Port of Thursday Island

ENVIRONMENTAL

MANAGEMENT

PLAN

2014

Ports North

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DOCUMENT CONTROL		PREPARED and APPROVED	RELEASED
Version 0	Ports Corporation of Queensland – original document	PCQ Environment staff	2002
Version 1	Edits made to reflect transition from Ports Corporation Queensland to Far North Queensland Ports Corporation Ltd Effective 1 July 2009	Environment Manager	July 2009
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1 INTRODUCTION

Far North Queensland Ports Corporation Limited (FNQPC) trading as Ports North, manages five trading ports and four community ports throughout northern Queensland.

This Environmental Management Plan (EMP) is prepared to identify potential impacts and outline environmental management measures developed for operations at the port to ensure environmental safeguards are in place to minimise the risk of impacts to the natural environment.

All personnel involved in activities on port land and certain activities aboard vessel within the port area are required to demonstrate a general environmental duty of care throughout any such operations, and are required to comply with the measures below, unless a variation is approved in writing by Ports North.

Ports North, as the port authority for Port Kennedy-Thursday island and Horn Island, has very tight environmental controls in place at the port to ensure that no environmental harm occurs during port operations, maintenance or developments. Best practice measures are used to ensure high environmental standards in the operations.

This EMP is to be read in conjunction with the applicable "Port Rules and Notices" that also apply at the Port for such operation. Refer to www.portsnorth.com.au for most up to date information.

The local Port Supervisor monitors operations to ensure that these measures are fully implemented. Ports North staff and port users involved in operations, including loading and unloading product across the wharves are required to protect the environment under the applicable legislation, including the *Transport Infrastructure Act 1994*, and the *Environmental Protection Act 1994*. The appointed operators are required to comply with the requirements of Ports North's Environment Policy and management measures specified below.

2 LOCATION

The Port of Thursday Island, also known as Port Kennedy, is an important regional community port located in the Torres Strait. It is a natural harbour, situated 15 nautical miles north from the tip of Cape York. The port is situated at Latitude 10°35'S, Longitude 142° 13'E as per Figure 2-1.

Port Kennedy is the main regional community trading ports managed by Ports North that services the vast Torres Strait region. The port limits (shown in Figure 2) are defined in the regulations of the *Transport Infrastructure (Ports) Regulation 2005.* The port limits extend between Horn Island and Hammond Island, taking in the waters around Thursday Island.

2-1 Port Locations

The port activities are concentrated along the southern coast of Thursday Island immediately adjacent to the community, as well as on a portion of the northern shoreline of Horn Island.

This EMP applies to the port area, including port limits at Thursday and Horn Island.

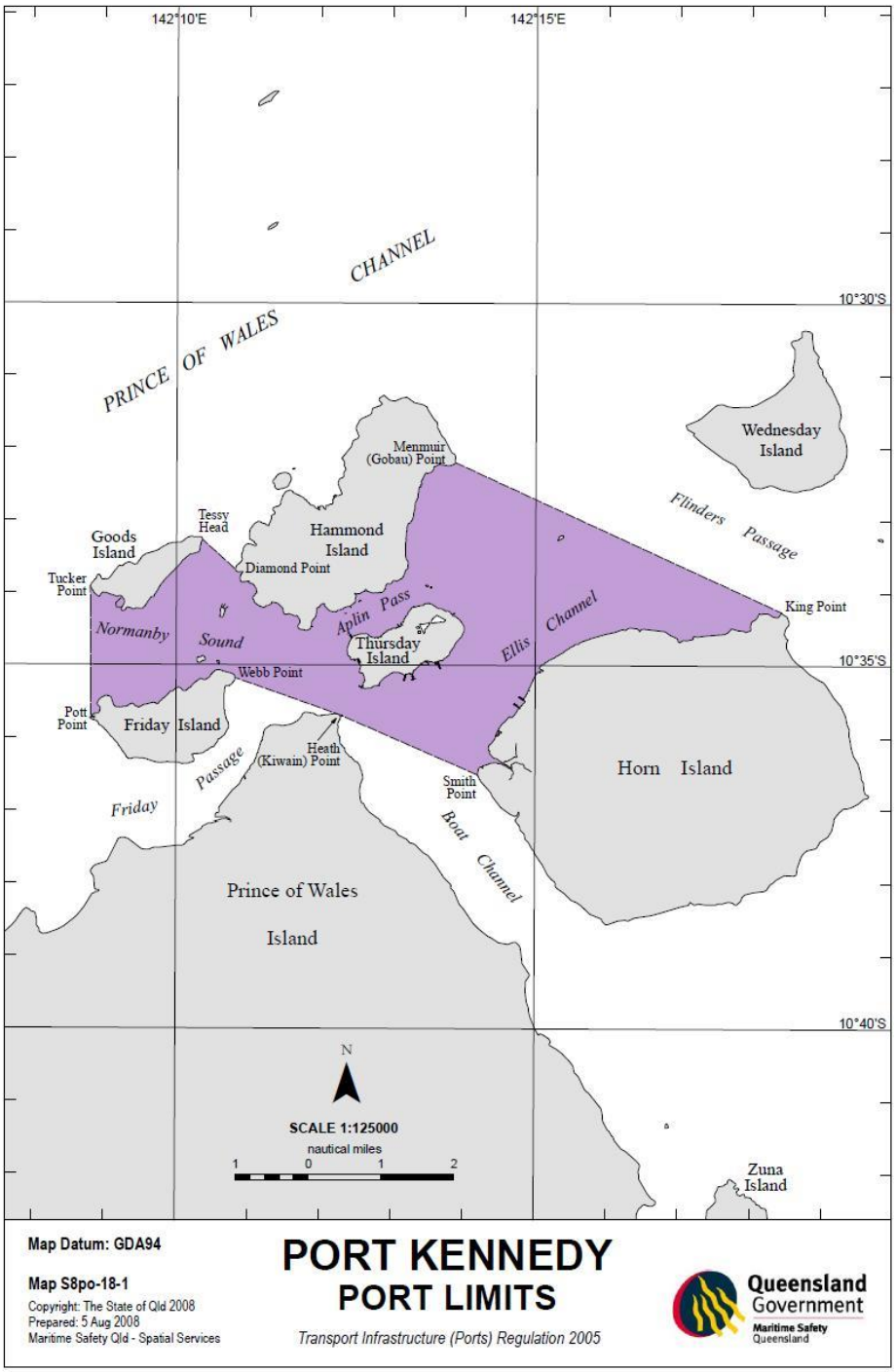


Figure 2-2 Location of Port and Port Limits

3 DESCRIPTION OF ACTIVITIES

The port services the needs of these two islands and also operates as a major trans-shipment point for the supply of building materials, food, household goods and fuel to other islands of the Torres Strait. It supports a robust tourism industry, with recreational fishing and travellers from Cape York being a major seasonal focus.

There is one area of port facilities (wharf and slipway) adjacent to Port Land on Thursday Island that is privately owned and not on Strategic Port Land, so they are not under the direct control of Ports North.

The port serves the Torres Strait's commercial fishing industry, and acts as a base for vessel operations to service the heavily transited northern shipping route, for which marine operations (Pilotage, spill response and safety) are major requirements due to the narrow and complex islands area. Government agencies inclusive of Customs, Biosecurity and Fisheries are also based at Thursday Island.

3.1 Location of Infrastructure and Buildings

The location of key buildings and infrastructure are documented in our Infrastructure Plans, which are internal documents. A map of the infrastructure of the Port can be provided to government agencies on request. Ports North includes these maps in the Emergency Response Plan for the Port.

Port facilities on Thursday Island include multi-user facilities at the Main Wharf for general cargo and at the Engineer's wharf for ferry passengers, plus a nearby multi-user fuel wharf used for refuelling of small craft. PN also owns major fuel storage infrastructure on Horn Island, which is leased and operated by a local company.

Ports North has land holdings of Strategic Port Land on both Thursday and Horn Islands, including vacant land holdings of undeveloped land on Horn Island. Details of these are provided in the complementary document "*Port of Thursday Island - Land Use Plan*".

Ports North has an office on Thursday Island adjacent to the Main Wharf which houses the Port Supervisor's office and local equipment, a boatshed and workshop and spill response equipment.

3.2 Channels

Ellis Channel (~4.8m) between Thursday and Horn Islands is the main area of activity, with the deeper Prince of Whales Channel to the north of Thursday Island being the major shipping channel access thru the Straits. The berths at each of the wharves and ramps are all in areas of naturally maintained medium depth access. Due to the shallow waters in the region, large international ships do not use the port. The main vessels using the Port are shallow draft barges and fishing vessels. Dredging of the Port is not routinely carried out and there are no proposals for dredging in the near future.

3.3 Anchorage

There is no designated shipping anchorage within port limits, apart from various minor moorings for small to medium size vessels. Positioning of such is managed by MSQ.

4 OVERVIEW OF PORT ENVIRONMENTAL MANAGEMENT

It is our policy is to manage our ports in a pro-active manner to minimise any impacts from port operations or new developments. We have a structured environmental program that involves environmental assessment, monitoring, protection and rehabilitation. It strives for continual improvement in the control of port and port user activities to maintain a healthy port environment. The detailed environmental policy, procedures and practices are documented in its Environmental Management System, which is consistent with the AS/ NZS ISO14001 standard. Ports North has an Environmental Management Framework and associated Policy, which provides a mechanism for continually improving operations and practices (refer **Appendix A**). All activities carried out at the port under Ports North's direct or indirect control need to comply with this Policy. Ports North also subscribes to the policy aspirations identified in the Environment Policy for Queensland Ports.

This Environmental Management Plan for the port is complementary to, and consistent with, the Environment Policy that is documented in its Environmental Management System and on its web site.
Under the Environmental Management System, new projects undertaken on strategic port land will require a project-specific Environment Management Plan to be developed by the proponent and then approved prior to commencement of the project. This plan must address the potential environmental issues from the project during construction, and a separate plan is to be developed for ongoing operation which outlines the actions needed to minimise impacts and ensure sound operations. Our environment staff can supply a standard checklist of potential issues and will work with a project proponent to determine the environmental issues that need to be addressed.
To assess the overall state of the port environment or to detect any changes occurring, Ports North maintains regular scientific monitoring of key environmental values such as seagrass condition and trend, and results from such monitoring are made accessible via the organisations website.

5 DOCUMENT USE AND REVIEW

This Environmental Management Plan (the Plan) for the Port has been developed to document in detail the environmental areas of significance within the Port and the current environmental management practices and controls used to protect and enhance the port environment.

This Plan will be used in determining environmental standards for the on-going development and operation of the port. This Plan is designed to complement the *Land Use Plan-Port of Thursday Island* to ensure that any development at the port is carried out in an environmentally sustainable manner and in a manner consistent with the planned strategic development of the area.

This Plan is also intended to provide a reference document for current and potential users of the port, government agencies and local communities. This Plan is not a statutory document and is not required by legislation.

The following sections provide general principles, controls and management strategies which must be adhered to at all times by staff and the Operator (including its sub-contractors) involved to reduce potential impacts.

The following information is presented in this document:

- Section 2 presents the key legislation and policies that need to be considered in port operations and developments.
- Section 3 provides a general description of the environmental values at the Port and surrounding areas, including areas designated as an environmental buffer.
- Section 4 describes potential industry or operational impacts in the port and presents the environmental control measures to be employed to manage those risks.
- Appendices – which may document specific management plan components applicable to;
  - Ballast water management.
  - Vessel Maintenance and Repair
  - Wharf Operations

This Plan will be reviewed and updated as needed to ensure that it reflects any significant changes that may occur within the port. It will be completely reviewed at least every six years and a new document issued.

Ports North will seek community, industry and relevant government agency feedback on any major changes to this Plan and will incorporate external feedback where appropriate. Minor changes to the Plan will be carried out throughout the life of the Plan and these minor revisions will not necessarily be subject to external consultation. Examples of minor changes not requiring consultation are changes in the description of goods handled in the port, legislation changes, property lot subdivisions or number changes or other minor changes in the Land Use Plan, changes to port limits or the incorporation of new environmental information. Major changes to this document that would be externally consulted include any changes to the declared land use zones.

6 IMPLEMENTATION

Port users will be responsible for ensuring requirements of this EMP are implemented for the duration of their particular activity, and will be responsible for monitoring the environmental management of day-to-day activities. A separate site specific EMP may also be required, which should ensure consistency with this overall Port EMP. Each port user is required to ensure that all personnel working onsite are aware of their environmental responsibilities and the importance of the EMP, and will be responsible for the regular inspection of the adequacy of all environmental controls as is the case with health and safety requirements.

7 RESPONSIBILITIES AND CONTACTS

The following roles within these operations and specific responsibilities are noted as follows;

Ports North Environment Manager	Incident recording and reporting
Ports North Port Supervisor	Customer and stakeholder liaison Supervision

8 GENERAL ENVIRONMENTAL, SAFETY OR COMMUNITY IMPACTS

To minimise impacts on social and environmental aspects of operations, the following management measures shall be adopted:

- All site personnel will be advised of their responsibilities for reporting any potential or actual environmental harm in accordance with the *Environmental Protection Act 1994*;
- The Port Supervisor is to be notified of any safety or environmental incidents and complaints that occur immediately;
- An Incident Form will be completed and remedial actions will be monitored;
- Port users are required to record all details of any complaints received and to notify the Port Supervisor including details of the action taken to rectify the situation; and,
- Port North's Port Supervisor will consult with relevant stakeholders prior to commencement of operations.

9 INDUCTION

All personnel working onsite must attend an induction or 'tool box' by the Port Supervisor prior to commencing works or activities. The induction will cover relevant provisions from this EMP, including:

- Performing work duties with minimal impact on the existing environment;
- General environmental duty of care;
- Incident recognition and reporting;

Port Supervisor will maintain a diary record of the completed inductions (i.e. date, time, who attended).

10 LEGISLATIVE REQUIREMENTS

State Legislation

Ports North has responsibilities conferred on it by State legislation (*Transport Infrastructure Act 1994 and Transport Operations* (*Marine Pollution*) *Act 1994*) for the safe and efficient management of the port and its infrastructure, and for managing pollution from shipping activities. The jurisdiction of Ports North at the Port includes all land under the *Land Use Plan*, and all waters within designated port limits, as defined under the *Transport Infrastructure (Ports) Regulation 2005* (see Figure 2-2). The geographical extent of this Plan applies only to the area under that jurisdiction.

Transport Infrastructure Act 1994

Ports North is the port operator for the Port of Thursday Island as declared under the *Transport Infrastructure Act 1994.* Requirements of the Act are affected by the "*Port Rules*" and "*Port Notices*".

Environmental Protection Act 1994

Under the *Environmental Protection Act 1994* (EP Act), consideration of the environmental duty of care, and duty to notify is required at all stages of operations by all staff (Section 320 of the EP Act). The basic principles of the EP Act should be understood by all staff.

Under the *Environmental Protection Regulation 2008*, some actions may be classed as an Environmentally Relevant Activity (ERA) and hence the activity may require specific Department of Environment and Heritage Protection (DEHP) approval.

Port activities carried out by either port users or operator must comply with all relevant government legislation applicable from Torres Shire Council and DEHP. The key State legislation for protection of the environment is the Queensland *Environment Protection Act 1994.* The Queensland Department of Environment and Heritage Protection (DEHP) is responsible for ensuring compliance with this Act. Ports North has an approval to operate the port as the port authority under the *Transport Infrastructure Act.* However, this does not provide any umbrella approvals for the individual activities of port users. Port users are required to hold all the relevant environmental authorities or licences issued by state administering agencies for their day-to-day activities, which might include environmentally relevant activities such as stockpiling, loading or unloading in bulk, fuel or chemical storage, sewage treatment, aquaculture or boat repair and maintenance.
Significant new developments in the port are likely to require approval under the *Sustainable Planning Act 2009.* For projects proposed on Strategic Port Land (Strategic Port Land is land owned by Ports North that has been designated as land required for port purposes and approved as such by the Minister for Transport. Strategic Port Land is listed in the Land Use Strategy and Plan.), Ports North is the Assessment Manager under the *Act*. Further information is provided in the Land Use Strategy.
Another piece of key State legislation that could affect port development or operation is the *Fisheries Act 1994.* It should be noted that under this Act, marine plants, which include seagrass, mangroves, saltmarsh and other tidal plants, may not be removed, damaged or even trimmed without a permit from Queensland Department of Agriculture Forestry and Fisheries (DAFF). The *Act* also prohibits work in a declared fish habitat area without a permit, although no such areas were proclaimed in the port at the time of writing.

State Planning Policies
The *State Coastal Management Plan* was published by the EPA in August 2001, with subsequent amendments including those in 2012. This Plan seeks to protect and manage Queensland's coastal resources. In considering assessable developments on Strategic Port Land, Ports North will have regard to this plan in its decision-making as Assessment Manager under the *Sustainable Planning Act 2009.*

Commonwealth Legislation
Projects that may have an impact on issues of national environmental significance could require assessment and approval under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999*. Examples of triggers of the Act include impacts on World Heritage areas; Ramsar wetlands of international significance; nationally threatened species and communities listed by the Commonwealth; migratory species protected under international agreements; nuclear actions; or Commonwealth marine environment. Such projects will need to be referred to Environment Australia by the project proponent to determine if Commonwealth approval is required.

11 THE PORT ENVIRONMENT

All port facilities and Strategic Port Land in the Port are located on Thursday Island and Horn Island. The environmental resources and values provided below are focused on these areas as the main areas of interest for port operations or development.

The port is situated in a typical monsoonal tropical environment with hot, wet summers and windy, dry winters. The environment surrounding the port has very high ecological status. This includes rocky shorelines, fringing coral reef, stands of mangroves, salt flats and extensive seagrass beds. The area is important as a nursery ground for fisheries and contains important habitat for migratory birds, and other fauna.

Water quality is close to pristine and naturally variable, with large variations in salinity, temperature and turbidity depending upon prevailing weather conditions such as tropical cyclones. Thursday Island is a significant tourist destination attracting visitors interested in recreation, fishing, and wilderness experience. It is also used by many commercial fishermen.

A description of the prevailing conditions and the environmental resources and values are provided below to place the port operations or development in context of the local environment.

11.1 Climate and Coastal Conditions

The Torres Strait is a major shipping channel for Australia, linking the Coral Sea in the east with the Arafura Sea in the west. The marine environment in the region is effected by strong winds (> 20 knots) in winter (April-November) that generally blow from the southeast. Summer winds (December-March) are usually calmer and blow from the northwest and the northeast. Tides can vary up to 3m, while currents can exceed 8 knots through Normanby Sound. Strong, complex tides and currents that are poorly understood potentially make the Strait a hazardous place for shipping (TORRESPLAN, 2001). Air temperatures vary from 15˚ C in winter to 32˚C in summer. Sea temperatures range from a minimum of 25˚ C in July to 28˚ C in January.

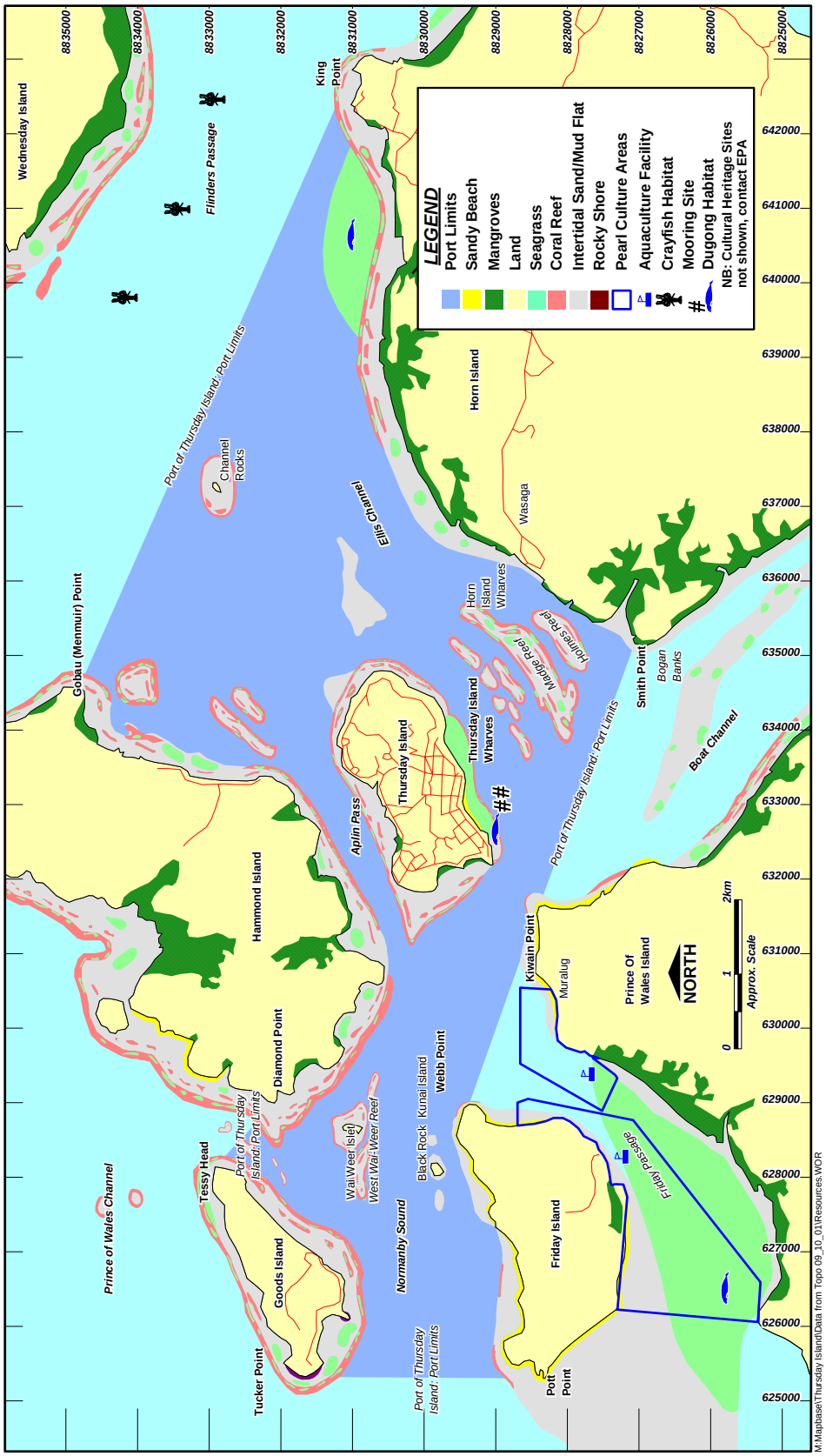
The coastline within port limits contains a diverse variety of habitats featuring coral and rocky reefs, mangrove communities, bird rookeries, seagrass meadows, spawning grounds and offshore fisheries. Aquaculture (pearl shell farming) and commercial fishing is prevalent in the area, as well as subsistence hunting by Torres Strait Islanders for turtles, dugong, mud crabs, lobster and local fish species.

11.2 Areas of Environmental Significance

The port is outside the Great Barrier Reef Marine Park and World Heritage areas which are located to the south east from Cape York. There are no Ramsar sites or State Marine Parks within the port limits. The Commonwealth environment departments' website notes a number of threatened and migratory species in this North Queensland region. These include a number of turtle species, including the endangered turtle species of Loggerhead and Pacific Ridley and the turtle species designated as "vulnerable" of Green, Leatherback, Hawksbill and Flatback, and the dugong.

There are some threatened ecological communities in the area recorded in the *EPBC Act* database. However, there are a large number of recorded threatened and migratory species in the region.

There are migratory species currently noted in the database as likely to occur in the region. Marine species (including turtles, Dugong and Salt Water Crocodile) and bird species of conservation significance may be present across the region.



11-1 Environmental Resources

11.3 Cultural Heritage

A full cultural heritage assessment of port land was commissioned in 2001 and is documented in a report by Duke & Collins (2001). The information below has been taken from this report.

11.3.1 Cultural Heritage Places and Values

Thursday Island (Waiben*) and Horn Island (Ngurupai*) are the traditional country of the Kaurareg people, whose sea and country estates encompassed the Prince of Wales group of islands. The Kaurareg traditionally were based on Prince of Wales Island (Muralag*) and moved freely in large outrigger sailing canoes around the whole island group. Prince of Wales Island is not within port limits.

The eastern islands, with their rich red volcanic soil and good rains, were used for horticulture of yams, bananas, sweet potatoes, sugar, taro and coconuts. Other islands were used for horticulture to a lesser extent due to poorer soils and a scarcity of fresh water. On these islands, there was a greater reliance on shellfish, turtle and dugong that are found in the shallow areas around the islands.

Two areas of cultural significance to the Kaurareg people have been identified on Port land - Lot 173 on Plan TS332 and Lot 1 on Plan TS371 on Horn Is (Nguruapi) (see Land Use Strategy for location). These are the only undeveloped blocks of landholding in the Port. Lot 173 contains mangroves and coastal vegetation. The adjacent waters support a range of marine resources. These areas are used by the Kaurareg people to harvest local resources and the land is of economic and cultural importance to the Kaurareg people. In the Land Use Plan, most of this area has been designated as a General Buffer, with a small area adjacent to the existing port facilities designated for Port Handling Activities to cater for a limited expansion of the current facility. The designation would allow only low impact development or retention in an undeveloped state to provide a buffer between neighbouring residential areas and port activities. Any development proposed on this lot would require consultation with the Kaurareg people in the planning stages to maximise preservation of the values of the land.

Lot 1 also contains an area of high significance to the Kaurareg people. The block contains an area used as the 'meeting place' for the Kaurareg. Very recently this area has been imbued with additional cultural significance as a site associated with the 'official handover' ceremony of Native Title to the Kaurareg people. In the Port Land Use Plan, this lot has been designated as Environmental Buffer to protect it from development.

There were no specific places of cultural significance identified on Thursday Island (Waiben*).

It was recommended that, if future earth disturbing works are planned for any Port land holdings, then a prior archaeological program of sub-surface test probing or excavation should be carried out to determine if burials or other cultural materials are present. ** Kaurareg traditional names*

11.3.2 European History

In the late sixteenth and seventh centuries, Dutch and Spanish traders and explorers voyaged through the Torres Strait. The Strait was named after Luis Baes de Torres, who was the first recorded European navigator to have passed in 1606. In 1770, James Cook sailed round Cape York and confirmed Torres' discovery.

In the 1800s, the strait was increasingly used as a route for ships between England and Sydney. In 1862, the then Governor of Queensland, George Bowen, visited the Torres Strait and recommended its settlement. A colonial administration centre was established on Thursday Island in 1877 and a

port, Port Kennedy (named after explorer Edmund Kennedy), was proclaimed by the government in 1877. Following this, the port and the settlement of Thursday Island grew rapidly.

The first jetty, at the Main Wharf area, was completed in 1892. Following extensive repairs over the years, the jetty was finally replaced by the existing general cargo wharf in 1975. In 1976, the old Engineer's wharf was also demolished and a new jetty constructed on its site.

The port and its facilities have a long military history, with the perceived need to respond to nineteenth century fears of foreign expansion into the area and two world wars. The port has adapted to changes in shipping and in passenger and cargo trades from the days of beche-de-mer fishing and pearling fleets to today servicing the region as a community port. The port has historically, and today remains in a real sense, an integral part of Thursday/Horn Island and Torres Strait community life and economy.

11.3.3 Historical Significance

Little of the existing port infrastructure dates to before the 1970s. The cultural heritage assessment concluded that "it is considered unlikely that any significant archaeological material would be present in the heavily disturbed areas associated with the working port infrastructure on both Thursday Island and Horn Islands. "

However, it was noted that the currently vacant Lot 141 on SP 108491 (originally part of the Customs Reserve and now leased to Queensland Transport) does have archaeological potential because archaeological material had been excavated from a similar area in Cairns.

Although the main wharf has been rebuilt in the 1970s, some of the dry stone pitching on the western side may be from the original circa 1890 jetty, although it is also possible it is part of works undertaken in the mid 1950s, although this was considered less likely by the archaeologists. It was recommended that any future works on the Main wharf should avoid disturbing the wall on the western side. It was considered acceptable for the wall to be protected and covered if required for a planned expansion of this area.

11.4 Seagrass

Seagrass plays a vital role in coastal ecosystems. It provides food and shelter for diverse organisms. It provides a nursery ground for juvenile fish, prawns and crabs and helps to stabilise coastal sediments, as well as to trap and recycle nutrients. Seagrass is a major component of the diet of dugong (*Dugong dugong)* and some turtles which are common in the area.

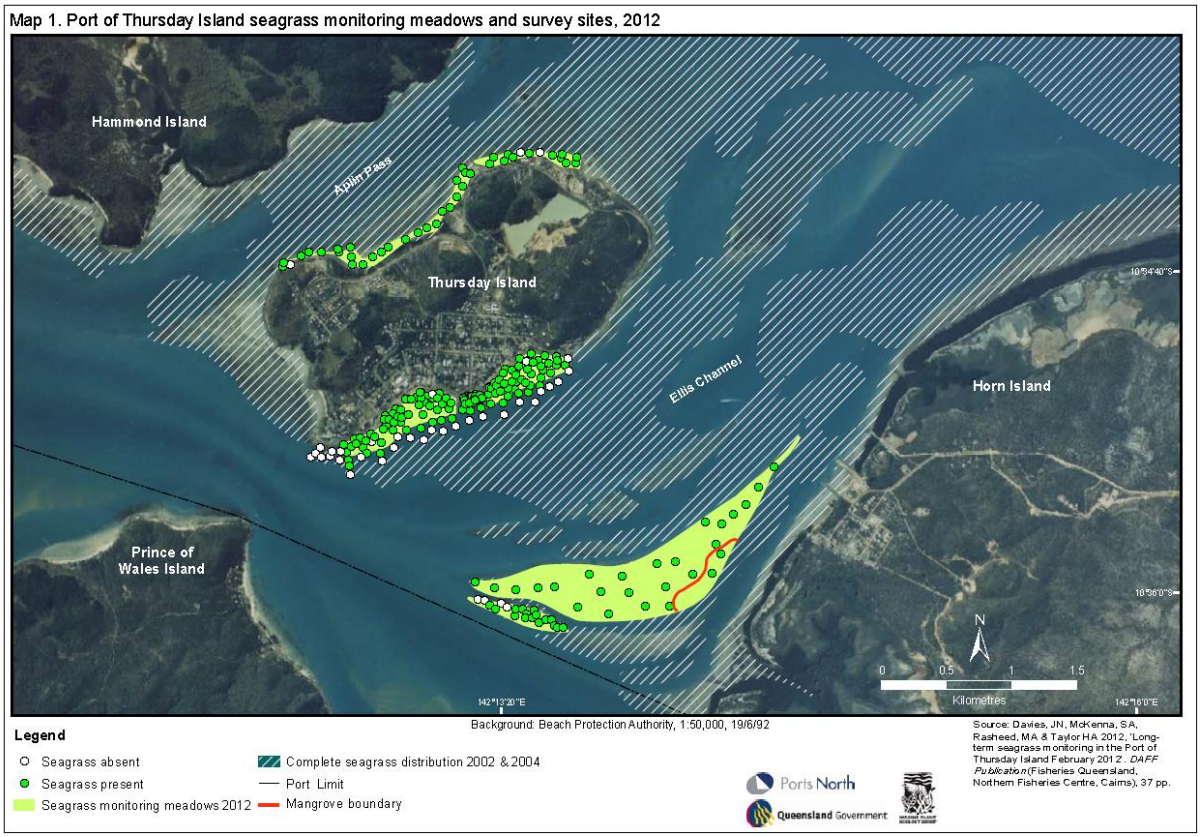
In March 2002, a seagrass baseline survey was conducted for the Port of Thursday Island. Extensive and diverse seagrass meadows were identified throughout a large proportion of the survey area, including the vicinity of port infrastructure on both Thursday and Horn Islands. Eleven species of seagrass in 33 individual meadows were identified in the survey with a total of 1503 +/- 240 hectares of seagrass mapped. The majority of the seagrass area (1057 ha) had between 10-50% cover of seagrass. A further 386 ha had greater than 50% cover. The remaining 60 ha had less than 10% cover (Rasheed et al, 2002). The majority of seagrass habitat was found on sand/mud/shell sediments. The maximum depth at which seagrass was found was 10.4 metres below MSL.

Seagrass in the Port Kennedy area have been monitored regularly since the 2002 survey, and these surveys have included a bi-annual quantitative monitoring of seagrass beds within port limits. These surveys provided an indication of typical seasonal and annual variations occurring. Ports North now commissions the Marine Ecology Group at James Cook University for annual monitoring. This program is one of the most extensive seagrass monitoring programs undertaken in Queensland, providing valuable information on the natural variability in seagrass meadows. This long-term annual

seagrass monitoring has been continued as an on-going indication of the environmental health of the port.

The DPI-DAFF and JCU reports have noted that the Port of Thursday Island contained some of the best examples of seagrass meadows that have been identified in Queensland, containing 11 of the 15 currently recognised seagrass species in Queensland.

Regular monitoring is conducted on meadows located on the Ellis Channel banks (Figure 11-2) and periodic checking of the more variable meadows on the northern coastline of Thursday Island are also completed.



11-2 Seagrass distribution in Monitoring Meadows at Port Kennedy in late 2012

11.5 Marine Fauna

The seagrass meadows in the region are a source of food for turtles and dugong. The area is an important area for dugong in Australia. Earlier aerial surveys have indicated the density of dugong in the vicinity of Thursday Island at between 0.1 and 0.5 animals per square kilometre (Marsh et al, 1991).

Six species of turtle have been recorded in the port area. These include the green turtle (*Chelonia mydas*), flatback turtle (*Natator depressus*), hawksbill turtle (*Eretomochelys imbricatta*), leatherback turtle (*Dermochelys coriacea*), olive ridley turtle (*Lepidochelys olivacea*) and loggerhead turtle (*Caretta caretta*). Green, flatback and hawksbill turtles have been recorded as nesting on some islands in the Torres Strait, however they have not been recorded on Thursday Island itself.

Dugong and turtle form part of the traditional diet of the Kaurareg and islander peoples. They are still hunted in the region. Green turtles are the predominant species of turtles captured.

11.6 Intertidal Sand and Mud Flats

Extensive sandbanks supporting colonies of yabbies, sand bubbler crabs and other in-faunal organisms commonly associated with sandy environments occur throughout much of the port area.

Coral reefs occur along the coastlines of some areas of Thursday and Prince of Wales Islands and in the channel between Thursday and Horn Islands. These communities typically contain high diversities of benthic invertebrates, which in turn support communities of fish. The channel between Thursday and Horn Islands also contains pearl oyster beds, which contribute to the local commercial aquaculture operations. Figure 11-2 illustrates the coastal resources in the Port of Thursday Island.

11.7 Fisheries Management

Australia and Papua New Guinea entered into the Torres Strait Treaty in 1985. Part of this treaty established the Torres Strait Protection Zone (TSPZ) providing for sovereign jurisdiction for finfish, crab, trochus, bech-de-mer and sedentary species on the respective sides of the agreed Fisheries Jurisdiction Line and Seabed Jurisdiction Line. Within the TSPZ, the Protection Zone Joint Authority (PZJA) manages:

- traditional fishing
- joint fishery areas between Australia and Papua New Guinea involving prawns, Spanish mackerel, dugong, tropical rock lobster, turtles and pearl shell and other resources within the Harvest Fisheries
- the barramundi fishery at the northern tip of the TSPZ.

The PZJA currently has one Torres Strait representative, as well as the Commonwealth and Queensland Ministers responsible for fisheries. To increase the extent of islanders' participation in these decision-making processes, local islanders have established a Torres Strait Fisheries Task Force to "develop a new structure through which islander fishermen will have greater influence and will be able to advise the ministers on appropriate legislation and policy changes" (TSRA, 2001). Queensland authorities such as the Queensland Fisheries Service (DAFF) manage all other commercial and recreational fishing in the Australian portion of the TSPZ

11.8 Traditional Fisheries

Marine animals caught by the traditional inhabitants of Torres Strait include dugong, sea turtles, reef fish, shell fish and other invertebrates.

Traditional or subsistence fishing is still a major cultural activity. Consumption of seafood by Torres Strait Islanders is among the highest rates in the world. Crayfishing and handlining are the most common fishing activities. The level of exploitation of the marine resources by traditional/subsistence fishing is considered to be low. Islanders and the QFMA have entered into agreements regarding regulation and restrictions on islander fishing activities relating to dugongs, turtles, clamshell meat and the tropical rock lobster. These restrictions relate to numbers taken, method of fishing (e.g. dugong can only be taken using the traditional spear) and that the catch not be sold on.

Reef fishing is also conducted on a subsistence basis throughout Torres Strait. Species taken include coral trout, red emperor, saddle-tailed snapper, spangled emperor, slatey sea bream, rabbitfish and various species of shellfish. The majority of reef fishing is done with a handline. Nets are also used widely and the wharves on Thursday Island are frequently used for fishing.

11.9 Fisheries and Aquaculture

Commercial fishing provides a valuable income for islander communities. The main commercial fisheries include prawn, pearl shell, Spanish mackerel, tropical rock lobster and barramundi. Of these fisheries, the prawn fishery in the Strait is the largest and most valuable. Species predominantly caught are endeavour, tiger and king prawns. The resource has been reported to be fully exploited.

Torres Strait is also a source point for the ornate rock lobster (*Panulirus ornatus*) fishing industry. Annual catches in the past few years have averaged 200 tonnes for the region. This represents $5-8 million in exports annually, and under current practices it is considered a sustainable fishery (Pitcher *et al.* 1997). Several locations within the port limits contain mature lobsters that are regularly taken for subsistence use.

No fish are farmed within port limits. Two pearl farms are located in Friday Passage just outside port limits.

11.10 Coastal Vegetation

Mangroves line some of the coastlines of the islands within the Port. Mangrove communities are well developed on Horn and Hammond Islands but are sparse on Thursday Island. Near developed areas on Horn and Thursday Islands, the predominant coastal vegetation is grasses and ornamental or remnant trees. Flora found on Thursday Island include *Acacia* spp. *Alphitonia spp., Grevillea* spp., *Spinifex spp*. and *Melaeuca* spp.
For several years, Ports North and its predecessor have supported weed control efforts on vacant port land including control of Chinee Apple and Rubber Vine on Horn Island.

11.11 Terrestrial Fauna and Birdlife

The area supports a very high abundance of migratory birds that transit between Asia and Australia as part of the major flyway and is regionally significant. There are many resident species on each f the main Islands, as well as the adjacent region. Due to the constraints due to the islands, endemic species are generally of conservation status and special.

11.12 Natural Amenity

Thursday Island is part of a group of over 100 islands situated on the continental shelf north of Cape York and south of Papua New Guinea. The remoteness of the region, with its picturesque scenery, lends itself to a physical environment still rich in diversity of flora and fauna. Diving, fishing, sailing and cultural tours of the islands are key selling points for tourism promotion of the area, although tourism industry investment in the region is low and, as a result, relatively few tourists enter the region according to the Aboriginal and Torres Strait Islander Tourism Industry Strategy and the Office of National Tourism (1997). There is potential for expansion of the tourism industry and opportunities for employment of the local people.

A relatively unspoilt marine environment provides for excellent fishing opportunities for recreational fishing enthusiasts. Sport and recreational fishing enthusiasts commonly seek barramundi, Spanish mackerel and pelagic species. The future of the region relies significantly on the balance between infrastructure development of tourism, the fishing industry and civil facilities, and the retention of cultural values and practices. The incorporation of fishing and tourism is one way of improving local employment opportunities and enhancing the tourist industry of the region.

11.13 Water and Sediment Quality

The waters in and around Port of Thursday Island are generally pristine and well mixed due to the strong currents and wind driven patterns of ocean movement.

There is very little recent data available on the quality of water or sediment either in the Port or in neighbouring waters. The waters are open and are expected to be of a reasonable quality except near the shoreline of the islands.

The likely water contaminants in in-shore areas include coliforms and nutrients from sewage treatment plants or septic systems. Shellfish from areas near sewage discharge points should obviously be avoided.

Oil spills have occurred on a regular basis from on-shore facilities and sediment may contain elevated levels of Polycyclic Aromatic Hydrocarbons (PAHs). Tributyltin (TBT) may also be present in sediment near the slipways that operated on Thursday Island.

11.14 Port Environmental Buffer Areas

The Land Use Plan identifies any port land that has been allocated as environmental or general buffer area.

The Land Use Plan for the Port of Thursday Island identifies land designated as Environmental Buffer or General Buffer Areas in the Port. Environmental Buffer Areas are areas that are to be protected from development and conserved due to their significant ecological or cultural significance. It is intended that these areas will be protected into the future. One lot of land has been designated as Environmental Buffer in the Land Use Plan. This is Lot 1 on Plan TS371 on Horn Island (see Land Use Plan for a location map) –The block contains an area used as the 'meeting place' for the Kaurareg and is of high cultural significance to the Kaurareg people. This area has been recently imbued with additional cultural significance as a site associated with the 'official handover' ceremony of Native Title to the Kaurareg people.

General Buffer Areas are those that will be used to provide a buffer between port activity and neighbouring uses. Low impact development is allowed on this land, but the main purpose is to protect the amenity of neighbouring land owners and to avoid potential nuisance impacts from port activities.One area of port land has been designated as General Buffer. This is the bulk of Lot 173 on Plan SP108488 on Horn Island.

This land is used by the Kaurareg people and it is intended to maintain this land for this purpose where possible. We intend to protect and enhance the ecological values of these two areas by not restricting infrastructure development on them and ensuring suitable management measures are in place for their on-going protection.

12 POTENTIAL IMPACTS TO SENSITIVE AREAS

The dominant sensitive environmental areas adjacent to the Port are the community, fringing coral reef, the seagrass meadows, intertidal flats and fringing mangroves. Noise and air quality sensitive residential development is minor and absent from the immediate adjacent areas, however commercial land uses abut port land at Thursday Island.

Port activities and development to date have avoid disturbance to key sensitive habitat areas, and generally been constrained to existing disturbed areas.

13 ENVIRONMENTAL MANAGEMENT MEASURES

As detailed in our Environment Policy, we strive for ecologically sustainable operations and development of its ports, which is consistent with Queensland Transport's "*Environmental Policy for Queensland Ports*". This may result in the setting of higher environmental standards on operations or new developments than required by environmental legislation or licences. This is achieved through a detailed environmental assessment of all proposed projects on port land or in waters within port limits and auditing of both our operations and those of port use activities.

We will require a detailed Environmental Management Plan (initial construction phase, and then for ongoing operations phase) to be prepared by new port users, or project proponents as part of the approval process for any new development. This Plan should be developed in consultation with PN. Larger projects will require preparation of a formal Environmental Impact Statement (EIS).

To assess the overall state of the port environment or to detect any changes occurring, we also undertake regular scientific monitoring of key environmental values. Results from these monitoring programs are made publicly available.

13.1 Management and Enforcement

The Port Handbook outlines key information on Port Operations and should be read in conjunction with the Port Notices and Rules. Refer to:
http://www.portsnorth.com.au/pdfs/thursisl/PortofThursdayIslandPortHandbookFinal.pdf.

The Port Supervisor is an authorised officer under the *Transport Infrastructure (Ports) Regulation 1994* and may issue directives to vehicles and vessels to ensure the safety or efficient operation of the port or to enforce port regulations or the requirements of *Transport Operations (Marine Pollution) Act* with regard to discharges from vessels.

MSQ have responsibilities for response and investigation of marine spills and incidents, and may involve the Port Supervisor to assist in response to oil spills in the port and may board vessels for sampling purposes during an investigation of a spill.

Penalties for contravention of a port notice or legal direction of the Port Supervisor can be applied.

In addition to the controls Ports North is able to enact under the Port Rules and Notices, the Department of Environment and Heritage Protection (DEHP) oversees environmental regulation of port users and their activities. This regulation includes licensing activities in the port and any monitoring of compliance with licence conditions.

13.2 Emergency Response

As port operator we have a statutory responsibilities and powers under the *Transport Infrastructure Act 1994* to maintain the safety and security of the port. This Act gives the port authority the power to control movement of vessels in the port, to inspect ships or to move ships moored or goods left against the authority's direction.

We have developed an Emergency Response Plan that covers situations such as cyclones, marine incidents, bomb threats, fire, explosion or fatalities. Copies of the Response Plan are held at the Port office, by the Regional Harbour Master and by a number of port users and other key agency contacts.

Where a non-marine incident is caused through the activities of a port user on port land, the initial response is the responsibility of the port user, with notification required to the Port Supervisor. If the incident has the potential to escalate beyond the boundaries of the port user's responsibility, we maintain the right to initiate external resources and response agencies inclusive of MSQ, DEHP and Torres Shire Council to assist in reducing the impact of the incident on other port users.

13.3 Cyclone Procedures

Detailed cyclone procedures are provided in the Port Emergency Response Plan and are consistent with Queensland Transport's Maritime *Cyclone Contingency Plan for Port of Thursday Island.*

13.4 Wharf Procedures

Wharf Loading Operation, the following actions are to be enacted:

- Before commencement of operations, the wharves are to be inspected so as to identify any points where material may fall into the water from the wharf, and suitable controls to be put in place;
- At the end of the operation, the operator is required to clean up any waste and if required, sweep and scrape up any residue from the wharves;
- If a final clean-up of the wharves are required and water from a hose is used, the water is to be pushed ashore so avoid direct release to ocean;
- No water is to be discharged into the ocean unless it has been intercepted and treated.

Lay By Areas

- A designated area may be established for vehicle or equipment laydown and only the designated area shall be used to ensure actions to manage the site can be focused;
- Users of the lay-by area are required to use the same clean-up measures as on the wharves;
- Use of a road sweeper (wet or dry sweeping, depending on conditions), or a bobcat with broom or similar equipment may be required;
- If loading in heavy rain, operator will need to clean up any solid waste more regularly so as to ensure the maximum solids content and any mud collected on vehicle wheels is picked up to prevent any escape to stormwaters or into port waters.

Storage and Handling

Products may be loaded onto vessels and the controls required for this activity are:

(a) Ships must use a cargo net to load so as to minimise the risk of a load falling into the water;

(b) Any material that may become wind borne, is to be covered with tarpaulins in higher wind conditions;

(c) If any freight/equipment accidentally falls into the water, it will need to be recovered by the ship crew or loading operator;

(d) At the completion of loading, the operator is responsible for manually cleaning up any loose material from the loading area.

The wharves may not be used for storage of products for any extended period, and is only to be used for moving products when ships are berthed.

13.5 Management of Oil Spills

Oil spills in port waters could result from a variety of sources including groundings, collisions and sinking of vessels; illegal discharges from vessels; accidents when transferring waste oil to storage facilities on shore and accidents when refuelling vessels.
To reduce the risk of oil spills occurring, Maritime Safety Queensland (Queensland Transport) ensures the safety of navigation, including the provision of navigation aids. Pilotage services for the

arrival and departure of ships greater than 50m in length from the port are provided so as to reduce the risk of human error.
The Port of Thursday Island is equipped for smaller spills of oil and the Port Supervisor and staff are responsible for provision of the "first strike" response to an oil spill within the Port through close co-ordination with local Maritime Safety Queensland staff. MSQ can provide additional resources out of Cairns, or other centres, for larger spills.
The response plan for an oil spill is documented in the *First Strike Oil Spill Response Plan- Port of Thursday Island,* which was developed and is regularly updated. This plan is complementary to the *Queensland Coastal Contingency Action Plan,* and the *National Plan to Combat the Pollution of the Sea by Oil and other Noxious and Hazardous Substances* (National Plan) for larger spills.
Ports North has a trained Port Supervisor and staff located in the Port that are authorised officers under the *Transport Infrastructure (Ports),1994* who may issue directives to vessels to ensure the safety or efficient operation of the port or to enforce port regulations or the requirements of *Transport Operations (Marine Pollution) Act* with regard to discharges from vessels.
The port staff will respond to oil spills in the port and may board vessels for sampling purposes during an investigation of a spill.
Penalties for contravention of a port notice or legal direction of an authorised officer can be applied.

13.6 Stormwater Quality and Protection

Potential Impacts

The primary environmental impacts associated with existing port operations are potential releases of water contaminants into the adjacent stormwater systems or the adjacent waterway. Release of particulate matter, nutrients and bacterial coliforms into the water column may affect adjacent areas (e.g. flora) by promoting excess algal growth, or human health impacts from faecal coliforms, sedimentation or reduction of light penetration through the water. Storm water runoff is still a major contributor of pollutants to the marine environment from shore-based industries. The lack of 'best practice' policies from some industries can result in pollutants being washed or poured into drains, and flushed directly into the marine environment during the next rain event. With many local people reliant on neighbouring waters as part of their diet, the prospect of bioaccumulation of pollutants in food sources is considered to be a potential issue for the local Council.

Natural water quality conditions within the Port are pristine, and are seasonally variable due to patterns of strong winds.

Management

Ports North has only a few land holdings in the port which are distributed along the waterfront of Thursday and Horn Islands. Stormwater management is primarily by the Torres Shire Council, through areas of the local community adjacent to the port. Sealed roads and kerb and channel drains are typical throughput the townships. Stormwater discharge points are located at a number of points along the foreshore and enter the port waterway.

For areas of SPL, locations of stormwater drains and other services are recorded on Ports North's engineering drawings. Elevations throughout the port are also contained on these maps.

As a matter of policy, best practice stormwater management devices will be installed in any future major developments of port land.

Shore-based oil spills remain one of the largest pollution issues for the port. There are a number of large fuel storage facilities on Thursday Island and Horn Island - marine spills have occurred from

these facilities in the past. Spills have occurred from other facilities such as the power station and garages.
Due to the potential for discharge of marine pests, and paint residues, including TBT, hull cleaning is banned within the Port of Thursday Island.

13.7 Management of Discharges from Shore-based Industries

Several drains from roadways, commercial and industrial activities discharge into the port waterway and there is potential for minor quantities of hydrocarbons and other pollutants could potentially enter the waters of the port along these drains.

A now decommissioned slipway was operational at Thursday Island and although these activities are no longer carried out, run-off from the site and periodic careening of vessels at that site may have potential to release contaminants.

Shore-based oil spills remain one of the largest pollution issues for the port. There are a number of large fuel storage facilities on Thursday Island and Horn Island - marine spills have occurred from these facilities in the past (see Section 4.6 for more detail). Spills have occurred from other facilities such as the power station and garages.

Other sources of potential contaminants into the marine environment include sewage discharge from the sewage treatment plant on Thursday Island, the septic systems on Horn Island and the refuse dump on Thursday Island, which is located near the shore. The Torres Shire Council is responsible for policing any spills from such shore-based industries and would license many of these industries (except the power station) under the *Environmental Protection Act.*

The Department of Environment and Heritage Protection provides the environmental authority for discharges from shore-based industry and determines the appropriate environmental standards for these discharges to protect environmental values.

13.8 Contaminated Land

Certain land uses throughout the history of the port may have included activities known as Notifiable Activities (as described in the QLD *Environmental Protection Regulation, 2009*), which include certain Environmentally Relevant Activities (ERA's), may have had the potential to cause contamination of the land and groundwater below. Such uses may also have included much older activities that occurred prior to the commenced of stronger environmental regulation in the mid-1990's. Sites with actual or potential contamination may be listed on the QLD Environmental Management Register (EMR), and such a listing doe's not automatically mean there is environmentally harmful or health impacting conditions on the site, more so that prospective development and disturbance, and existing day to day operations need to mindful of the possibility of disturbing contaminants. Uses that typically give rise to contamination include areas used for fuel storage, abrasive blasting and painting, slipway activity, bulk storage of chemicals or minerals and waste handling/treatment facilities. Ports North may require an "Entry Report" to be compiled at the start of a new land use or lease on a site so as to ensure an adequate baseline of contamination status is documented. At the end of such use or lease, an "Exit" contamination report may be required for comparison to the "Entry" baseline condition so as to verify the potential impact of the vacating use, and determine any such clean up or remediation actions. Development of sites listed on the EMR needs to be informed on the contamination status so as to ensure that any actual contamination can be appropriately managed, and that any movement of soil from a site listed on the EMR is managed via a "Disposal Permit" issued by DEHP, and any other requirements under the QLD *Environmental Protection Act, 1994*.

13.9 Waste Management

Potential Impacts

Large international ships cannot access the port and there are no facilities provided in the Port for the receipt of any quarantine waste.

Un-controlled release of waste from operations may impact the port and nearby environment, and also present a visual impact.

Management Measures for Waste

Prior to commencement of loading operation, actions noted above for the Wharf Procedures are to be reviewed, so as to ensure appropriate planning for waste to be captured, and cleaned up.

General Refuse

Potential wastes generated from on-board the vessel or trucks are likely to be minimal and consist of minor volumes of waste generated by the crew.
Ensure there is no contamination of surrounding environments.
Waste removal should go to waste bins available adjacent to the wharf, and the to an approved landfill facility unless other conditions apply.
Quarantine or Regulated waste is to be removed and disposed via suitably approved waste contractor through contact with AQIS or Bio-Security Queensland.
Domestic waste from vessels is accepted by the Torres Shire Council.

Marine Waste and Contaminants
There is little demand for waste to be offloaded from bulk ships in the port and the waste facilities currently provided in the port to bulk ships is limited to general garbage (which excludes quarantine waste). This service is provided to ships by an independent waste contractor on a “user-pays” basis. Garbage collection facilities for recreational or other commercial users of the port are provided at the public boat ramp. Oily waste collection facilities for small craft are facilitated by transfer of waste oil drums to the local council transfer facility. Fishing boats and smaller craft will typically not have sewage holding facilities and may be a source of contamination in the port waters.

13.10 Management of Ballast Water Discharges

Because no large international vessels visit the Port of Thursday Island due to the shallow waters, ballast water is not typically discharged within port limits and this does not present a likely avenue for introducing foreign marine species. However, due to the regular transit of coastal freight vessels between Torres Strait and Port of Cairns that trades with ships from *moderate* and *high-risk* ports overseas, the risk is heightened. It also has a number of smaller vessels such as yachts and fishing vessels coming in from overseas destinations. Two foreign pest species, the Asian Green Mussel and the Caribbean Tubeworm have been found in Cairns, but no permanent colonisation occurred. As a source port for imports to Thursday Island, there is a possibility for transport of pest species on the hulls of barges. An even greater risk is the transport of seized foreign fishing vessels into the Port by the Commonwealth Government. These vessels are often poorly maintained and can have growths on their hulls. Past underwater inspections of the port areas to check for the presence of possible foreign pest species have included areas such as wharves, navigation buoys and fouled vessels at anchor were checked. No pest specimens were observed. A program of larval monitoring devices was deployed at two marine locations in the port area to provide an early warning of any invasive pest species that might establish, for a period in the early 2000’s, however no pests were detected.

13.11 Vessel Cleaning and Slipway Operation

There are no slipways or vessel cleaning facilities currently operating in the port. Slipways represent a major potential source of contamination if not properly managed. Because of the high environmental importance of the port area vessel cleaning or slipways would not be considered appropriate unless certain pollution control infrastructure was included. Recommended actions in the ANZECC "*Anti-fouling and In-Water Hull Cleaning and Maintenance Guidelines,* will be required for any proposed in water works.

Due to the potential for discharge of marine pests, and paint residues, including TBT and other antifouling paints, hull cleaning is not permitted within the Port. Any hull maintenance works for small to medium size works conducted via use of tides to position vessel on the shoreline for careening will be required to utilise tarpaulins to contain and capture all material removed from the hull of vessel, and for all material to be removed from within the tidal zone, prior to the next incoming tide. In water hull or propeller works will need an approval from DEHP and Ports North operations staff. Guidance is available from www.marinepests.gov.au

13.12 Acid Sulphate Soils

Because some areas of the port land are of low elevation and contain marine sediments, there is a risk of acid sulphate soils being present in the area. Acid sulphate soils contain pyrites or iron sulphide. While they remain undisturbed, they do not have any detrimental impacts. However, if the soils are exposed to the air, the iron sulphide will be oxidised to form sulphuric acid. Any water run-off from the exposed acid sulphate soils will reduce the pH of the receiving waters and release iron and aluminium from the soil into the water body.

Acid sulphate soils have not been identified to-date in the port area. However, if any significant soil disturbance is occurring for a project on port land, Ports North will require testing for the presence of acid sulphate soils.

Disturbance of acid sulphate soils should be avoided where possible. If disturbance cannot be avoided, the appropriate treatment of the soil must be determined. If acid sulphate soils are present, a management plan for the acid sulphate soils must be developed prior to commencement of works. As part of any development application, testing for the presence of acid sulphate soils in the area of any planned significant soil disturbance is required.

13.13 Air Quality

Potential Impacts and Management

No manufacturing is carried out on port land. There are two identified sources of air emissions – fuel vapour and dust.

Some vapour losses will occur from the storage of fuel on Horn Island in permanent tanks. A significant proportion of fuel however is trans-shipped in sealed tanks which minimises vapour losses. Hydrocarbon odour has not been reported as an issue with any neighbouring residents.

Most port areas used by traffic have been sealed to minimise dust generation. However, there are still some traffic areas on the Horn Island facility that are not sealed. The Corporation would expect operators of the facility to use water to dampen any traffic areas as needed to minimise dust.

Vessel or truck operations at the port have minimal potential to generate visible exhaust emissions or to have potential to cause nuisance impacts to nearby sensitive receptors.

Management

Port operators are to visually monitor emission levels through observation on a daily basis.

All equipment is to be maintained and operated in accordance with maintenance requirements.

Lessees are required to obtain and maintain compliance with emissions conditions under relevant licences and approvals under the *Environmental Protection Act*.

13.14 Noise

Potential Impacts and Management

Noise from loading may occur however the activity is occurring in a working port area and has potential to disturb the amenity of surrounding areas, including noise sensitive areas such as residential areas. Infrequent or high volume noise is typically a cause for complaint, especially outside normal working hours.

Ambient noise levels within the Port are generally at a low background level with some influence from vessel transiting through the Port area. Minimal impact is normally expected on nearby sensitive receptors.

Port activities are predominantly carried out during day-light hours. Noise has not been reported as a current issue and no special noise abatement strategies have been required to-date.

Noise levels from port activity are not considered to cause nuisance because of the distance from the closest neighbours. No noise controls are generally recommended or required.

- All noise complaints shall be recorded and reported as soon as practical.
- Mitigation measures will be developed as required to address complaints received.

13.15 Hazardous or Flammable Goods

Potential Impacts and Management

Fuel is transported to Thursday Island largely in bulk, however a limited number of 200 litre drums on pallets are also used for transport. These drums are stored within the bunded area of the storage compound for a short period before being transported to local customers. This storage in drums and containers limits the potential size of any spill from a transportation incident around Thursday Island. A bunded storage area in its compound is in place to further minimise the risk of spills from the area.

Large volumes of fuel are also stored at the fuel storage facility on Horn Island. This facility has storage for around 800,000 litres of fuel in fixed storage tanks. The site also typically has five iso-containers (each around 10,000 litres) temporarily stored on the site. The site is therefore a major fuel storage facility and was upgraded to Australian Standard AS1940 in 2003 and included an upgrade to the on-site firefighting systems, tanker loading facility and a bunded area for fuel.

Because of the sensitive marine environment surrounding the islands, oil spills remain the largest environmental risk for the port. International ships travelling through the Torres Strait, although outside the port limits, further increases the risk of an oil spill occurring in the region. PN and MSQ staff regularly respond to oil spills and an inventory of oil spill equipment is held on Thursday Island.

Before any new imports of dangerous goods through the Port could be considered, a risk assessment would need to be carried out. The requirements for such cargoes are detailed in the *Transport Operations (Marine Safety) Act* and the *Transport Operations (Marine Safety) Regulation*. The Australian Standard AS3846, *The Handling and Transport of Dangerous Cargoes in Port Areas,* documents the requirements and recommendations for safe handling and transport of dangerous goods in port areas. The standard provides the minimum acceptable safety requirements for port facilities and their operating practices. The Corporation has a documented Dangerous Cargoes

Management Plan that would be used to assess new dangerous cargoes into the Port. The standard provides the minimum acceptable safety requirements for port facilities and their operating practices.

13.16 Flora, Fauna and Natural Amenity

Potential Impacts

Development of the township has resulted in the removal of areas of the original vegetation over time. In the overall context of development on Thursday and Horn Island, the extent of the loss of natural vegetation due to developments on port land is small.

In the event that further coastal land is purchased for port expansion, appropriate environmental impact assessments of any proposed development, including alternatives, will be conducted. In conducting any impact assessments, Ports North will consult with all relevant stakeholders and statutory authorities (e.g. Torres Shire Council, DAFF DEHP and State Development).

Preservation of the natural amenity of the area is an essential component of the EMP for the Port. Obviously, the presence of wharves and infrastructure needed to transfer general cargo from vessels, impacts on the natural amenity of the area.

One of the most significant impacts on the natural amenity of the area is debris that is regularly washed or deposited on to the foreshore. Some of the debris comes from material that has been placed deliberately to stabilise the river bank. The continuing removal of rubbish and debris is an essential step in the program to improve the amenity of the area.

The Land Use Plan has designated areas of conservation value on port land as Environmental Buffer Area. These areas and their environmental values are documented in 11.14. This Environmental Management Plan seeks to protect these designated areas from inappropriate development.

The potential impact of development in areas adjacent to the environmental buffer zones are considered in project impact studies, to minimise any significant adverse impacts, such as a possible deterioration in the quality of stormwater run-off. Developments will have due regard to the flora and fauna values documented in this Plan.

Loading operations are to occur on an establish hardstand and wharf area, and as such are unlikely to impact resident flora or fauna. In the event that wildlife does occur in the area, practical and reasonable measure should be used to move on such wildlife, or alter timing of loading operations so as to avoid. Direct contact impacts of vehicles with fauna such as cassowary are to be avoided.

Mitigation Measures

Avoid and prevent injury to all wildlife during loading. In the event of a sick or injured animal, the Operator shall notify the Port Supervisor who will follow up with Environment Manager on 07 4052 3820 and the Queensland Parks and Wildlife Service (1300 360 989).

13.17 Cultural Heritage

Potential Impacts

The developed areas of the port have been previously disturbed whereby the likelihood of uncovering a cultural heritage item is minimal. Loading operations on sealed operational hardstand area and wharf, hence potential for observation of cultural items is unlikely.

Undisturbed and port buffer areas may contain artefacts, and appropriate e measures should be employed prior to any site disturbance.

Mitigation Measures

- Any new development works will be required to conduct a due diligence evaluation consistent with prior to any disturbance of undeveloped port lands;
- All onsite personnel are responsible for reporting any potential cultural heritage items or objects, particularly during earthworks
- If a cultural heritage item is found (excluding human skeleton remains, which are to be reported to the police), works in the immediate area of the find shall cease and Ports North will be advised. The Traditional Owners and State Environment Department shall be contacted by Ports North Environment staff.

14 MONITORING

The above evaluation of potential aspects and impacts of activities at the port and subsequent management options give rise to the following monitoring elements to be at this port:

Impact	Specifics	Required Yes / No	Justification
Air Quality	Odour	Yes	Record and monitor trends in complaints Liaise with DEHP to verify and ensure compliance by port operators
	Dust	Yes	Record and monitor trends in complaints Liaise with DEHP to verify and ensure compliance by port operators
Noise	From plant, equipment or trucks	Yes	Record and monitor trends in complaints Liaise with DEHP to verify and ensure compliance by port operators
Water Quality	Monitor site for presence of discharge to waterways/stormwater	Yes	Nil discharge direct to stormwater, or waterway. Correct work practices to halt discharges Monitor dredging and bed levelling consistent with triggers in the Long Term Management and Monitoring Plan.
Waste	Deposition on wharf, road, layby area	Yes	Regular checking and clean-up, regular clearing of stockpiles or bins
Flora	Seagrass	Yes	Implement Long Term surveys to ensure trends in general ecological health of the port area is understood.

15 AUDITING

Ports North staff may conduct an environmental audit in accordance with this EMP at any time during operations. Port Users must keep a copy of any relevant environmental licence, permit or approvals and records required under this EMP, onsite at all times. The Port Supervisor may also inspect the works at any time to ensure all commitments are been implemented.

16 GLOSSARY

dB(A)	decibels (A – weighted), which is a measure of noise intensity
DEHP	Department of Environment and Heritage Protection
EPBC Act	Commonwealth's Environment Protection and Biodiversity Conservation Act 1999
QT	Queensland Department of Transport
PZFA	Protection Zone Joint Authority
QT	Queensland Department of Transport
TSPZ	Torres Strait Protection Zone
TSRA	Torres Strait Regional Authority

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Appendix A Environment Policy

Ports North

Environment Policy

Ports North is responsible for nine Port locations including trading Ports of Cairns, Mourilyan, Cape Flattery, Karumba and Skardon River), community Ports (Thursday Island and Quintell Beach) and non-trading Ports (Cooktown and Burketown).

Ports North strives to operate a viable business that considers financial, environmental and social impacts by identifying and implementing initiatives that promote excellence in environmental management at these Ports.

To demonstrate environmental leadership, Ports North will:

- Implement and maintain an environmental management system to meet the standard set by AS/NZS ISO14001:2004, as a tool for continual improvement in environmental performance;
- Comply with relevant environmental laws, regulations, policies, procedures, and standards;
- Identify, assess and minimise risk and potential impacts of Port activities;
- Integrate environmental considerations and principles of sustainable development into management processes and decision making.
- Maintain emergency, fire protection, security systems and infrastructure to protect the environment;
- Strive to use resources efficiently, minimise waste and prevent pollution;
- Apply sufficient and appropriate people and resources to achieve this Environmental Policy;
- Define, measure and report regularly against objectives and targets to review the effectiveness of performance; and
- Communicate this Policy to staff and stakeholders to build collaborative relationships to promote superior environmental outcomes.

The Chief Executive Officer and Senior Management are responsible for providing the leadership to support effective implementation of this Policy and for ensuring all Ports North's staff, contractors and those engaged by the organisation are required to comply with this Policy.

This Policy will be regularly reviewed following legislative or organisational changes, or at a minimum of every two years, to ensure it reflects the nature and potential impacts of Port activities and services.

Chris Boland
Chief Executive Officer
July 2014

Port of Cairns | Cape Flattery | Karumba | Mourilyan | Skardon River | Quintell Beach | Thursday Island | Burketown | Cooktown

Appendix B Incident Report Form

FNQPC ENVIRONMENTAL INCIDENT REPORT FORM

This form is to be completed for any environmental accident or incident.
Please Note: THIS FORM IS TO BE FILLED IN AFTER THE EVENT.
AT THE TIME OF THE INCIDENT PLEASE CALL EITHER

- Port Supervisor
- Operations Office Cairns – (07) 40512558 or 0419 657 350
- Environment Manager – (07) 40523820 or 0439 723 008

Once completed, please forward to
Environment Manager, FNQPC Ltd, PO Box 594, Cairns Q, 4870. Ph: 4052 3820, Fax: 4052 1493

Event Details				
		Please Circle		
Incident (release or harm to environment occurred)			**Near Miss** (no release to environment or harm)	
When:	.....	Date _ _/_ _/ _ _	Time am/pm	Location details:
Reported BY:	.....	Date _ _/_ _/ _ _	Time am/pm	
Reported TO:	.....	Date _ _/_ _/ _ _	Time am/pm	

Description	
Describe clearly the circumstances leading to the accident/incident, and the accident/incident itself. As far as possible verify the facts recorded, and identif witnesses.	
Type	**If Spill – Approx Quantity**
Cause/Circumstance	
Name	**Position**
Organisation	**Telephone**
Signature	**Date**

FNQPC Environmental Incident Report Form.doc

Page **1** of **2**

Prevention: *To be completed by Manager/Supervisor*		
Method of Cleanup;		
Equipment Used		
Method and Location of Waste Disposal		
Existing Measures in Place to prevent or Minimise this type of event;		
Follow Up:		
Measures to be implemented to prevent this occurring again?		
Name		Signature
Position	Date	Organisation

Close Out: *To be completed by Environment Section*
Recorded in Register?
Follow Up Letter Sent to Company
Feedback provided to Reporter?

FNQPC Environmental Incident Report Form.doc

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