KIMBERLEY PORTS AUTHORITY

ENVIRONMENTAL MANAGEMENT PLAN

2021

CONTENTS

TABLES

LIST OF ABBREVIATIONS

COO: Chief Operating Officer

EMP: Environmental Management Plan

EMS: Environmental Management System

ERP: Emergency Response Plan

HSER: Health Safety Environment & Risk

KPA: Kimberley Ports Authority

MOPCP: Marine Oil Pollution Contingency Plan

MSP: Marine Safety Plan

OHSMS: Occupational Health and Safety Management System

PMA: Port Management Area

SWASP: State Wide Array Surveillance Program

TEMR's: Tenant Environmental Management Requirements

1. INTRODUCTION

Kimberley Ports Authority (**KPA**) is a Government Trading Enterprise under the *Port Authorities Act 1999* (the **Act**), which defines a clear role for all port authorities and establishes lines of accountability and reporting requirements to the State Government. KPA currently has responsibility for the Port of Broome and the Port of Browse. As part of the ports amalgamation, KPA will have responsibility for the Ports of Derby, Yampi Sound and the Port of Wyndham in mid-2021.

Under the Act, KPA has a duty to act on commercial principles and perform defined functions, including the:

- facilitation of trade and planning for future growth and development of the port for the economic benefit of the State

- control of operations and business of the port and the power to hold and dispose of assets and enter into commercial arrangements

- safe and efficient operation of the port

- maintenance and preservation of property vested in the port

- protection of the port environment and minimisation of the impact of port activities on that environment.

KPA has an Environmental Management System (**EMS**) and the Environmental Management Plan (this document) (**EMP**) is a key component of KPA's EMS. The EMP outlines the scope of KPA's environmental management for its operations and links with other KPA systems and processes. In addition, the EMP provides a framework should amalgamation proceed with other ports in the Kimberley region. KPA is also required to develop an EMP under the Act.

The EMP is a "live" document that will address new activities that may arise and incorporate any legislative changes or best practice conditions which may evolve from time to time. This EMP follows the structure of AS/NZS ISO 14001: 2015 to demonstrate how KPA manages its operations to minimise risk to the environment. The purpose of this EMP is to:

- define the scope of KPA's environmental management role and responsibilities

- outline how KPA identifies and manages the risks associated with its activities and serves to minimise the impact to the surrounding port environment

- provide an overview of the significant environmental risks and key treatment plans that will address these risks

- outline KPA's environmental objectives and targets

- provide a framework for ensuring KPA's environmental performance is continuously and systematically improved

- provide an overview of how environmental management at KPA is undertaken, how it integrates with other KPA systems and process, and provide references to relevant documentation where required.

1.1. KPA Ports

With the port reform process, KPA inherits extended responsibilities for environmental management in a region that is internationally recognised as having significant environmental values. KPA has carried out a due diligence on the Ports of Wyndham, Derby and Yampi Sound to gain an understanding of the specific ecological, heritage and biodiversity values at these Ports, as well as ascertain the environmental management systems that are in place. When these ports are amalgamated KPA will update its EMS and EMP accordingly.

1.1.1. Port of Broome

The Port of Broome is a busy deep water port that has serviced the Kimberley region since 1889 and is located at the southern tip of the Dampier Peninsula. The port supports Broome's pearling fleet as well as offshore oil and gas exploration supply vessels, oil tankers, livestock carriers, breakbulk or general cargo vessels, fishing vessels, charter boats, cruise liners, private vessels and Navy and Customs patrol vessels. The port is the main fuel and cargo hub port for the Kimberley region, and in recent years its principal exports have been livestock and offshore drilling rig equipment and materials. A steel pile jetty extends from the peninsula in an easterly direction, reaching the deeper waters of the Inner Anchorage within Roebuck Bay.

KPA has strategically located land holdings that are used for port related activities and developments. Land is leased to tenants for a variety of purposes including hydrocarbon tank farms, offshore supply bases, oil and gas drilling fluid storage, road transport providers, fishing club, hovercraft base and limited residential use. A portion of land is used for port related uses by the KPA, a portion is leased to tenants. Port of Broome lands are shown in Figure 1.

KPA is charged with the role of overall management of the Port of Broome. This involves financial aspects, strategic planning, forecasting and development. In addition, the Port of Broome differs from many other Western Australian Ports in that the majority of day-to-day port activities (such as pilotage, stevedoring, navigation aid maintenance, anchorages, moorings, communications, channel maintenance, towage, cargo loading and discharge) are conducted in-house or otherwise arranged by KPA.

KPA is also responsible for strategically planning and coordinating the optimum overall development of the Port of Broome. This function involves identifying suitable physical resources (e.g. land, deep water) available for future use and forecasting marine traffic, trade and future land use requirements.

2. CONTEXT OF THE ORGANISATION

2.1. Understanding the organisation and its context

KPA conducts annual strategic planning workshops to set strategic business direction in the short, medium and long-term context. As part of KPA's annual strategic planning process, KPA assesses the internal and external environmental issues that may have a direct influence on the effectiveness of KPA achieving the intended outcomes of its environmental management system, and the potential for KPA to impact on local, regional and national environmental and sustainability issues. For example:

- Internal issues, which may include organisation culture, services, resourcing, activities and processes; and

- External issues, which may include commodity market and economic conditions, meeting government objectives and new legislative obligations, maintaining cost competitive operations, stakeholder expectations and environmental conditions.

2.2. Understanding the needs and expectation of stakeholders

KPA interacts with a range of stakeholders including elected government representatives, government agencies, customers, port users, community, business / industrial, media and KPA staff. KPA's Communication plan identifies KPA's stakeholders and outlines an engagement approach. Outcomes from the implementation of this plan are considered in the development of KPA's strategic objectives.

2.3. Scope of KPA's Environmental Management System and EMP

KPA's EMS incorporates policies, planning, procedures, practices, responsibilities, training, monitoring, review and audits that together define the framework for managing the impact of KPA's activities, products and services on the environment. The EMS is currently focused on the Port of Broome and will be updated and expanded to include other ports as these become amalgamated with KPA.

In addition to KPA's EMS and supporting suite of documents, KPA has other systems, plans and procedures which support environmental management, including:

- Port of Broome Occupational Health and Safety Management System (**OHSMS**);

- Port of Broome Marine Safety Plan (**MSP**);

- Port of Broome Emergency Response Plan (**ERP**);

- Port of Broome Cyclone Contingency Plan; and

- Port of Broome Marine Oil Pollution Contingency Plan (**MOPCP**).

KPA's Port of Broome port management area (**PMA**) incorporates both marine and landside areas and includes port and non-port related activities. These activities are undertaken by a range of different parties including KPA, contractors, agents, port users, tenants and members of the public.

KPA site activities can be categorised into three general areas:

a) activities and services that are managed by KPA;

b) port related activities that are undertaken by other parties; and

c) activities undertaken by tenants or contractors.

Taking into consideration the types of activities undertaken in KPA's PMA, the environmental management control KPA has is one of three types:

- **Direct Operational Control** – where KPA has full operational control of an activity, facility or project and the environmental responsibility lies with KPA;

- **Commercial Control** – where KPA has a commercial agreement allowing another party to carry out activities on KPA lands, facilities, sea bed or water areas, for example a lease, contract, permit or licence; and

- **Regulatory Control** – this applies to port users and members of the public accessing port lands where KPA has a regulatory role to fulfil its obligations under the *Port Authorities Act.*

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3. LEADERSHIP AND COMMITMENT

3.1. Environment Policy

KPA's Environment Policy Statement outlines its commitment to deliver its services and activities in an environmentally sustainable and responsible manner. The policy is reviewed bi-annually by KPA's management team and approved by the Board.

The policy is communicated via KPA's site induction process, is displayed in the workplace and can be accessed via KPA's website.

3.2. Roles and Responsibilities

All KPA employees, contractors and other positions under the direct control of KPA have a general duty under the *Environmental Protection Act 1986 (WA)* to:

- Not cause or allow serious environmental harm or material environmental harm; or

- Intentionally or otherwise, cause pollution or an unreasonable emission from any premises.

The minimum responsibilities and accountabilities for KPA staff are documented in position descriptions, each of which will have some level of role, responsibility and authority for managing environmental aspects. This may include implementing operational controls, risk treatment plans, programs or other administrative controls. An outline of the roles, responsibilities and authorities at key levels within KPA are displayed in Table 1.

Table 1: Environmental Roles and Responsibilities

Role	Responsibility
Board of Directors	Under Section 8(2) of the Act, the Board is to "perform the functions, determine the policies and control the affairs of the Port Authority". As such, the Board is responsible for determining and endorsing KPA's Environment Policy.
Managers	Members of the Management Team are responsible for ensuring environmental stewardship and accountability within their specific function. Specific responsibilities include: - CEO - is responsible for leading the culture of the organisation regarding environmental stewardship. The CEO delegates responsibility for various risk mitigation initiatives and approves resources in consultation with the Managers. - Managers - are responsible for annual workforce planning to ensure adequate resources and budget is available for the implementation of KPA's Environmental Management System. - Harbour Master - is responsible for ensuring the safe and efficient movement of vessels through KPA's port and ensuring those vessels and their associated activities are undertaken with minimal impact to the port. The Harbour Master also undertakes a key role as Incident Controller in the event of a port marine oil pollution emergency.

HSER Manager	The HSER Manager has overall responsibility for the coordination of environmental management aligned with the requirements of AS/NZS ISO 14001:2015. This includes: • the development of the EMP; • reporting on environmental management system performance; and • providing recommendations for continual improvement to the Management Team for review.
Employees	KPA staff are required to: • adhere to this EMP; and • contribute to developing and implementing risk treatment plans for significant environment aspects that are applicable to their work area.
Contractors	Contractors and service providers are expected to adhere to the EMP when operating on behalf of or directly for KPA
Lessees / licensees	Lessees and licensees must adhere to the conditions in their commercial agreements with KPA to ensure the environmental impacts from their activities are managed. They must also abide by environment and heritage legislation.

4. PLANNING

The EMP considers:

- The KPA Vision and Mission statement

- The current KPA Strategic Development Plan 2021/26

- The KPA Master plan

- Internal and external environmental issues

- Environmental themes and objectives

- The needs and expectations of internal and external stakeholders

- The current scope of KPA's services and activities within the context of the EMS.

During the planning process, KPA also determines the risks and opportunities related to its compliance obligations, environmental aspects and other issues and requirements that need to be addressed in order to:

- Give assurance the EMP will achieve its intended outcomes;

- Prevent or reduce undesired effects / environmental harm; and

- Achieve continual improvement.

4.1. Compliance Obligations

There are a range of State and Federal environmental laws, regulations and standards that are relevant to KPA's operations. KPA has processes in place to ensure any legislative changes and

amendments are taken into account. Some of the key legislation relating to KPA's operations include, but are not limited to:

State

- *Environmental Protection Act 1986*

- *Environmental Protection Regulations 1987*

- *Environmental Protection (Clearing of Native Vegetation) Regulations 2004*

- *Environmental Protection (Unauthorised Discharge) Regulations 2004*

Commonwealth

- *Environmental Protection and Biodiversity Conservation Act 1999*

- *Environment Protection (Sea Dumping) Act 1981*

4.2. Environmental Themes and Objectives

KPA's strategic environmental objective as set out in the KPA Strategic Development Plan 2021/26 is to seek the balance between Sustainability and Economic Growth.

KPA's strategy of "seeking the balance between sustainability and economic growth" encompasses all facets of the organisation and environment in which it operates, including the port operations, stakeholder (industry, government, community, traditional owners etc.) needs, planning and development needs, management and maintenance of assets, physical environment, and environment and heritage values of the Port and surrounding areas.

KPA will play an increasing role planning for the region to ensure the growth is planned, sustainable and recognises the needs of the KPA's customers and key stakeholders. This will be achieved through:

- developing a master plan for all Kimberley Ports

- maintaining the Port of Broome EMS in line with AS/NZS ISO 14001

- establishing a program for future ports that are amalgamated into KPA to ensure their EMS's align with AS/NZS ISO 14001 and KPA's EMS

- aligning environmental monitoring programs to support commercial and operational future developments

- incorporating coastal vulnerability and climate change considerations into KPA development strategies.

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Table 2: Overview of KPA's key environmental themes and objectives

Theme	Description	Objective
Ambient Air Quality	Air quality in and around the Port	Minimise impacts on the community from site sourced air emissions.
Flora & Fauna	Marine and terrestrial fauna within the port precinct	Minimise impacts to flora and fauna and seek opportunities to enhance native species.
Greenhouse Gas & Energy	Greenhouse gas emissions (i.e. CO2e) associated with works under KPA's operational control.	Minimise greenhouse gas emissions and continually improve energy efficiency.
Land & Seabed	Land vested to KPA above the high tide line and seabed within the Port precinct below the high tide line	Effectively manage Port services and activities to prevent pollution of Port land and seabed and ensure environmental impacts of contamination are minimised.
Noise	Noise emissions associate with port operations	Minimise impacts to the community from site sourced noise emissions.
Waste	Physical waste generated through the Ports operations	Reduce the volume of wastes generated by KPA services and activities that require disposal to landfill or specialised treatment.
Water	Water that includes: • stormwater; • potable water; • marine water; and • ground water.	Effectively manage port services and activities to ensure water resources are: • used efficiently and protected; and • Maintain long-term security of marine waters for KPA activities.

4.3. Environmental Risk Management

Port operations and activities, by their nature, have the potential to impact upon one or more aspects of the natural or social environment. KPA has a Risk Management Policy and Risk Management Framework which outlines how it identifies, assesses and controls risks, including environment risks.

KPA has four risk assessment levels:

- Strategic level;
- Operational level;
- Project level; and
- Task/Activity level.

KPA records its risks in an online risk management system. Significant environmental risks are those aspects which are rated with a risk score high or greater, or are otherwise a management concern for KPA. The key environmental risks are identified in Table 3 below. .

Table 3: Overview of KPA's Key Environmental Risks

Risk Description	Cause	Resulting In	Consequence Category	Inherent Risk			Controls (already in place)	TAPS (to be implemented)	Post Tap Risk		
				C	L	R			C	L	R
Release of product to the environment	Uncontrolled release of a product within the PMA that enters the marine or terrestrial environment.	• Toxicity and smothering of marine biota from spilled product • Damage or destruction of marine habitat • Reduction in water quality from nutrients and suspended solids • Contamination of soil and potentially groundwater	Environment	5	3	15	• KPA HSE and Security Induction • KPA EMS including SOP's, JHA's and Permit to Work System. • CCTV • Audits and inspection program • Maintenance program • Port and Terminal Handbook • Commercial leases • Bunkering induction (third party) • Contractors Handbook	• Ongoing audit and inspection program • Conduct a review of emergency response plans against best practice guidelines	4	2	8
Cumulative loss of environmental values	Failure to adequately manage environmental impacts.	Degradation of environmental values including (but not limited to): • water quality • sediment quality • seagrass health	Environment	4	3	12	Environmental monitoring programs including: • Groundwater monitoring • Marine Baseline Program (2016) and ongoing marine monitoring • SWASP to monitor for invasive marine pest species Other controls include:	• Review storm water management processes	3	2	6

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				L	C	R			L	C	R
							• Groundwater conceptual model for Port of Broome • Workplace inspections • Native vegetation clearing application process • Hazardous chemical management processes • Biosecurity Response Procedure				
Failure to manage existing contaminated sites	Unknown extent of contamination or ongoing contamination of a site.	Adverse impact on land or marine environments.	Environment	4	3	12	• TEMRs • Slipway Terms and Conditions • Slipway Contaminated Site Management Plan • HSE Slipway Guidelines • Commercial Leases • Permit to Work System • Regular inspections of the Slipway • Slipway registered as a prescribed premise • Groundwater monitoring	• Ongoing inspections of the site •	4	2	8

Notes: L = likelihood, C = consequence, R = risk

5. ENVIRONMENTAL MANAGEMENT COMMITMENTS

The tables presented below summarises the environmental management commitments for each of the environmental themes, including:

- **EMP Objective(s)** – the relevant high-level environmental management objective;

- **Environmental Risk** – the relevant risk identified;

- **Management Strategy** – how KPA broadly intends to meet / approach the environmental management objective;

- **Control(s)** – the summarised controls in place to ensure objectives are met;

- **Monitoring** – how the outcomes of implementing the controls will be monitored. The level and frequency of monitoring will be relative to the risk rating of the objective;

- **Reporting** – how performance will be reported within and outside the organisation (where applicable);

- **Performance indicator(s)** – performance measurement that evaluates the successes of control implementation; and

- **Planned works** – broad scope of works to manage the risk.

Feather Stars (Cenolia), Port of Broome waters

Table 4: Overview of KPA's key environmental objectives and associated programs, strategies and plans

Ambient Air Quality				
EMP Objective(s)	Minimise impacts on the community from site sourced air emissions.			
Environmental Risk	Failure to comply with community expectations around air quality.			
Management Strategy	• Risk assess new processes and tenant applications • Monitor current processes • Ambient air quality currently to be managed with administrative controls, principally change management i.e. bulk loading of product considered for KPA in the future.			
Control(s)	• Work place inspections • Lease agreements • Tenant inspections	**Responsibility**	• Operations Dept • COO • HSER Manager	
Monitoring	Inspections	**Responsibility / Timing**	Operations Dept	Monthly
			COO	As required
			HSER Manager	Adhoc
Reporting	Incident reports as required			
Performance indicator(s)	• No verified community complaints • No significant environmental incidents			
2021 planned works	• Maintain current review process for new proposals. • Maintain inspection process to identify any changes.			

Flora and Fauna		
EMP Objective(s)	Minimise impacts to flora and fauna and seek opportunities to enhance native species.	
Environmental Risk	• Release of product to the environment • Cumulative loss of environmental values • Introduced invasive pests	
Management Strategy	• Risk assess new processes and tenant applications • Monitor current processes • Conduct drills to ensure high state of readiness in case of a spill	

		Responsibilities & Timings	
Control(s)	• KPA EMS and other management systems such as permit to work • Audit and inspection program • Spill management processes • Biosecurity Response Procedure • Promote planting of native species	• COO • Operations Dept • HSER Manager • Harbourmaster	
Monitoring	• Inspections/audits • Contract reviews • State Wide Array Surveillance Program (**SWASP**)	Operations	Monthly
		COO	As required
		HSER Manager	As required
Reporting	• Annual, adhoc and scheduled marine monitoring reports	HSER Manager	Annually
Performance indicator(s)	• No significant spills or pollution events • Do not exceed recognised trigger values		
2021 Planned works	• Continue with marine monitoring program and SWASP • Continue to liaise with Roebuck Bay Working Group (**RWBG**), Nyamba Buru Yawuru (**NBY**), Department of Biodiversity, Conservation & Attractions (**DBCA**) to enhance understanding of flora and fauna systems • Continue to conduct emergency spill response drills		

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Greenhouse and energy			
EMP Objective(s)	Minimise greenhouse gas emissions and continually improve energy efficiency.		
Environmental Risk	Failure to comply with regulatory requirements and or community expectations with respect to greenhouse gas emissions and energy use		
Management Strategy	• Monitor and maintain mobile equipment • Purchase energy efficient equipment		
		Responsibilities & Timings	
Control(s)	• Maintain mobile equipment to ensure efficiency • Monitor legislative changes	• Maintenance Dept • HSER Manager	
Monitoring	• Monitor equipment performance • Monitor legislative changes • Monitor energy usage	Maintenance Dept	Scheduled
		HSER Manager	Quarterly
Reporting	NA		
Performance indicator(s)	• Compliance to existing and new/emerging legislation		
2021 Planned works	• Maintain existing systems • Promote energy saving practices in the workplace • Track energy usage • Commence the development of a climate change adaption strategy for the Port of Broome • Commence the development of an environmental sustainability plan		

Land and Seabed			
EMP Objective(s)	Effectively manage Port services and activities to prevent pollution of Port land and seabed and ensure environmental impacts of contamination are minimised.		
Environmental Risk	• Release of product to the environment • Cumulative loss of environmental values • Failure to manage existing contaminated sites		
Management Strategy	• Risk assess and apply management control to new operations/tenants • Monitor environmental systems to detect changes in conditions		
		Responsibilities & Timings	
Control(s)	• Commercial Leases • Tenant Environmental Management Requirements • Tenant Inspections • Monitoring programs • Slipway and Site Asbestos Management Plans • Groundwater Conceptual site model	• COO • HSER Manager	
Monitoring	• Inspections and audits • Marine monitoring program • Groundwater monitoring program	COO	Annual
		HSER Manager	Biannual
Reporting	Annual reports	HSER Manager	Annual
Performance indicator(s)	No significant spills or contamination events		
2021 Planned works	• Maintain marine monitoring program and SWASP • Continue groundwater monitoring		

Noise			
EMP Objective(s)	Minimise impacts to the community from site sourced noise emissions.		
Environmental Risk	Failure to comply with community expectations around noise emissions		
Management Strategy	• Risk assess and apply management control to new operations/tenants • Maintain a community relations management process		
		Responsibility & Timings	
Control(s)	Risk assess new operations including tenants for potential environmental noise impacts	COO	
Monitoring	• Undertake tenant and operational inspections • Monitor community comments and feedback	COO	Annual
		Administration	Ongoing
Reporting	Incident reporting	HSER Manager	As required
Performance indicator(s)	No verified community complaints		
2021 Planned works	Maintain existing systems Undertake noise monitoring for wharf operations		

Waste			
EMP Objective(s)	Reduce the volume of wastes generated by KPA services and activities that require disposal to landfill or specialised treatment.		
Environmental Risk	Failure to comply with community expectations around waste management		
Management Strategy	Assess waste streams and implement risk based management		
		Responsibility & Timings	
Control(s)	• Waste management SOP • Workplace inspections • Contracts with waste management providers • Biosecurity Waste Procedure	• HSER Manager • COO	
Monitoring	• Inspections • Audits	Management team	Monthly
		HSER Manager	Adhoc
Reporting	Incident reporting, Annual report if required		
Performance indicator(s)	No significant waste management related incident		
2021 Planned works	Maintain existing systems Track waste disposal quantities		

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Water			
EMP Objective(s)	Effectively manage port services and activities to ensure water resources are: • Used efficiently and protected • Maintain long-term security of marine waters for KPA activities		
Environmental Risk	• Release of product to the environment • Cumulative loss of environmental values		
Management Strategy	• Risk assess current and proposed/new activities for potential impacts on water resources • Maintain monitoring process and respond to changes in water quality		
		Responsibility & Timings	
Control(s)	• Environmental Management System • Contract and lease agreements with tenants • Monitoring processes aimed at detecting change • MOA for the Roebuck Bay Marine Park with DBCA and NBY	• HSER Manager • COO	
		Responsibility	**Timing**
Monitoring	• Marine monitoring program • Groundwater monitoring program	HSER Manager	Bi-annual
Reporting	Consultant reports	HSER Manager	As required
Performance indicator(s)	• No adverse changes in marine or groundwater quality		
2021 Planned works	• Maintain marine and groundwater monitoring programs • Continue to liaise with RBWG, NBY and DBCA to enhance understanding of marine systems • Continue with emergency response drills to ensure spill management processes are adequate and implement recommendations • Refine knowledge of groundwater systems with conceptual site model • Review stormwater management processes • Track water usage and install additional remote meters		

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6. SUPPORT

6.1. Resources

KPA maintains a management structure that supports the effective planning and execution of environmental management across Port lands/waters. Roles have documented responsibility in protecting environmental values.

KPA provides financial resources for the use of specialist consultants where required. Equally resources are provided for maintaining a high level of community engagement to ensure the community is kept informed of our operations and our performance.

6.2. Training and awareness

General awareness of KPA's EMS is provided in KPA's online induction for Port of Broome employees, contractors and visitors. More in-depth training on the EMS or particular environmental issues may be provided to employees during their induction or to relevant personnel, e.g. for those undertaking a specific activity or who have specific EMS responsibilities.

Array from State Wide Array Surveillance program (SWASP) after two month soaking period under wharf

6.3. Communication

KPA has a communications plan for stakeholders which includes internal and external communication use a range of communication methods.

KPA's main forum for information exchange with the community is through the Community Consultation Committee (**CCC**). This forum provides an opportunity to share information and provide mechanisms for feedback with the local community in which KPA operates. KPA also communicates key information on its environmental performance to port stakeholders via its Annual Report, Navigator newsletter, specific project updates and website.

Information about the EMS and this EMP is disseminated to KPA employees and contractors during Port of Broome inductions, as part of training, on noticeboards and on the KPA website. This EMP is available on KPA's website. Environmental alerts and notices are also provided to KPA employees and discussed at toolbox talks when required.

6.4. Documents and Records

Elements of the EMS are shared with other KPA management systems. For example, KPA has many Safe/Standard Operational Procedures (**SOPs**) and job hazard analysis (**JHAs**), which prescribe the way that employees and contractors must carry out specific activities at the Port of Broome. While SOPs are primarily an Occupational Safety and Health (**OSH**) system document to ensure a consistent and risk-assessed approach to completing certain activities in a safe manner, the SOPs may also prescribe measures relating to the environmental management of KPA activities, products and services.

KPA has an electronic document archive system which ensures appropriate records are kept and version control is implemented.

7. OPERATION

The key to successfully reducing environmental impact from daily port operations is proper implementation of environmental management procedures. To ensure effective implementation, KPA will:

a) communicate relevant aspects of KPA's EMS and EMP to employees, contractors, port users and tenants

b) train relevant personnel on their implementation responsibilities

c) make environmental considerations an integral part of the port's decision making process (including development and expansion)

d) include environmental policies in leases and contracts

e) regularly inspect, review and audit port operations to ensure environmental procedures are implemented and being complied with.

7.1. Operational Control

KPA has three types of environment control as detailed below and outlined in Section 2.3.

7.1.1.Direct Control

KPA manages the environmental risks associated with activities under its direct control at the Port of Broome through a variety of controls including, but not limited to:

- KPA HSE and Security Induction – this is undertaken by all KPA employees, contractors and port users who require access to the wharf

- KPA's inspection and audit program

- SOP's and JHA's which outline specific environmental controls or guidelines specific to the activity being undertaken

- Permit to work system

- Marine Safety Plan

- CCTV

- Emergency response plans and equipment

- Maintenance plans and schedules

- Contractors HSE Handbook

- Port Standards & Procedures

- Port and Terminal Handbook.

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7.1.2.Commercial Control

In regards to commercial control, KPA manages the environmental risks associated with Port of Broome tenant and contractor activities in a variety of ways.

As separate business entities, tenants have the primary individual responsibility to ensure that their activities meet environmental regulatory requirements. Allocation of environmental risk is important as KPA may have to carry the cost of remediation and environmental contamination caused by tenant activities. Mechanisms available to KPA to define the environmental responsibilities of tenants include:

a) leases – a legally binding contract to define the terms of the relationship

b) Port standards and procedures – requirements and guidelines developed by KPA or jointly with the tenant to incorporate into leases, i.e. the tenant environmental management requirements

c) environmental legislation – use of legislation to define responsibility

d) economic factors – in order to retain tenants and attract new tenants, KPA may choose to assume additional environmental responsibilities.

To manage the potential environmental impacts associated with tenant activities, KPA has developed a series of Tenant Environmental Management Requirements (**TEMRs**) as part of the KPA EMS. New tenants are required to comply with the TEMRs, existing tenants are being transitioned towards a goal of full compliance. TEMRs have been produced to cover general environmental management as well as management of more specific environmental factors.

KPA also conducts regular inspections of its tenants to ensure compliance with environmental requirements. All tenants are required to:

- manage their specific potential environmental impacts
- comply with relevant environmental legislation and other operational legislation
- meet the conditions of their lease
- comply with conditions specified under their individual operating licences
- undertake relevant monitoring for example, groundwater testing and noise monitoring.

In regards to contractors, both those under KPA's responsibilities and port users, in addition to the controls outlined under Direct Operational Control above, KPA also has a preferred contractor list and contracts in place.

7.1.3. Regulatory control

At Port of Broome members of the public have access to areas of port lands, for example, Entrance Point Boat Ramp. KPA has regulatory control in regards to the activities undertaken by members of the public on port lands. KPA manages the risks associated with these activities primarily through the Port of Broome Standards and Conditions and inspections. In addition, members of the public are required to undertake activities in compliance with environmental legislation.

8. EMERGENCY PREPAREDNESS AND RESPONSE

KPA has the following in place in regards to emergency preparedness and response:

- **Emergency Response** – the initial onsite response which focuses on the preservation of life, the protection of property and environment, and the prevention of escalation.
- **Incident Management** – the response to an incident by KPA.
- **Business Continuity Management** – in the event of an interruption to KPA's services and activities, a business continuity response may be required to assist in returning to business as usual.

KPA has an Emergency Response Plan (**ERP**) that defines the procedures to be followed in the case of any emergency. An incident control system is defined in the ERP, specifying particular roles and responsibilities for key personnel. Guidance in the steps to be taken in types of emergencies particular to port operations or KPA's operations is also provided.

In addition to the ERP, KPA has developed a Marine Oil Pollution Contingency Plan (**MOPCP**). The MOPCP aims to minimise the impact of oil spills from any source on the environment of the Port of Broome and adjacent areas. The environmental response priorities of the MOPCP are to habitat, cultural resources and rare or endangered flora/fauna, second only to human life and safety. However, it is noted that these objectives may require reprioritisation in order to maximise effectiveness of the response.

The ERP is tested at a minimum of once per year in a scenario-type drill. A debrief is held following the test, enabling deficiencies and opportunities for improvement to be identified. The ERP and related documents are updated and revised if necessary.

Once additional ports are amalgamated with KPA, the KPA ERP will be updated to address the management structure of emergencies at these ports and refer to the relevant Port Operator response plans and procedures.

9. PERFORMANCE EVALUATION

KPA has implemented a range of environmental monitoring programs, some of which have been identified in Section 4. Monitoring programs at KPA have been implemented either due to:

- Legal requirements: where KPA is bound to undertake monitoring under statutory approvals issued to the organisation under environment and/or cultural heritage legislation; and/or

- Best practice: where the aspects and impacts of delivering KPA's services and activities have been analysed through the risk management process and a monitoring program has been established to characterise and monitor the quality of the environment in response to these.

KPA communicates the key outcomes of its environmental monitoring programs through various processes and stakeholder forums established under KPA's Stakeholder Engagement and Communications Strategy (e.g. CCC).

By routinely evaluating the results of its environmental monitoring programs against its environmental objectives, KPA is able to effectively monitor, report and continually improve the overall performance and effectiveness of its EMS.

9.1. Monitoring, Measurement, Analysis and Evaluation

KPA has the following monitoring programs for the Port of Broome:

- **Marine Baseline and Ongoing Monitoring Program** – KPA completed a marine baseline monitoring program in 2016. Overall, the baseline assessment identified that the marine environments of the Port of Broome are in good condition. KPA is now undertaking an ongoing marine monitoring program;

- **Invasive Marine Pest Species Monitoring Program** – KPA, in partnership with Department of Fisheries, runs a State Wide Array Surveillance Program (**SWASP**) to monitor for the presence of invasive marine pest species. The program includes the deployment of settlement arrays from the wharf and shore line monitoring; and

- **Groundwater monitoring** – KPA currently undertakes six monthly monitoring of its groundwater.

KPA also provides financial support for the Broome Community Seagrass monitoring project. The project includes sites in port waters and has been running for over 11 years. The regular monitoring events involve community volunteers and Indigenous rangers and provide an early warning of change in the marine ecosystem of Roebuck Bay.

9.2. Evaluation of Compliance and Auditing

KPA maintains a process for periodically evaluating its compliance with legal and other requirements (see Section 4.1). KPA is in the process of developing an online compliance register to assist with the management, review and audit of this process.

KPA maintains an internal audit program, which includes audits on KPA's EMS. These audits can be conducted by KPA or external parties.

9.3. Hazard and incident reporting

KPA's processes for managing environmental hazards and incidents are documented in KPA's Hazard and Incident Reporting Procedure. All environmental hazards and incidents are reported and communicated via KPA's online reporting tool, with actions tracked and monitored in this system. Information on environmental hazard and incident reports are provided to the workforce via alerts, toolbox talks or the HSE Committee meeting to ensure any lessons learned are disseminated to employees and other stakeholders where appropriate.

9.4. Document review

KPA's Environment Policy is reviewed and approved by the management team and Board every two years to ensure its continuing suitability and effectiveness. This EMP is reviewed annually to ensure KPA's environmental objectives and plans remain current.