



Referral of proposed action

What is a referral?

The *Environment Protection and Biodiversity Conservation Act 1999* (the EPBC Act) provides for the protection of the environment, especially matters of national environmental significance (NES). Under the EPBC Act, a person must not take an action that has, will have, or is likely to have a significant impact on any of the matters of NES without approval from the Australian Government Environment Minister or the Minister's delegate. (Further references to 'the Minister' in this form include references to the Minister's delegate.) To obtain approval from the Environment Minister, a proposed action should be referred. The purpose of a referral is to obtain a decision on whether your proposed action will need formal assessment and approval under the EPBC Act.

Your referral will be the principal basis for the Minister's decision as to whether approval is necessary and, if so, the type of assessment that will be undertaken. These decisions are made within 20 business days, provided sufficient information is provided in the referral.

Who can make a referral?

Referrals may be made by or on behalf of a person proposing to take an action, the Commonwealth or a Commonwealth agency, a state or territory government, or agency, provided that the relevant government or agency has administrative responsibilities relating to the action.

When do I need to make a referral?

A referral must be made for actions that are likely to have a significant impact on the following matters protected by Part 3 of the EPBC Act:

- World Heritage properties (sections 12 and 15A)
- National Heritage places (sections 15B and 15C)
- Wetlands of international importance (sections 16 and 17B)
- Listed threatened species and communities (sections 18 and 18A)
- Listed migratory species (sections 20 and 20A)
- Protection of the environment from nuclear actions (sections 21 and 22A)
- Commonwealth marine environment (sections 23 and 24A)
- Great Barrier Reef Marine Park (sections 24B and 24C)
- A water resource, in relation to coal seam gas development and large coal mining development (sections 24D and 24E)
- The environment, if the action involves Commonwealth land (sections 26 and 27A), including:
 - actions that are likely to have a significant impact on the environment of Commonwealth land (even if taken outside Commonwealth land);
 - actions taken on Commonwealth land that may have a significant impact on the environment generally;
- The environment, if the action is taken by the Commonwealth (section 28)
- Commonwealth Heritage places outside the Australian jurisdiction (sections 27B and 27C)

You may still make a referral if you believe your action is not going to have a significant impact, or if you are unsure. This will provide a greater level of certainty that Commonwealth assessment requirements have been met.

To help you decide whether or not your proposed action requires approval (and therefore, if you should make a referral), the following guidance is available from the Department's website:

- the Policy Statement titled Significant Impact Guidelines 1.1 – Matters of National Environmental Significance. Additional sectoral guidelines are also available.

- the Policy Statement titled Significant Impact Guidelines 1.2 - Actions on, or impacting upon, Commonwealth land, and actions by Commonwealth agencies.
- the Policy Statement titled Significant Impact Guidelines: Coal seam gas and large coal mining developments—Impacts on water resources.
- the interactive map tool (enter a location to obtain a report on what matters of NES may occur in that location).

Can I refer part of a larger action?

In certain circumstances, **the Minister may not accept a referral for an action that is a component of a larger action and may request the person proposing to take the action to refer the larger action for consideration under the EPBC Act (Section 74A, EPBC Act)**. If you wish to make a referral for a staged or component referral, read 'Fact Sheet 6 Staged Developments/Split Referrals' and contact the Referrals Gateway (1800 803 772).

Do I need a permit?

Some activities may also require a permit under other sections of the EPBC Act or another law of the Commonwealth. Information is available on the Department's web site.

Is your action in the Great Barrier Reef Marine Park?

If your action is in the Great Barrier Reef Marine Park it may require permission under the *Great Barrier Reef Marine Park Act 1975* (GBRMP Act). If a permission is required, referral of the action under the EPBC Act is deemed to be an application under the GBRMP Act (see section 37AB, GBRMP Act). This referral will be forwarded to the Great Barrier Reef Marine Park Authority (the Authority) for the Authority to commence its permit processes as required under the Great Barrier Reef Marine Park Regulations 1983. If a permission is not required under the GBRMP Act, no approval under the EPBC Act is required (see section 43, EPBC Act). The Authority can provide advice on relevant permission requirements applying to activities in the Marine Park.

The Authority is responsible for assessing applications for permissions under the GBRMP Act, GBRMP Regulations and Zoning Plan. Where assessment and approval is also required under the EPBC Act, a single integrated assessment for the purposes of both Acts will apply in most cases. Further information on environmental approval requirements applying to actions in the Great Barrier Reef Marine Park is available from <http://www.gbrmpa.gov.au/> or by contacting GBRMPA's Environmental Assessment and Management Section on (07) 4750 0700.

The Authority may require a permit application assessment fee to be paid in relation to the assessment of applications for permissions required under the GBRMP Act, even if the permission is made as a referral under the EPBC Act. Further information on this is available from the Authority:

Great Barrier Reef Marine Park Authority

2-68 Flinders Street PO Box 1379

Townsville QLD 4810

AUSTRALIA

Phone: + 61 7 4750 0700

Fax: + 61 7 4772 6093

www.gbrmpa.gov.au

What information do I need to provide?

Completing all parts of this form will ensure that you submit the required information and will also assist the Department to process your referral efficiently. If a section of the referral document is not applicable to your proposal enter N/A.

You can complete your referral by entering your information into this Word file.

Instructions

Instructions are provided in blue text throughout the form.

Attachments/supporting information

The referral form should contain sufficient information to provide an adequate basis for a decision on the likely impacts of the proposed action. You should also provide supporting documentation, such as environmental reports or surveys, as attachments.

Coloured maps, figures or photographs to help explain the project and its location should also be submitted with your referral. Aerial photographs, in particular, can provide a useful perspective and context. Figures should be good quality as they may be scanned and viewed electronically as black and white documents. Maps should be of a scale that clearly shows the location of the proposed action and any environmental aspects of interest.

Please ensure any attachments are below three megabytes (3mb) as they will be published on the Department's website for public comment. To minimise file size, enclose maps and figures as separate files if necessary. If unsure, contact the Referrals Gateway (email address below) for advice. Attachments larger than three megabytes (3mb) may delay processing of your referral.

Note: the Minister may decide not to publish information that the Minister is satisfied is commercial-in-confidence.

How do I pay for my referral?

From 1 October 2014 the Australian Government commenced cost recovery arrangements for environmental assessments and some strategic assessments under the EPBC Act. If an action is referred on or after 1 October 2014, then cost recovery will apply to both the referral and any assessment activities undertaken. Further information regarding cost recovery can be found on the Department's website at:

<http://www.environment.gov.au/epbc/publications/cost-recovery-cris>

Payment of the referral fee can be made using one of the following methods:

- **EFT Payments can be made to:**

BSB: 092-009
Bank Account No. 115859
Amount: \$7352
Account Name: Department of the Environment.
Bank: Reserve Bank of Australia
Bank Address: 20-22 London Circuit Canberra ACT 2601
Description: The reference number provided (see note below)

- **Cheque** - Payable to "Department of the Environment". Include the reference number provided (see note below), and if posted, address:

The Referrals Gateway
Environment Assessment Branch
Department of the Environment
GPO Box 787
Canberra ACT 2601

- **Credit Card**

Please contact the Collector of Public Money (CPM) directly (call (02) 6274 2930 or 6274 20260 and provide the reference number (see note below).

Note: in order to receive a reference number, submit your referral and the Referrals Gateway will email you the reference number.

How do I submit a referral?

Referrals may be submitted by mail or email.

Mail to:

Referrals Gateway
Environment Assessment Branch
Department of Environment
GPO Box 787
CANBERRA ACT 2601

- If submitting via mail, electronic copies of documentation (on CD/DVD or by email) are required.

Email to: epbc.referrals@environment.gov.au

- Clearly mark the email as a 'Referral under the EPBC Act'.
- Attach the referral as a Microsoft Word file and, if possible, a PDF file.
- **Follow up with a mailed hardcopy including copies of any attachments or supporting reports.**

What happens next?

Following receipt of a valid referral (containing all required information) you will be advised of the next steps in the process, and the referral and attachments will be published on the Department's web site for public comment.

The Department will write to you within 20 business days to advise you of the outcome of your referral and whether or not formal assessment and approval under the EPBC Act is required. There are a number of possible decisions regarding your referral:

The proposed action is NOT LIKELY to have a significant impact and does NOT NEED approval

No further consideration is required under the environmental assessment provisions of the EPBC Act and the action can proceed (subject to any other Commonwealth, state or local government requirements).

The proposed action is NOT LIKELY to have a significant impact IF undertaken in a particular manner

The action can proceed if undertaken in a particular manner (subject to any other Commonwealth, state or local government requirements). The particular manner in which you must carry out the action will be identified as part of the final decision. You must report your compliance with the particular manner to the Department.

The proposed action is LIKELY to have a significant impact and does NEED approval

If the action is likely to have a significant impact a decision will be made that it is a *controlled action*. The particular matters upon which the action may have a significant impact (such as World Heritage values or threatened species) are known as the *controlling provisions*.

The controlled action is subject to a public assessment process before a final decision can be made about whether to approve it. The assessment approach will usually be decided at the same time as the controlled action decision. (Further information about the levels of assessment and basis for deciding the approach are available on the Department's web site.)

The proposed action would have UNACCEPTABLE impacts and CANNOT proceed

The Minister may decide, on the basis of the information in the referral, that a referred action would have clearly unacceptable impacts on a protected matter and cannot proceed.

Compliance audits

If a decision is made to approve a project, the Department may audit it at any time to ensure that it is completed in accordance with the approval decision or the information provided in the referral. If the project changes, such that the likelihood of significant impacts could vary, you should write to the Department to advise of the changes. If your project is in the Great Barrier Reef Marine Park and a decision is made to approve it, the Authority may also audit it. (See "*Is your action in the Great Barrier Reef Marine Park*," p.2, for more details).

For more information

- call the Department of the Environment Community Information Unit on 1800 803 772 or
- visit the web site <http://www.environment.gov.au/epbc>

All the information you need to make a referral, including documents referenced in this form, can be accessed from the above web site.

Referral of proposed action

Project title:

Abbot Point Marine Offloading Facility Maintenance and Renewal Works

1 Summary of proposed action

NOTE: You must also attach a map/plan(s) and associated geographic information system (GIS) vector (shapefile) dataset showing the location and approximate boundaries of the area in which the project is to occur. Maps in A4 size are preferred. You must also attach a map(s)/plan(s) showing the location and boundaries of the project area in respect to any features identified in 3.1 & 3.2, as well as the extent of any freehold, leasehold or other tenure identified in 3.3(i).

1.1 Short description

Use 2 or 3 sentences to uniquely identify the proposed action and its location.

The Abbot Point Marine Offloading Facility (MOF) is an existing facility located at the Port of Abbot Point, near Bowen in Queensland. The facility was originally approved and constructed in 1982 to provide access for outloading of bulk materials and break bulk cargo necessary for the construction of the Abbot Point Coal Terminal and has been utilised since that time for port operations including launching and mooring of light vessels, including emergency responses vessels, and for bulk materials delivery and outloading as required during various upgrades to the port facilities. The existing facility now requires maintenance and renewal works to reduce ongoing maintenance and improve current port: operational safety, environmental performance, emergency response and efficiency of a number of operational activities. It will allow continued use of the facility for bulk materials and cargos access for both existing and future port operations.

The proposed action includes:

- Maintenance and renewal of rock armour at the existing breakwater and causeway
- Replacement and minor amendment to alignment of the existing sheet pile wall
- Upgrade of existing beach based vessel launching to barge ramp
- Installation of mooring piles
- Installation of swing moorings

1.2 Latitude and longitude

Latitude and longitude details are used to accurately map the boundary of the proposed action. If these coordinates are inaccurate or insufficient it may delay the processing of your referral.

	Latitude			Longitude		
location point	degrees	minutes	seconds	degrees	minutes	seconds
1	19	52	58.743S	148	4	53.3515E

- 52 The Interactive Mapping Tool may provide assistance in determining the coordinates for your project area. If the area is less than 5 hectares, provide the location as a single pair of latitude and longitude references. If the area is greater than 5 hectares, provide bounding location points. There should be no more than 50 sets of bounding location coordinate points per proposal area. Bounding location coordinate points should be provided sequentially in either a clockwise or anticlockwise direction. If the proposed action is linear (eg. a road or pipeline), provide coordinates for each turning point. Also attach the associated GIS-compliant file that delineates the proposed referral area. If the area is less than 5 hectares, please provide the location as a point layer. If greater than 5 hectares, please provide a polygon layer. If the proposed action is linear (eg. a road or pipeline) please provide a polyline layer (refer to GIS data supply guidelines at [Attachment A](#)). **Do not use AMG coordinates.**

1.3 **Locality and property description**

Provide a brief physical description of the property on which the proposed action will take place and the project location (eg. proximity to major towns, or for off-shore projects, shortest distance to mainland).

The proposed action is located at the Port of Abbot Point, approximately 25 kilometres (km) north of Bowen in Central Queensland. The existing Abbot Point MOF is located at the northern part of the Port immediately east of the Abbot Point headland. The proposed action will occur within the bounds of the existing MOF and in the intertidal zone immediately west of the existing facility.

See Figure 1 for details.

1.4 **Size of the development footprint or work area (hectares)**

Causeway and breakwater: 0.45ha
Sheet pile wall realignment: 0.035ha
Barge ramp: 0.15ha
Mooring piles: 0.0001ha
Swing moorings: 0.0002ha

1.5 **Street address of the site**

Abbot Point Road, Abbot Point, Queensland

1.6 **Lot description**

Describe the lot numbers and title description, if known.

Lot 52 on HR1732 Leasehold covering land and water held by NQBP (works will include: breakwater, causeway, sheet pile, barge ramp (part) and inshore mooring piles)

Lot 54 on SP243724 Freehold land held by NQBP (works will include the barge ramp)

Lot 103 on SP271829 Leasehold over water held by NQBP (works will include the swing moorings)

1.7 **Local Government Area and Council contact (if known)**

If the project is subject to local government planning approval, provide the name of the relevant council contact officer.

The proposed action is within Whitsunday Regional Council and adjacent State waters. The proposed action is within Port of Abbot Point Strategic Port Area and is also within the Abbot Point State Development Area, development within these areas is not subject to local government planning requirements.

1.8 **Time frame**

Specify the time frame in which the action will be taken including the estimated start date of construction/operation.

The works are proposed to commence in June 2016 and be completed by December 2017. The MOF maintenance work and renewals works are likely to take approximately 3-4 months to be completed.

1.9 **Alternatives to proposed action**

Were any feasible alternatives to taking the proposed action (including not taking the action) considered but are not proposed?

No

X

Yes, you must also complete section 2.2

1.10	Alternative time frames etc Does the proposed action include alternative time frames, locations or activities?	X	No
			Yes, you must also complete Section 2.3. For each alternative, location, time frame, or activity identified, you must also complete details in Sections 1.2-1.9, 2.4-2.7 and 3.3 (where relevant).
1.11	State assessment Is the action subject to a state or territory environmental impact assessment?	X	No
			Yes, you must also complete Section 2.5
1.12	Component of larger action Is the proposed action a component of a larger action?	X	No
			Yes, you must also complete Section 2.7
1.13	Related actions/proposals Is the proposed action related to other actions or proposals in the region (if known)?		No
		X	Yes, provide details:
1.14	Australian Government funding Has the person proposing to take the action received any Australian Government grant funding to undertake this project?	X	No
			Yes, provide details:
1.15	Great Barrier Reef Marine Park Is the proposed action inside the Great Barrier Reef Marine Park?	X	No
			Yes, you must also complete Section 3.1 (h), 3.2 (e)

2 Detailed description of proposed action

NOTE: It is important that the description is complete and includes all components and activities associated with the action. If certain related components are not intended to be included within the scope of the referral, this should be clearly explained in section 2.7.

2.1 Description of proposed action

This should be a detailed description outlining all activities and aspects of the proposed action and should reference figures and/or attachments, as appropriate.

The Abbot Point Marine Offloading Facility (MOF) is an existing facility located at the Port of Abbot Point, near Bowen in Queensland. The facility was originally approved and constructed in 1982 to provide access for outloading of bulk materials and break bulk cargo necessary for the construction of the Abbot Point Coal Terminal and has been utilised since that time for port operations including launching and mooring of light vessels including emergency response vessels, and for bulk materials delivery and outloading as required during various upgrades to the port facilities. The existing facility now requires maintenance and renewal works to reduce ongoing maintenance and improve current port: operational safety, environmental performance, emergency response and efficiency of a number of operational activities. It will allow continued use of the facility for bulk materials and cargos access for both existing and future port operations.

The proposed action includes maintenance and renewal works at the existing Abbot Point MOF as detailed on Figure 1 (see Attachment 1) and described below.

- Maintenance and renewal of rock armour at the existing breakwater and causeway
- Replacement and minor amendment to alignment of the existing sheet pile wall
- Upgrade of existing beach based vessel launching to barge ramp
- Installation of mooring piles
- Installation of swing moorings

The following provides a brief history of development of the Abbot Point MOF.

- The MOF was originally developed in 1982 to support the construction of the Abbot Point Coal Terminal (APCT). This work was undertaken in accordance with a Section 86 permit, under the repealed Harbours Act (Qld), issued on 18 March 1982 with amendments to the structure subsequently approved in 9 May 1985 for development of the existing rock breakwater. The original development of the MOF occurred prior to the commencement of the EPBC Act, and as such the existing breakwater and causeway is considered to be an action with prior authorisation in accordance with s 43A of the EPBC Act.
- Redevelopment of the MOF was proposed in 2005 to support development of the Stage 3 Expansion of the APCT. The redevelopment was included as part of the overall Stage 3 Expansion Project Referral (EPBC 2005/2154), which was determined to be a not controlled action, however this referral did not envisage the requirement for maintenance dredging.
- Prior to the Stage 3 Expansion it was identified that maintenance dredging was required to returning the seabed area to its natural depths of the 1980's – the 1982 hydrographic survey level was used as the criteria for its dredging. An internal assessment of the potential to trigger the EPBC Act and consultation with the Great Barrier Reef Marine Park Authority was undertaken prior to seeking development permits for maintenance dredging and this concluded that a significant impact to a matter of NES was unlikely.
- Development permits for the redevelopment of the MOF were sought in accordance with Qld state approval requirements and issued on 11 August 2008, for operational works (tidal works) for the carrying out of maintenance dredging activities and redevelopment of the MOF being the replacement of the existing sheet pile wall.
- Maintenance works were again undertaken in 2012 in accordance with a development permit for maintenance dredging, within the previously approved footprint and relocation of dredged material within tidal waters issued on 22 December 2010.

The facility has been in constant use since its original construction in 1982. This includes:

- Regular use for the launching of port safety vessels to conduct drills and respond to potential hazards.
- Intermittent use for the transfer of bulk cargo and break bulk materials as part of the original construction of the Abbot Point Coal Terminal; replacement of equipment and expansions for the APCT operations.
- Regular use for the launch of research and survey vessels associated with ongoing monitoring and assessment studies undertaken at the Port.

The following provides a more detailed description of the activities forming this proposed action and shown in Figure 1.

Breakwater and causeway maintenance

The existing breakwater and causeway was approved (see Attachment 2) and constructed in 1982. The breakwater is approximately 110 metres (m) in length and is approximately 1.1 m above highest astronomical tide (HAT) at reduced level (RL) 4.80 m. The structure is comprised of a rubble core with rock armour.

The proposed action includes maintenance and renewal of the rock armour and resurfacing and reinforcing the causeway. The proposed action will occur within the existing approved footprint. These works will be undertaken by placement of additional rock armour on the seaward side of the causeway using an excavator to be positioned on the existing wall. The existing causeway and access track will be resurfaced with additional compacted gravel.

Sheet pile wall maintenance and realignment

The existing sheet pile wall which backs the causeway was originally approved and constructed in 1982 and last replaced in 2008. Replacement along the length of the causeway is required to ensure its stability and realignment is proposed along the southern end to facilitate better access for loading and unloading from the facility. The existing sheet pile wall will be left in place and the new sheet pile wall will be installed immediately in front of it with fill material then placed behind. This approach reduces safety and environmental risks associated with the works.

The realigned area adjoining the causeway will require installation of the sheet pile wall and back filling to the height of the causeway and installation of a concrete capping to improve resistance to erosion as it will overtop in some conditions. The realignment will result in an additional footprint of approximately 350m², primarily to allow adequate area for the efficient loading and unloading of material from the southern causeway access. The sheet pile wall will be driven by a pile driver positioned on the causeway.

Upgrade of beach based vessel launching to barge landing

An existing access track currently provides access onto the beach which is utilised to launch small vessels including the port emergency response vessels. The proposed action includes stabilisation works connecting the existing access track and formalising the existing boat launch area through installation of a proposed concrete barge ramp. The proposed ramp will be approximately 105 m in length and 8 m wide and will provide access to approximately -0.5 HAT.

The barge ramp will be constructed from gravel fill with a concrete pavement and include rock revetment on either side to provide scour protection to the structure.

Installation of mooring piles

The proposed action involves installation of two mooring piles (less than 1m diameter) within the MOF to assist with berthing of larger barges and vessels. The mooring piles are of steel construction and driven into the seabed.

Installation of swing moorings

The proposed action involves the installation of three swing moorings for mooring of tug vessels at Abbot Point between towage operations. This will provide for greater efficiencies in the operation of tugs which currently steam from Bowen for operations at Abbot Point and return to Bowen following the operations. The moorings will generally comprise a concrete block of approximately 2 m³ which will be placed on the seabed, in water ranging from 10 m to 15 m, with a chain and buoy at the surface.

2.2 Alternatives to taking the proposed action

This should be a detailed description outlining any feasible alternatives to taking the proposed action (including not taking the action) that were considered but are not proposed (note, this is distinct from any proposed alternatives relating to location, time frames, or activities – see section 2.3).

The proposed action involves necessary maintenance and renewal works for an existing facility to ensure its longevity and improve the safety and environmental performance of the facility. Conditions of the original approval for the facility, granted in 1982 and updated in 1985, require that NQBP maintain the facility in a safe condition, as such the proposed maintenance to the breakwater and causeway as well as replacement of the sheet pile wall are considered a necessary element for the continued operation of the facility. Upgrading the small vessel launching facilities with the concrete (barge) ramp is necessary to provide improved safety for access of Port emergency vessels.

The installation of swing moorings will provide for significant increases in efficiencies in the operation of tug services. Tugs currently steam from Bowen to complete operations and provision of moorings at Abbot Point eliminates the need for returning to Bowen following every operation, saving time and fuel and reducing vessel movements.

The only alternative to the proposed action would be to construct a new facility at an alternate location, which is not considered to represent a feasible alternative.

2.3 Alternative locations, time frames or activities that form part of the referred action

If you have identified that the proposed action includes alternative time frames, locations or activities (in section 1.10) you must complete this section. Describe any alternatives related to the physical location of the action, time frames within which the action is to be taken and alternative methods or activities for undertaking the action. For each alternative location, time frame or activity identified, you must also complete (where relevant) the details in sections 1.2-1.9, 2.4-2.7, 3.3 and 4. Please note, if the action that you propose to take is determined to be a controlled action, any alternative locations, time frames or activities that are identified here may be subject to environmental assessment and a decision on whether to approve the alternative.

Not applicable.

2.4 Context, planning framework and state/local government requirements

Explain the context in which the action is proposed, including any relevant planning framework at the state and/or local government level (e.g. within scope of a management plan, planning initiative or policy framework). Describe any Commonwealth or state legislation or policies under which approvals are required or will be considered against.

The proposed action relates to maintenance and renewal works at the existing Abbot Point MOF. The MOF is currently subject to the following approval permits and their associated conditions (see Attachment 2):

- Section 86 permit under the repealed Harbours Act for development of the existing rock breakwater and sheet pile wall issued on 18 March 1982
- Section 86 permit amendment to reflect alterations in the rock breakwater structure issued 9 May 1985.
- Development permit for operational works (tidal works) for the carrying out of dredging, disposal of dredged material activities and replacement of sheet pile wall at the MOF issued on 11 August 2008 (permit number PM/08/0041 AP).
- Development permit for a material change of use for ERA 16 1(c) Dredging activities for maintenance dredging and disposal of dredge material within tidal waters issued on 22 December 2010 (permit number (SPDE01288310).

- Request to change a development approval for an amendment to an approval condition for the approved Environmental Authority for ERA 16 issued on 5 November 2012 (permit number (SPDE01288310)).

The Abbot Point MOF is located within the Port Limits of the Port of Abbot Point and within the Abbot Point State Development Area (APSDA). Activities undertaken within the Port of Abbot Point are the subject to the provisions of the Port of Abbot Point Land Use Plan and Port of Abbot Point Environmental Management Plan. The proposed action is consistent with the objectives of the Land Use Plan and will be undertaken in accordance with the requirements of the Environmental Management Plan.

Activities undertaken within the APSDA are subject to the APSDA Development Scheme (Department of State Development 2014). The proposed development is consistent with the planning objectives of the Development Scheme and the Port Facilities Precinct in which it occurs.

Development undertaken within the State of Queensland is also subject to the *Sustainable Planning Act 2010*.

Development permits required for the proposed action include:

- Operational works application (for works within a tidal area and within a coastal protection zone) for realignment of the sheet pile wall, installation of the barge ramp and moorings.

2.5 Environmental impact assessments under Commonwealth, state or territory legislation

If you have identified that the proposed action will be or has been subject to a state or territory environmental impact statement (in section 1.11) you must complete this section. Describe any environmental assessment of the relevant impacts of the project that has been, is being, or will be carried out under state or territory legislation. Specify the type and nature of the assessment, the relevant legislation and the current status of any assessments or approvals. Where possible, provide contact details for the state/territory assessment contact officer.

Describe or summarise any public consultation undertaken, or to be undertaken, during the assessment. Attach copies of relevant assessment documentation and outcomes of public consultations (if available).

Not applicable.

2.6 Public consultation (including with Indigenous stakeholders)

Your referral must include a description of any public consultation that has been, or is being, undertaken. Where Indigenous stakeholders are likely to be affected by your proposed action, your referral should describe any consultations undertaken with Indigenous stakeholders. Identify the relevant stakeholders and the status of consultations at the time of the referral. Where appropriate include copies of documents recording the outcomes of any consultations.

Consultation regarding the proposed action has been undertaken with officers of the Queensland Department of Environment and Heritage Protection, the Department of Natural Resources and Management and the Department of State Development. Consultation has confirmed the above approval requirements.

Consultation has been commenced with Indigenous parties in regards to the proposed action. NQBP has an Indigenous Land Use Agreement and Cultural Heritage Management Plan in place for the Port and the proposed action will be undertaken in accordance with these agreements.

2.7 A staged development or component of a larger project

If you have identified that the proposed action is a component of a larger action (in section 1.12) you must complete this section. Provide information about the larger action and details of any interdependency between the stages/components and the larger action. You may also provide justification as to why you believe it is reasonable for the referred action to be considered separately from the larger proposal (eg. the referred action is 'stand-alone' and viable in its own right, there are separate responsibilities for component actions or approvals have been split in a similar way at the state or local government levels).

NQBP is currently proposing to undertake two separate actions relevant to the Abbot Point MOF:

- Maintenance and renewal Works, subject of this referral; and
- Beach Nourishment and Maintenance Dredging, subject of a separate referral.

The reasoning for submitting the two actions as separate referrals is based on the fact that the actions are separable, as well as timing restrictions associated with the conduct of the separate works.

The two actions are independent of each other, in so far as whilst both actions are necessary to ensure the ongoing safe and efficient operation of the Abbot Point MOF, each action could be undertaken separably and independently of the other.

The proposed Maintenance and Renewal works are required to be undertaken as soon as practicable. The existing facility requires maintenance to existing infrastructure to ensure it is able to function as a safe and efficient material offloading facility for upcoming works at the Port of Abbot Point which include the import of a replacement stacker reclaimer for the existing coal terminal (APCT-T1). These works are required to be commenced in June 2016 in order to meet the time frame of the delivery.

The proposed Beach Nourishment and Maintenance Dredging is proposed to be undertaken in 2016 or 2017. The timing of these works is constrained due to the available dredging window between April and October each year.

The two actions have been referred concurrently to ensure that the DoE is fully cognisant of both projects and their relationship and thus in no way limiting the ability to assess each action on its merits. The actions are very different in terms of the nature of the proposed activities and the two actions are not considered to result in cumulative impacts to matters of national environmental significance.

3 Description of environment & likely impacts

3.1 Matters of national environmental significance

Describe the affected area and the likely impacts of the proposal, emphasising the relevant matters protected by the EPBC Act. Refer to relevant maps as appropriate. The interactive map tool can help determine whether matters of national environmental significance or other matters protected by the EPBC Act are likely to occur in your area of interest.

Your assessment of likely impacts should refer to the following resources (available from the Department's web site):

- specific values of individual World Heritage properties and National Heritage places and the ecological character of Ramsar wetlands;
- profiles of relevant species/communities (where available), that will assist in the identification of whether there is likely to be a significant impact on them if the proposal proceeds;
- *Significant Impact Guidelines 1.1 – Matters of National Environmental Significance*; and
- associated sectoral and species policy statements available on the web site, as relevant.

Your assessment of likely impacts should consider whether a bioregional plan is relevant to your proposal. The Minister has prepared four marine bioregional plans (MBP) in accordance with section 176. It is likely that the MBP's will be more commonly relevant where listed threatened species, listed migratory species or a Commonwealth marine area is considered.

Note that even if your proposal will not be taken in a World Heritage area, Ramsar wetland, Commonwealth marine area, the Great Barrier Reef Marine Park or on Commonwealth land, it could still impact upon these areas (for example, through downstream impacts). Consideration of likely impacts should include both direct and indirect impacts.

3.1 (a) World Heritage Properties

Description

The Great Barrier Reef World Heritage Area (GBRWHA) extends along the Queensland coast from Cape York Peninsula to just north of Fraser Island and from mean low water seaward to beyond the continental shelf and covers an area of approximately 348,000 km². The GBRWHA was listed against each of the four natural criteria for world heritage areas, generally reflecting geological phenomena; ecological and biological processes; aesthetics and natural beauty; and biological diversity.

The Statement of Universal values for the GBRWHA identifies

The GBRWHA has been listed against all four of the natural criteria outlined in the Guidelines (UNESCO, 2013). These being:

Criterion 7: contain superlative natural phenomena or areas of exceptional natural beauty and aesthetic importance.

Criterion 8: be outstanding examples representing major stages of earth's history, including the record of life, significant ongoing geological processes in the development of landforms, or significant geomorphic or physiographic features.

Criterion 9: be outstanding examples representing significant ongoing ecological and biological processes in the evolution and development of terrestrial, fresh water, coastal and marine ecosystems and communities of plants and animals.

Criterion 10: contain the most important and significant natural habitats for *in-situ* conservation of biological diversity, including those containing threatened species of Outstanding Universal Value from the point of view of science or conservation.

All World Heritage properties are required to meet the conditions of integrity. This is defined by the Guidelines as "*a measure of the wholeness and intactness of the natural and/or cultural heritage and its attributes*". An assessment of the integrity of a property is required to determine the extent to which the property:

- Includes all elements necessary to express its Outstanding Universal Value
- Is of adequate size to ensure the complete representation of the features and processes which convey the property's significance
- Suffers from adverse effects of development and/or neglect.

The Statement of Outstanding Universal Value for the GBRWHA (GBRMPA, 2012) concludes that in relation to integrity:

- The integrity of the GBR is “enhanced by the unparalleled size and current good state of conservation across the area”
- While a number of natural pressures occur (e.g. Cyclones and crown-of-thorns starfish outbreaks), given the scale of the GBR “most habitats or species groups have the capacity to recover from disturbance or withstand ongoing pressures”
- The property is largely intact and includes the fullest possible representation of marine ecological, physical and chemical processes from the coast to the deep abyssal waters enabling the key interdependent elements to exist in their natural relationships
- Effective conservation programs are essential in areas adjacent to the GBR (e.g. coastal catchments) given that some of the key processes of the Reef occur outside its boundaries

In 1997, the Great Barrier Reef Marine Park Authority (GBRMPA) undertook a study which identified 29 natural heritage attributes of the GBRWHA (Lucas et al, 1997). The Abbot Point Cumulative Impact Assessment considered these World Heritage Attributes and their relevance to Abbot Point and determined that 3 of the 29 natural attributes were applicable to Abbot Point (ELA, 2013) :

- Aesthetics
- Birds
- Marine mammals

In the Statement of Reasons for approval of the Abbot Point Growth Gateway Project the DoE identified that the following values were also relevant to the Abbot Point area (DoE, 2015a):

- Corals
- Marine turtles
- Seagrass

The following provides a description each of these attributes relevant to the proposed action area.

Aesthetics

Aesthetics were determined to be relevant to two of the listing criterion: superlative natural beauty above and below the water (criterion 7); and unique and varied seascapes and landscapes (criterion 8). As part of the Abbot Point CIA, an assessment of Abbot Point’s aesthetic attributes was undertaken in relation to criterion 7, finding that Abbot Point does not encompass areas of exceptional natural beauty, but rather is representative of broad-scale coastal features impacted both by industrial and agricultural development (Cardno Chenoweth, 2012). This finding is representative of the fact that Abbot Point is an existing industrial port.

The proposed action area is part of the existing port facilities and as such part of the industrial port and is not considered to represent aesthetic values relevant to the world heritage values.

Birds

Birds species were determined to be relevant to three of the listing criterion: breeding colonies of seabirds (criterion 7); other fauna including microfauna (criterion 9); important role of birds, such as the pied imperial pigeon, in processes such as seed dispersal and plant colonisation (criterion 9); diversity supporting marine and terrestrial species (global conservation significance) (criterion 10); 242 species of birds (criterion 10); and 22 seabird species breeding (cays and some continental islands have globally significant breeding sites) (criterion 10).

A number of bird surveys have been completed at Abbot Point and in particular at the adjacent Caley Valley Wetlands (Ecoserve, 2007; BAAM, 2012; GHD, 2009a) which have documented the various bird species present within the broader region. The Caley Valley Wetland is documented as providing significant habitat for migratory shorebirds and other water birds, and the coastal fore dunes surrounding Abbot Point are documented to provide habitat for a number of species.

The proposed action area is located approximately 4 km north west of the Caley Valley Wetland and is separated by the existing Abbot Point Coal Terminal 1. Areas of fore dune exist immediately south of

the proposed action area. As discussed in Section 3.1 (d) and (e) a limited number of listed threatened and migratory bird species are considered likely to occur within the immediate vicinity of the proposed action area.

Marine mammals

Marine mammals were determined to be relevant three of the listing criteria: migrating whales (criterion 7); other fauna including microfauna (criterion 9); diversity supporting marine and terrestrial species (global conservation significance) (criterion 10); dugong (criterion 10); species of whales (criterion 10); species of dolphins (criterion 10); and humpback whale calving (criterion 10).

The most commonly reported marine mammals within Abbot Point area are dugongs, snubfin dolphins, Indo-Pacific humpback dolphins and humpback whales (GHD, 2009b). Dugong populations are monitored by aerial survey along the Queensland coast every five years. This data collection also records inshore dolphin species where possible. Dugongs have been observed within port limits and they are known to migrate along the Queensland coast up to hundreds of kilometres between feeding sites.

The proposed action area is largely confined to intertidal and inshore environs which does not support these species.

Corals

Corals were determined to be relevant to each of the listing criterion: coral assemblages of hard and soft corals (criterion 7); coral reef ecosystems (criterion 8); coral reefs, sand banks and coral cays (criterion 9); and coral reefs and coral cays (criterion 10).

Baseline environment surveys of the benthic macroinvertebrate communities at the Port of Abbot Point identified 14 benthic macroinvertebrate regions, however no coral areas of high environmental value were observed within the Project Limits (see GHD, 2009c, and Attachment 3). This assessment found that the majority of inshore areas were comprised of open substrate and low density benthic macroinvertebrate cover, supporting mostly soft corals (GHD 2009c).

The baseline environmental survey shows that there are no significant coral communities in the vicinity of the proposed action area or in areas that could be directly or indirectly impacted by the proposed action (GHD, 2009). The proposed action area is characterised as being area of low density benthic macroinvertebrate cover (1 – 10% cover) (GHD, 2009c). Areas of open substrate (<1% cover) are located immediately north and south of the proposed action area (GHD, 2009c).

Marine turtles

Marine turtles were determined to be relevant to two of the listing criterion: Green turtle breeding (criterion 7, 10); nesting turtles (criterion 7); marine turtle (criterion 10); and marine turtle rookeries (criterion 10).

Five of the six threatened marine turtle species have previously been observed within the Abbot Point Port Limits, Loggerhead, Green, Hawksbill, Olive Ridley and Flatback turtles (Bell, 2003; Dobbs, 2007; GHD, 2009b). A baseline turtle foraging and nesting study identified the Abbot Point area as being foraging habitat for Green and Loggerhead turtles and a low density nesting habitat for Flatback and Green turtles (Bell, 2003). Areas of seagrass within the Port Limits do provide foraging habitat for Green, Hawksbill and Flatback turtles and the area is considered to be a high priority area for Green Turtles within the GBRMP, however the habitat is low density and patchy in nature (Dobbs, 2007). These reports have each concluded that Abbot Point provides for low density foraging and nesting for marine turtles and each of the populations present in the Abbot Point area are well-represented in other regions through the GBRWHA (GHD, 2009b). The area is not considered to support a critical population or represent critical habitat for any of the turtle species known to occur (ELA, 2013).

The proposed action area is within the intertidal and inshore environs of the existing MOF. As described below, limited seagrass habitat is present within this area and as such few foraging marine turtles would be expected to present.

Seagrass

Seagrass was determined to be relevant to one of the listing criteria: diversity of seagrass (criterion 10); and plant species diversity and endemism (criterion 10).

Baseline monitoring of seagrass has occurred at Abbot Point since 2008 (see Attachment 3 and 4). Seagrass has been found to be highly variable in the region and has in recent years been influenced by severe tropical cyclones (McKenna and Rasheed, 2014). Surveys have concluded that an extensive coverage of seagrass (up to 42%) exists within the Ports Limits but is highly variable across seasons and generally comprises low biomass meadows when compared with other coastal regions within Queensland (Rasheed et al. 2008). The seagrass coverage is generally associated with larger areas of offshore meadows, and smaller inshore meadows.

Seagrass is not mapped as occurring within the immediate vicinity of the proposed action area, although it has previously been mapped in the inshore areas to the south and also to the north west of the Abbot Point headland (see McKenna and Rasheed, 2014 and Attachment 4).

Nature and extent of likely impact

[Address any impacts on the World Heritage values of any World Heritage property.](#)

The proposed action will occur partially within and adjacent to the GBRWHA. The following describes the proposed action and the potential for impact relevant to each of the WHA criteria.

Aesthetics

The proposed action will occur within the existing footprint of the Port of Abbot Point and comprises the maintenance and upgrade of existing infrastructure. Given the proposed action does not propose to materially change or increase the intensity of the existing use and given the aesthetics of Abbot Point have previously been identified as dominated by industrial development (Cardno Chenoweth, 2012) it is not considered that the proposed action will have a significant impact on this attribute of the WHA.

Birds

The proposed action will occur within the existing footprint of the Port of Abbot Point and comprises the maintenance and upgrade of existing infrastructure. The significance of Abbot Point to threatened and migratory birds which contribute to the world heritage values is associated with the Caley Valley Wetland which is not proximal to the proposed action area, located 4 km south west of the proposed action and separated by the Abbot Point Coal Terminal 1.

The proposed action does not propose to materially change or increase the intensity of the existing use and construction activities are expected to be short term and temporary.

Given these factors it is considered highly unlikely that the proposed action will have a significant impact on this attribute of the WHA.

Marine mammals

The proposed action will occur within the onshore and intertidal extent of the existing Abbot Point MOF.

Underwater noise will be generated by pile driving associated with the replacement of the sheet pile wall, however this will be very intermittent and limited to a period of approximately 3-4 weeks.

Previous studies, of significantly more intensive piling than that proposed, have indicated that while some avoidance of areas of works may occur, it is considered unlikely that marine mammals within the waters near Abbot Point would be unduly affected by the proposed activities (Connell Hatch, 2006).

Given the temporary and minor nature of works associated with the proposed action it is considered very unlikely that the proposed action will have a significant impact on this attribute of the WHA.

Corals

The proposed action area is located within an area of low density benthic cover. The proposed action will occur within the inshore and intertidal area of the existing Abbot Point MOF with no direct impact to the immediately surrounding seabed.

The proposed action includes the replacement of the existing sheet pile wall located within the Abbot Point MOF. This may result in a small amount of turbidity being generated, however given the location of the works within the confines of the existing breakwater it is not expected that turbidity would extend beyond the MOF.

Given the low density of benthic cover within the immediate area of the proposed action and the minor nature of the works it is considered highly unlikely that the proposed action will have a significant impact on this attribute of the WHA.

Marine turtles

The proposed action will occur within the inshore and intertidal area of the existing Abbot Point MOF, an area which does not represent habitat for marine turtles. As noted above the replacement of the sheet pile wall can be expected to generate localised turbidity, however this would not impact upon areas of seagrass habitat located within the broader region. Nesting beaches known to be utilised by green turtles are located immediately south of the proposed action area. These will not be directly impacted by the works. Nesting on these beaches to the south of the MOF, currently occurs adjacent to the activities at the Abbot Point Coal Terminal 1 and the proposed maintenance and renewal of the MOF is not expected to contribute to an increase in these impacts.

Given the lack of habitat for marine turtles within the immediate vicinity of the proposed action and temporary and minor nature of works it is considered highly unlikely that the proposed action will have a significant impact on this attribute of the WHA.

Seagrass

The proposed action will occur within the inshore and intertidal area of the existing Abbot Point MOF with no direct impact to the immediately surrounding seabed. There are no areas of seagrass located within the immediate vicinity of the proposed action, with the nearest areas being to the south and north west.

The proposed action will occur within the intertidal area of the existing Abbot Point MOF with limited impact to the immediately surrounding seabed. As noted above the replacement of the sheet pile wall can be expected to generate localised turbidity, however this would not impact upon areas of seagrass located within the broader region.

Given that no areas of seagrass are located within the immediate vicinity of the proposed action and temporary and minor nature of works it is considered highly unlikely that the proposed action will have a significant impact on this attribute of the WHA.

Integrity

The proposed action comprises maintenance and upgrade of existing infrastructure however is not considered to materially change or increase the intensity of the existing use of this facility. Given this facility has been in operation since the 1980's and the proposed action is minor in nature. Given the minor nature of the action it is considered highly unlikely for the integrity of the GBRWHA as a whole to be impacted by the proposed action.

Based on the above consideration of the attributes of World Heritage Values relevant to the proposed action area it is considered very unlikely that the proposed action will:

- cause one or more of the attributes to be lost
- cause one or more of the attributes to be degraded or damaged
- cause one or more of the attributes to be notably altered, modified, obscured or diminished, or
- impact on the integrity of the property.

3.1 (b) National Heritage Places

Description

The National Heritage listing for the GBR identifies values as follows:

Criterion A Events, Processes: This place is taken to meet this National Heritage criterion in accordance with subitem 1A(3) of Schedule 3 of the *Environment and Heritage Legislation Amendment Act (No.1)* 2003, as the World Heritage Committee has determined that this place meets World Heritage criteria (7), (8), (9) and (10).

Criterion B Rarity: This place is taken to meet this National Heritage criterion in accordance with subitem 1A(3) of Schedule 3 of the *Environment and Heritage Legislation Amendment Act (No.1)* 2003, as the World Heritage Committee has determined that this place meets World Heritage criteria (10).

Criterion C Research: This place is taken to meet this National Heritage criterion in accordance with subitem 1A(3) of Schedule 3 of the *Environment and Heritage Legislation Amendment Act (No.1)* 2003, as the World Heritage Committee has determined that this place meets World Heritage criteria (8), (9) and (10).

Criterion D Principal characteristics of a class of places: This place is taken to meet this National Heritage criterion in accordance with subitem 1A(3) of Schedule 3 of the *Environment and Heritage Legislation Amendment Act (No.1)* 2003, as the World Heritage Committee has determined that this place meets World Heritage criteria (8), (9) and (10).

Criterion E Aesthetic characteristics: This place is taken to meet this National Heritage criterion in accordance with subitem 1A(3) of Schedule 3 of the *Environment and Heritage Legislation Amendment Act (No.1)* 2003, as the World Heritage Committee has determined that this place meets World Heritage criteria (7).

Given that the National Heritage Values directly reference the World Heritage criterion the description of the attributes relevant to each of the those criterion identified in Section 3.1 (a) are considered to reflect the National Heritage values.

No other National Heritage Places are listed as occurring within the vicinity of the proposed action.

Nature and extent of likely impact

[Address any impacts on the National Heritage values of any National Heritage place.](#)

The nature and extent of potential impacts is as described for the World Heritage Values in Section 3.1 (a). Based on that assessment it is considered unlikely that the proposed action will have a significant impact on National Heritage Values of the GBR.

3.1 (c) Wetlands of International Importance (declared Ramsar wetlands)

Description

No wetlands of international importance are identified as occurring within the vicinity of the proposed action.

Nature and extent of likely impact

[Address any impacts on the ecological character of any Ramsar wetlands.](#)

Not applicable.

3.1 (d) Listed threatened species and ecological communities

Description

The Protected Matters Search Tool (reported 30 March 2015) (see Attachment 4) identified a total of 22 threatened species and one threatened ecological community as occurring or potentially occurring within the vicinity of the proposed action, including:

- Six birds
- Five mammals
- Eight reptiles
- Three sharks
- Semi-evergreen vine thicket of the Brigalow Belt and Nandewar Bioregions

The following table provides an assessment of the likelihood of occurrence of these species within the vicinity of the proposed action. This assessment is based on a number of previous studies conducted at Abbot Point. The likelihood of occurrence is defined as follows:

- Known to occur: the species has been observed within the proposed action area
- Likely to occur: the species is known from the broader region and suitable habitat exists within the proposed action area
- May occur: the species is known to occur within the broader region, however no suitable habitat for the species occurs within the proposed action area
- Unlikely to occur: no suitable habitat is present within the proposed action area
- Does not occur: field survey has verified not presence of the species

Species	EPBC Status	Likelihood of occurrence
<i>Birds</i>		
Red Goshawk <i>Erythrotriorchis radiates</i>	Vulnerable	The Red Goshawk has a large home range spanning between 50 and 220 km ² . The species is commonly found inhabiting mixed vegetation types including tall open forest, woodland, lightly treed savannah and the edge of rainforest. Nests are in tall trees within one km of and often beside, permanent water (river, swamp, pool), usually in fairly open, biologically rich forest or woodland (DoE, 2016). This species may overfly the region however no suitable habitat for the species exists with the proposed action area. The species is considered unlikely to occur .
White-bellied Storm-petrel <i>Fregetta grallaria grallaria</i>	Vulnerable	The White-bellied Storm-petrel occurs across sub-tropical and tropical waters in the Tasman Sea, Coral Sea and, possibly, the central Pacific Ocean. It forages over near-shore waters along the continental and breeds in offshore islets (DoE, 2016). This species may overfly the region however no suitable habitat for the species exists with the proposed action area. The species is considered unlikely to occur .
Star Finch (eastern, southern) <i>Neochemia ruficauda ruficauda</i>	Endangered	The Star Finch occurs mainly in grassland and grassy woodlands that are located close to bodies of fresh water. No confirmed sightings of this sub-species have been made since 1995 despite systematic searches (DoE, 2016). No records exist for the species occurring within the region. No suitable habitat exists within the proposed action area. The species is considered unlikely to occur .
Black-throated Finch (souther) <i>Poephila cincta cincta</i>	Endangered	The Black-throated Finch (southern) occurs mainly in grassy, open woodlands and forests, typically dominated by <i>Eucalyptus</i> , <i>Corymbia</i> and <i>Melaleuca</i> , and occasionally in tussock grasslands or other habitats (for example freshwater wetlands), often along or near watercourses, or in the vicinity of water (DoE, 2016). This species has previously been

		<p>recorded within the broader region, but no records exist for the species within the proposed action area. No suitable habitat exists within the proposed action area.</p> <p>The species is considered unlikely to occur.</p>
Australian Painted Snipe <i>Rostratula australis</i>	Endangered	<p>The Australian Painted Snipe is generally found in either permanent or temporary shallow inland wetlands, generally freshwater although brackish wetlands are also utilised. It nests on the ground among tall reed-like vegetation near water, and feeds near the water's edge on mudflats, taking invertebrates, such as insects and worms and seeds (DoE, 2016). This species has been recorded as occurring within the Caley Valley Wetlands approximately 4 km south west of the proposed action area (GHD, 2009a; BAAM, 2012); however no suitable habitat exists within the proposed action area.</p> <p>The species is considered unlikely to occur.</p>
Masked Owl (northern) <i>Tyto novahollandiae kimberli</i>	Vulnerable	<p>The Masked Owl has been recorded from riparian forest, rainforest, open forest, <i>Melaleuca</i> swamps and the edges of mangroves, as well as along the margins of sugar cane fields (DoE, 2016). The species has not been recorded south of Townsville. No suitable habitat occurs within the proposed action area.</p> <p>The species is considered unlikely to occur.</p>
Mammals		
Blue Whale <i>Balaenoptera musculus</i>	Endangered	<p>Blue whale sightings in Australian waters are widespread, and it is likely that the whales occur around the continent at various times of the year. However, much of the Australian continental shelf and coastal waters have no particular significance to the whales and are used only for migration and opportunistic feeding.</p> <p>The only known areas of significance to the blue whale are feeding areas around the southern continental shelf, notably the Perth Canyon, in Western Australia, and the Bonney Upwelling and adjacent upwelling areas of South Australia and Victoria (DoE, 2016).</p> <p>The species is considered unlikely to occur.</p>
Northern Quoll <i>Dasyurus hallucatus</i>	Endangered	<p>The Northern Quoll occupies a diversity of habitats across its range which includes rocky areas, eucalypt forest and woodlands, rainforests, sandy lowlands and beaches, shrubland, grasslands and desert. Northern Quoll are also known to occupy non rocky lowland habitats such as beach scrub communities in central Queensland (DoE, 2016).</p> <p>This species has been recorded within the broader region and some areas of suitable habitat exist within the vicinity of the proposed action area (ELA, 2013).</p> <p>The species is considered likely to occur.</p>
Humpback Whale <i>Megaptera novaeangliae</i>	Vulnerable	<p>The Humpback Whale is known to occur throughout the GBRMP during annual migration and calving in the northern limits (DoE, 2016). The species has previously been observed within Port Limits, but generally in offshore areas and it is unlikely to enter the inshore area of the proposed action (GHD, 2009b).</p> <p>The species may occur.</p>
Koala <i>Phascolarctos cinerus</i>	Vulnerable	<p>The Koala's habitat can be broadly defined as any forest or woodland containing species that are known koala food trees, or shrubland with emergent food trees (DoE, 2016). A single</p>

		<p>records exists of a koala within Abbot Point, this was associated with a single individual being found on a coal train. Previous surveys have not identified other activity associated with the presence of the species within the region. No suitable habitat exists within the proposed action area.</p> <p>The species is considered unlikely to occur.</p>
Water Mouse, False Water Rat, Yirrkoo <i>Xeromys myoides</i>	Vulnerable	<p>The water mouse is occurs south of Bowen. Suitable habitat includes mangroves and the associated saltmarsh, sedgelands, clay pans, heathlands and freshwater wetlands. Surveys of suitable habitat within the Caley Valley Wetland failed to find evidence of the Water Mouse (ELA, 2013).</p> <p>No suitable habitat exists within the proposed action area.</p> <p>The species is considered unlikely to occur.</p>
Reptiles		
Loggerhead Turtle <i>Caretta caretta</i>	Endangered	<p>The Loggerhead Turtle occurs in the waters of coral and rocky reefs, seagrass beds and muddy bays throughout eastern, northern and western Australia (DoE, 2016).</p> <p>This species has been observed foraging and mating within Port Limits however, no suitable foraging habitat occurs within the immediate area of the proposed action (GHD, 2009b).</p> <p>The species may occur.</p>
Green Turtle <i>Chelonia mydas</i>	Vulnerable	<p>Green Turtles nest, forage and migrate across tropical northern Australia (DoE, 2016). This species has been observed foraging and mating within Port Limits, however, no suitable foraging habitat occurs within the immediate area of the proposed action (GHD, 2009b). Nesting sites have been recorded south of the proposed action area (GHD, 2009b).</p> <p>The species may occur.</p>
Ornamental Snake <i>Denisonia maculata</i>	Vulnerable	<p>The Ornamental Snake's preferred habitat is within, or close to, habitat that is favoured by its prey - frogs. The species is known to prefer woodlands and open forests associated with moist areas, particularly gilgai (melon-hole) mounds and depressions in Queensland Regional Ecosystem Land Zone 4, but also lake margins and wetlands (DoE, 2016). Suitable habitat for this species is not present within the proposed action area.</p> <p>The species is considered unlikely to occur.</p>
Leatherback Turtle <i>Dermochelys coriacea</i>	Endangered	<p>The Leatherback Turtle is a pelagic feeder, found in tropical, subtropical and temperate waters throughout the world. No major nesting has been recorded in Australia (DoE, 2016n). This species has not previously been observed within the Port Limits.</p> <p>The species is considered unlikely to occur.</p>
Yakka Skink <i>Egernia rugosa</i>	Vulnerable	<p>The Yakka Skink is known to occur in open dry sclerophyll forest, woodland and scrub with the core habitat of this species being within the Mulga Lands and Brigalow Belt South Bioregions (DoE, 2016). Diurnal reptile surveys in the Abbot Point region have not detected the species (CDM Smith, 2013). Suitable habitat for this species is not present within the proposed action area.</p> <p>The species is considered unlikely to occur.</p>
Hawksbill Turtle <i>Eretmochelys imbricata</i>	Vulnerable	<p>The Hawksbill Turtle are known to occur throughout the GBRMP, however no major nesting areas are within the vicinity of the Port (DoE, 2016). Adult Hawksbill Turtles</p>

		<p>forage in tropical tidal and sub-tidal coral and rocky reef habitat (DoE, 2016). This species has been observed foraging within Port Limits however, no suitable foraging habitat occurs within the immediate area of the proposed action (GHD, 2009b).</p> <p>The species may occur.</p>
Olive Ridley Turtle <i>Lepidochelys olivacea</i>	Endangered	<p>Olive Ridley Turtles are known to occur throughout the GBRMP, although no concentrated nesting is known (DoE, 2016). The species forages over shallow benthic habitat ranging from several metres to over 100 m (DoE, 2016).</p> <p>This species has been observed foraging within Port Limits however, no suitable foraging habitat occurs within the immediate area of the proposed action (GHD, 2009b).</p> <p>The species may occur.</p>
Flatback Turtle <i>Natator depressus</i>	Vulnerable	<p>Flatback Turtles are known to occur throughout the GBRMP. Nesting sites for this species have been recorded south of the proposed action area (GHD, 2009b). However these nesting areas are considered aperiodic and not recorded as being of importance (Dobbs, 2007).</p> <p>The species may occur.</p>
Sharks		
Great White Shark <i>Carcharodon carcharias</i>	Vulnerable	<p>Great White Sharks can be found from close inshore around rocky reefs, surf beaches and shallow coastal bays to outer continental shelf and slope areas, the northern most record of the Great White Shark is Mackay (DoE, 2016).</p> <p>The species is considered unlikely to occur.</p>
Green Sawfish <i>Pristis zijsron</i>	Vulnerable	<p>Records indicate that the Green Sawfish occurred along the east coast of Queensland and NSW prior to the 1960s, however, after this period there have been no reports of this species south of Cairns (DoE, 2016).</p> <p>The species is considered unlikely to occur.</p>
Whale Shark <i>Rhincodon typus</i>	Vulnerable	<p>The Whale Shark is an oceanic and coastal, tropical to warm-temperate pelagic shark. It is often seen far offshore, but also comes close inshore and sometimes enters lagoons of coral atolls (DoE, 2016). The species has not been recorded in the Port Limits.</p> <p>The species is considered unlikely to occur.</p>
TEC		
Semi-evergreen vine thicket	Endangered	<p>Semi-evergreen vine thicket (SEVT) occurs within the broader region however ground truthing of vegetation within the immediate area of the proposed action confirms it is not present within the proposed footprint (Advisian, 2015).</p> <p>The TEC does not occur in the proposed action area.</p>

Nature and extent of likely impact

Address any impacts on the members of any listed threatened species (except a conservation dependent species) or any threatened ecological community, or their habitat.

The proposed action area represents a currently developed area within the intertidal zone. The following threatened species are known, likely or may occur within the vicinity of the proposed action area, the potential impacts of the proposed action are discussed following.

Two mammals:

- Northern Quoll

- Humpback whale

Five reptiles:

- Loggerhead Turtle
- Green Turtle
- Hawksbill Turtle
- Olive Ridley Turtle
- Flatback Turtle

In determining if the proposed action is likely to have a significant impact to a threatened species known or likely to occur within the proposed action area an assessment has been made having regard to the Matters of National Environmental Significance: Significant Impact Guidelines 1.1 (DEWHA, 2009).

Mammals

Northern Quoll

The Northern Quoll has not been observed within the immediate region of the proposed action area. The nearest records are approximately 40 km north in the Cape Upstart National Park (ELA, 2013). As such no population is present within the proposed action area and Abbot Point is not considered to represent critical habitat for the species (ELA, 2013).

Current threats to the species include:

- Lethal toxic ingestion caused by cane toads
- Removal, degradation and fragmentation of habitat
- Inappropriate fire regimes
- Weeds and feral predators
- Parasitism (DoE, 2016h).

The proposed action will not contribute to the known threats to the species. No vegetation clearing is proposed as part of the action.

The proposed action is considered unlikely to have a significant impact to the Northern Quoll.

Humpback Whale

The Humpback Whale has been observed transiting the Port Limits while migrating to and from their breeding grounds within other areas of the GBR. GHD (2009b) recorded 14 individuals in the port area during marine fauna surveys in 2009, however, these numbers are considered to be very low when considering the population estimate for the east coast population in 2010 was approximately 15,000 (Noad et al. 2011).

Based on the available information, it is considered unlikely that Abbot Point supports an important Humpback Whale population or habitat critical to the survival of Humpback Whales (ELA, 2013, GHD, 2009b)). While Abbot Point is located towards the northern extent of the aggregation area identified in the Whitsunday region (DEH 2005), these areas have been mapped to provide a broad indication of the extent of aggregation areas and the information available for Abbot Point is not suggestive of a significant or important aggregation area.

Current threats to the species include:

- acoustic pollution (e.g. commercial and recreational vessel noise, and seismic survey activity)
- entanglement (e.g. in marine debris, fishing and aquaculture equipment)
- physical injury and death from ship strike
- built structures that impact upon habitat availability and/or use (e.g. marinas, wharves, aquaculture installations, mining or drilling infrastructure)
- changing water quality and pollution (e.g. runoff from land based agriculture, oil spills, outputs from aquaculture)
- changes to water flow regimes causing extensive sedimentation or erosion or altered currents in

near shore habitat (e.g. canals and dredging) (DoE, 2016).

The proposed action will include a small amount of underwater noise associated with the driving of the sheet pile wall and other piles, however this will be very intermittent and limited to a period of approximately 3-4 weeks. One of the most commonly observed behavioural responses to noise is displacement (Richardson et al. 1995; National Research Council 2005). Previous studies, of significantly more intensive piling activities, than that proposed, have also indicated that while some avoidance of areas of piling may occur, it is considered unlikely that marine mammals migrating through water near Abbot Point would be unduly affected by pile driving activities (Connell Hatch, 2006). The proposed action will not contribute to other known threats. Other activities associated with the proposed action are not considered likely to impact upon the Humpback Whale.

The proposed action is considered unlikely to have a significant impact to the Humpback Whale.

Marine Turtles

Five of the six threatened marine turtle species have previously been observed within the Abbot Point Port Limits, the Loggerhead, Green, Hawksbill, Olive Ridley and Flatback turtles. A combined assessment of these species is presented here. Species of marine turtle that have been recorded foraging and nesting at Abbot Point have been observed in low densities and are populations that are well-represented in other regional areas (GHD, 2009b). A baseline turtle foraging and nesting study identified the Abbot Point area as being a low density nesting habitat for Flatback and Green turtles and foraging habitat for Green and Loggerhead turtles (Bell, 2003). Areas of seagrass within the Port Limits do provide foraging habitat for Green, Hawksbill and Flatback turtles and the area is considered to be a high priority area for Green Turtles within the GBRMP, however the habitat is low density and patchy in nature and not proximal to the proposed action area (Dobbs, 2007). The area is not considered to support a critical population or represent critical habitat for any of the turtle species known to occur (ELA, 2013).

Current threats to the species include:

- Commercial fishing
- Indigenous harvest
- Animal predation
- Coastal infrastructure and development
- Seismic survey
- Climate change and extreme events

With respect to the proposed action, the relevant threat for consideration is that of coastal infrastructure and development, specifically the potential for loss of habitat. Whilst associated with the development of coastal infrastructure, the proposed action comprises maintenance and upgrade of existing infrastructure and is not considered to materially change or increase the intensity of the existing use of this facility. The action is therefore not expected to contribute to an increase in this threat.

There are no areas of seagrass habitat within the immediate vicinity of the proposed action area (McKenna and Rasheed 2014) and no disturbance is proposed in areas of nesting located to the south of the proposed action.

The proposed action is considered unlikely to have a significant impact to marine turtles.

3.1 (e) Listed migratory species

Description

The Protected Matters Search Tool (reported 30 March 2015) (see Attachment 4) identified a total of 34 listed migratory species as occurring or potentially occurring within the vicinity of the proposed action, including:

- Two migratory marine birds
- 20 migratory marine species
- Seven migratory terrestrial species
- Five migratory wetland species

The following table provides an assessment of the likelihood of occurrence of these species within the vicinity of the proposed action. This assessment is based on a number of previous studies conducted at Abbot Point. The likelihood of occurrence is defined as follows:

- Known to occur: the species has been observed within the proposed action area
- Likely to occur: the species is known from the broader region and suitable habitat exists within the proposed action area
- May occur: the species is known to occur within the broader region, however no suitable habitat for the species occurs within the proposed action area or suitable habitat is present but the species has not been recorded in the region
- Unlikely to occur: no suitable habitat is present within the proposed action area
- Does not occur: field survey has verified not presence of the species

Note that those species discussed in section 3.1(d) as listed threatened species are not discussed herein.

Species	EPBC Status	Likelihood of occurrence
Migratory marine birds		
Fork-tailed Swift <i>Apus pacificus</i>	Migratory	The Fork-tailed Swift is almost exclusively aerial, flying from less than 1 m to at least 300 m above ground and probably much higher. In Australia, they mostly occur over inland plains but sometimes above foothills or in coastal areas. This species has not been recorded at Abbot Point. The species is considered unlikely to occur .
Little Tern <i>Sterna albifrons</i>	Migratory	Little Terns inhabit sheltered coastal environments, including lagoons, estuaries, river mouths and deltas, lakes, bays, harbours and inlets, especially those with exposed sandbanks or sand-spits, and also on exposed ocean beaches. This species has previously been recorded within the Caley valley Wetland (GHD, 2009a; BAAM, 2012) however; habitat specific to the species is not present within the proposed action area. The species may occur .
Migratory marine species		
Bryde's Whale <i>Balaenoptera edeni</i>	Migratory	The Bryde's Whale is a deep water pelagic species (DoE, 2016). The species has not been observed within the broader region and no suitable habitat existing within the proposed action area. The species is unlikely to occur .
Saltwater Crocodile <i>Crocodylus porosus</i>	Migratory	In Queensland, saltwater crocodiles are usually restricted to coastal waterways and floodplain wetlands (DoE, 2016). The species has not previously been recorded within Abbot Point. The species is unlikely to occur .
Dugong <i>Dugong dugon</i>	Migratory	Dugong occur throughout much of the GBRMP where seagrass habitat is available. The species has been observed foraging within the Port Limits (GHD, 2009b). However, no habitat suitable for the species is present within the proposed action area (McKenna and Rasheed, 2014). The species may occur .
Porbeagle, Mackerel Shark <i>Lamna nasus</i>	Migratory	The Mackerel Shark primarily inhabits oceanic waters and areas around the edge of the continental shelf. They

		occasionally move into coastal waters, but these movements are temporary (DoE, 2016). The species is unlikely to occur .
Reef Manta Ray <i>Manta alfredi</i>	Migratory	Reef Manta Rays are widespread throughout the GBRMP and move across a range of habitats. The species has not been observed within the broader region. Potentially suitable habitat is within the vicinity of the proposed action area. The species is considered likely to occur .
Giant Manta Ray <i>Manta birostris</i>	Migratory	Manta Rays are widespread throughout the GBRMP and move across a range of habitats. The species has been observed within the Port Limits (GHD, 2009b). The species is known to occur .
Irrawaddy dolphin, Snubfin Dolphin <i>Orcaella brevirostris</i> , <i>Orcaella heinsohni</i>	Migratory	Snubfin Dolphins have been recorded almost exclusively in coastal and estuarine waters. The species has been observed within the Port Limits (GHD, 2009b). The species is known to occur .
Killer Whale <i>Orcinus orca</i>	Migratory	The species has not been observed within the broader region of Abbot Point. The species is unlikely to occur .
Indo-Pacific Humpback Dolphin <i>Sousa chinensis</i>	Migratory	Indo-Pacific Humpback Dolphins inhabit shallow coastal, estuarine, and occasionally riverine habitats, in tropical and subtropical regions. The species has been observed within the Port Limits (GHD, 2009b). The species is known to occur .
Migratory terrestrial species		
Oriental Cuckoo <i>Cuculus optatus</i>	Migratory	The species has previously been recorded as occurring within the Caley Valley Wetland (BAAM, 2012). However, habitat for the species is not present within the proposed action area. The species may occur .
White-throated Needletail <i>Hirundapus caudacutus</i>	Migratory	The White-throated Needletail is an almost exclusively aerial species (DoE, 2016). The species has not previously been recorded within the Abbot Point region, however it may overfly the area. The species may occur .
Rainbow Bee-eater <i>Merops ornatus</i>	Migratory	The Rainbow Bee-eater occurs mainly in open forests and woodlands, shrublands, and in various cleared or semi-cleared habitats (DoE, 2016). The species has previously been recorded as occurring within the Abbot Point region (GHD, 2009a; BAAM, 2012). However, habitat for the species is not present within the proposed action area. The species may occur .
Black-faced Monarch <i>Monarcha melanopsis</i>	Migratory	The Black-faced Monarch occurs across a range of habitats including vine-thickets and shrubland. The species has been recorded within the Abbot Point region (Ecoserve, 2007). However limited suitable habitat is within the vicinity of the proposed action area. The species is considered likely to occur .
Spectacled Monarch <i>Monarcha trivirgatus</i>	Migratory	The Spectacled Monarch inhabits rainforest and mangrove areas. The species has not previously been recorded within the Abbot Point region. Suitable habitat is not present within the proposed action area. The species is unlikely to occur .

Satin Flycatcher <i>Myiagra cyanoleuca</i>	Migratory	The Satin Flycatchers mainly inhabits eucalypt forests, often near wetlands or watercourses (DoE, 2016). The species has been recorded within the Abbot Point region; however, habitat for the species is not present within the proposed action area (Ecoserve, 2007). The species may occur .
Rufous Fantail <i>Rhipidura rufifrons</i>	Migratory	The Rufous Fantail mainly inhabits wet sclerophyll forests (DoE, 2016). The species has been recorded within the Abbot Point region; however, habitat for the species is not present within the proposed action area (GHD, 2009a). The species may occur .
Migratory wetlands species		
Great Egret <i>Ardea alba</i>	Migratory	The Great Egret has been reported in a wide range of wetland habitats (DoE, 2016). This species has been recorded within the freshwater area of Caley Valley Wetland (GHD, 2009a; BAAM, 2012). However, suitable habitat does not exist within the proposed action area. The species may occur .
Cattle Egret <i>Ardea ibis</i>	Migratory	The Cattle Egret occurs in tropical and temperate grasslands, wooded lands and terrestrial wetlands (DoE, 2016). This species has been recorded within the freshwater area of Caley Valley Wetland (GHD, 2009a; BAAM, 2012). However suitable habitat does not exist within the proposed action area. The species may occur .
Latham's Snipe <i>Gallinago hardwickii</i>	Migratory	The Latham's Snipe occurs in permanent and ephemeral wetlands (DoE, 2016). This species has been recorded within the freshwater area of Caley Valley Wetland (GHD, 2009a; BAAM, 2012). However suitable habitat does not exist within the proposed action area. The species may occur .
Bar-tailed Godwit <i>Limosa lapponica</i>	Migratory	The Bar-tailed Godwit is found mainly in coastal habitats such as large intertidal sandflats, banks, mudflats, estuaries, inlets, harbours, coastal lagoons and bays. It is found often around beds of seagrass and, sometimes, in nearby saltmarsh (DoE, 2016). This species has not previously been recorded within the broader region, but suitable habitat may exist within the immediate vicinity of the proposed action area. The species may occur .
Eastern Osprey <i>Pandion haliaetus</i>	Migratory	Eastern Ospreys occur in littoral and coastal habitats and terrestrial wetlands of tropical and temperate (DoE, 2016). This species has been recorded within the Caley Valley Wetland (GHD, 2009a; BAAM, 2012). However suitable habitat does not exist within the proposed action area. The species may occur .

Nature and extent of likely impact

[Address any impacts on the members of any listed migratory species, or their habitat.](#)

The proposed action area represents a currently developed area within the intertidal zone. The following migratory species are known, likely or may occur within the vicinity of the proposed action area, the potential impacts of the proposed action are discussed following. Note that those species also listed as threatened are discussed in Section 3.1 (d) herein.

One migratory marine bird:

- Little Tern

Five migratory marine species:

- Dugong
- Reef Manta Ray
- Giant Manta Ray
- Irrawaddy, Snubfin Dolphin
- Indo-Pacific Dolphin

Six migratory terrestrial species:

- Oriental Cuckoo
- White-throated Needletail
- Rainbow Bee-eater
- Black-faced Monarch
- Satin Flycatcher
- Rufous Fantail

Five migratory wetland species:

- Great Egret
- Cattle Egret
- Latham's Snipe
- Bar-tailed Godwit
- Eastern Osprey

In determining if the proposed action is likely to have a significant impact to a threatened species known or likely to occur within the proposed action area an assessment has been made having regard to the Matters of National Environmental Significance: Significant Impact Guidelines 1.1 (DEWHA, 2009); the Referral Guideline for 14 Birds listed as Migratory Species under the EPBC Act (DoE, 2015b).

Migratory marine birds

The Little Tern occurs within the Caley Valley Wetland and also potentially along the coastal beaches of Abbot Point (BAAM, 2012). The proposed action area is within existing coastal infrastructure and is therefore unlikely to provide habitat for the species.

Presence of important habitat or an ecologically significant proportion of the species is considered unlikely as less than 1% of the known Australian population is present at Abbot Point (ELA, 2013). Threats to the species include breeding failure and loss or degradation to habitat.

The proposed action is considered unlikely to have a significant impact to the Little Tern.

Migratory marine species

Dugong

The dugong is a marine mammal that has its population stronghold within Australian waters. This species is heavily dependent on seagrass for subsistence and is thus restricted to the coastal habitats where they grow. Dugong concentrations typically occurring in wide, shallow, protected areas such as bays, mangrove channels and the lee sides of large inshore islands. Abbot Point is located between two DPAs, namely 'Dugong Sanctuary A' at Upstart Bay (44 km north-west of Abbot Point) and 'Dugong Sanctuary B' at Edgecumbe Bay (35 km south-east of Abbot Point). Both areas are well distanced from the proposed action area.

Current threats to the species include:

- Habitat degradation, including coastal development, port expansion and aquaculture
- Pollution
- Entanglement and incidental bycatch in fisheries gear
- Entanglement in shark netting
- Indigenous hunting
- Vessel strike

- Anthropogenic noise and acoustic disturbance
- Climate variability and change

With respect to the proposed action, the relevant threats for consideration are that of habitat degradation; vessel strike; and anthropogenic noise. The proposed action will occur within the intertidal area of the existing Abbot Point MOF with limited impact to the immediately surrounding habitat. The replacement of the sheet pile wall can be expected to generate localised turbidity, however this would not impact upon areas of seagrass habitat located within the broader region.

The proposed action will occur largely within the confines of the existing MOF, using stationary and slow moving vessels, as such it is very unlikely that vessel strike would occur. Management measures limiting vessel speeds will be implemented to minimise this potential impact during construction.

The proposed action has the potential to marginally increase the number of local vessel movements with transfers from moored tug vessels to the Abbot Point MOF, however this is balanced by a reduction in transit of these vessels from Bowen to the Port.

The proposed action will include a small amount of underwater noise associated with the driving of the sheet pile wall however this will be very intermittent and limited to a period of approximately 3-4 weeks. Previous studies, of significantly more intensive piling activities, than that proposed, have also indicated that while some avoidance of areas of piling may occur, the zone of influence was very small and physiological impacts to marine mammals from underwater noise were considered insignificant (Connell Hatch, 2006). As such, it is considered unlikely that marine mammals within the waters near Abbot Point would be unduly affected by pile driving activities.

The proposed action is not considered likely to result in or 'lead to the long term decrease in the size of a population'. The Abbot Point area is not recognised as unique or critical habitat for the population of dugong and these species are also observed to co-existence within the operating port environment. Therefore the project will not 'reduce the area of occupancy of the species'. As such the proposed action is considered very unlikely to have a significant impact to dugongs.

Inshore dolphins

Both the Snubfin and Indo-Pacific dolphins are recorded as occurring within the Abbot Point Port Limits and are known to occur in inshore areas along the extent of the northern east coast of Queensland. The species observed are known to exhibit patterns of migration and remigration suggesting their utilisation of the area is transitory. These species are also observed to coexist within the existing operating port environment. Inshore dolphin populations are not restricted to the immediate area of the proposed action for their habitat requirements and species observed within the development area were found to utilise the extent of the port limits (GHD, 2009b). The population within the region is not considered to represent a significant population nor does the require represent unique or critical habitat known to be of preference to these species.

Current threats to the species include:

- Habitat destruction and degradation
- Incidental capture in nets
- Competition with fisheries
- Pollution of habitat
- Interaction with vessels
- Pathogens
- Slow reproductive rate

With respect to the proposed action, the relevant threats for consideration are that of habitat destruction and degradation and interaction with vessels. The proposed action relates to an existing facility within the Port of Abbot Point and is for maintenance and upgrade activities not considered to materially change or increase the intensity of the existing use of this facility and, as such will not contribute to habitat destruction and degradation.

The proposed action will occur largely within the confines of the existing MOF, as such it is very unlikely that interaction with vessels would occur. Management measures limiting vessel speeds will be implemented to minimise any potential impact. The proposed action has the potential to marginally

increase the number of local vessel movements with transfers from moored tug vessels to the Abbot Point MOF, however this is balanced by a reduction in transit of these vessels from Bowen to the Port. The proposed action is not considered likely to result in or 'lead to the long term decrease in the size of a population'. The Abbot Point area is not recognised as unique or critical habitat for the population of Snubfin or Indo-Pacific Humpback dolphins and these species are also observed to co-existence within the operating port environment. Therefore the project will not 'reduce the area of occupancy of the species'. As such the proposed action is considered very unlikely to have a significant impact to either the Snubfin or Indo-Pacific dolphin.

Migratory terrestrial species

The migratory terrestrial species which are known, likely to occur or may occur within the proposed action area include the Oriental Cuckoo, Rainbow Bee-eater, Black-faced Monarch, Satin Flycatcher and Rufous Fantail, and White-throated Needletail. Whilst each of these species has been recorded within the broader abbot Point region, predominantly within the Caley Valley Wetland the proposed action area does not represent habitat suitable for these species.

The presence of important habitat or an ecologically significant proportion of the Oriental Cuckoo, is considered highly unlikely as the proposed action area does not represent preferred breeding habitat for the species or support a sufficient population to be considered ecologically significant (ELA, 2013).

The presence of important habitat or an ecologically significant proportion of the Rainbow Bee-eater, Black-faced Monarch, Satin Flycatcher and Rufous Fantail species is considered highly unlikely as each of these species has a broad distribution across Australia and generalised habitat use and therefore habitat availability throughout the region (ELA, 2013).

The presence of important habitat or an ecologically significant proportion of the White-throated Needletail is considered highly unlikely as the proposed action area does not support breeding habitat or important feeding or roosting areas (ELA, 2013).

Whilst habitat suitable for these species occurs in the region, the proposed action will occur within an area of existing infrastructure and does not represent important habitat for any of the species. The area of the proposed action is similarly well below even the low thresholds identified within the guidelines (DoE, 2015b). As such it is highly unlikely that the proposed action will substantially modify, destroy or isolate and area of important habitat for these species, nor will it result in the introduction of an invasive species to an area of important habitat.

The proposed action is considered unlikely to have a significant impact to either the Oriental Cuckoo, Rainbow Bee-eater, Black-faced Monarch, Satin Flycatcher and Rufous Fantail or White-throated Needletail.

Migratory wetland species

The migratory wetland species previously recorded within the region, Great Egret, Cattle Egret, Latham's Snipe and Eastern Osprey, have each been recorded within the Caley Valley Wetland, located approximately 4 km southwest of the proposed action area and separated by the Abbot Point Coal Terminal 1. Previous assessments have found that the populations of Cattle Egret; Latham's Snipe and Eastern Osprey and habitat present in the Caley Valley Wetland do not represent critical populations or habitat for the species (DoE, 2015b; ELA, 2013; Advisian, 2015).

The population of the Great Egret is estimated to represent more than 1% of the population and as such is considered an ecological significant proportion of the species (ELA, 2013). However, the species presence is some 4 km south west of the proposed action area and separated by the Abbot Point Coal Terminal 1. Habitat for these species is not present within the proposed action area.

Whilst habitat suitable for these species occurs in the broader Abbot Point region, the proposed action will occur within an area of existing infrastructure and does not represent important habitat for any of the species. The area of the proposed action is similarly well below even the low thresholds for identified within the guidelines (DoE, 2015b for the Osprey). As such it is highly unlikely that the

proposed action will substantially modify, destroy or isolate and are of important habitat for these species, nor will it result in the introduction of an invasive species to an area of important habitat.

The proposed action is considered unlikely to have a significant impact to the Great Egret, Cattle Egret, Latham's Snipe and Eastern Osprey.

3.1 (f) Commonwealth marine area

(If the action is in the Commonwealth marine area, complete 3.2(c) instead. This section is for actions taken outside the Commonwealth marine area that may have impacts on that area.)

Description

The proposed action does not occur within a Commonwealth Marine area.

Nature and extent of likely impact

[Address any impacts on any part of the environment in the Commonwealth marine area.](#)

The proposed action involves activities which may generate localised temporary turbidity as part of the replacement of a sheet pile wall.

Any turbidity generated as part of the replacement of the sheet pile wall is expected to be contained within the confines of the MOF due to the influence of the existing break water and would not enter the Commonwealth Marine area.

Given the location and nature of the proposed action it is considered very unlikely that it would have a significant impact to a Commonwealth Marine area.

3.1 (g) Commonwealth land

(If the action is on Commonwealth land, complete 3.2(d) instead. This section is for actions taken outside Commonwealth land that may have impacts on that land.)

Description

[If the action will affect Commonwealth land also describe the more general environment. The Policy Statement titled *Significant Impact Guidelines 1.2 - Actions on, or impacting upon, Commonwealth land, and actions by Commonwealth agencies* provides further details on the type of information needed. If applicable, identify any potential impacts from actions taken outside the Australian jurisdiction on the environment in a Commonwealth Heritage Place overseas.](#)

No Commonwealth land is identified as occurring within the vicinity of the proposed action.

Nature and extent of likely impact

[Address any impacts on any part of the environment in the Commonwealth land. Your assessment of impacts should refer to the *Significant Impact Guidelines 1.2 - Actions on, or impacting upon, Commonwealth land, and actions by Commonwealth agencies* and specifically address impacts on:](#)

- [ecosystems and their constituent parts, including people and communities;](#)
- [natural and physical resources;](#)
- [the qualities and characteristics of locations, places and areas;](#)
- [the heritage values of places; and](#)
- [the social, economic and cultural aspects of the above things.](#)

Not applicable.

3.1 (h) The Great Barrier Reef Marine Park

Description

The GBRMP boundary is adjacent to the Port Limits of the Port of Abbot Point. The nearest point to the GBRMP boundary is approximately 2.7 km from the proposed action area.

Nature and extent of likely impact

Address any impacts on any part of the environment of the Great Barrier Reef Marine Park.

As outlined in the Significant Impact Guidelines 1.1 (DoE 2013), an action will require approval under the EPBC Act if:

- The action is taken in the GBRMP and the action has, will have, or is likely to have a significant impact on the environment, or
- The action is taken outside the GBRMP and the action has, will have, or is likely to have a significant impact on the environment in the Great Barrier Reef Marine Park.

No components of the proposed action are proposed within the Marine Park. The proposed action involves activities which may generate localised temporary turbidity through the replacement of a sheet pile wall.

Any turbidity generated as part of the replacement of the sheet pile wall is expected to be contained within the confines of the MOF due to the influence of the existing break water and would not enter the GBRMP.

Given the location and nature of the proposed action it is considered very unlikely that it would have significant impact to the GBRMP.

Note: If your action occurs in the Great Barrier Reef Marine Park you may also require permission under the *Great Barrier Reef Marine Park Act 1975* (GBRMP Act). If so, section 37AB of the GBRMP Act provides that your referral under the EPBC Act is deemed to be an application under the GBRMP Act and Regulations for necessary permissions and a single integrated process will generally apply. Further information is available at www.gbrmpa.gov.au

3.1 (i) A water resource, in relation to coal seam gas development and large coal mining development

Description

If the action is a coal seam gas development or large coal mining development that has, or is likely to have, a significant impact on water resources, the draft *Policy Statement Significant Impact Guidelines: Coal seam gas and large coal mining developments—Impacts on water resources* provides further details on the type of information needed.

The proposed action does not relate to coal seam gas or a large coal mining development.

Nature and extent of likely impact

Address any impacts on water resources. Your assessment of impacts should refer to the draft *Significant Impact Guidelines: Coal seam gas and large coal mining developments—Impacts on water resources*.

Not applicable.

3.2 Nuclear actions, actions taken by the Commonwealth (or Commonwealth agency), actions taken in a Commonwealth marine area, actions taken on Commonwealth land, or actions taken in the Great Barrier Reef Marine Park

You must describe the nature and extent of likely impacts (both direct & indirect) on the whole environment if your project:

- is a nuclear action;
- will be taken by the Commonwealth or a Commonwealth agency;
- will be taken in a Commonwealth marine area;
- will be taken on Commonwealth land; or
- will be taken in the Great Barrier Reef marine Park.

Your assessment of impacts should refer to the *Significant Impact Guidelines 1.2 - Actions on, or impacting upon, Commonwealth land, and actions by Commonwealth agencies* and specifically address impacts on:

- ecosystems and their constituent parts, including people and communities;
- natural and physical resources;
- the qualities and characteristics of locations, places and areas;
- the heritage values of places; and
- the social, economic and cultural aspects of the above things.

3.2 (a)	Is the proposed action a nuclear action?	X	No
			Yes (provide details below)

If yes, nature & extent of likely impact on the whole environment

3.2 (b)	Is the proposed action to be taken by the Commonwealth or a Commonwealth agency?	X	No
			Yes (provide details below)

If yes, nature & extent of likely impact on the whole environment

3.2 (c)	Is the proposed action to be taken in a Commonwealth marine area?	X	No
			Yes (provide details below)

If yes, nature & extent of likely impact on the whole environment (in addition to 3.1(f))

3.2 (d)	Is the proposed action to be taken on Commonwealth land?	X	No
			Yes (provide details below)

If yes, nature & extent of likely impact on the whole environment (in addition to 3.1(g))

3.2 (e)	Is the proposed action to be taken in the Great Barrier Reef Marine Park?	X	No
			Yes (provide details below)

If yes, nature & extent of likely impact on the whole environment (in addition to 3.1(h))

3.3 Other important features of the environment

Provide a description of the project area and the affected area, including information about the following features (where relevant to the project area and/or affected area, and to the extent not otherwise addressed above). If at Section 2.3 you identified any alternative locations, time frames or activities for your proposed action, you must complete each of the details below (where relevant) for each alternative identified.

3.3 (a) Flora and fauna

The proposed action area is within the intertidal zone and inshore areas of Abbot Point. As previously discussed the immediate offshore area is comprised of generally open substrate with some areas of benthic habitat and seagrass cover occurring to the south and north west of the Abbot Point headland (see Attachment 4). The adjacent foredune is largely undeveloped although has been disturbed through previous activities associated with operation of the Port.

3.3 (b) Hydrology, including water flows

Hydrodynamics

Abbot Point is subjected to semi-diurnal tides with a maximum range of 3.6 m and tidal currents up to 0.4 m/s maximum during peak spring tides and typically less than 0.3 m/s. Wind data from Bowen Airport was found to be representative of the wind climate on the coast in this region. The predominant wind is from the south-east with wind speeds up to 15 m/s.

Wave heights on the coast south of Abbot Point are rarely above 1.0m under ambient conditions and west of Abbot Point wave heights are typically less than 0.4 m and all waves are generally between 2.5 and 3.0 second wave period. However, under cyclonic conditions the maximum wave height at the outer entrance channel location was estimated to be approximately 6.0 m and the maximum significant wave height was 3.5 m. The directions from which the waves come from has a narrow focus from 30 to 90 degrees and the mean wave period is from 8 to 12 seconds.

Hydrodynamic modelling of tidal currents revealed that significant flood and ebb tide flows occur close to Abbot Point, tidal flows are generally parallel to the coastline, and tidal flows in Abbot Point south-west of Abbot Point are very small (GHD, 2009d).

Coastal processes

Coastal processes within the Abbot Point region result in a natural movement of inshore material in a northerly direction from south of the Abbot Point headland. Fine to coarse sands on the beaches and extensive areas of small boulders around the headlands and along some of the southern beaches are transported by:

- tidal currents driven by the relatively large spring tides, coupled with a mild wave climate that stirs up sediments in the shallower areas at times of low tide; and
- northerly or up-coast longshore transport of sand along the beaches in the area driven by the predominant south-easterly waves (GHD, 2009d).

Caley Valley Wetland

The Abbot Point – Caley Valley Aggregation is a 5,154 ha site that extends approximately 18 km long and 6 km wide, bounded by Mt Curlew in the west, Euri Creek in the east, Bald Hill in the north and Caley Valley homestead in the south. This site is located within the Don River Basin.

The system comprises a complex continuous wetland aggregation of subtidal and intertidal marine and estuarine wetlands. The marine wetland is mainly intertidal and limited to the western side of the system (inshore Curlew Bay) (Department of Environment, Water, Heritage and the Arts 2008). The majority of the estuarine part of the wetland system was artificially isolated from tidal influences in 1956 when the Bowen Gun Club constructed a bund across the Mt Stuart Creek near the downstream limit of the wetland (Peter Hollingsworth and Associates 1979 and 1981). An inner bund incorporating the water delivery pipeline to the Abbot Point Coal Terminal and vehicle access was

subsequently constructed across the wetland. Drainage culverts allow the passage of catchment flows through the bund (WBM Oceanics Australia 2006).

3.3 (c) Soil and vegetation characteristics

The Abbot Point headland is a defined erosion prone area under the *Coastal Protection and Management Act 1995*. The 1:100 000 Geological Map of the area indicates that the solid geology below the Abbot Point area comprises igneous basement rocks, granite and granodiorite, of the Carboniferous period. Toward the coastline, the rock is overlain by a sequence of Quaternary aged (encompassing the Holocene and Pleistocene periods) alluvial and marine sediments, which are thought to comprise interbedded sand, silt and mud.

Marine sediment

Sediment sampling and analysis, of the seabed material within the Abbot Point MOF, has been undertaken in accordance with the National Assessment Guideline for Dredging (Commonwealth of Australia, 2009) (GHD, 2015 included in Attachment 3).

Sediment within the MOF area comprises generally clean medium to coarse grained sands with a neutralising capacity to counter any acid generating potential (). Testing of the material shows the material has chemical concentrations less than all the respective guidelines (GHD, 2015).

Vegetation

See section 3.3 (e).

3.3 (d) Outstanding natural features

The proposed action is adjacent to and within the Great Barrier Reef World Heritage Area, which is designated, in part for its outstanding natural features. A discussion regarding this is provided in Section 3.1(a). No other outstanding natural features occur in proximity to the proposed action area.

3.3 (e) Remnant native vegetation

There is no remnant vegetation present within the area of the proposed action (. Remnant vegetation is mapped as occurring immediately adjacent to the proposed area of works within approximately (DEHP, 2016). This is mapped as of concern regional ecosystem 11.2.2 coastal fore dune complex. However, recent surveys have indicated that this is predominantly non-remnant vegetation (see Ecotone, 2016 in Attachment 4).

3.3 (f) Gradient (or depth range if action is to be taken in a marine area)

The top of the breakwater and causeway is approximately 1.1 m above HAT. The original seabed depth within the MOF was approximately -3.0 m LAT.

3.3 (g) Current state of the environment

[Include information about the extent of erosion, whether the area is infested with weeds or feral animals and whether the area is covered by native vegetation or crops.](#)

The proposed action relates to an existing use and infrastructure which has been in place since 1982 as part of the development of the Port of Abbot Point. The broader Abbot Point area has been disturbed by broad scale clearing relating to historic and current land use practices primarily related to agriculture and port activities. Despite the considerable modification to the landscape, natural habitats do persist and include areas of (fragmented) remnant vegetation, watercourses and wetlands.

The Port of Abbot Point is free of any introduced marine pests based on the results of the last baseline survey undertaken in the port. NQBP has an ongoing program of monitoring for marine pests at the Port which has not identified the presence of marine pests.

3.3 (h) Commonwealth Heritage Places or other places recognised as having heritage values

The Great Barrier Reef Region is listed on the Register of the National Estate (Commonwealth Heritage Place; Natural values). Potential impacts upon the Great Barrier Reef World Heritage Area are discussed in Section 3.1(a).

3.3 (i) Indigenous heritage values

There are a number of registered Aboriginal cultural heritage sites and areas within the Port of Abbot Point and the Abbot Point State Development Area. These cultural heritage sites and areas are listed on the Aboriginal Cultural Heritage Database and Register, which is established and maintained under the Aboriginal Cultural Heritage Act 2003 (Qld). They include shell middens and scatters at Dingo Beach, fish traps at Dingo Beach and at Shark Bay, shell middens and hearths at Dingo Beach and a camp on the western edge of the Caley Valley Wetlands basin. The registered Aboriginal cultural heritage sites and areas do not fall within the proposed action study area.

No specific Indigenous heritage values have been identified within the proposed action area.

Consultation will occur with traditional owners about the proposed action to identify any Indigenous heritage values that need to be considered and avoided.

The proposed action will be undertaken in accordance with NQBP Cultural Heritage Management Plan in place for Abbot Point.

3.3 (j) Other important or unique values of the environment

Describe any other key features of the environment affected by, or in proximity to the proposed action (for example, any national parks, conservation reserves, wetlands of national significance etc).

No other important or unique environmental values are recognised in proximity to the proposed action.

3.3 (k) Tenure of the action area (eg freehold, leasehold)

The proposed action will occur across the following land:

- Breakwater, causeway, sheet pile wall, barge ramp (part) and inshore mooring piles within lot 52 on HR1732 Leasehold held by NQBP
- Barge ramp (part) within lot 54 on SP243724 Freehold held by NQBP
- Offshore mooring bouys within lot 103 on SP271829 Leasehold held by NQBP

3.3 (l) Existing land/marine uses of area

The proposed action will occur within the existing Abbot Point MOF and within waters within the Port Limits.

3.3 (m) Any proposed land/marine uses of area

The proposed action is consistent with the current proposed use of the land and marine areas in which it will occur, being within the Port Facilities precinct of the APSDA Development Scheme and Port Handling Activities and Offshore Port Infrastructure precincts of the Port of Abbot Point Land Use Plan.

4 Environmental outcomes

Provide descriptions of the proposed environmental outcomes that will be achieved for matters of national environmental significance as a result of the proposed action. Include details of the baseline data upon which the outcomes are based, and the confidence about the likely achievement of the proposed outcomes. Where outcomes cannot be identified or committed to, provide explanatory details including any commitments to identify outcomes through an assessment process.

If a proposed action is determined to be a controlled action, the Department may request further details to enable application of the draft *Outcomes-based Conditions Policy 2015* and *Outcomes-based Conditions Guidance 2015* (<http://www.environment.gov.au/epbc/consultation/policy-guidance-outcomes-based-conditions>), including about environmental outcomes to be achieved, details of baseline data, milestones, performance criteria, and monitoring and adaptive management to ensure the achievement of outcomes. If this information is available at the time of referral it should be included.

General commitments to achieving environmental outcomes, particularly relating to beneficial impacts of the proposed action, CANNOT be taken into account in making the initial decision about whether the proposal is likely to have a significant impact on a matter protected under the EPBC Act. (But those commitments may be relevant at the later assessment and approval stages, including the appropriate level of assessment, and conditions of approval, if your proposal proceeds to these stages).

The overall objective being sought by the proposed action is the maintenance and renewal of the Abbot Point MOF to improve safety and environmental performance. The proposed action has been designed to minimise the potential for environment impact and also to in part improve the environmental performance of the facility. The maintenance of the breakwater, causeway and sheet pile wall is necessary to prevent further degradation of this infrastructure and minimise the risk of collapse which could result in environmental degradation. The installation of the barge ramp, formalising existing use of beach access to launch vessels will limit beach erosion associated with ongoing access by vehicles and improve the environmental performance of this activity.

The following specific environmental outcomes are provided relevant to matters of NES:

- No loss of habitat for threatened marine species and migratory marine species is expected to occur as the proposed works will be undertaken within existing disturbed areas or areas of no seagrass or benthic habitat. The assessment of presence of habitat is based on existing baseline information (GHD, 2009c; McKenna and Rasheed 2014).
- No loss of habitat for threatened or migratory birds is expected to occur as the proposed works will be undertaken within existing disturbed areas or areas of no habitat. The assessment of presence of habitat is based on existing baseline information (Ecoserve, 2007; BAAM, 2012; ELA, 2013).

5 Measures to avoid or reduce impacts

Note: If you have identified alternatives in relation to location, time frames or activities for the proposed action at Section 2.3 you will need to complete this section in relation to each of the alternatives identified.

Provide a description of measures that will be implemented to avoid, reduce, manage or offset any relevant impacts of the action. Include, if appropriate, any relevant reports or technical advice relating to the feasibility and effectiveness of the proposed measures.

For any measures intended to avoid or mitigate significant impacts on matters protected under the EPBC Act, specify:

- what the measure is,
- how the measure is expected to be effective, and
- the time frame or workplan for the measure.

Examples of relevant measures to avoid or reduce impacts may include the timing of works, avoidance of important habitat, specific design measures, or adoption of specific work practices.

Provide information about the level of commitment by the person proposing to take the action to achieve the proposed environmental outcomes and implement the proposed mitigation measures. For example, if the measures are preliminary suggestions only that have not been fully researched, or are dependent on a third party's agreement (e.g. council or landowner), you should state that, that is the case.

Note, the Australian Government Environment Minister may decide that a proposed action is not likely to have significant impacts on a protected matter, as long as the action is taken in a particular manner (section 77A of the EPBC Act). The particular manner of taking the action may avoid or reduce certain impacts, in such a way that those impacts will not be 'significant'. More detail is provided on the Department's web site.

For the Minister to make such a decision (under section 77A), the proposed measures to avoid or reduce impacts must:

- clearly form part of the referred action (eg be identified in the referral and fall within the responsibility of the person proposing to take the action),
- be must be clear, unambiguous, and provide certainty in relation to reducing or avoiding impacts on the matters protected, and
- must be realistic and practical in terms of reporting, auditing and enforcement.

More general commitments (eg preparation of management plans or monitoring) and measures aimed at providing environmental offsets, compensation or off-site benefits CANNOT be taken into account in making the initial decision about whether the proposal is likely to have a significant impact on a matter protected under the EPBC Act. (But those commitments may be relevant at the later assessment and approval stages, including the appropriate level of assessment, if your proposal proceeds to these stages).

The proposed action will be undertaken in accordance with approval conditions issued as part of existing State approvals (see Attachment 2) and the following management plans:

- Construction environmental management plan (to be approved by the Qld Department of Environment and Heritage Protection) prior to commencement of construction works)
- Integrated Environmental Management System (see condition G7 of SPDE01288310)

Specific management measures proposed to be implemented in the carrying out of the proposed action are detailed below. These measures reflect existing environmental approval conditions which apply to some components of the proposed action as well as additional measures to be approved prior to commencement of works.

Maintenance and renewal of rock armour at the existing breakwater and causeway and replacement and minor amendment to alignment of the existing sheet pile wall:

- Carry out all works in accordance with approval conditions
- Minimise the footprint of the replacement sheet wall by aligning as close as possible to the existing wall.
- Utilise only clean rock and fill material for works.
- Restrict works to day time hours to minimise impacts from light and noise on marine mammals.
- Check all plant and equipment daily for potential leaks or faults.
- Maintain plant and equipment in accordance with manufacturers specification for noise and air quality emission.
- Monitor for the presence of marine mammals within the immediate area of works.

- Make available, at all times during works, onsite spill cleanup kits at the MOF.

Upgrade of access and installation of barge ramp:

- Carry out all works in accordance with approval conditions
- Minimise the area of disturbance as far as practicable.
- Limit access for works to the utilisation of existing access tracks.
- Undertake a survey and clearly delineated the area of disturbance prior to commencement of works.
- Conduct works as far as practicable at low tide to minimise potential to prevent materials entering the marine environment.
- Implement erosion and sediment control measures around the construction area to prevent run-off entering the marine environment.
- Restrict works to day time hours to minimise impacts from light and noise on marine mammals.
- Check all plant and equipment daily for potential leaks or faults.
- Maintain plant and equipment in accordance with manufacturers specification for noise and air quality emission.
- Make available, at all times during works, onsite spill cleanup kits at the MOF.

Installation of pile moorings:

- Carry out all works in accordance with approval conditions
- Restrict works to day time hours to minimise impacts from light and noise on marine mammals.
- Check all plant and equipment daily for potential leaks or faults.
- Maintain plant and equipment in accordance with manufacturers specification for noise and air quality emission.
- Make available, at all times during works, onsite spill cleanup kits at the MOF.

Installation of swing moorings:

- Carry out all works in accordance with approval conditions
- Restrict works to day time hours to minimise impacts from light and noise on marine mammals.
- Check all plant and equipment daily for potential leaks or faults.
- Maintain plant and equipment in accordance with manufacturers specification for noise and air quality emission.
- Make available, at all times during works, onsite spill cleanup kits at the MOF.

6 Conclusion on the likelihood of significant impacts

Identify whether or not you believe the action is a controlled action (ie. whether you think that significant impacts on the matters protected under Part 3 of the EPBC Act are likely) and the reasons why.

6.1 Do you THINK your proposed action is a controlled action?

<input checked="" type="checkbox"/>	No, complete section 5.2
<input type="checkbox"/>	Yes, complete section 5.3

6.2 Proposed action IS NOT a controlled action.

Specify the key reasons why you think the proposed action is NOT LIKELY to have significant impacts on a matter protected under the EPBC Act.

The proposed action involves necessary maintenance and renewal works for an existing facility, which has been in operation since 1982, to ensure its longevity, reduce ongoing maintenance costs and improve safety and environmental performance of the facility. The proposed action does not materially change or increase the intensity of the existing this existing approved use. It is primarily to support current port operations and is not dependent on future development proceeding.

Conditions of the original approval for the facility, granted in 1982, require that the NQBP maintain the facility in a safe condition, as such the proposed maintenance to the breakwater and causeway as well as replacement of the sheet pile wall backing the causeway are considered a necessary element for retention and safe operation of the existing facility. The proposed minor realignment of the sheet pile wall and formalisation of the barge ramp are considered to represent essential improvements for the safe operation of the facility.

The proposed action will be undertaken in accordance with conditions of approval and management plans of existing State environmental permits as well as new permits for the proposed barge ramp and moorings.

It is considered highly unlikely that the proposed action will have a significant impact upon a matter of NES.

6.3 Proposed action IS a controlled action

Type 'x' in the box for the matter(s) protected under the EPBC Act that you think are likely to be significantly impacted. (The 'sections' identified below are the relevant sections of the EPBC Act.)

Matters likely to be impacted

<input type="checkbox"/>	World Heritage values (sections 12 and 15A)
<input type="checkbox"/>	National Heritage places (sections 15B and 15C)
<input type="checkbox"/>	Wetlands of international importance (sections 16 and 17B)
<input type="checkbox"/>	Listed threatened species and communities (sections 18 and 18A)
<input type="checkbox"/>	Listed migratory species (sections 20 and 20A)
<input type="checkbox"/>	Protection of the environment from nuclear actions (sections 21 and 22A)
<input type="checkbox"/>	Commonwealth marine environment (sections 23 and 24A)

	Great Barrier Reef Marine Park (sections 24B and 24C)
	A water resource, in relation to coal seam gas development and large coal mining development (sections 24D and 24E)
	Protection of the environment from actions involving Commonwealth land (sections 26 and 27A)
	Protection of the environment from Commonwealth actions (section 28)
	Commonwealth Heritage places overseas (sections 27B and 27C)

Specify the key reasons why you think the proposed action is likely to have a significant adverse impact on the matters identified above.

7 Environmental record of the responsible party

NOTE: If a decision is made that a proposal needs approval under the EPBC Act, the Environment Minister will also decide the assessment approach. The EPBC Regulations provide for the environmental history of the party proposing to take the action to be taken into account when deciding the assessment approach.

	Yes	No
<p>7.1 Does the party taking the action have a satisfactory record of responsible environmental management?</p> <p>Provide details</p> <ul style="list-style-type: none"> • Environment Policy which covers all of NQBP's activities. • Environment Management System that is externally certified as being compliant with the international standard AS/NZS ISO 14001: 2004. • Port Environmental Management Plan in place (NQBP 2010). • No actions against NQBP 	✓	
<p>7.2 Has either (a) the party proposing to take the action, or (b) if a permit has been applied for in relation to the action, the person making the application - ever been subject to any proceedings under a Commonwealth, State or Territory law for the protection of the environment or the conservation and sustainable use of natural resources?</p> <p>If yes, provide details</p>		✓
<p>7.3 If the party taking the action is a corporation, will the action be taken in accordance with the corporation's environmental policy and planning framework?</p> <p>If yes, provide details of environmental policy and planning framework</p> <p>NQBP has in place an Environment Policy which covers all of its activities. A copy is provided in Attachment 1. NQBP also has an Environment Management System that is externally certified as being compliant with the international standard AS/NZS ISO 14001: 2004. The action proposed will be undertaken in accordance with NQBP's Land Use Strategy (<i>Transport Infrastructure Act 1994</i>).</p>	✓	
<p>7.4 Has the party taking the action previously referred an action under the EPBC Act, or been responsible for undertaking an action referred under the EPBC Act?</p>	✓	

Provide name of proposal and EPBC reference number (if known)		
Dudgeon Point Coal Terminals Project (EPBC 2012/6240)		
Abbot Point Terminal 0, 2 & 3 Capital Dredging (EPBC 2011/6213)		
Additional Offshore Geotechnical Investigation Abbot Point (EPBC 2011/5994)		
Mount Luce Quarry (EPBC 2011/5924)		
Offshore Geotechnical Investigations Abbot Point (EPBC 2010/5774)		
Abbot Point Stormwater Return Dam (EPBC 2010/5561)		
Abbot Point Multi-Cargo Facility (EPBC 2009/4837)		
X110 Expansion: Dredging Project (EPBC 2008/4438)		
Seismic and sonar surveys – Abbot Point (EPBC 2008/4289)		
Additional components to Stage 3 Expansion Abbot Point Coal Terminal (EPBC 2007/3884)		
Abbot Point Coal Terminal Stage 3 Expansion (EPBC 2005/2154)		
Port of Hay Point Sea Dumping (EPBC 2005/1993)		
Port of Hay Point Capital Dredging (EPBC 2005/1976)		
Port of Hay Point Berth and Apron Area Capital Dredging (EPBC 2004/1775)		
Port of Weipa Capital Dredging (EPBC 2003/1311)		
Cape Flattery Wharf Structure (EPBC 2001/148)		
Dalrymple Bay Coal Terminal Expansion Stages 6 and 7 (EPBC 2000/7)		

8 Information sources and attachments

(For the information provided above)

8.1 References

- List the references used in preparing the referral.
- Highlight documents that are available to the public, including web references if relevant.

Advisian, 2015, Abbot Point Growth Gateway Project Environmental Impact Assessment, Prepared for the Department of State Development.

BAAM, 2012. *Cumulative Impact Assessment: Migratory Shorebird and Waterbird Surveys, Caley Valley Wetland, Port of Abbot Point*. Report prepared for North Queensland Bulk Ports Corporation, (including follow up survey results reported in June, Nov, Dec 2012).

Bell, I. 2003. Turtle Population Dynamics in the Hay Point, Abbot Point and Lucinda Port Areas. Report by Threatened Species Unit of QPWS for the Ports Corporation of Queensland June 2003.

Cardno Chenoweth 2012, Abbot Point Cumulative Impact Assessment – Visual Impact Assessment, Report prepared for Abbot Point Working Group.

Connell Hatch (2006) Wiggins Island Coal Terminal Environmental Impact Statement; Noise and Vibration.

DEHP, 2016 Vegetation Management Supporting Map for Abbot Point, generated 29 March 2016.

DoE, 2015a, Statement of Reasons, Abbot Point Growth Gateway Project.

Dobbs, K.A. (2007). Marine turtle and dugong habitats in the Great Barrier Reef Marine Park used to implement biophysical operational principles for the Representative Areas Program. *Unpublished Report of the Great Barrier Reef Marine Park Authority, Townsville*.

Ecotone Environmental Services, 2016 Abbot Point Coal Terminal Vegetation Assessment, prepared for North Queensland Bulk Ports Corporation.

ELA Ecological Australia, 2013, Abbot Point Cumulative Impact Assessment, Prepared for North Queensland Bulk Ports Corporation Limited, Adani Australia Pty Ltd. BHP Billiton, and GVK Hancock Coal.

Ecoserve 2007, Abbot Point and Caley Valley Wetlands 2007, Wet Season Flora and Fauna Surveys, Draft report for Newlands Collinsville Abbot Point Project (NCA).

GHD, 2009a, Report for Port of Abbot Point Baseline Monitoring: Baseline Marine Fauna Report, Prepared for North Queensland Bulk Ports Corporation Limited.

GHD, 2009b, Report for Port of Abbot Point Multi Cargo Facility: Terrestrial and Aquatic Ecology Assessment, Prepared for North Queensland Bulk Ports Corporation Limited.

GHD, 2009c, Report for Port of Abbot Point Baseline Monitoring: Benthic Baseline Assessment Report, Prepared for North Queensland Bulk Ports Corporation Limited.

GHD, 2009d, Report for Port of Abbot Point Multi Cargo Facility: Coastal Processes Assessment, Prepared for North Queensland Bulk Ports Corporation Limited.

GHD, 2015, Abbot Point, Material Offloading Facility Dredging Sediment Sampling and Analysis Plan Implementation Report, March 2015 prepared for Mundra Ports Pty Ltd.

Lucas, PHC., Webb, T, Valentine PS, and Marsh H (eds) 1997, The Outstanding Universal Value of the Great Barrier Reef World Heritage Area, Great Barrier Reef Marine Park Authority, Townsville.

McKenna SA and Rasheed MA 2014, Port of Abbot Point Long-Term Seagrass monitoring: Annual Report 2012-2013, JCU Publication, Centre for Tropical Water and Aquatic Ecosystem Research, Cairns.

Noad, M.J., Dunlop, R.A. Paton, D. and Kniest, H 2011, Abundance estimates of the east Australian humpback whale population: 2010 survey and update, Paper SC/63/SH22, Submitted to the International Whaling Commission Scientific Committee, Tromsø, Norway (unpublished).

8.2 Reliability and date of information

For information in section 3 specify:

- source of the information;
- how recent the information is;
- how the reliability of the information was tested; and
- any uncertainties in the information.

The information relied upon in preparing this referral is publicly available reports on key areas of environmental significance within the Port of Abbot Point.

8.3 Attachments

Indicate the documents you have attached. All attachments must be less than three megabytes (3mb) so they can be published on the Department's website. Attachments larger than three megabytes (3mb) may delay the processing of your referral.

		✓ attached	Title of attachment(s)
You must attach	figures, maps or aerial photographs showing the project locality (section 1)	✓	Attachment 1 – Figures and photos
	GIS file delineating the boundary of the referral area (section 1)		
	figures, maps or aerial photographs showing the location of the project in respect to any matters of national environmental significance or important features of the environments (section 3)		
If relevant, attach	copies of any state or local government approvals and consent conditions (section 2.5)	✓	Attachment 2 – Existing permits
	copies of any completed assessments to meet state or local government approvals and outcomes of public consultations, if available (section 2.6)	✓	Attachment 3 – Previous assessment reports
	copies of any flora and fauna investigations and surveys (section 3)	✓	Attachment 4 – Ecological investigations
	technical reports relevant to the assessment of impacts on protected matters that support the arguments and conclusions in the referral (section 3 and 4)		
	report(s) on any public consultations undertaken, including with Indigenous stakeholders (section 3)		

9 Contacts, signatures and declarations

NOTE: Providing false or misleading information is an offence punishable on conviction by imprisonment and fine (s 489, EPBC Act).

Under the EPBC Act a referral can only be made by:

- the person proposing to take the action (which can include a person acting on their behalf); or
- a Commonwealth, state or territory government, or agency that is aware of a proposal by a person to take an action, and that has administrative responsibilities relating to the action¹.

Project title: Abbot Point Marine Offloading Facility Maintenance and Renewal Works

9.1 Person proposing to take action

This is the individual, government agency or company that will be principally responsible for, or who will carry out, the proposed action.

If the proposed action will be taken under a contract or other arrangement, this is:

- the person for whose benefit the action will be taken; or
- the person who procured the contract or other arrangement and who will have principal control and responsibility for the taking of the proposed action.

If the proposed action requires a permit under the Great Barrier Reef Marine Park Act², this is the person requiring the grant of a GBRMP permission.

The Minister may also request relevant additional information from this person.

If further assessment and approval for the action is required, any approval which may be granted will be issued to the person proposing to take the action. This person will be responsible for complying with any conditions attached to the approval.

If the Minister decides that further assessment and approval is required, the Minister must designate a person as a proponent of the action. The proponent is responsible for meeting the requirements of the EPBC Act during the assessment process. The proponent will generally be the person proposing to take the action³.

1. Name and Title: Grant Gaston
Senior Manager Port Development
2. Organisation (if applicable): North Queensland Bulk Ports Corporation
Organisation name should match entity identified in ABN/ACN search
3. EPBC Referral Number (if known):
- 4: ACN / ABN (if applicable): 36 136 880 218
5. Postal address GPO Box 409 Brisbane QLD
6. Telephone: 0434 244 633
7. Email: ggaston@nqbp.com.au
8. Name of proposed proponent (if not the same person at item 1 above and if applicable):
9. ACN/ABN of proposed proponent (if not the

¹ If the proposed action is to be taken by a Commonwealth, state or territory government or agency, section 8.1 of this form should be completed. However, if the government or agency is aware of, and has administrative responsibilities relating to, a proposed action that is to be taken by another person which has not otherwise been referred, please contact the Referrals Gateway (1800 803 772) to obtain an alternative contacts, signatures and declarations page.

² If your referred action, or a component of it, is to be taken in the Great Barrier Reef Marine Park the Minister is required to provide a copy of your referral to the Great Barrier Reef Marine Park Authority (GBRMPA) (see section 73A, EPBC Act). For information about how the GBRMPA may use your information, see http://www.gbrmpa.gov.au/privacy/privacy_notice_for_permits.

9. ACN/ABN of proposed
proponent (if not the
same person named at
item 1 above):

COMPLETE THIS SECTION ONLY IF YOU QUALIFY FOR EXEMPTION FROM THE
FEE(S) THAT WOULD OTHERWISE BE PAYABLE

I qualify for exemption
from fees under section
520(4C)(e)(v) of the
EPBC Act because I am:

- ☐ an individual; OR
- ☐ a small business entity (within the meaning given by section 328-110 (other than subsection 328-119(4)) of the *Income Tax Assessment Act 1997*); OR
- ☐ not applicable.

If you are small business
entity you must provide
the Date/Income Year
that you became a small
business entity:

Note: You must advise the Department within 10 business days if you cease to be a small business entity. Failure to notify the Secretary of this is an offence punishable on conviction by a fine (regulation 5.23B(3) *Environment Protection and Biodiversity Conservation Regulations 2000* (Cth)).

COMPLETE THIS SECTION ONLY IF YOU WOULD LIKE TO APPLY FOR A WAIVER

I would like to apply for a
waiver of full or partial
fees under Schedule 1,
5.21A of the EPBC
Regulations. Under sub
regulation 5.21A(5), you
must include information
about the applicant (if
not you) the grounds on
which the waiver is
sought and the reasons
why it should be made:

- ☐ not applicable.

Declaration

I declare that to the best of my knowledge the information I have given on, or attached to this form is complete, current and correct.

I understand that giving false or misleading information is a serious offence.

I agree to be the proponent for this action.

I declare that I am not taking the action on behalf of or for the benefit of any other person or entity.

Signature



Date

27/4/2016

9.2 Person preparing the referral information (if different from 8.1)

Individual or organisation who has prepared the information contained in this referral form.

Name Julie Keane

Title Principal Environmental Planner

Organisation Environment and Planning Strategies Pty Ltd

Organisation name should match entity identified in ABN/ACN search

ACN / ABN (if applicable) 48 610 558 168

Postal address Unit 7, 25 View Street

Mount Gravatt East, Qld, 4122

Telephone 0409 641 949

Email julie.keane@epstrategies.com.au

Declaration

I declare that to the best of my knowledge the information I have given on, or attached to this form is complete, current and correct.

I understand that giving false or misleading information is a serious offence.

Signature



Date 26/04/2016