



Australian Government
Department of the Environment

CONSOLIDATED APPROVAL NOTICE

EAST ARM WHARF EXPANSION WORKS, DARWIN NT (EPBC 2010/5304)

The attached notice (Attachment A) is provided to consolidate the approval for the above project. The proposed action and conditions were subject to variations at various times during the assessment and post approval phases. These variations are publicly available on the department's website at http://www.environment.gov.au/cgi-bin/epbc/epbc_ap.pl?name=current_referral_detail&proposal_id=5304

To avoid confusion, the dates of the approval and subsequent variations for the project remain unchanged.

Name and position

S. Gaddes

Shane Gaddes
Assistant Secretary
Compliance and Enforcement Branch

**date of Consolidated
Approval Notice**

7 January 2014

Attachment A



Australian Government
Department of the Environment

Approval

East Arm Wharf Expansion Works, Darwin NT (EPBC 2010/5304)

This decision is made under sections 130(1) and 133 of the *Environment Protection and Biodiversity Conservation Act 1999*.

Proposed action

person to whom the approval is granted	Northern Territory Department of Lands and Planning
proponent's ACN (if applicable)	ABN 84 085 734 992
proposed action	To expand the East Arm Wharf in Darwin, including construction of a hardstand area and barge ramp, marine supply base and tug and small vessel berths, and dredging and disposal of spoil [See EPBC Act referral 2010/5304].

Approval decision

Controlling Provision	Decision
Listed threatened species and communities (sections 18 & 18A)	Approved
Listed migratory species (sections 20 & 20A)	Approved

Conditions of approval

This approval is subject to the Conditions specified below.

expiry date of approval

This approval has effect until 31/12/2035.

Decision-maker

name and position	Barbara Jones Assistant Secretary Environment Assessment Branch
--------------------------	-----------------------------------------------------------------------

Signature	SIGNED
------------------	---------------

date of decision	5 March 2012
-------------------------	---------------------

Conditions attached to the approval

1. Within 14 days after the **commencement** of the action, the person taking the action must advise the **Department** in writing of the actual date of commencement.
2. The person taking the action must maintain accurate records substantiating all activities associated with or relevant to the Conditions of approval, including measures taken to implement the plans or strategy required by this approval, and make them available upon request to the Department. Such records may be subject to audit by the Department or an independent auditor in accordance with section 458 of the EPBC Act, or used to verify compliance with the Conditions of approval. Summaries of audits will be posted on the Department's website. The results of audits may also be publicised through the general media.
3. By 30 March of each year after the commencement of the action, the person taking the action must publish a report on their website addressing compliance with the Conditions of this approval over the previous 12 months, including implementation of any management plans as specified in the Conditions. Non-compliance with any of the Conditions of this approval must be reported to the Department at the same time as the compliance report is published.
4. Upon the direction of the **Minister**, the person taking the action must ensure that an independent audit of compliance with the Conditions of approval is conducted and a report submitted to the Minister. The independent auditor must be approved by the Minister prior to the commencement of the audit. Audit criteria must be agreed to by the Minister and the audit report must address the criteria to the satisfaction of the Minister.
5. If the person taking the action wishes to carry out any activity otherwise than in accordance with the plans or strategy as specified in the Conditions, the person taking the action must submit to the department for the Minister's written approval a revised version of that plans or strategy. The varied activity shall not commence until the Minister has approved the varied plans or strategy in writing. The Minister will not approve a varied plans or strategy unless the revised plans or strategy would result in an equivalent or improved environmental outcome over time. If the Minister approves the revised plans or strategy, that plans or strategy must be implemented in place of the plans or strategy originally approved.
6. If the Minister believes that it is necessary or convenient for the better protection of listed threatened species or listed migratory species to do so, the Minister may request that the person taking the action make specified revisions to the plans or strategy specified in the Conditions and submit the revised plans or strategy for the Minister's written approval. The person taking the action must comply with any such request. The revised approved plans or strategy must be implemented. Unless the Minister has approved the revised plans or strategy, then the person taking the action must continue to implement the plans or strategy originally approved, as specified in the Conditions.
7. If, at any time after five years from the date of this approval, the person taking the action has not substantially commenced the action, then the person taking the action must not substantially commence the action without the written agreement of the Minister.
8. Unless otherwise agreed to in writing by the Minister, the person taking the action must publish all plans or strategies referred to in these Conditions of approval on their website. Each plan or strategy must be published on the website within one month of being approved.
9. The expansion of the East Arm Wharf must be constructed in accordance with the footprint as shown at Annexure 1 to this approval, subject to the Conditions set out below.
10. No blasting works are to be undertaken.

Dredging Technical Advice Group

11. The person taking the action must ensure a dredging Technical Advice Group (TAG) is established, prior to and for the duration of **dredging** operations, to provide advice to the person taking the action on the development, endorsement, implementation and review for adaptive management purposes of the Dredging and Dredge Spoil Placement Management Plan (DDSPMP), referred to at Condition 16.
12. The members of the TAG must include at least three **independent scientific experts** with expertise in water quality, migratory birds and **large marine fauna species**, and an **independent dredging technical advisor**. The membership of the TAG must be submitted to the department for approval in writing prior to the development and submission of the DDSPMP to the Minister for approval.
13. The person taking the action must ensure that the TAG undertakes the following:
 - a. Provide advice on the design and ongoing review of the DDSPMP, including development and revision of appropriate trigger levels, monitoring programs, management actions, interaction with the **Inpex LNG project (EPBC 2008/4208)** dredging program, and dredge and spoil placement methodology to protect water quality, dolphins, marine turtles, Dugongs, migratory birds and their habitat.
 - b. Provide advice on exceedance of trigger values and changes to dredging practices, through the DDSPMP, as required.
14. The person taking the action must provide to the Minister, a copy of all advice and recommendations made by the TAG and an explanation of how this advice and recommendations will be implemented or an explanation of why the person taking the action does not propose to implement certain recommendations. This information must be provided to the Minister within one week of the person taking the action receiving advice from the TAG in respect to Condition 13.a and within 48 hours in respect to Condition 13.b.

Dredging and Dredge Spoil Placement Management

15. Condition 15 has been revoked. See the decision notice dated 24 April 2013

Dredging and Dredge Spoil Placement Management Plan

16. The person taking the action must submit a DDSPMP to the Minister for approval.
17. The DDSPMP must include the following:
 - a. Monitoring, trigger levels and management actions to ensure that areas outside the zones of high impact, moderate impact and influences as identified in Annexure 2 are not impacted by suspended sediment concentrations.
 - b. Monitoring, trigger levels and management actions which consider the dredging program for the Inpex LNG Project (EPBC 2008/4208) and areas that may be impacted by both dredging programs.
 - c. Consideration of the results of the Sediment Sampling and Analysis Plan required at Condition 24.
 - d. Management measures, including consideration of avoiding dredging during outgoing tides and low tidal heights to minimise impacts to sensitive receptors.
 - e. Management measures, trigger levels, contingency measures, corrective actions, operational procedures and responsible persons to minimise impacts to marine turtles, dolphins, Dugongs, sawfishes, migratory birds and their habitat during dredging and dredge spoil placement.
 - f. Ongoing management measures to ensure the existing pond D, as labelled in Annexure 1, is maintained or enhanced as suitable high-tide roosting habitat for migratory birds in perpetuity.

- i. This must include undertaking at least two summer surveys each year, in the existing pond D, as labelled in Annexure 1, until five years after the cessation of dredge spoil placement at pond D, to monitor the use of the dredge spoil ponds by migratory birds and the effectiveness of the management measures at pond D.
 - ii. The surveys identified in 17.f.i. must be compliant with the current *Significant impact guidelines for 36 migratory shorebird species* policy statement, produced by the Department.
 - g. Reporting within one business day to the Minister when injury to, or mortality of, EPBC Act listed threatened species or EPBC Act listed migratory species occurs from dredging or dredge spoil placement activities.
 - h. Unless otherwise agreed to in writing by the Minister, the person taking the action must publish a monitoring program report which shows the monitoring results for the DDSMP on their website each year for the previous 12 months on 30 March of each year, from the start of dredging operations until 6 months after dredging operations are completed.
18. Following receipt of advice from the TAG, the DDSMP must be submitted for approval by the Minister prior to the commencement of dredging, unless otherwise approved in writing by the Minister.
19. The DDSMP must be reviewed and revised upon the advice of the TAG, referred to in Condition 11, to enable continuous improvement and adaptive management of dredge and spoil placement methodology.
20. Any proposed alteration to monitoring, trigger levels or management actions must be referred to the TAG for advice, referred to at Condition 11, prior to submission to the Minister, in accordance with Condition 5.
21. The person taking the action must not commence dredging unless the Minister has approved the DDSMP. If the Minister approves the DDSMP then the approved DDSMP must be implemented.

Water Quality Management

22. The person taking the action must ensure all water flows out from the ponds must be controlled.
23. The person taking the action must not undertake any **overwater maintenance**, to limit impacts to listed threatened species or listed migratory species.

Sediment Sampling and Analysis Plan

24. The person taking the action must submit a Sediment Sampling and Analysis Plan (SAP), to determine the status of sediments, including all potential contaminants and acid sulphate soils.
25. The SAP must detail the sampling and testing methodology in accordance with the *National Assessment Guidelines for Dredging (2009)*. The SAP must be submitted for approval by the Minister. If the Minister approves the SAP then the approved SAP must be implemented.
26. The person taking the action must not commence dredging or dredge spoil placement until the results of the SAP are provided to the Department and have been incorporated into the Water Quality Management Plan referred to at Condition 27.

Water Quality Management Plan

27. The person taking the action must submit a Water Quality Management Plan (WQMP) to the Minister for approval, to minimise impacts to marine turtles, dolphins, Dugongs,

sawfishes, migratory birds and their habitat during dredging, dredge spoil placement and dewatering.

28. The WQMP must include the following:

- a. Consideration of the results of the SAP (Condition 24).
- b. Monitoring program, management triggers, contingency measures, corrective actions and responsible persons to manage impacts to the marine environment from potential contaminants as identified by the SAP at Condition 24, as a result of dredging, dredge spoil placement and dewatering.
- c. Design methodology and management of the pond bund walls to ensure appropriate design to prevent water quality impacts from leaching material through the bund wall, decant waters and storm-water run-off.

29. The WQMP must be submitted for approval by the Minister prior to the commencement of dredging, unless otherwise approved in writing by the Minister. The approved WQMP must be implemented.

Piling Management

Marine Piling Activities

30. The person taking the action must undertake **marine piling** in the following way:

- a. **Marine piling exclusion zones** must be established and implemented so as to ensure that marine turtles, Dugongs and dolphins are not exposed to sound exposure levels (SEL) of greater than or equal to 183 dB re 1 μ Pa².s for longer than 5 continuous minutes. The **marine piling exclusion zones** must consider the range of **marine piling** source energy and the **marine piling exclusion zones** must not be less than 500 metres from the pile hammer.
- b. Pre-start-up visual observations: Visual observations for marine turtles, Dugongs and dolphins must be undertaken to the extent of the **marine piling exclusion zones** by a **dedicated and suitably trained crew member**, for at least 30 minutes before the commencement of **marine piling** activities.
- c. Operating procedures: While **marine piling** is undertaken, the following procedures must be implemented:
 - i. Visual observations covering the extent of the **marine piling exclusion zones** must be maintained continuously to identify if there are any marine turtles, Dugongs or dolphins present.
 - ii. If marine turtles, Dugongs or dolphins are sighted within the **marine piling exclusion zones**, action to cease all **marine piling** within 2 minutes or as soon as is safely possible.
 - iii. **Marine piling** activities must not recommence until marine turtles, Dugongs or dolphins are observed to move outside the **marine piling exclusion zones** or 30 minutes have passed since the last sighting.
 - iv. **Soft 'fairy taps' start procedures: Marine piling** must be initiated at the soft 'fairy taps' start level and then build up to full operating impact force. The soft 'fairy taps' start procedures may only commence if no marine turtles, Dugongs or dolphins have been sighted within the **marine piling exclusion zone** during the pre start up visual observations as required by condition 30 (b).
 - v. **Marine piling** commenced prior to sunset or prior to a **period of low visibility** can continue between the hours of sunset and sunrise, unless

marine piling is suspended for more than 15 minutes or there have been three or more marine turtle, Dugong or dolphin instigated **shut-down situations** within the previous 12 hours.

Onshore Piling Activities

31. The person taking the action must undertake **piling** in the following way:
- a. Establish a 500 metre **exclusion zone** for marine turtles, Dugongs and dolphins.
 - b. Pre-start-up visual observations: Visual observations for marine turtles, Dugongs and dolphins must be undertaken to the 500 metre **exclusion zone** by a **dedicated and suitably trained crew member** for at least 30 minutes before the commencement of piling activities.
 - c. Operating procedures: While piling is undertaken, the following procedures must be implemented:
 - i. Visual observations of the 500 metre **exclusion zone** from the pile hammer must be maintained continuously to identify if there are any marine turtles, Dugongs or dolphins present.
 - ii. If marine turtles, Dugongs or dolphins are sighted within the 500 metre **exclusion zone**, action to cease all piling within 2 minutes or as soon as is safely possible.
 - iii. Piling activities must not recommence until marine turtles, Dugongs or dolphins are observed to move outside the 500 metre **exclusion zone** or 30 minutes have passed since the last sighting.
 - iv. **Soft 'fairy taps' start procedures:** Piling activities must be initiated at the soft 'fairy taps' start level and then build up to full operating impact force. The soft 'fairy taps' start procedures may only commence if no marine turtles, Dugongs or dolphins have been sighted within the 500 metre **exclusion zone** during the pre start up visual observations.
 - v. Piling commenced prior to sunset or prior to a **period of low visibility** can continue between the hours of sunset and sunrise, unless piling is suspended for more than 15 minutes or there have been three or more marine turtle, Dugong or dolphin instigated **shut-down situations** within the previous 12 hours.

Offsets

Biodiversity Impact Mitigation and Offsets Strategy

32. The person taking the action must submit a Biodiversity Impact Mitigation and Offsets Strategy (BIMOS) to the Minister for approval. The strategy must address the consequential and residual impacts to EPBC Act listed dolphins, migratory birds, Dugongs and marine turtles from the expansion of East Arm wharf, including dredging and increased vessel usage of the area and the associated impacts to species.
33. To address residual impacts to listed threatened and migratory marine species, the BIMOS must include the establishment and operation of a regional Indigenous marine rangers program to be operated out of Darwin. The Program should fully fund all costs associated with supporting a minimum of two full-time equivalent ranger positions until the project's **marine works** are completed. The Program should:
- a. Address threats to listed threatened species and listed migratory species in Darwin Harbour and surrounds.

- b. Provide harbour surveillance patrols and reporting for vessel speed and vessel interactions with listed threatened species and listed migratory species.
 - c. Monitor and handle stranded, injured or dead **large marine fauna species**.
 - d. Increase community awareness about marine debris.
 - e. Assist with implementation of the education campaign at Condition 45.d.
- 34.** The BIMOS must include a timeline for submission and implementation of the Migratory Birds Management Plan (MBMP), at Condition 36, the Coastal Offset Plan (COP), at Condition 40, and the Port Environmental Protection Plan (PEPP), at Condition 45.
- 35.** The person taking the action must not commence marine works, unless the Minister has approved the BIMOS. If the Minister approves the BIMOS then the approved BIMOS must be implemented.

Migratory Birds Management Plan

- 36.** The person taking the action must submit a Migratory Birds Management Plan (MBMP) to the Minister for approval. The MBMP must address the consequential and residual impacts to EPBC Act listed migratory birds from the expansion of East Arm wharf, including dredge spoil disposal and the associated impacts to species. The MBMP must include, but may not be limited to, the following:
- a. Protection and maintenance of the existing pond D, as identified in Annexure 1, as suitable high-tide roosting habitat for migratory birds in perpetuity, including:
 - i. Restriction of access to public and animals (dogs).
 - ii. Management and control of feral animals and other invasive species within the area to be protected.
 - b. Undertaking at least two summer surveys each year compliant with the current *Significant impact guidelines for 36 migratory shorebird species* policy statement, produced by the Department, in the existing pond sites, including in pond D, until five years after the cessation of dredge spoil placement at pond D to monitor the use of the dredge spoil ponds by migratory birds and the effectiveness of the management measures at pond D.
 - c. Consideration of capturing, banding and marking migratory shorebirds that currently use the East Arm Wharf dredge spoil ponds, to track their response to the expansion works and to monitor the effectiveness of the management measures referred to under Condition 36.a.
 - d. Undertaking adaptive management measures for Conditions 36.a, taking into account the surveys completed through Conditions 36.b and 36.c.
- 37.** The MBMP must be submitted for approval by the Minister no later than one year from the commencement of the action.
- 38.** The person undertaking the action must not commence work on the tug and small vessel berths or barge ramp and hardstand area, as identified in Annexure 1, until the Minister has approved the MBMP.
- 39.** If the Minister approves the MBMP then the approved MBMP must be implemented.

Coastal Offset Plan

- 40.** The person taking the action must submit a Coastal Offset Plan (COP) to the Minister for approval. The strategy must address the consequential and residual impacts to EPBC Act listed threatened and migratory marine fauna from the expansion of East Arm wharf, including dredging and increased vessel usage of the area and the associated impacts to species.
- 41.** The COP must include identification of 50 hectares of verified habitat for dolphins and provision for the protection and management of the protected area in perpetuity.

42. The COP must be submitted for approval by the Minister no later than two years from the commencement of the action.
43. The person undertaking the action must not commence work on the tug and small vessel berths or barge ramp and hardstand area, as identified in Annexure 1, unless the Minister has approved the COP.
44. If the Minister approves the COP then the approved COP must be implemented.

Port Environmental Protection Plan

45. The person taking the action must submit a Port Environmental Protection Plan (PEPP) to the Minister for approval. The PEPP must address the consequential and residual impacts to EPBC Act listed threatened and migratory marine fauna from the expansion of East Arm wharf. The PEPP must be implemented for the **life of the project** and must include:
 - a. Measures to manage the risk of vessel strike to marine fauna. These must include prescribed maximum commercial vessel speed limits; enforcement of speed limits; monitoring and reporting of vessel strike; and adaptive management measures.
 - b. Measures to increase the response capacity of Darwin Harbour to respond to accidental fuel, oil or chemical spills to address the increased likelihood of a spill as a result of increased vessel usage of the wharf.
 - c. Measures that minimise the risk of introduced marine pest species over the life of the project, including ballast water management and vessel inspections for non-domestic vessels.
 - d. An educational campaign for all port personnel including the provision of information that fosters a culture of awareness of the environmental values, including the EPBC Act listed species that may occur within the project area, and the related responsibilities of the port personnel.
46. The PEPP must be submitted for approval by the Minister no later than six months from the commencement of the action.
47. The person undertaking the action must not commence work on the tug and small vessel berths or barge ramp and hardstand area, as identified in Annexure 1, unless the Minister has approved the PEPP.
48. Commercial use of the Marine Supply Base cannot begin until the Minister has approved the PEPP.
49. If the Minister approves the PEPP then the approved PEPP must be implemented.

Definitions

EPBC Act. *Environment Protection and Biodiversity Conservation Act 1999*.

Commencement. The construction of any infrastructure, excluding fences and signage, associated with the proposed action.

Department. The Australian Government Department administering the *Environment Protection and Biodiversity Conservation Act 1999*.

Minister. The Minister administering the *Environment Protection and Biodiversity Conservation Act 1999* and includes a delegate of the Minister.

Dredging. Includes all activities associated with the capital dredging and disposal of material, including: the excavation or dredging of the material, the loading and carriage of dredged material for the purpose of dumping, and the dumping of the material at the prescribed spoil grounds. This does not include mobilisation of dredging equipment onsite.

Independent scientific expert. A scientist with relevant qualifications and expertise who is not affiliated with the proponent or with other parties affiliated with the project.

Large marine fauna species. Includes marine turtles, elasmobranchs, cetaceans and Dugongs.

Independent dredge technical advisor. A person with relevant qualifications and dredging expertise and who is not affiliated with the proponent or with other parties affiliated with the project.

Inpex LNG Project (EPBC 2008/4208). The Inpex Ichthys Darwin LNG project approved under the EPBC Act on 27 June 2011.

Capital dredging and dredge spoil placement. Dredging, and placement of the associated dredge spoil, for navigation, to enlarge or deepen existing channel and port areas or to create new ones or for engineering purposes, to create trenches for pipes, cables, immersed tube tunnels, to remove material unsuitable for foundations and to remove overburden for aggregate extraction, etc.

Wet season. 01 December to 30 April each year.

Overwater maintenance. Removal of paint, anti-fouling residues/coatings and corrosion over the water.

Marine piling. Driving structural supports into the ground through the marine environment (harbour water).

Marine piling exclusion zones. Are the **exclusion zones** that must be implemented as per the condition 30 (a)-(c) requirements for all **marine piling** activities.

Piling. Driving structural supports into the ground but not through the marine environment.

Exclusion zone. A radius around piling operations for dolphins, Dugongs and marine turtles, which must be visually observed at all times during piling and where piling must cease if dolphins, Dugongs and marine turtles are observed within the radius.

Dedicated and suitably trained crew member. Has proven experience in marine fauna observation, distance estimation and reporting and must not have any other duties while engaging in visual observations for marine fauna.

Soft 'fairy taps' start procedures. Initiated at commencement of all piling activities by piling at low energy levels and then build up to full impact force. The first five impacts from the piling

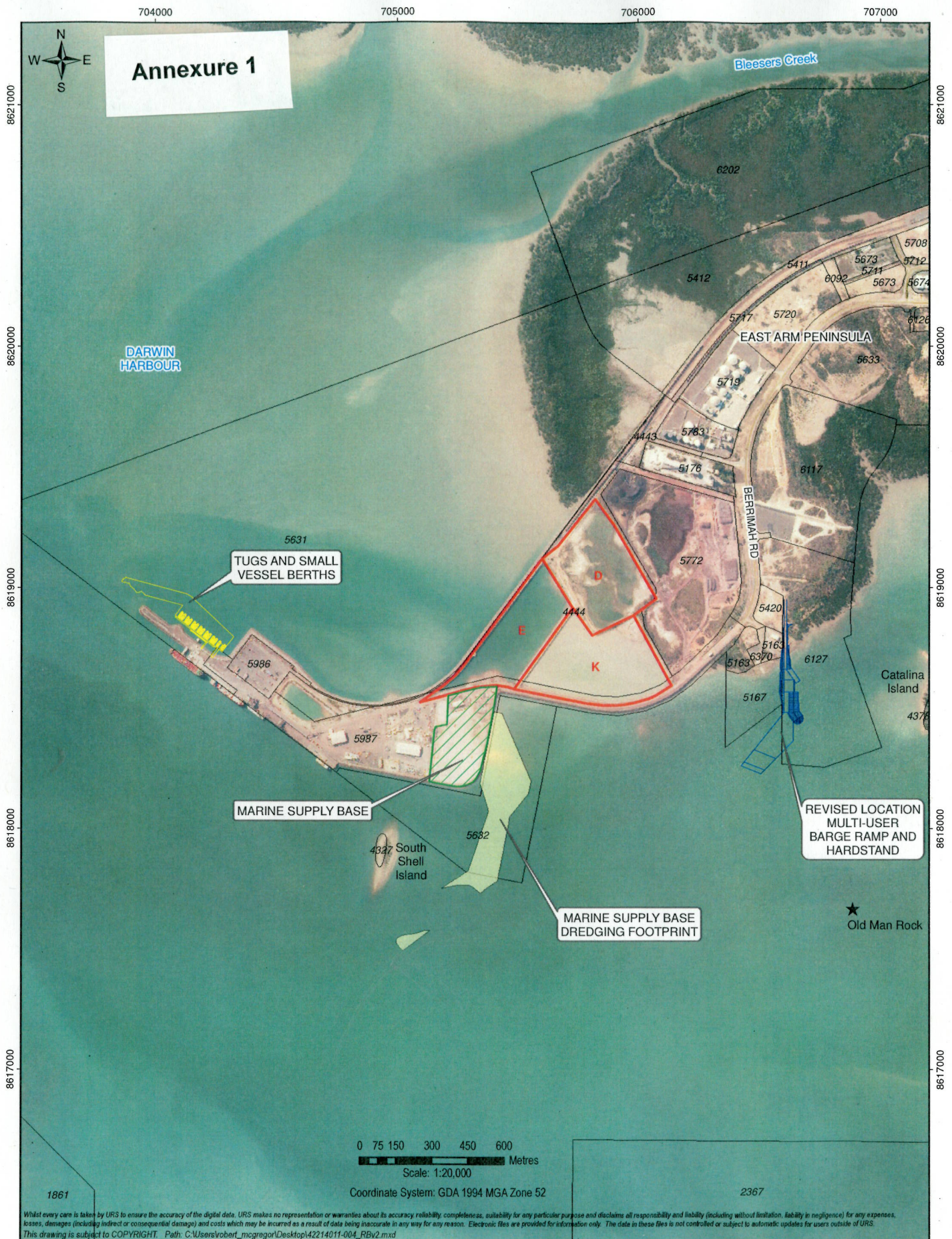
operation must be at no more than 50% of full hammer weight (e.g. a hammer with an adjustable stroke height of 1.2 metres should drop from a height of 0.6 metres at least 5 times during a 'soft start' procedure), to encourage animals to move away from subsequent blows.

Period of low visibility. Where continuous visual observations to a distance of 2 kilometres from any piling operation (including marine piling) is not possible for a time period of greater than 1 hour.

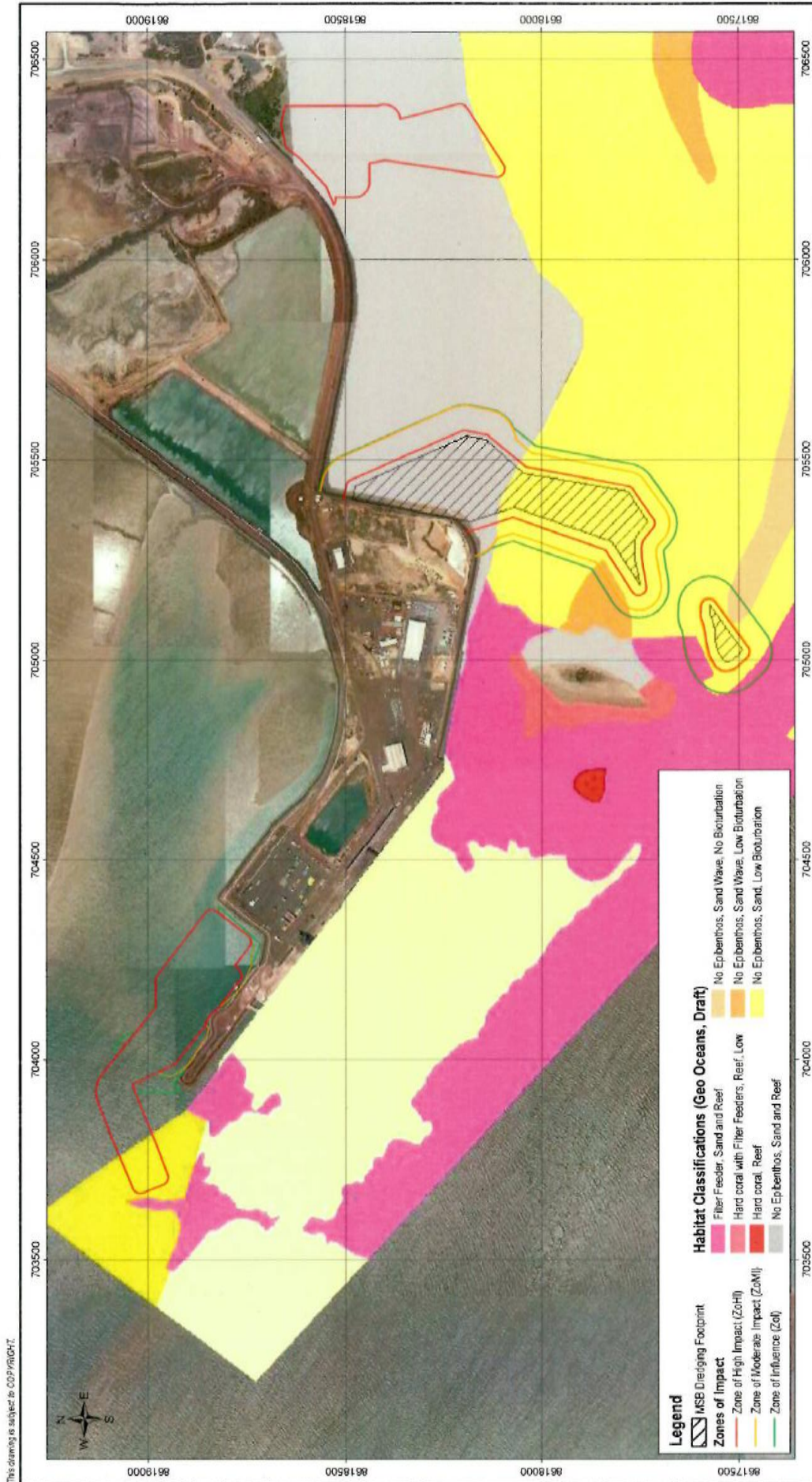
Shut-down situation. An action to cease all piling (including **marine piling**) within the relevant **exclusion zone**.

Marine works. All activities associated with dredging including; excavation and dredging of material, placing of material into dredge spoil ponds, dewatering of dredge spoil, and any dredging, disposal or placement activities associated with the construction of bund walls, tug and berth pens and the barge landing rock hardstand components of the project. This does not include mobilisation of dredging equipment onsite.

Life of the project. The period from commencement until all East Arm Wharf construction and spoil placement activities are completed.



MAJOR PROJECT COMPONENTS



ZONES OF IMPACT AND INFLUENCE



DARWIN MARINE SUPPLY BASE DDSPMP

File No: 42908076-006.mxd

Drawn: JD

Approved: IB

Date: 27-08-2012

Figure: 5-9

Rev A A4