth
6 Yarraville	Dry and liquid bulk cargo terminal – common user
Station Pier IE, IW, OE, OW	Passenger terminal (cruise ships and coastal shipping (TT-Line)

Note:

Breakwater Pier – not in operational use

22 Victoria Dock – not in operational use

4.4.2 Channel services

The Port of Melbourne shipping channels, managed and maintained by PoMC, provide safe and efficient access to the port. PoMC's General Manager Marine and Navigation Services is the licensed harbour master for the Port of Melbourne. Vessel Traffic Services (VTS) provided by PoMC include:

- 24-hour commercial shipping control service
- a central coordination point for the ordering of pilot services, towage, line boats, linesman, quarantine services and customs
- hydrographic surveys of the port waters
- planning and supervision of contracts for minor capital and maintenance dredging of commercial shipping channels and berths

- planning and supervision of contracts for provision and maintenance of all navigation aids for commercial shipping
- first-response port emergency coordination, including oil pollution
- strategic planning for the future needs of commercial shipping.

4.5 Identification and location of all key tenancies in the port

Within the port, there are a number of lease agreements, licence agreements and preferential berthing agreements in place. Leases are generally longer-term agreements (e.g. 5, 10, 15, 20 years) with licence agreements being shorter-term generally non-exclusive agreements (e.g. 60 days, 12 months) and may have a rolling renewal. The purpose of these different types of agreements is generally as follows:

- lease agreements for operational terminals, depot areas, etc.
- licence agreements for pipelines, equipment, short-term use of areas, etc.
- preferential berthing agreements for exclusive use of particular berths.

All new leases and licences include tenant obligations for meeting security requirements, OHS requirements and requirements to establish an environmental management plan (EMP) and report on outcomes. PoMC provides a template for tenants to create a Health, Safety and Environment Management Plan (HSEMP)

4.6 Port service providers

Port service providers provide services that are in addition to the normal stevedoring and cargo/transport operations occurring in the port. Port service providers that do not have a contractual relationship with PoMC include:

- pilotage
- towage
- mooring and unmooring of ships
- linesboats
- bunker barge operations
- provedores
- quarantine and non-quarantine waste collection services
- berth and area cleaning
- marine facility maintenance
- first aid response to subscribing port users
- wharf labour
- ship repairs and engineering.

PoMC does provide limited services under contract including:

- marine pollution response and investigation
- tanker watch duties
- Maritime Security Guards

4.7 Location of dangerous goods and hazardous cargo areas

Figure 11 identifies the areas within the port where dangerous goods are handled and stored. Specific areas are described below.

4.7.1 Coode Island

Bulk liquids (chemical and food-grade products) are imported and exported by a range of users through Maribyrnong No. 1 berth (a common user berth). Five operators store the liquids in bulk storage tanks that are served by pipelines running from the berth to each operator's site.

Terminals and Marstel Terminals are the two major operators handling bulk liquid dangerous goods within the Coode Island area. Both are registered as Major Hazard Facilities (MHFs) and store and transfer a range of flammable, combustible, corrosive and toxic materials through their sites.

A number of other (non-MHF) companies on Coode Island store and transfer a range of other products:

- Anchor Tank stores products such as tallow
- Gordon Brandon store caustic soda and molasses
- Pacific Terminals store a range of products (white oils, vegetable oils, resins, polyols, tallow, lube additives), some of which are combustible
- DP World's Swanson Dock West container terminal (berths 1-4), handle shipping containers, of which approximately five per cent contain dangerous goods.

Bulk liquid storage facilities, bulk liquid pipelines and Maribyrnong No. 1 berth located at Coode Island are shown in Figure 13.

4.7.2 Gellibrand Pier - Williamstown

Gellibrand Pier is used by Mobil for importing crude oils and exporting crude oil derivatives. These products are transferred by pipeline between ships at Gellibrand Pier and the Mobil Altona refinery at Altona. The products are temporarily stored at Mobil's Gellibrand Pier tank farm which is designated as an MHF. Gellibrand Pier and the Mobil tank farm site are adjacent to the BAE Systems shipbuilding facility and Breakwater Pier. Bulk liquid storage facilities, industry pipelines and Gellibrand Pier berth are shown in Figure 14.

4.7.3 Holden Dock – Yarraville

Holden Dock is a bulk liquid common user berth and is used by four oil companies (Mobile, Shell, BP, Caltex) who import and export refined oil products (petroleum, jet fuel, aviation gasoline and diesel fuel) at the berth.

These companies operate and maintain pipelines running from Holden Dock to an oil industry distribution facility downstream of West Gate Bridge then on to their individual storage facilities. These adjacent storage facilities are on nearby freehold land. Holden Dock berth and oil industry pipelines are shown in [Figure 15](#).

4.7.4 Yarraville No. 6 berth

Yarraville No. 6 is a common-user berth and is mainly used for handling dry bulk commodities but also facilitates the import of phosphoric acid and sulphuric acid. Albright & Wilson, an adjacent inorganic chemical manufacturer leases a strip of riverside land from PoMC to operate and maintain tanks for the storage of phosphoric acid. Albright & Wilson also owns and maintains a phosphoric acid pipeline between these tanks and the berth face.

Orica also owns and maintains a sulphuric acid pipeline between the berth and sulphuric acid storage tanks on their land adjacent to Yarraville No. 6 berth.

Bulk liquid storage, Yarraville No. 6 berth and industry pipelines are shown in [Figure 16](#).

4.7.5 Swanson Dock

More than 90 per cent of shipping containers handled by the port are handled through Swanson Dock. Around five per cent of these contain dangerous goods. There are two major stevedoring companies operating at Swanson Dock:

- DP World (at berths 1-4 Swanson Dock West)
- Patrick (at berths 1-4 Swanson Dock East)
- Swanson Dock container and general cargo facilities are shown in [Figure 17](#).

4.7.6 Webb Dock

Webb Dock is where the majority of coastal shipping operations take place including vehicle imports and exports (berth No. 2 Webb Dock West).

There are minor quantities of dangerous goods in shipping containers handled at Webb Dock by the following stevedoring companies:

- Toll Shipping (at berth 1 Webb Dock East)
- Searoad Shipping (at berth 2 Webb Dock East)
- Patrick (at berths 3, 4 and 5 Webb Dock East).

The operational areas of Webb Dock are shown in [Figure 18](#).

4.7.7 Other areas within port

There are a number of other areas within the port that may receive minor quantities of dangerous or hazardous goods either in breakbulk cargo or containers. These are primarily:

- P&O Automotive and General Stevedoring at B and D Appleton Dock
- Continental Freight Services at 27-30 South Wharf
- Westgate Ports 22-24 Victoria Dock
- TT-Line at Station Pier ([Figure 19](#)).

4.7.8 Dangerous Goods Pipelines

There are four main areas in the port where pipelines are located for the transfer of bulk liquid dangerous goods, these are:

- From Maribyrnong No. 1 berth running along the east side of the Maribyrnong River bank, leading into bulk liquid storage facilities.
- From the berth face at Gellibrand Pier running into the Gellibrand tank farm.
- From the Holden Dock facility running down the west side of the river bank to the oil industry distribution facility.
- From the berth face at 6 Yarraville to adjacent storage facilities.

These pipelines are indicated in Figures [13](#), [14](#), [15](#) and [16](#).

Figure 13 – Bulk Liquid Storage, Pipelines and No.1 Maribyrnong Berth at Coode Island

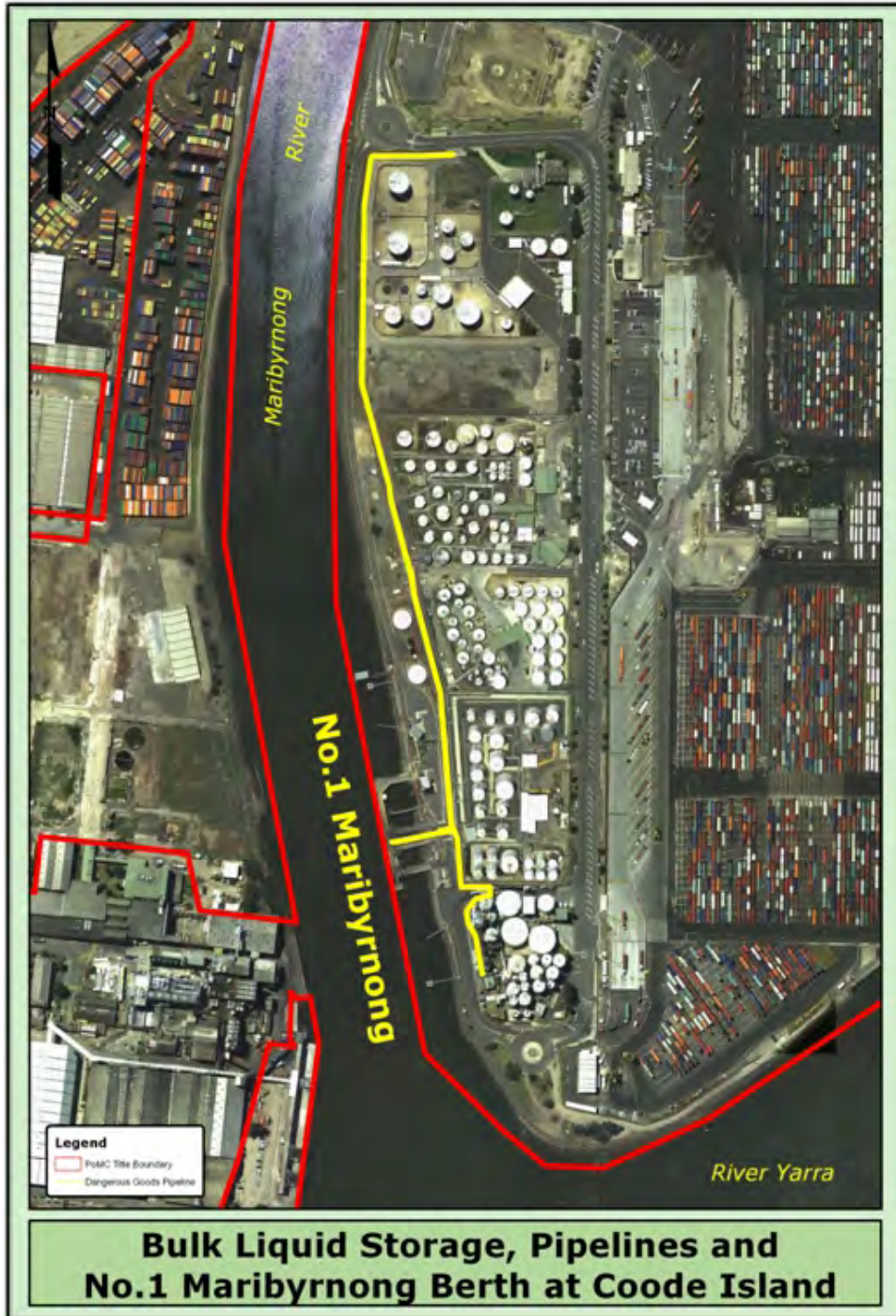


Figure 14 – Bulk Liquid Operations and Oil Industry Pipeline Gellibrand Pier



Figure 15 – Bulk Liquid Operations and Oil Industry Pipelines Holden Dock

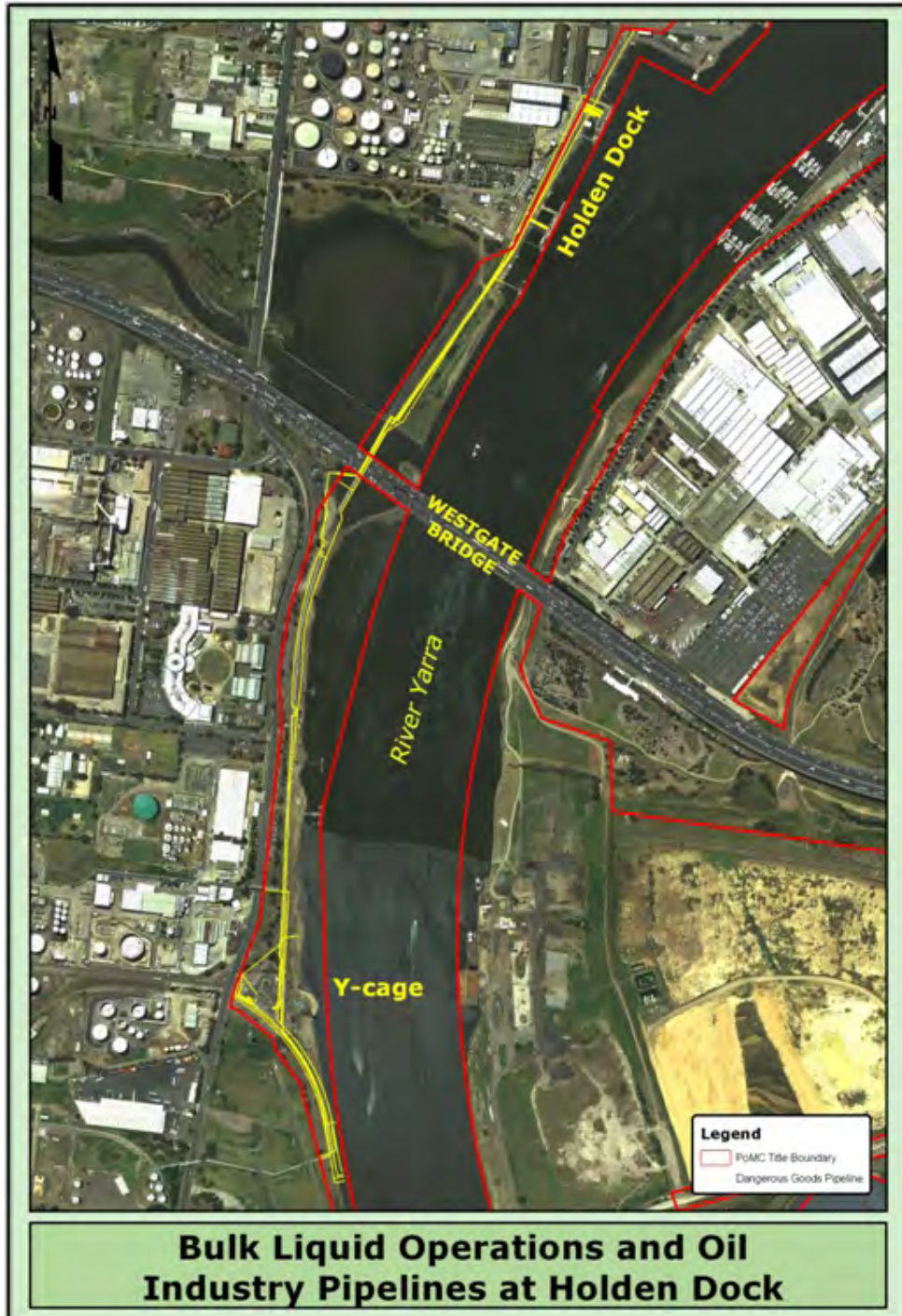


Figure 16 – Bulk Liquid Operations and Industry Pipelines 6 Yarraville



Figure 17 – Container & General Cargo - Swanson Dock



Figure 18 – Coastal & General Cargo – Webb Dock



Figure 19 – Passenger Terminal – Station Pier



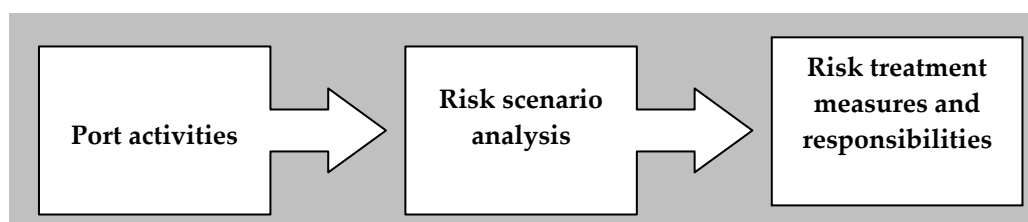
5 Risk identification and management

5.1 Risk management approach

An activity-based risk management approach is used for the identification and management of the risk issues with detrimental outcomes in the Port of Melbourne. This approach is structured around the development of a PAM, which details the risks and management strategies for each of the port's core activities.

The PAM captures and displays risk management information. This approach provides for a systematic, comprehensive and robust process, to enable the risk scenarios to be clearly represented, understood, communicated and managed. Furthermore, the approach enables the management of potential environmental and safety risks at their source from which management strategies are targeted towards risk prevention. The risk management approach is summarised in [Figure 20](#).

Figure 20 – Activity-based risk management concept



The key steps in the risk management approach are summarised in [Table 4](#) and described in further detail in Section 5.2. These steps are consistent with the risk management principles outlined in:

- AS/NZS ISO 31000 Risk management – principles and guidelines
- Port Management Act (s.91D) and SEMP Ministerial Guidelines 2009
- ISO 14001 Environmental Management Systems – Requirements with Guidance for Use (2004)
- AS 4801 Occupational Health and Safety Management Systems (2001)
- PoMC *Risk Management Policy* (July 2010)
- PoMC Risk Management Procedures (March 2010)

The identification and analysis of each risk scenario continuously draws from and builds on the significant amount of safety and environmental risk knowledge embodied within existing reports and studies commissioned by PoMC.

PoMC Risk Management Procedures also allows for the use of Quantitative Risk Assessment (QRA) techniques which can be used for specific activities where a quantitative risk outcome is required.

During 2011, PoMC will be conducting a gap analysis and review of its Risk Management Systems against AS/NZS ISO31000. Expected outcomes are

recommendations for alignment (against the standard) and other improvements including development of 'opportunity' risk.

5.2 Risk management steps

A summary of the key steps in the development of the PAM are listed in Table 4.

Table 4 – SEMP risk management steps

Step	Outcome*
1. Identification and establishment of port management objectives	By establishing key port management objectives for a safe and environmentally sustainable port, PoMC sets the context for review of activities and associated risks
2. Identification and description of port activities	List all significant activities (both land and water based) that are conducted within the port, including those undertaken by tenants, licensees and service providers.
3. Definition of roles and responsibilities	Identify the responsible agencies, port responsibilities and other parties for implementing control measures and strategies. This step is completed at a high level and does not represent a detailed process map.
4. Risk identification	Identify the nature and extent of the hazards and risks with detrimental outcomes associated with the port's operations, using recent risk assessments, PoMC expertise and stakeholder input.
5. Control measures	Specify the measures and strategies currently implemented to prevent or reduce the identified hazards and risks.
6. Risk assessment workshop	Assess the likely impact of those hazards and risks on the Port of Melbourne and environs. This process was the culmination of previous risk work, consultation with stakeholders and relevant PoMC expertise.
7. Risk treatment	Specify the measures and strategies to be implemented to further prevent or reduce the risk from the identified events and nominate the responsibilities for implementing the measures and strategies.
8. Measurement and Monitoring	Controls and implemented treatments are monitored for compliance against agreed measures to establish feedback processes

*Based on requirements of s. 91D, Port Management Act 1995.

5.2.1 Identification and description of port activities

Port activities are identified by dividing the port into its core activities. The core activities have been identified as:

- vessels transiting port waters
- commercial vessel berthing/unberthing and alongside (including ship/shore cargo transfer at berth)
- activities on port land.

Each of the core activities are then reviewed to identify the principal activities. These activities range from those over which PoMC has direct control to those over which PoMC only has influence.

5.2.2 Definition of roles and responsibilities

In this step, each of the identified principal activities within the port are reviewed to determine the principal roles and responsibilities for daily control and management of the activity as relevant for all stakeholders. This step considers the high level roles and responsibilities and does not represent a detailed process map.

5.2.3 Risk identification

This step involves the identification of the risks to be included in the remaining steps of the management process. The identification of risk scenarios are completed using a systematic analysis of the core activities and associated activities to identify the principal risks. This step also attempts to identify as far as practicable the risks to the Port of Melbourne associated with the tenants' and service providers' activities.

The risks identified are verified by the relevant PoMC representatives with appropriate expertise in the safety and environmental fields and again analysed in a risk workshop. The workshop drew upon:

- information from previous reports and workshops
- existing safety and environmental risk registers
- description of each activity
- knowledge of previous incidents (in the port of Melbourne and other ports).

In the detailed PAM, each identified risk is analysed to establish the:

- description of risk/incident – brief outline of the risk or types of incident which could potentially result from the activity
- impacts – determine the nature of the impact from the identified incident
- consequence type – determine whether the event could pose an environmental and/or safety impact.

5.2.4 Control measures

Each of the principal risks were reviewed to identify the control measures that currently exist to either:

- prevent the risk arising; or
- to mitigate the consequence of an incident.

During the risk assessment workshop a qualitative review of the effectiveness of these controls was completed. This step aided in the identification and selection of risk treatment measures.

The control measures were split between those which PoMC has direct responsibility for and those which are managed by other parties, e.g. service providers, tenants, shipping operators, transport operators.

In 2009, a review of the effectiveness of the key controls (those control measures that provide significant risk reduction) identified in the PAM was undertaken. The review was conducted by discussion with PoMC personnel in the departments responsible for management of the control and analysed four aspects of the control, namely:

- Dependability
- Practicality
- Monitoring
- Workforce Involvement

As a result, the 67 key controls were consolidated to 35. In percentage terms, 76% of the rated controls were rated high, 15% rated satisfactory and 9% rated fair. The consolidation and rewording of the key controls have been reflected in the SEMP and PAM.

5.2.5 Risk assessment workshops

The purpose of the risk assessment process is to identify the principal risks within the port and to ensure that management strategies are in place to minimise them. PoMC believes that risk assessments are an important aspect of the development of management strategies and conduct regular global and targeted risk assessments. The results from these assessments are used to update the detailed PAM.

The risk assessment process are undertaken through workshops consistent with PoMC *Risk Management Policy*

5.2.6 Risk treatment

During the compilation of the PAM, a number of risk treatment measures were identified to ensure further risk reduction. These measures originated from a number of sources, and were facilitated by the overall risk assessment and management process including:

- risk treatments resulting from other port studies or initiatives
- review of the Environmental Risk Register
- review of the Safety Risk Register
- introduction of new measures where PoMC are able to provide risk reduction to a High or Extreme risk.

It is acknowledged that the responsibilities and operational controls for an activity consist of those provided by PoMC and those provided by 'other parties'. The risk assessed is for the hazard/risk itself and its identified outcome (impact). Where a risk for an identified scenario requires risk reduction to be undertaken, it is recognised that this may be undertaken by a number of parties (including PoMC) rather than a single party, as a number of activities have shared responsibility.

PoMC undertook the risk assessment and identification of treatment measures (which helped in the determination of residual risk) internally, and used previous risk work, consultation with stakeholders and PoMC expertise, which culminated in the detailed PAM. As risk management is an iterative process, these risks are reviewed regularly through the further engagement of stakeholders to determine additional strategies or measures to manage risks within the port to a level ALARP.

During reviews of the PAM, previously listed treatments are assessed for currency. Some treatments will have been implemented and are then listed as controls. Uncompleted treatments remain while occasional a proposed treatment will be withdrawn based on re-assessment of effectiveness or other factors.

The SEMP records treatments and currency in Table 9

6 Summary Port Activity Map (PAM)

A comprehensive PAM for PoMC was developed as part of the SEMP process. This PAM was prepared using the approach outlined in [Section 5](#) – Risk identification and management. The map analyses all relevant risk scenarios for port operations. This activity map is an integral reference for the PoMC SEMS.

The summary PAM consists of four parts that are detailed in Table 5.

Table 5 - Summary PAM

Part	Description	Reference
Part 1	A high-level activity diagram which provides a representation of the port's core activities and then identifies the principal activities which fall under each area. Importantly, this diagram shows the interface between the land and water activities under the port operations. An outline of the identified core activities is also included in Table 6 – Port of Melbourne core activities	Figure 21 - Activities Table 6 – Port of Melbourne core activities
Part 2	A summary of the principal safety and environmental risk scenarios for the core activities.	Table 7 - Activity, risk and responsibilities
Part 3	An example of the principal controls and compliance agencies in the management of the risks. ¹	Table 8 – Example of existing control measures
Part 4	The significant safety and environmental risks for the Port of Melbourne are highlighted in Table 7 - Activity, risk and responsibilities ² on the basis of existing controls. Consideration of residual risk and treatment measures are included in Table 9 – PoMC treatment measure implementation plan and Appendix A.	Table 9 – PoMC treatment measure implementation plan Appendix A - PoMC treatment measure implementations register

Notes:

1. It is important to note that many of the safety and environment management controls for ports are underpinned by international conventions, Commonwealth legislation, Victorian legislation, international and Australian standards and codes of practice. Where a control is underpinned by legislation it becomes a mandatory requirement. If there is a conflict within the legislation the Commonwealth legislation prevails over Victorian legislation. Signatories to international conventions are bound by those conventions; however, there are no sanctions if they are not adhered to. They act as a benchmark for acceptable international standards (some international conventions have been enacted through Commonwealth legislation). Standards and codes of practice are for guidance and only provide minimum standards, they may, however, be called up in a court of law to determine the minimum acceptable industry and community standards.
2. In Table 7 [Risk Scenario], a number of the risk scenarios are highlighted in bold italics to indicate that these are significant risks. The significant risks are defined as the hazard/risk scenarios that were assessed within the internal PoMC risk workshop to constitute a high, very high or extreme risk considering the current control measures (using the PoMC Corporate Risk Policy). In all cases, the significant risks were safety related.

Additional information on treatment measures for these risks is contained in Section 7.4 and Table 9 and Appendix A.

Table 6 – Port of Melbourne core activities

Core activity	Description
<p>Vessels transiting port waters * (Activities 1.1 – 1.7)</p>	<p>The management of vessel navigation and other on-water activities, including vessels entering or clearing port waters between Port Phillip Heads to approaching the berth.</p> <p>Includes pilotage, vessel arrival coordination with shipping agents, Customs and AQIS through online systems, anchorage management, interaction with other vessels, recreational, towage and marine communication including rescue.</p> <p>Also covered is dredging, inspection, maintenance and construction of navigation aids, PoMC-controlled small boating activity and diving activities.</p>
<p>Commercial vessel berthing / unberthing and alongside * (Activities 2.1 – 2.7)</p>	<p>Vessels berthing/unberthing relates to the management of activities required to moor the ship (or vice versa), re-tensioning of the mooring lines and re-positioning of the vessel at the berth.</p> <p>Vessel/land transfers at berth relates to activities taking place at the wharf/vessel interface while the ship is berthed. This includes ship waste disposal, bunkering/refuelling, ballasting operations, maintenance activities and personnel access and egress.</p> <p>Also covered is Station Pier passenger terminal and hazardous bulk liquid transfers.</p>
<p>Activities on port land (Activities 3.1 – 3.8)</p>	<p>All activities and facilities on port land that are required to move and store handled cargo and the loading/unloading of cargo onto/from trucks / trains for transport by road and rail. This also includes the movement of cargo by pipeline. This encompasses the movement of the freight through the port and the impact these activities have on the surrounding community.</p> <p>Other activities considered are management of open space, marina developments, slipway ship maintenance and repairs, development and maintenance of port infrastructure, utilities infrastructure, service providers/tenant/common user activities (including cargo movement). Also covered is the mobilisation of existing contamination from tenant activities.</p>
<p>Generic activities (respectively across all of the above activities)</p>	<p>Port security Emergency response AQIS activities Customs activities Communications processes Incident reporting and management</p>

* Note – During 2011 PoMC is conducting a major Marine and Navigation Risk Review which will significantly contribute to PoMC risk awareness and will be included in future Port Activity Map updates.

Figure 21 – Activities

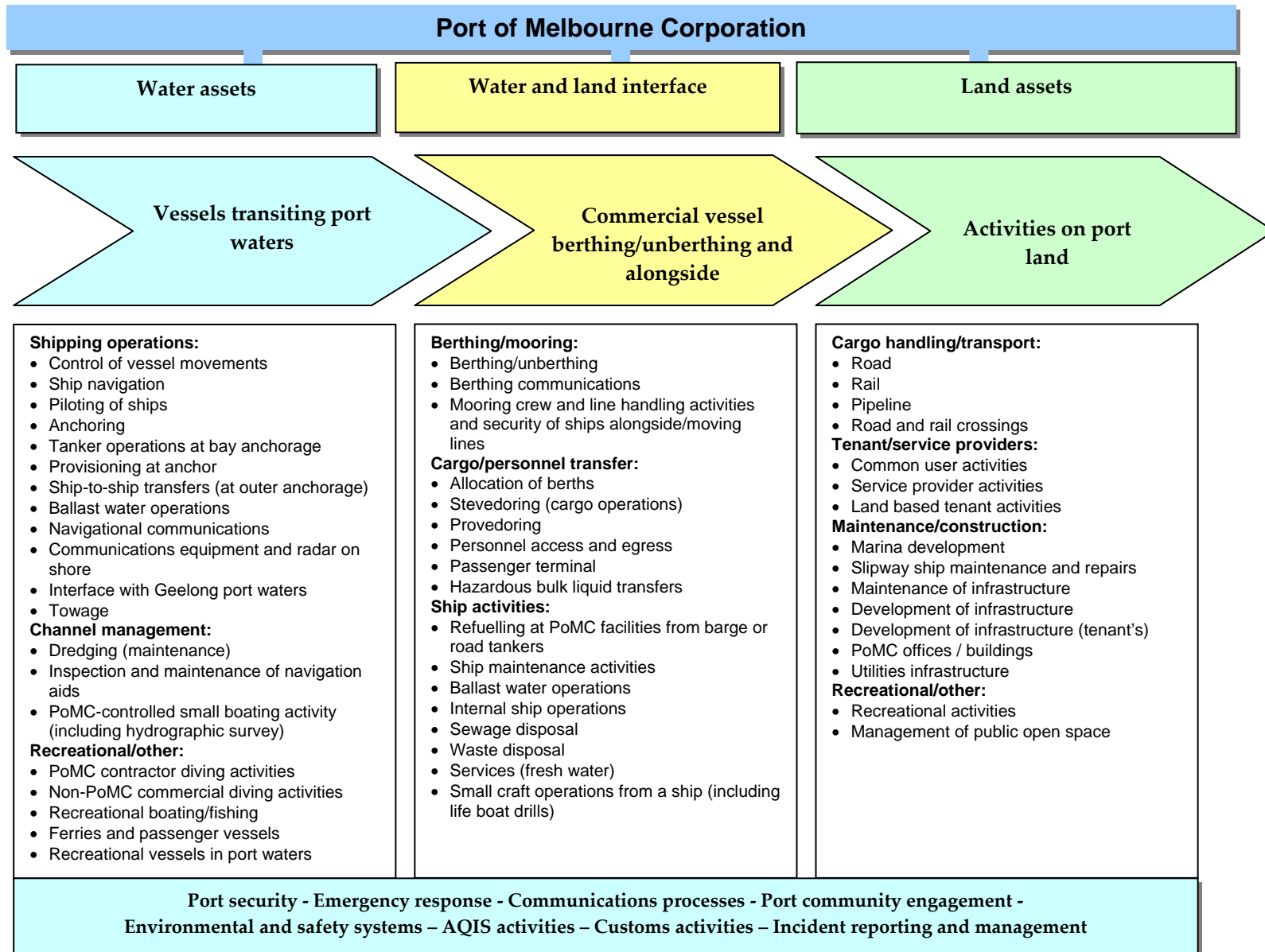


Table 7 - Activity, risk and responsibilities

Summary Activity Map

Activity description	Risk scenario Note: risks highlighted in bold italics are deemed to be significant risks	Responsibilities
<p>1.Vessels transiting port waters</p> <p>1.1 Commercial and recreational vessels transiting port waters</p>	<ul style="list-style-type: none"> • <i>Incident during pilot embarking/disembarking at pilot boarding ground/inner and outer anchorages.</i> • <i>Collision of commercial vessel with pilot vessel.</i> • <i>Collision of commercial vessel with other vessel/tug.</i> • <i>Commercial vessel runs aground.</i> • <i>Commercial vessel sinks.</i> • <i>Commercial vessel sinks resulting in a port blockage.</i> • <i>Collision of commercial vessel with: navigation aid, structure, berth, bridge, container crane.</i> • Excessive and nuisance emissions to atmosphere (noise (whistles and engines), stack emissions, odour, light) from vessels. • <i>Incidents involving recreational vessels in port waters, e.g. collision between commercial vessel and recreational craft (power boat, yachts, rowing boat, etc.).</i> 	<p>Once vessels enter port waters at 3 nm south of Point Lonsdale, PoMC is responsible, through the Harbour Master [GM Marine & Navigation Services] for ensuring that all safety and environmental requirements are adhered to with respect to the safe passage of the vessel to its berth. Under the general powers of Harbour Master in relation to vessels section 26 Marine Act 1988, the Harbour Master may direct and control the time and manner in which a vessel may enter or leave port waters, navigation and movement, position of where the vessel may anchor or be secured, time and manner of taking or discharging cargo, stores, fuel, fresh water and ballast, and the securing or removal of any vessel within port waters. PoMC is also responsible through the Harbour Master for the maintenance of safe and navigable channels and coordination of vessel movements.</p> <p>In waters where PoMC has no responsibility, TSV, AMSA and EPA have direct responsibility for navigation and environmental regulation of shipping.</p> <p>Pilotage is undertaken by private service providers. The pilots are licensed by TSV. There are pilot boarding grounds 3.5 – 5.5 nm SW of Point Lonsdale. Towage and mooring</p>

Activity description	Risk scenario Note: risks highlighted in bold italics are deemed to be significant risks	Responsibilities
		<p>services are provided by private companies. Emergency management roles and responsibilities are defined under the <i>Emergency Management Manual Victoria (EMMV)</i>. The Victorian Regional Channels Authority (VRCA) is responsible for Port of Geelong waters. Parks Victoria is responsible for Port Phillip Bay waters. Includes risk event for a recreational vessel transiting through port waters. In this instance, PoMC has responsibility through the Harbour Master for the management of these vessels.</p>
<p>1.2 Ship-to-ship transfers of materials/cargo (includes provisioning and bunkering)</p>	<ul style="list-style-type: none"> • Incident during ship-to-ship transfer at anchorage (outer). • Incident during personnel transfer between vessels. 	<p>Ship-to-ship transfer of bulk liquid cargoes in port waters requires the written permission of the Harbour Master. This activity is undertaken at the Port Melbourne Outer Anchorage.</p>
<p>1.3 Ballast water operations</p>	<ul style="list-style-type: none"> • Loss of containment of contaminated ballast water. 	<p>EPA ensures the protection of the beneficial uses of Victoria’s environment through the Environment Protection (Ships Ballast Water) Regulations 2006. DSE works with other government agencies and shipping and port industries to enhance domestic ballast water risk assessment processes and tools. Harbour Master has (reserve) powers to determine when a ship may discharge ballast water.</p>

Activity description	Risk scenario Note: risks highlighted in bold italics are deemed to be significant risks	Responsibilities
<p>1.4 Dredging Includes maintenance dredging and minor capital dredging. Note: does not include Channel Deepening Project.</p>	<ul style="list-style-type: none"> • Impact from dredging activities. 	<p>Dredging work is undertaken by contractors for PoMC [EGM Port Operations]:</p> <ul style="list-style-type: none"> ▪ Minor maintenance typically conducted annually. ▪ Major maintenance typically conducted at 4 to 5 yearly intervals ▪ Minor capital conducted as required. <p>Maintenance dredging will be conducted in accordance with all relevant agency approvals.</p>
<p>1.5 Inspection, maintenance and construction of navigation aids</p>	<ul style="list-style-type: none"> • Incident during navigation aids inspection, maintenance or construction. 	<p>Navigation aid maintenance is undertaken by contractors for PoMC [GM Assets & Spatial Data]. Inspections are undertaken by PoMC and contractors.</p>
<p>1.6 PoMC controlled small boating activity</p>	<ul style="list-style-type: none"> • Incident during small boating activity on water (e.g. hydrographic survey, security patrols, Harbour Master patrols, port inspections, etc.). 	<p>Any vessel undertaking activities for the PoMC Port Operations Department (e.g. hydrographic survey, security patrols, Steer Clear patrols, port inspections, etc.).</p> <p>Note: For hydrographic activities, the PoMC Manager Survey [under GM Assets & Spatial Data] is responsible for establishing procedures. Hydrographic surveyors and vessel crew are responsible for field operations.</p>
<p>1.7 Diving activities in port waters including channels, wharves and ship operations</p>	<ul style="list-style-type: none"> • <i>Incident during diving activities involving PoMC contractor.</i> • Incident during diving activities involving non-PoMC commercial divers. 	<p>Harbour Master’s Directions specify instructions for vessels engaged in diving activities. (This direction applies to all professional, commercial and recreational diving activities in the port waters of Melbourne).</p> <p>MSV (survey and licensed boats and operators).</p>
<p>1.8 Dredged Material Spoil Ground</p>	<ul style="list-style-type: none"> • Loss of Containment of Spoil from the Dredged Material Grounds • Failure of Bund constructed during the Channel 	<p>PoMC is responsible for the DMG. The specific spoil areas used in the Channel Deepening Project and subsequent Maintenance Program have been retired from use.</p> <p>Regular monitoring of bund structure and capping stability is</p>

	<p>Deepening Project to contain contaminated material</p> <ul style="list-style-type: none">• Erosion of Capping material placed on top of contaminated material	<p>carried out by hydrographic survey [under GM Assets & Spatial Data].</p>
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Activity description	Risk scenario Note: risks highlighted in bold italics are deemed to be significant risks	Responsibilities
2. Commercial vessel berthing/unberthing and alongside		
<p>2.1 Mooring and securing of commercial vessels in port waters (including at berth)</p> <p>Includes the re-tensioning of mooring lines and re-positioning of the vessel at the berth.</p>	<ul style="list-style-type: none"> • Incident during mooring (e.g. line snaps, strong winds, loss of control and vessel collides with wharf or shore crane). • Incident during adjustment of mooring (e.g. line snaps). • Failure land-based mooring equipment. 	<p>PoMC license mooring companies with the PoM, Mooring and securing of vessels is undertaken by these companies under contracted with the ship agent or stevedore. PoMC does not mandate work methods.</p>
<p>2.2 Personnel access and egress to vessel</p> <p>Includes ship's crew, contractors, provedores, Customs, regulatory agencies, surveyors, chemists, PoMC personnel as well as members of the public boarding ships.</p>	<ul style="list-style-type: none"> • Incident during access or egress from vessels (across wharf and via ships gantry). 	<p>PoMC [GM Security, Safety & Emergency Management] has control over personnel access to the site at common user facilities.</p> <p>The Master of the ship is responsible for means of access to the ship, only when the ship provides it.</p> <p>At tenanted facilities, the tenant will control personnel access to the site and berth.</p>
<p>2.3 Refuelling at PoMC facilities from barge or road tankers</p>	<ul style="list-style-type: none"> • Loss of containment while bunkering/refuelling (barge, road tanker) alongside. <p>Note: vessel may also bunker at anchorage.</p> <ul style="list-style-type: none"> • Incident during refuelling of recreational craft or smaller commercial vessels in port waters/at port facilities. 	<p>Harbour Master's Directions specify requirements that apply before and during bunkering operations between a vessel and a bunker barge or road tanker while in port waters/in the port. Applications for bunkering are addressed by the Manager Health & Safety [under GM Security, Safety & Emergency Management].</p> <p>Includes refuelling activities at PoMC facilities, e.g. PoMC vessels, tugs, etc.</p>

Activity description	Risk scenario Note: risks highlighted in bold italics are deemed to be significant risks	Responsibilities
<p>2.4 Commercial vessel operations at berth Incident/loss of containment from vessel operations (e.g. during internal ship-board activities) and not cargo operations. Excludes bulk liquid operations.</p>	<ul style="list-style-type: none"> • Incident from – <ul style="list-style-type: none"> - Ship discharges – bilge, waste and sewage disposal, AQIS activities or ballasting operations. - Antifouling paints and hull fouling. - Toxic or dangerous substances. - Ship painting. - Hull cleaning. • Incident resulting in release of toxic or dangerous cargoes from vessel at berth (e.g. leaking container). Possibly an explosion onboard. • Incident resulting in release of toxic or dangerous cargoes on port land (e.g. leaking container). • Incident during maintenance activities on vessel, e.g. hot work or confined spaces. 	<p>The organisations involved in operations at the berth and their respective roles and responsibilities are dependent upon whether the berth is a common user facility or a tenanted facility.</p>
<p>2.5 Deployment of small craft from a vessel (including lifeboat drills)</p>	<ul style="list-style-type: none"> • Incident during deployment of small craft (including lifeboat drills). 	<p>Ship must report the deployment of a small craft from a ship, to satisfy Customs and to manage navigation issues around the port.</p> <p>PoMC through the Harbour Master [GM Marine & Navigation Services] approves lifeboat drills while ship is at berth.</p> <p>Ship is directly responsible for operation and condition of lifesaving equipment.</p>

Activity description	Risk scenario Note: risks highlighted in bold italics are deemed to be significant risks	Responsibilities
<p>2.6 Station Pier passenger terminal</p>	<ul style="list-style-type: none"> • Poor condition of asset resulting in structural failure. • Fall of gangway from the concourse. • Transport collision. • Fire on pier (smoking, welding, etc.). • Traffic movement and activities on Station Pier. 	<p>Station Pier is a sea passenger terminal and accommodates visiting cruise ships, Bass Strait ferry services, navy and other non-commercial ships.</p> <p>Station Pier offers three berths with a total length of 713 metres available for cruise ships. A fourth berth is the permanent home of TT-Line's <i>Spirit of Tasmania</i>, car and passenger ferry service between Tasmania and Melbourne.</p> <p>The day to day management of Station Pier (excluding TT Line) is the responsibility of PoMC [EGM Port Operations].</p> <p>A Safety and Environment Review of Station Pier has been undertaken (June 2006).</p>
<p>2.7 Hazardous bulk liquid transfers</p>	<ul style="list-style-type: none"> • Bulk liquid Dangerous Goods incident on a vessel leading to fire/explosion on the vessel [Gellibrand Pier]. • Bulk liquid Dangerous Goods incident on a vessel resulting in spill/loss of containment [Gellibrand Pier]. • <i>Bulk liquid Dangerous Goods incident on a vessel leading to fire/explosion on the vessel [Holden Dock/Maribyrnong No .1 /6 Yarraville].</i> • Bulk liquid Dangerous Goods incident on a vessel resulting in spill/loss of containment [Holden Dock/Maribyrnong No. 1/6 Yarraville]. 	<p>Gellibrand Pier is a bulk liquid berth operated by Mobil. The pier changed from a common user berth to a tenanted property in 2007.</p> <p>Holden Dock, Maribyrnong No.1 and 6 Yarraville are hazardous bulk liquid berths operated by PoMC through the Health & Safety Department [GM Security, Safety & Emergency Management].</p>

Activity description	Risk scenario Note: risks highlighted in bold italics are deemed to be significant risks	Responsibilities
<p>3. Activities on port land</p> <p>3.1 Traffic movement (including cargo movement) on roads within port land</p>	<ul style="list-style-type: none"> • Incidents from traffic interactions (trucks, road tankers, forklifts, light vehicles): <ul style="list-style-type: none"> ▪ Road vehicle striking personnel. ▪ Truck collision with light/medium vehicle. ▪ Single truck accident (rollover or collision with structure). ▪ Loss of cargo due to port handling error. ▪ Fire in transport. ▪ Incorrect handling of undisclosed or incorrectly marked cargo. ▪ Incident caused by truck queuing and parking. ▪ Incident involving cargo movements on roads of over dimensional loads. • Traffic movements. • Excessive or prolonged noise from road transportation. 	<p>PoMC is responsible [Manager Land & Water Assets under GM Assets & Spatial Data] for signs and infrastructure. Within the port there are some PoMC owned roads. Vehicles must adhere to the appropriate road regulations.</p>
<p>3.2 Slipway ship maintenance and repairs</p>	<ul style="list-style-type: none"> • <i>Incident during maintenance activities (including hull cleaning).</i> 	<p>Owners are responsible for repairs and maintenance at dry docks. PoMC are responsible for lease of the slipway at 24 Victoria Dock [Manager Land & Water Assets under GM Assets & Spatial Data].</p>

Activity description	Risk scenario Note: risks highlighted in bold italics are deemed to be significant risks	Responsibilities
<p>3.3 Infrastructure development or maintenance Utilities and new developments.</p>	<ul style="list-style-type: none"> • <i>Incident during construction or maintenance.</i> • <i>Incident during onshore maintenance of navigation aids/radio towers.</i> 	<p>Responsibilities for development and maintenance of infrastructure at sites depend upon whether the site is a common user facility (which PoMC develops and maintains) or a tenanted facility.</p> <p>Common user facility: PoMC is responsible [Manager Property Development under GM Property] for the management and maintenance for all infrastructure on the site.</p> <p>Tenanted facility: PoMC is responsible [Manager Property Development under GM Property] for maintaining to a safe standard, all PoMC owned infrastructure. The tenant is responsible for maintaining and managing all tenant owned infrastructure on the site. At these sites, tenants also develop their own infrastructure projects.</p>
<p>3.4 Common user facility activities</p>	<ul style="list-style-type: none"> • <i>OHS incident in common user area.</i> Activities covered: <ul style="list-style-type: none"> ▪ Stevedoring and cargo movement. ▪ Handling, stacking and storing on port land. ▪ Movement of hoppers. ▪ Traffic interactions (trucks, road tankers, forklifts, light vehicles, cargo handlers). ▪ Maintenance of third party owned infrastructure (generally plant and equipment) stored on site at common user facilities, during periods where site is unoccupied. • Emissions to environment (including land and ground 	<p>PoMC [Health & Safety Department under GM Security, Safety & Emergency Management] co-ordinates safety and environmental management activities at bulk liquid berths. The use of common user berths should be carried out in accordance with the Common User Facility Licence Agreement. The licensee undertakes to control the operations themselves.</p> <p>The organisations involved in stevedoring and their respective roles and responsibilities are dependent upon whether the berth is a common user facility or a tenanted facility.</p>

Activity description	Risk scenario Note: risks highlighted in bold italics are deemed to be significant risks	Responsibilities
	<p>water).</p> <ul style="list-style-type: none"> • Release of toxic substances, chemicals or Dangerous Goods (liquid, gas or solid). • Inappropriate management of: <ul style="list-style-type: none"> ▪ Stormwater system, sewage and wastewater. ▪ Waste (waste oils, petroleum, mechanical spares, packaging, putrescibles, waste waters, hazardous substances, etc.). ▪ Cargo waste (slops and residues, dry bulk residue, dusts, wash water, packaging). ▪ Management of waste (water) from washing of hoppers. ▪ Cargo spills. 	

Activity description	Risk scenario Note: risks highlighted in bold italics are deemed to be significant risks	Responsibilities
<p>3.5 Land based tenant activities</p>	<ul style="list-style-type: none"> • OHS incident in tenanted facility. Activities covered: <ul style="list-style-type: none"> ▪ Stevedoring and cargo movement. ▪ Handling, stacking and storing on port land. ▪ Movement of hoppers. ▪ Traffic interactions (trucks, road tankers, forklifts, light vehicles, straddle carriers, cargo handlers, ship loaders). • Emissions to environment. <ul style="list-style-type: none"> ▪ Airborne emissions (dusts, stack emissions, fugitive emissions). ▪ Odors. ▪ Noise emissions. • Release of hazardous products from handling and storage of dangerous goods and hazardous substances (MHF and Dangerous Goods handling and storage). • Inappropriate management of: <ul style="list-style-type: none"> ▪ Stormwater system, sewage and wastewater. ▪ Waste (waste oils, petroleum, mechanical spares, packaging, putrescibles, waste waters, hazardous substances, etc.). ▪ Cargo waste (slops and residues, dry bulk residue, dusts, wash water, packaging). ▪ Cargo spills. 	<p>Tenants are responsible for managing all operational activities on the site in accordance with legislative requirements for OH&S and environmental standards. Tenants have control of stevedoring operations at leased premises. PoMC’s interface with tenants is through the GM Property.</p>

Activity description	Risk scenario Note: risks highlighted in bold italics are deemed to be significant risks	Responsibilities
<p>3.6 Cargo movement via rail entering/leaving port land, including road and rail crossings</p>	<ul style="list-style-type: none"> • Incidents from rail interactions <ul style="list-style-type: none"> ▪ Train striking personnel. ▪ Train striking vehicle. ▪ Train derailment or shunting incident. ▪ Loss of cargo due to port cargo handling error. ▪ Fire in transport. ▪ Incorrect handling of undisclosed or incorrectly marked cargo. ▪ Incident caused by truck queuing and parking. ▪ Freight train blocks road, blocking the path of emergency vehicles. • Excessive or prolonged noise from road or rail transportation. 	<p>Within the port there is some PoMC owned rail track [PoMC responsibility is through GM Assets & Spatial Data]. There are rail crossings across roads on port land.</p>
<p>3.7 Pipeline transfers</p>	<ul style="list-style-type: none"> • Uncontrolled discharge from pipeline (pipe rupture etc.). 	<p>PoMC does not own any of the pipelines within its boundaries.</p> <p>Pipelines for the transfer of petroleum products, combustible products, food grade products, hazardous chemical products, are owned by private companies under licence to PoMC [PoMC responsibility is through GM Property]. The monitoring and maintenance of these pipelines must comply with the relevant pipeline act. Pipelines should be marked with owner’s identification.</p>
<p>3.8 Tenant activities (mobilisation of existing contamination)</p>	<ul style="list-style-type: none"> • Mobilisation of existing contamination from tenant activities. 	<p>Tenant activities that could result in the mobilisation of existing contamination.</p> <p>Land contamination issues are the responsibility of GM Environment Services.</p>
<p>3.9 Submerged Pipelines</p>	<ul style="list-style-type: none"> • Incident from rupture of submerged pipelines 	<p>Submerged pipelines and Services are owned by private</p>

Activity description	Risk scenario Note: risks highlighted in bold italics are deemed to be significant risks	Responsibilities
and services within Port Waters.		companies under licence to PoMC [PoMC responsibility is through GM Property]. The monitoring and maintenance of these pipelines must comply with the relevant pipeline act. PoMC maintains records of submerged pipelines and where relevant ensures they are marked on navigation charts.
3.10 Interaction with Heritage Shipwrecks and other submerged items.	<ul style="list-style-type: none"> • Interference or damage to heritage items 	Heritage Victoria is responsible for management of heritage items by providing advice to marine users.
3.11 Use of Airspace over Port waters and land by <ul style="list-style-type: none"> • Ballooning • Seaplanes • Helicopters • Emergency Services exercises • Fuel Dumping 	<ul style="list-style-type: none"> • Incident involving aircraft crash on port land or waters 	The Civil Aviation Safety Authority is responsible for aircraft regulations and licensing Aircraft flight paths are managed under Air Traffic Control Authority to dump provided by CASA in consultation with DPI and EPA
3.12 Resources use during construction, operations and maintenance at port facilities.	<ul style="list-style-type: none"> • Increased consumption of energy and materials • Increase in generation of airborne pollution through combustion of fossil fuels • Further depletion of non-renewable resources • Excessive/wasteful water consumption • Increased generation of greenhouse gases 	PoMC provides services and contracts for works pursuant to its role as port manager Other parties such as tenants, service providers and stakeholders carry out works and manage contractors as part of their business

Within the PAM there are a number of existing control measures that are listed for PoMC and other parties. For example:

Table 8 – Example of existing control measures

Existing control measures	
PoMC	Other parties
<ul style="list-style-type: none"> • VTS for first point of contact and coordination of emergency response. • Melbourne Port Emergency Management Plan. • [8]/[9] PoMC hazard and incident reporting process and database. • Protocols for handover of ships between Geelong and Melbourne Ports 	<ul style="list-style-type: none"> • Licensing of pilots and Harbour Master (TSV). • [1] WoPHSEC. • POWBONS 1986 (Vic) (EPA). • ISM Code (The international management code for the safe operation of ships and for pollution prevention)

Notes:

- [number] indicates where a control measure is a completed future risk treatment.
- In 'Other Parties', the responsible organisation is listed in brackets.

Reference should be made to the PAM for the complete list of existing control measures.

7 Implementation

7.1 Overview

The implementation process for the SEMP is underpinned by the systems procedures of PoMC's integrated SEMS as outlined in Section 3.2.

PoMC, aims to maintain Melbourne's position as Australia's premier port through the development and management of port infrastructure to accommodate changing commodity and trade profiles in a manner which manages the health, safety, environmental and social risks and impacts and is accepted and embraced by the community (Figure 22).

While there are many aspects to the concept of sustainability, this section of the SEMP examines PoMC's current goals and strategies as related to the following themes and how they will contribute to, or impact on, the port's sustainability:

- Our people
- Trade profile
- Environment and community
- Sustainability
- Climate Change
- Contaminated Land Management Strategy
- Channel Deepening project Residual
- Program Monitoring



Figure 22 – Port of Melbourne Sustainability Management Framework

7.2 Our people

As a Victorian Government Business Enterprise (GBE), PoMC has a complex and challenging task in terms of providing leadership and developing the culture, capability and work environment that allows the fulfilment of its statutory charter while also facilitating government policy and responding to the often conflicting needs of shareholders, customers, stakeholders and the community.

In order to respond to these issues, a People and Culture Strategy was developed and approved by the Board. The effective implementation of strategic objectives contained in the strategy will be critical for the future sustainability of the port.

7.3 Trade profile

PoMC has a statutory responsibility to facilitate the sustainable growth of trade through the port. PoMC's Trade and Business Development Strategy and Customer Relations and Marketing Plan provide guiding principles and directions to deliver its trade and trade related business facilitation and expansion outcomes. These strategies have been developed in the context of the draft Port Development Plan (PDP), which sets out a plan for managing the anticipated growth of the port over the next 30 years. Importantly, the draft PDP development strategy recognises the needs of surrounding communities and seeks to strike a balance between the needs of a working port and the expectations of the community.

7.4 Environment and community

As the port of Melbourne is a city port, there are major interdependencies that exist between the port, the city of Melbourne and the surrounding communities. The port's sustainability therefore requires careful management of both its relationship with these communities and the impact that port operations and development may have on the community and the environment.

To this end, PoMC has a number of major policies (approved by the Board) to support its environmental and community commitments. These include:

- Community Relations Policy
- Environmental Policy (includes the EMS and this SEMP)
- Contaminated Land Management Policy ([see Section 7.3](#))
- Climate Change Policy
- Heritage Policy

In addition to these policies, there are the environmental requirements, monitoring and reporting associated with the completed Channel Deepening Project. PoMC's values also include the value of 'Environment, Safety and Social Wellbeing' which recognises the inherent environmental and social value of the port and the need to ensure the sustainable co-existence of the port and local communities.

7.5 Sustainability

The Sustainability Management Framework is to be reviewed during the 2011/12 financial year. Revision of the sustainability framework aims to provide a catalyst for cultural change across the organisation, changing the way we currently view and action sustainability. The approach to the revision of the framework is to provide all employees with the opportunity to be part of the development process. The purpose of the revised framework is to provide a goal toward sustainability that is shared across the organisation.

7.6 Climate change

It is generally agreed that climate change is linked largely to the emission of greenhouse gases caused by human activity, the burning of fossil fuels and deforestation. While there remains uncertainty regarding the severity of impacts, the risks of climate change associated with increasing greenhouse gas emissions requires corporate response and attention. The PoMC Board approved both a corporate climate change policy in 2007 and a climate change strategy in 2009.

Through the strategic management and facilitation of the port's operations and growth, PoMC has the potential to influence the current and future capacity of the Port of Melbourne and its interrelated logistics components to manage the risks of climate change and reduce its carbon emissions profile. In recognition of this, the scope of the strategy covers four key result areas as listed below in order of the level of influence PoMC has on the activities of each sector.

- PoMC operations, capital investment and development;
- Port of Melbourne activities;
- The broader port system logistics and customers
- Global maritime and transport industry;

PoMC's climate change objectives are:

1. Legislation and regulation

Ensure compliance with climate change legislation applicable to PoMC operations and anticipate and manage, where possible, the risk exposure of the Port of Melbourne to evolving climate change legislation, regulations, policies and initiatives.

2. Climate change response and mitigation

Mitigate the Port of Melbourne's contribution to greenhouse gas emissions while facilitating port trade and growth and identifying new business opportunities.

3. Climate change risk and adaptation

Maintain the long-term sustainability of the Port of the Melbourne by enhancing its capacity to anticipate and adapt to inevitable climate change.

4. Continual improvement

Continually improve the Port of Melbourne's knowledge and responsiveness to climate change by proactively developing organisational systems, alliances and tools to promote research, awareness, monitoring and evaluation of the port's climate change performance.

7.7 Contaminated Land Management Strategy

Historical land reclamation and industrial processes has led to the presence of land and groundwater contamination within the Port. PoMC is committed to minimising the impacts of contamination to PoMC employees, contractors, members of the Port community and other stakeholders.

PoMC considers that effective management of contamination is vital to the health and wellbeing of the community and the long-term sustainability of the port. PoMC manages contaminated land and groundwater within the Port of Melbourne by:

- investigating and understanding the nature and extent of land contamination in the port
- ensuring the condition of the land in the port is 'fit for purpose' and commensurate with its intended use in an industrial context
- maintaining and continually implementing processes for prevention and management of contamination
- ensuring compliance with applicable laws, policies and procedures
- implementing process to prevent of further contamination.

The overall purpose of the contaminated land management processes is to provide a framework for the management of the environmental impacts associated with contaminated land within the Port of Melbourne, and prevent the occurrence of additional impacts from current operations.

7.8 Channel Deepening Project

PoMC completed the construction phase of the CDP on 19/11/2009 with the public announcement of completion occurring 25/11/2009. Delivery of various post-construction monitoring and assessment tasks continue and consistent with other port operations activities, are governed by PoMC occupational health and safety, environmental and risk management policy principles. The CDP EMP has been incorporated within the PoMC SEMS.

CDP post-construction activities are regularly audited by internal and external parties to ensure that activities are undertaken in accordance with the EMP and PoMC OHS requirements. The Office of the Environmental Monitor (OEM) has appointed GHD Pty Ltd (GHD) to undertake a series of independent audits of the tasks identified in the EMP.

7.9 Program Monitoring

PoMC operate Health, Safety and Environment programs according to developed objectives and targets contained in the Safety and Environment Management System. These programs are managed within PoMC by the Port Operations Division. The following table provides information on programs, responsibility and objectives.

PoMC Monitoring Programs		
Program	Responsibility	Objectives
Tenant Health Safety and Environment Management Plans (HSEMP)	PoMC	PoMC require tenants to provide sufficient information on HSE management to demonstrate their understanding of legal requirements and competency of systems PoMC does not act as compliance auditor or regulatory approver.
Workplace Safety (PoMC sites)	PoMC	PoMC conduct regular and ad hoc workplace inspections of PoMC work sites. Defects are reported for maintenance and monitored for completion.
Workplace Safety (Construction Sites)	PoMC Contractors	PoMC require contractors to submit construction site safety plans to demonstrate their understanding of legal requirements and competency of systems PoMC Health and Safety conduct inspections at PoMC construction sites under the control of contractors to ensure compliance with management Plans
Safety Culture	PoMC	The Safety Culture Improvement Framework consists of six major improvement elements which are outlined below: <ol style="list-style-type: none"> 1. Culture Climate Assessment: which is to identify and measure the current port safety culture; 2. Certification of the Safety Management System: certify the existing SMS to a recognised international standard (ISO18001); 3. Assurance Program: expand the existing audit assurance program; 4. Contractor Management: augment the contractor management procedures; 5. Training Programs: reform the safety training regime to support the changes to the SMS; and 6. Positive Performance Measurement: introduce new positive safety performance measures.

Incident Monitoring	PoMC	PoMC investigates reported incidents for root causes and monitors preventative actions, treatment controls and closure. Results are presented weekly to divisional meetings and monthly to executive meetings.
Hazard Monitoring	PoMC	PoMC investigates reported hazards seeking resolution based the hierarchy of controls and ALARP principles.
<p>The Port Operations division conducts programs covering key port activities held within its responsibilities</p> <ul style="list-style-type: none"> • Air Monitoring • OHS&E Site Inspection: • OHS&E Licence Compliance: • General Compliance Inspection: • Tanker Safety Security Officer Audits • Hot Work (licenced provider and adhoc) • AS3846 Dangerous Cargo Activities: • Mooring Licence Compliance: • Asbestos Permit • Bunker Transfer Audit 	PoMC	<p>PoMC conduct air sampling and analysis at targeted worksites to monitor for air pollutants.</p> <p>PoMC conduct periodic OHS&E site inspections at common user berths used on short term licence agreements.</p> <p>PoMC endorses international standards for bulk liquid cargo transfers, handling of dangerous good, hot work and bunker transfers. Audits are conducted to ensure stevedores, ships crews and licensed providers are aware of their responsibilities.</p> <p>PoMC monitors the performance of TSSO's for adherence to tanker berths operations procedural requirements.</p>
<p>Monitoring of PoMC</p> <ul style="list-style-type: none"> • Energy • Water • Waste 	PoMC	To meet the PoMC Environmental and Climate Change Policies, PoMC collects and assesses energy, water and waste data through billing/metering information and annual targeted audit.
A suite of seven Baywide Monitoring Programs are part of residual Channel Deepening Project (CDP) obligations under	PoMC DSE	The overarching objectives of the Baywide Monitoring Programs are to assess the status of the bay and to use expert opinion and multiple lines of evidence to identify any changes outside of expected variability. Expected variability includes

<p>the management of PoMC Environment Services:</p> <ul style="list-style-type: none"> • Seagrass Health; • Water Quality; • Nutrient Cycling (denitrification); • Algal Blooms; • Little Penguins Health ; • Fish Stock & Recruitment; • Ramsar Wetlands; 	<p>DPI EPA</p>	<p>both natural fluctuations and anticipated CDP-related changes as predicted in the SEES risk assessment. Where changes outside of expected variability are identified for a Program, an interim risk review is undertaken to consider the results in light of other relevant Programs. This review will determine if the changes are significant to the ecosystem of the Bay, the potential causes of the change and will identify appropriate management measures, where required.</p> <p>The results of the Baywide monitoring programs are reviewed quarterly and annually as part of CDP Project Reports. Findings are also considered at six monthly Environmental Management Reviews.</p> <p>The Baywide Monitoring Programs, and associated reporting and Environmental Management Reviews, continue to run for around two years post-completion of the CDP i.e. to approximately end 2011.</p>
<p>Other residual Channel Deepening Project (CDP) Monitoring Programs obligations.</p> <ul style="list-style-type: none"> • Impact and recovery assessment of deep reef habitat. • Periodic bathymetric surveys of channels and Bay areas • Scour Assessments within the Entrance channels to Port Phillip Bay • Port of Melbourne Dredged Material Grounds Bund and Cap inspections • Great Sands Monitoring • Aboriginal and Marine Heritage 	<p>PoMC</p>	<p>The public announcement of the completion of the construction phase of the Channel Deepening Project (CDP) occurred on 25/11/2009. However, a range of commitments made by PoMC as part of the approval to deliver the CDP extend beyond the construction phase of the project. These “post construction tasks” include a variety of activities such as engineering inspections and surveys, environment monitoring and reporting and communication commitments to agencies and regulators.</p> <p>CDP post-construction tasks and objectives are defined within the CDP Environmental Management Plan (SEMS05-08 Rev11) and are the responsibility of PoMC Port Operations, with their delivery coordinated by the General Manager, Environment Services.</p>

inspections <ul style="list-style-type: none"> • Marine pest surveys 		
Groundwater / Soil Monitoring	PoMC	PoMC maintains a large database of soil and groundwater monitoring data collated from environmental site assessments that are undertaken to meet the PoMC Contaminated Land Management Implementation Plan, PoMC Leasing Policy and PoMC Land Acquisition Policy.

7.10 Treatment measures and strategies

As a result of the risk management process associated with the SEMP, the existing risk treatment strategies under the direct control of PoMC were assessed.

This process identified additional opportunities for improvement, detailed in Table 9 – PoMC treatment measure implementation plan. Completed and superseded treatments are detailed in Appendix A. The intent is that through the implementation of the SEMP and respective treatment measures, the identified risks will be reduced to ALARP.

The treatment strategies are prioritised based on the findings of the risk assessment process and are assigned target timeframes for the implementation of each of the new measures. These measures have been incorporated into PoMC's business planning processes. This process ensures appropriate resources are allocated across the business to assist in the implementation of the treatment strategies. The specific responsibility for the implementation of the treatment strategies rests with the heads of the nominated PoMC sections. The organisation chart in Appendix B illustrates the responsibility positions within PoMC.

Table 9 – PoMC treatment measure implementation plan

No.	Treatment measures category	Year raised	Time frame (years)	Responsible Manager	2011 PAM activity the treatment relates to	2011 status
19	Review of Maintenance Dredging Strategy for future campaigns (post CDP).	2008	1-5	PoMC Assets & Spatial Data (A&SD)	1.4	Strategy prepared for submission and approval by DSE and C'wealth
28	Incrementally develop an environmental footprint for PoMC offices, common user berths and the port environment.	2005	1-3	PoMC (SS&EM)	General	Ongoing
33	Implement Port Environs Plan actions.	2005	1-2	PoMC (Planning)	General	Ongoing
34	Implement Port Development Plan actions.	2005	1-3	PoMC (Planning)	3.3, 3.6	Ongoing
57	Implementation of Environmental assessment (ENV018) for internal approval for PoMC project planning (heritage, environmental issues, etc.).	2007	1	PoMC (EnvS), (Projects)	3.3	In progress
65	Introduce a customised lease for petroleum pipelines on west bank of River Yarra.	2007	1	PoMC (Property)	3.7	In progress
71	Review recommendations of OESC Report: <i>Marine Emergency Framework Review</i> .	2008	1	PoMC (M&NS) (SS&EM)	1.1	In progress
73	Enhancement of Victorian marine pollution response arrangements subject to the outcomes of the MSV review 2008 and the OESC <i>Marine Emergency Framework Review</i> . Implement an interim VICPLAN Service Level Agreement with DoT	2008	1	PoMC (SS&EM), TSV	1.1	In progress
78	Following on from treatment [14], clarify roles with PV and TSV, the responsibilities and management of recreational craft transiting port waters. This will be achieved under the 2011 Steer Clear Campaign review	2008	2	PoMC (M&NS), TSV, Parks Victoria	1.1	In Progress

No.	Treatment measures category	Year raised	Time frame (years)	Responsible Manager	2011 PAM activity the treatment relates to	2011 status
79	Introduce Harbour Master's Directions with regards to minimum mooring guidelines.	2008	2	PoMC (M&NS)	2.1	Not proceeded with
82	PoMC Permit to Work system implementation.	2008	1	PoMC (SS&EM)	3.2, 3.3, 3.8	Ongoing
92	Licensing/approval of equipment that is stored at common user facilities including repair/maintenance and OHS conditions.	2008	2	PoMC (Property)	3.4	In Progress
93	Marine Risk Assessment of Port waters and adjacent areas	2011	1	PoMC (M&NS)	1.1.1	New
94	National Pollution Plan Risk Assessment of Port Waters and adjacent areas	2011	1	AMSA	1.1.1	New
95	VicPlan Risk Assessment of Port Waters and adjacent areas	2011	1	DoT	1.1.1	New
96	Facilitate industry risk assessment on mooring	2011	1	PoMC (SS&EM)	2.1.3	New
100	Provide enhanced access to port information by incorporating Melbourne VTS and Lonsdale VTS into the World VTS Guide	2011	1	PoMC (M&NS)	1.1.1	In progress
101	Investigation into modeling of spill trajectory at Gellibrand Pier.	2011	2	PoMC (SS&EM)	2.7.2	New
102	Implement sustainability guidelines	2011	3	PoMC (EnvS)	3.3.1	New
103	Implementation of a contractor management system, including a performance management framework	2011	2	PoMC (SS&EM)	3.3.2	New
104	Implementation of the Regulation of Towing within port waters as under the <i>Port Management Act 2009</i>	2011	2	PoMC (M&NS)	1.1.1	In Progress
105	Detailed Risk Assessment of Port Roads and review the current treatments in place	2011	1	PoMC (SS&EM)	3.1.1	New
106	Implement Safety Culture Improvement Framework program within PoMC which includes six Elements as follows:	2011	2	PoMC (SS&EM)		New

No.	Treatment measures category	Year raised	Time frame (years)	Responsible Manager	2011 PAM activity the treatment relates to	2011 status
	<ul style="list-style-type: none"> • Culture Climate Assessment • Safety System to Certification Level • Assurance Program • Contract Management Program • Training program • Positive Performance Measurement 					
107	Review National harmonisation of safety Laws	2011	1	PoMC (SS&EM)		New
108	Review PoMC Work place risk assessments across Port Operations and implement appropriate findings	2011	1	PoMC (SS&EM)		New
109	Proposed Fairway Delineation Beacon Project	2011	3	PoMC (M&NS)	1.1.6	New
110	Fit for Purpose' inspection of alternate security vessels	2011	1	PoMC (SS&EM)	1.6.1	New
111	Implement new SEMP Guidelines	2012	1	PoMC (SS&EM)		New

7.11 Role of stakeholders in SEMP implementation

All port stakeholders, particularly port tenants and service providers, play a vital role in port safety and environmental matters through meeting their existing safety and environmental obligations.

7.11.1 Whole of Port Health Safety and Environment Committee (WoPHSEC)

Since the SEMP's inception in July 2005, PoMC has established WoPHSEC.

WoPHSEC was established with representation from a broad section of port stakeholder groups, which agreed to facilitate a coordinated approach across the Melbourne port community to achieve continuous improvement in health, safety and environmental outcomes.

WoPHSEC provides a forum for communication and sharing to increase the robustness of hazard identification and assessment.

Key outcomes from the WoPHSEC group have included:

- acting as the communication conduit for Victorian Workcover Authority in promoting the new *Waterfront Safety Guidelines* to improve operational safety within the port
- the promotion of water saving initiatives by port stakeholders
- the forum to provide significant input into reviewing and updating the PAM.

7.11.2 Other PoMC Consultation Forums

In relation to consulting with the people affected by this plan, PoMC will continue to use other existing PoMC forums, such as:

- Harbour Master Marine Forum (Shipping, Pilots, Towage, Mooring)
- Industry Group Forums (eg. Bulk Cargo, Vehicle, Container)
- Port Security Committee (PSC)
- Ports Australia Safety Meeting
- Melbourne Port Emergency Management Plan Committee (MPEMPC)
- Port Phillip Region Marine Pollution Contingency Plan Committee (PPRMPCPC)
- Tenant and other contract negotiations
- Meetings with Regulators (TSV, VWA, EPA, DoT).

7.11.3 Community Relations Program

Since 2008, PoMC has delivered a community relations program which seeks to foster strong relationships with communities neighbouring the port of Melbourne. Examples of PoMC's engagement with community stakeholders through its Community Relations team include:

- Publication of the Port Page quarterly news brief for people living and working near the Port (appears in all Leader newspapers surrounding the Port of Melbourne)
- Information briefings delivered to neighbouring municipal councils
- information evenings on port projects for neighbouring community groups
- Hosting a variety of local council, community groups and industry bodies at the Port Education Centre, which provides an opportunity for people to find out more about the port's activities
- working to foster education and support partnerships with key community stakeholder groups around the port precinct.
- Annual port waters tours for residents of communities local to the port
- Delivery of the Schools On Board program, enabling local students to visit a container ship while berthed at the port

8 Managing residual risks

Residual risks remaining after the treatment strategies have been completed are managed by the existing controls which include, but are not limited to, the following:

- Melbourne Port Emergency Management Plan (MPEMP).
- Maritime Security Plans (MSPs).
- Lease and licence arrangements, Harbour Masters Directions, Port Rules.
- Internal and external audit systems.

8.1 Emergency preparedness, response and recovery

The objective for emergency management is to ensure that contingency plans are developed and implemented to minimise the safety and environmental consequences and/or impacts associated with emergencies.

Emergency management is a key component of the approach to risk management in the port. Emergency management provides a safeguard in assisting the management of risks, which have been reduced to a level ALARP, or for responding to an unexpected or unforeseen event.

As the nature of emergency events will vary, the port is required to have a system that caters for any scenario. It is also important that the port's emergency management and preparedness is integrated and coordinated with other port users, tenants and agencies as well as the plans for the greater Port Phillip area and State arrangements.

Potential emergency incidents within the port include, but are not limited, to the following:

- Fire on vessel at berth.
- Fire on vessel on water.
- Fire on shore.
- Dangerous goods spill.
- Petroleum spill.
- Explosions.
- Escape of gas.
- Industrial accidents.
- Ship collision.
- Truck or rail accident.
- Marine pest or exotic marine organism invasion.
- Terrorist or criminal act.

All incidents have the potential to result in safety or environmental impacts, which may include:

- threats to health and safety of any port user
- water pollution
- uncontrolled air emissions
- vibration
- land contamination
- uncontrolled release of dangerous or hazardous goods

- impact upon flora and fauna.

Management measures and strategies are in place to ensure that the safety and environmental impacts associated with emergency incidents are minimised.

PoMC has a comprehensive MPEMP for emergencies that occur in its jurisdictional land and waters in support of the PMA and TIA and other state arrangements including the *Emergency Management Act 1986* (Vic).

The Melbourne Port Emergency Management Planning Committee has responsibility for ensuring the Emergency Management Plan provides for all relevant emergencies. The emergency procedures are tested and revised on a periodic basis to evaluate the robustness and effectiveness of response. They are updated whenever there is a major change to port operations and are reviewed after the incidents or emergency situations.

A critical assets list was established in 2009 based on a recommendation from the recertification of the SEMP. This list currently needs updating and is being overseen by a separate review (OESC Marine Emergency Framework). A steering committee has been established to inform the ongoing 'Declared Assets System' as outlined by Recommendation 7 of this report and to avoid duplication of effort.

Through direction of TSV Director Maritime Safety under the Marine Act, PoMC is nominated as the lead agency for marine pollution response in the Port Phillip Region outlined in the *Port Phillip Region and Victorian Marine Pollution Contingency Plans*.

PoMC as a port operator has also been designated the lead control agency in the *Emergency Management Act* (Vic) and Emergency Management Manual of Victoria (EMMV) for 'Other Emergency' – Marine Casualty, non Search and Rescue (SAR) for a Commercial Ship in port waters (Explanation note: PoMC's role is to remove the vessel or object from its jurisdictional waters once other Control Agency's have completed their involvement, dependant on the incident.

8.2 Port security

The identification and management of security risks is a high priority and critical component of the total risk management within the port of Melbourne.

Since 1 July 2004, PoMC, as a Maritime Industry Participant and Port Operator, has been required to comply with the *Maritime Transport and Offshore Facilities Security Act 2003* (Cth) (MTOFSA) and associated regulations.

The purpose of the MTOFSA is to establish a scheme to safeguard against unlawful interference with maritime transport or offshore facilities. MTOFSA also provides for security outcomes relating to Australia's obligations under Chapter XI-2 of the Safety of Life at Sea (SOLAS) Convention and the International Ship and Port Facility Security (ISPS) Code.

In response to the mandated requirements under the MTOFSA, PoMC has two Maritime Security Plans (MSP) in place, approved by the Secretary of the Department of Infrastructure & Transport (DIAT),

The MSPs cover all common user berths operated by PoMC, including bulk liquid berths as well as Station Pier. The plans need to be recertified (if there are no interim changes) every five years.

The port's security arrangements are based on the principles of deterrence, detection, prevention and response to security incidents, related to unauthorised entry, suspicious activity, activists and the threat of terrorism. The security and emergency management plans are integrated to ensure that one set of emergency response arrangements can manage any emergency regardless of the cause.

Additional benefits from the implementation of measures to manage security risks translate to managing health and safety risks through access control and surveillance and the timely notification and reporting of incidents

8.3 Incident Reporting

PoMC, through consultation with port stakeholders, has established procedures for the reporting and recording of emergency incidents and maintains a register of reported emergency incidents that occur in the port.

8.4 Incident investigation

PoMC investigates incidents to discover any new hazards, system weaknesses or developing trends. It has established procedures for assessing the level of investigation, the investigation team make-up, investigative methods available and investigation reporting.

Investigation findings and recommendations may require implementation of improved control measures, amendments to plans, procedures or follow up preventative action.

9 Review and revision

PoMC undertakes a review of the SEMP and its implementation on an annual basis. The review is aligned with the existing management system annual review processes. The annual review covers the SEMP's:

- currency
- relevance of environmental and OH&S policy
- progress towards meeting environmental and safety goals and objectives
- results of operational and compliance audits
- progress in implementation of risk treatment measures
- adequacy and performance of current controls
- the need for an update of any or all sections of the plans.

All external meetings with stakeholders are documented and information arising is used to determine the accuracy of the plan.

PoMC is committed to an internal audit on an annual basis and the results are reported at Board level, as required. The focus of the audit is the SEMP requirements under the PMA and Ministerial Guidelines.

In addition to the annual review process, the SEMP is monitored for compliance and correctness throughout its certified life. Additional internal reviews are considered whenever any of the following occur:

- Change of key legislation or regulation.
- Changes in the nature, scale or extent of port activities.
- Significant new hazards are identified/introduced.
- New plant or equipment are introduced.

SEMP revisions are dated by the month and year of issue and authorised by the Executive General Manager Port Operations. Copies are issued to relevant PoMC managers and made publicly available via the PoMC website (www.portofmelbourne.com).

10 Document control and availability

10.1 Document control

The control of the SEMP is aligned with the document control procedures adopted by PoMC and which form part of the SEMS. PoMC will be the custodians for the control and distribution/communication of the SEMP.

These document control processes include requirements for:

- recording the author(s) and revision dates for amendments
- persons authorised to make changes.

10.2 Publication and availability

The SEMP is a public document, which assists in the transparency of the management of whole-of-port risks and strategies.

An electronic copy of the SEMP is available on the PoMC's corporate website site and can be downloaded (www.portofmelbourne.com). Copies of the SEMP, certificates and audit reports will be held by the EGM Port Operations and available in hard copy for authorised persons to examine.

The comprehensive Port Activity Map will only be made available for viewing by authorised persons (e.g. government agencies). PoMC may ask to see the authorisation of persons requesting access to audit reports and other supporting documents. PoMC may deny access to persons who are not authorised in writing by the Minister for Ports.

APPENDIX A: PoMC treatment measure implementations register

No.	Treatment measures category	Year raised	Time frame (years)	Responsible manager	2011 PAM activity the treatment relates to	2011 status
1	Establish a Whole of Port Safety and Environment Committee (WoPHSEC) and communicate the SEMP.	2005	1	PoMC (SS&EM)	All	Completed
2	On an annual basis, request MSV to provide a list of pilots licensed to operate in Port Phillip Bay and pilot exempt masters.	2005	1	PoMC (M&NS), MSV	1.1	Completed
3	Develop a channel blockage contingency plan as a sub plan of the MPEMP.	2005	1	PoMC (SS&EM)	1.1	Completed
4	Determine the feasibility of implementing bypass channels adjacent to the existing Port Melbourne Channel, for shallow draught and commercial vessels to provide an alternative transit route and reduce potential for inappropriate interaction between vessels.	2005	1	PoMC (M&NS)	1.1	Completed
5	Conduct training for appropriate PoMC emergency response personnel in requirements for chemical incident management.	2005	1	PoMC (SS&EM), MFB	General	Completed
6	Enhance Victorian marine pollution response arrangements through the contribution and participation in the Thompson Clarke review.	2005	1	PoMC (SS&EM), MSV	1.1	Completed
7	Develop with MSV a management framework for marine pollution that fulfils statutory obligations and the outcomes of the Thompson Clarke review	2005	1	PoMC (SS&EM), MSV	1.1	Completed
8	Integrate PoMC safety and environmental incident and reporting systems, including escalation levels and an analysis of the incident database, to determine emerging patterns and trends which can lead to prevention strategies.	2005	1	PoMC (SS&EM)	1.1, 1.3, 1.6, 2.4, 2.5, 2.6, 3.1, 3.2, 3.3, 3.4, 3.5, 3.6	Completed
9	Develop a procedure for reporting emergency incidents across the whole of the port.	2005	1	PoMC (SS&EM)	1.1, 1.3, 1.6, 2.4, 2.5, 2.6, 3.1, 3.2, 3.3, 3.4, 3.5, 3.6	Completed

10	Review and enhance, where practical, PoMC commercial documents with tenants, contractors and third-party service providers with respect to safety and environmental matters.	2005	1	PoMC (SS&EM), (ES), (Property)	1.5, 1.7, 2.1, 3.3, 3.4	Completed
11	Develop and implement contractor induction for all PoMC controlled areas/activities (to include emergency notification and activation procedures).	2005	1	PoMC (SS&EM)	All	Completed
12	Introduction of the Maritime Security Identification Card in accordance with DIT requirements.	2005	1	PoMC (SS&EM), DIT	2.2	Completed
13	Consult, develop and implement a facility user licence for bulk liquid berths.	2005	1	PoMC (SS&EM)	3.4	Action superseded
14	Jurisdictional overlap between Parks Victoria and PoMC has been achieved by the introduction of quarterly meetings between agencies and the appointment of Authorised Officers under the Marine Act for the management of recreational vessels and commercial shipping interface within port waters of Melbourne.	2005	1	PoMC Marine & Navigation Services (M&NS), Security, Safety & Emergency Management (SS&EM) Parks Victoria, TSV	1.1	Completed
15	Develop a consolidated strategy for managing the interaction between commercial vessels and recreational traffic in port waters (including the use of variable message signs (VMS) abutting port waters).	2005	1	PoMC (M&NS)	1.1	Completed in part and closed
16	Undertake review of stormwater management programs and practices on PoMC land.	2005	1-2	PoMC (ES)	3.5	Completed
17	Conduct a safety and environmental audit on the maintenance and management of bulk liquid pipelines on PoMC land under the provisions of the <i>Pipelines Act 1967 (Vic)</i> (repealed).	2005	1-2	PoMC (SS&EM)	3.7	Completed
18	Investigate, scope and implement electronic hazardous cargo database and procedures.	2005	1-3	PoMC (SS&EM), (ITS)	1.1, 3.4, 3.5	Completed
20	Expand and refresh training for maritime security guards for bunker inspections.	2005	1	PoMC (SS&EM)	2.3	Completed
21	Develop and implement a mooring operations standard for the Port of Melbourne.	2005	1-2	PoMC (SS&EM)	2.1, 2.2	Completed
22	Prepare and implement a Port Road Strategy and Traffic Management Plan.	2005	1-2	PoMC (Planning)	3.1	Completed

23	Facilitate a risk assessment for waterborne fire and emergency incidents and response capabilities.	2005	1-2	PoMC (SS&EM), MFB	1.1	Completed
24	Implement Vessel Traffic Services (VTS) framework and procedures into PoMC Shipping Control activities.	2005	1-2	PoMC (M&NS), TSV	1.1	Completed
25	Refine Under Keel Clearance (UKC) procedures in conjunction with MSV and Port Phillip Sea Pilots.	2005	1-2	PoMC (M&NS), MSV, PPSP	1.1	Completed
26	Review and enhance PoMC investigation procedures for shipping, safety and environmental incidents.	2005	1-2	PoMC (SS&EM)	1.1, 1.3, 1.6, 2.4, 2.5, 2.6, 3.1, 3.2, 3.3, 3.4, 3.5, 3.6	Completed
27	Continue with PoMC contaminated land management programs and practices.	2005	1-3	PoMC (ES)	3.1, 3.4, 3.5, 3.6	Ongoing task. Action superseded by 63. Strategy has been implemented – see 63.
29	Implement emergency planning integration across the port, through biennial audits of emergency management plans.	2005	1-2	PoMC (SS&EM)	General	Completed
30	Develop a water and energy management plan for the port environment.	2005	1-2	PoMC (ES)	General	Completed
31	Undertake a safety and environmental audit of Station Pier.	2005	1	PoMC (SS&EM), (A&SD)	2.6	Completed
32	Undertake a security threat assessment of PoMC-controlled areas outside security-regulated port areas as prescribed under the MTOFSA.	2005	1	PoMC (SS&EM)	General	Completed
35	Undertake a review of enforcement powers and practices within the port environment and recommend areas for improvement.	2005	1	PoMC (SS&EM)	General	Completed
36	Develop and implement a communications strategy for SEMP implementation.	2005	1	PoMC (SS&EM)	General	Completed
37	Facilitate the installation of Coode Island sewer by City West Water.	2005	1	PoMC (A&SD)	3.5	Completed

Safety and Environment Management Plan – 2011 Final Draft

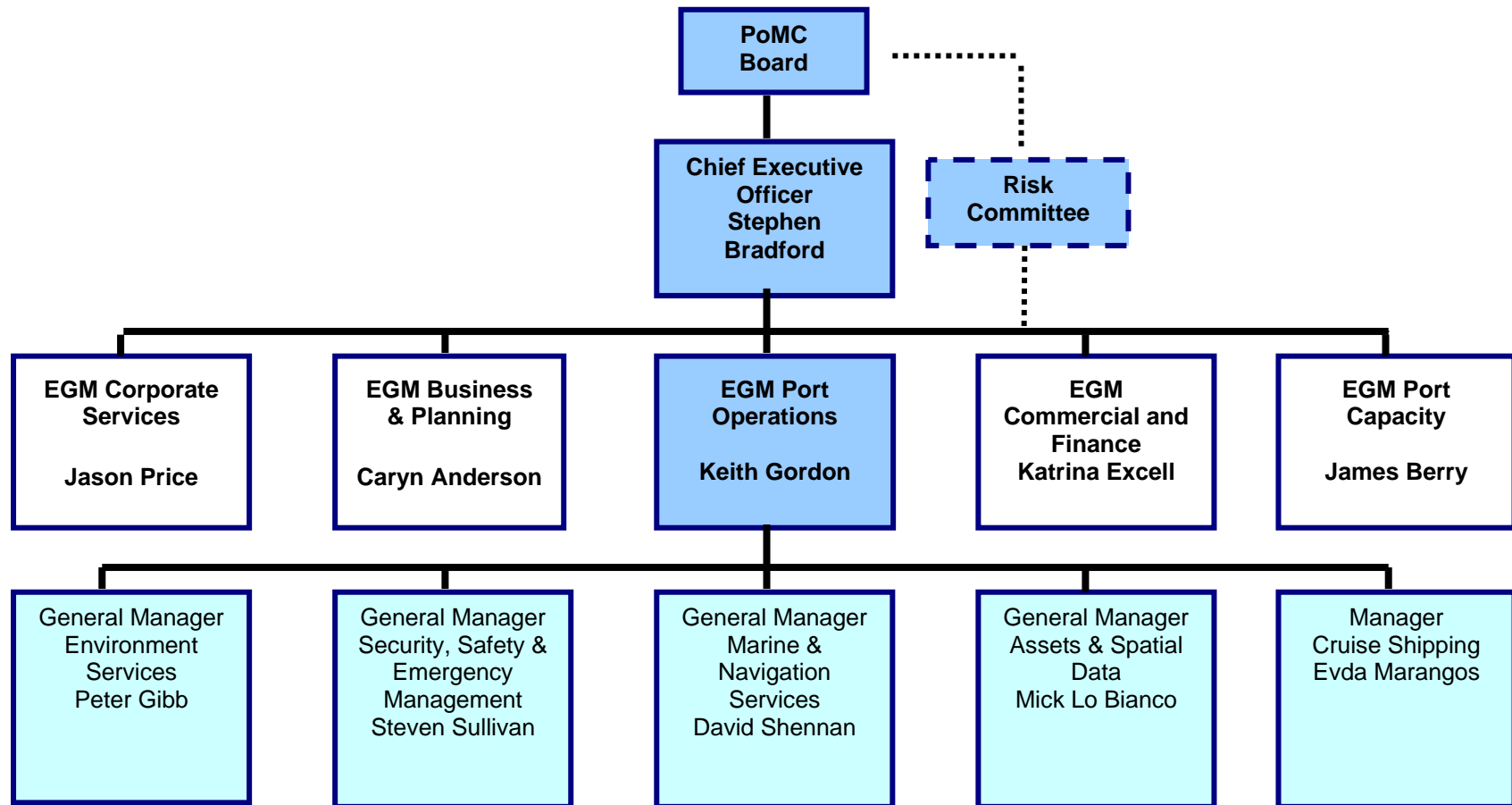
38	Assess recommendations of risk assessment for waterborne fire and emergency incidents and response capabilities, and implement those within the responsibility of PoMC.	2007	3	PoMC (SS&EM)	1.1	Completed
39	Introduce licensing to manage port service providers (pilotage, tugs, mooring, line boats, bunkering)	2007	3	PoMC (M&NS), (Property)	1.1	Completed in part and closed.
40	New navigation aids being installed with safety restraint systems.	2007	1	PoMC (A&SD)	1.5	Completed
41	Developing SOP for wildlife protection in coordination with CDP.	2007	1	PoMC (ES)	1.5	Completed
42	New hydrographic survey vessel being introduced in 2007.	2007	1	PoMC (A&SD), (Hydro)	1.6	Completed
43	Review of Operation Procedures for hydro-survey activities.	2007	1	PoMC (A&SD), (Hydro)	1.6	Completed
44	Establish a clear protocol between PoMC and stevedores (OHS Plans), regarding access/egress issues at common user berths.	2007	1	PoMC (SS&EM), (Property)	2.2	Cannot progress – impractical and not relevant
45	Licensing of bunker service provider.	2007	2	PoMC (SS&EM)	2.3	Cannot progress – not credible
46	Review the compliance of proposed amendments to the <i>Navigation Act 1912</i> (impact on fuel suppliers - register with AMSA).	2007	5	PoMC (M&NS)	2.3	Completed
47	Ensure that cruise ship's springs and lines are monitored and maintained while at Station Pier.	2007	1	PoMC (SS&EM), (M&NS)	2.6	Completed
48	Eliminate the use of old Station Pier cruise ship gangways.	2007	2	PoMC (Projects), (A&SD)	2.6	Completed
49	Where old gangways are in use, prepare a procedure for monitoring their use.	2007	1	PoMC (A&SD)	2.6	Removed, because old gangways are no longer in use
50	Management of Station Pier pedestrians on cruise days by implementing barrier systems and additional personnel.	2007	1	PoMC (SP Manager)	2.6	Completed
51	Discussion with TT-Line to develop guidelines and procedures for vehicle/pedestrian interaction.	2007	1	PoMC (SP Manager), TT Line	2.6	Action superseded

52	PoMC Community Relations Program.	2007	1	PoMC (Corp Relations)	1.1, 2.6, 3.1	Completed
53	PoMC to undertake safety and environmental audit of Mobil against AS 3846.	2007	1	PoMC (SS&EM)	2.7	Completed
54	Mobil's operations manual.	2007	1	Mobil	2.7	Completed
55	Implement regulatory powers to enforce parking in ports.	2007	2	PoMC (SS&EM)	3.1	Completed
56	Building new slipway with improved safety and environmental features.	2007	3	PoMC (A&SD)	2.4	Not a credible treatment. Long term plan to remove.
58	Revise Dry Bulk Operation Protocol for clarity and ease of implementation.	2007	1	PoMC (SS&EM)	3.4, 3.5	Completed
59	Review Dry Bulk Operations technology	2007	1	PoMC (ES)	3.4	Completed
60	Completion of rollout of site EMPs (new leases from 2004 onwards).	2007	1	PoMC (Property), (SS&EM)	3.5	Completed (new leases from 2004 onwards)
61	Revision of Health, Safety and Environmental Management Guidelines for PoMC tenants and service providers.	2007	1	PoMC (SS&EM), (ES)	3.5	Completed
62	Review Waste Management Plan for Port of Melbourne.	2007	2	PoMC (ES)	3.4	Completed
63	Implementation of a strategy for prevention and management of contaminated land.	2007	1	PoMC (ES)	3.8	Completed
64	SOPs for disturbance of pre-existing contamination.	2007	2	PoMC (ES)	3.8	Completed
66	Undertake capital work upgrading and improving security fencing in River Yarra pipeline corridor.	2007	1	PoMC (A&SD)	3.7	Completed
67	Implement a policy for all new and replacement pipelines to be above ground/not buried.	2007	3	PoMC (Property)	3.7	Cannot progress – not practical
68	Grade separation of rail for Swanson, Appleton, Victoria Dock precincts (2009).	2007	3	VicRoads	3.6	Action superseded – replaced by 91
69	Closing of Phillip's Road level crossing.	2007	3	PoMC (A&SD)	3.6	Withdrawn due to non-closure of Phillips Road

70	Closure of Appleton Dock Road level crossing.	2007	3	PoMC (A&SD)	3.6	Completed
72	Introduce enhanced marine incident reporting and investigation protocol by adoption of standard incident definitions, preparation of investigation procedures training of staff as investigators	2008	1	PoMC (M&NS)	1.1	Completed
74	Development of environmental complaints protocol.	2008	1	PoMC (ES)	1.1	Completed
75	Appointment of authorised officers under the <i>Marine Act 1988</i> (Vic) for regulating recreational vessels.	2008	1	PoMC (SS&EM)	1.1	Completed
76	Training of staff in incident investigation procedure.	2008	1	PoMC (SS&EM)	1.3	Completed
77	Undertake review of Harbour Master's Directions regarding diving activities in port waters.	2008	2	PoMC (M&NS)	1.7	Completed
79	Introduce Harbour Master's Directions with regards to minimum mooring guidelines.	2008	2	PoMC (M&NS)	2.1	Not proceeded with
80	Speed indicator signs/VMS.	2008	1	PoMC (SS&EM)	3.1	Completed
81	Preparation of a Preliminary Environmental Assessment procedure and checklist (ENV 018). See [57] for implementation	2008	1	PoMC (EnvS)	3.3	Completed
83	Introduction of projects for proposed Port Services (Port of Melbourne) Regulations, specifically Management of Abandoned Goods Port Safety Officer roles Management of Hazardous Port Activities	2008	1	PoMC (SS&EM), DoT	3.4	Completed
84	Modification of licences (self assessment process) for Common User Agreement.	2008	2	PoMC (Property)	3.4	Completed
85	Implementation of agreed recommendations from review of common user berths (2008).	2008	2	PoMC (SS&EM)	3.4	Completed
86	Change of lease for 27, 28, 29 South Wharf and 24 Victoria Dock from common user berth to leased tenant berth. (Risk transferred from 3.4.1 to 3.5.1 for these berths).	2008	1	PoMC (Property)	3.4	Completed
87	Monitoring of stevedore compliance by VWA inspectorate.	2008	Ongoing	VWA	3.4	Completed
88	Licensing of equipment owners (e.g. hoppers, hoses, etc.) stored at PoMC common user facilities.	2008	2	PoMC (Property)	3.4	Withdrawn (merged with 92)
89	Electronic HSEMP (Health Safety Environment Management Plan) tool.	2008	1	PoMC (SS&EM)	3.5	Completed

90	MPEMP zone 11 – modification to MPEMP communications.	2008	1	PoMC (SS&EM)	3.5	Completed
91	Dynon Port Rail Link – grade separation of three road/rail crossings and one bike/pedestrian crossing of rail.	2008	1	DoT	3.1, 3.6	Completed
97	Review interagency relationships to improve maritime communications relating to submerged pipeline incidents by inclusion in ENIRA	2010	1	PoMC (M&NS)	1.1.7	Completed
98	Introduction of inner and outer anchorages providing an increase in distance from the submerged pipeline	2010	1	PoMC (M&NS)	1.1.7	Completed
99	Ensure the awareness of ships masters of the their responsibility within the VTS area by the provision of guidelines within the Harbour Masters Directions	2010	1	PoMC (M&NS)	1.1.7	Completed

APPENDIX B: Organisation Chart



APPENDIX C: List of current port managers

The ports and port managers to which the PMA and these guidelines apply as at the date of publication are set out below:

Commercial Trading Ports	Port Manager
Port of Portland	Port of Portland P/L
Port of Geelong	Geelong Port – Grain Corp - VRCA
Port of Melbourne	Port of Melbourne Corporation
Port of Hastings	Patrick Ports Hastings

Local Ports	Port Manager
Port Fairy	Moyne Shire Council
Warrnambool	Warrnambool City Council
Port Campbell	Parks Victoria
Apollo Bay	Colac- Otway Shire Council
Barwon Heads	Barwon Coast CoM
Lorne	Great Ocean Road Coast CoM
Port Phillip	Parks Victoria
Western Port	Parks Victoria
Anderson Inlet	Gippsland Ports CoM
Corner Inlet and Port Albert	Gippsland Ports CoM
Gippsland Lakes	Gippsland Ports CoM
Snowy River	Gippsland Ports CoM
Mallacoota	Gippsland Ports CoM

New ports may be declared under the PMA from time to time as local ports or commercial trading ports by Order in Council published in the *Government Gazette*.

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The information contained in the publication was current and correct at the time of print;
however, changes may occur without notice.

