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# East Arm Wharf Expansion Works EPBC Approval 2010/5304

# COMPLIANCE REPORT FOR THE PERIOD ENDING 31 DECEMBER 2012

### **INTRODUCTION**

The East Arm Wharf Expansion Works in Darwin Harbour consists of the construction and operation of three separate components:

- A Marine Supply Base (MSB);
- A barge ramp and hardstand area; and
- A tug pen and small ships basin.

Work on MSB construction commenced on 23 May 2012. There are no works underway for the barge ramp or the tug pen and small ships basin components of the East Arm wharf Expansion.

The MSB (refer figure 1 for location) will be developed to service and support the existing and planned offshore oil and gas exploration and production industries. The MSB is to be of international standard and capable of supporting the offshore industry in northern Australian waters.

The MSB will have the capacity to service over 1000 vessels per annum. Initially, one berth at the MSB is planned to be used as a rock load-out facility to service the rock armouring requirements of the INPEX Ichthys LNG project under construction at Blaydin Point in Darwin. The rock load-out facility is scheduled to operate for duration of 7.5 months. The proposed MSB comprises over 8 ha of land for warehousing, associated infrastructure and laydown areas.

Dredging is required to construct the berthing areas, a swing basin and access channel from the MSB to existing shipping channels within Darwin Harbour. The approach channel, swing basin and berth areas extend over an area of 15.1 ha, and dredging will be to -7.7m Chart Datum (CD), with one berth (Berth 3) dredged to -8.7m CD, to cater for berthing of vessels with deeper draft. A total of 685,000m<sup>3</sup> of sediment will be dredged with the spoil deposited into reclamation spoil ponds at East Arm.

Dredging will be undertaken in two-phases. The first phase commenced 3 October 2012 and ceased 23 November 2012. The second phase is scheduled to begin 1 May 2013 and run for 25 weeks.



## **Figure 1 – Location**

#### **PURPOSE OF REPORT**

EPBC Approval 2010/5304 Condition 3 requires an annual compliance report to be published by 30 March each year.

This report presents the Northern Territory Government's compliance with the Conditions of Approval and addresses its actions in light of the approval from project commencement to the period ending 31 December 2012. A copy of the approval and subsequent variations is contained in Appendix 1.

Table 1 outlines the Territory's compliance with approval conditions.

Condition Number	Action	Comment
1	Within 14 days of the commencement of the action, the person taking the action must advise <b>the Department</b> in writing of the actual date of commencement	Notice submitted to SEWPaC 18 May 2012 that preparatory works commenced 30 April 2012. These preparatory works related to the removal of stockpiled material a matter not subject to the Environmental Assessment Process. Advice of the commencement followed receipt of NT Development Consent on 22 May 2012 and was provided to SEWPaC 23 May.
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 Departments web site. The results of audits may also be published through the general media.	Ongoing – accurate records are being maintained
3	By 30 March of each year after the commencement of the action, the person taking the action must publish a report on their web site addressing compliance with the conditions of the approval over the previous 12 months, including implementation of any management plans as specified in the conditions. Non-compliance with any of the conditions must be reported to the Department at the same time as the Compliance Report is published.	Not applicable. The 1 <sup>st</sup> Report to be uploaded 30 March 2013, which is post the period to which the 1 <sup>st</sup> Compliance Report pertains
4	Upon the direction of the Minister, the person taking the action must ensure that an Independent Audit of compliance with the conditions	Not applicable. The Minister has not required

East Arm Wharf Expansion Works EPBC Approval 2010/5304

East Arm whart Expansion works EPBC Approval 2010/5304		
Condition Number	Action	Comment
	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 by the Minister and the audit report must address the criteria to the satisfaction of the Minister.	that an independent audit take place.
5	If the person taking the action wishes to carry out an 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 the 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 plan or strategy unless the revised plans or strategy result in an equivalent or improved environmental outcome over time. If the Minister approves the revised plans or strategy, the plans or strategy must be implemented in place of the plans or strategy originally approved.	Approved Plans and strategies – Sediment Sampling and Analysis Plan (SSAP); Dredge and Dredge Spoil Disposal Management Plan (DDSPMP); BIMOS (refer Condition 8) Dredge Spoil decant waters and suspended fines did not flow through the East Arm Wharf pond system in accord with the approved DDSPMP. Sampling has demonstrated that this has lead to no adverse impact. This issue was advised to SEWPaC. The matter has been reviewed by SEWPaC and found to be non- compliant. A revised DDSPMP addressing the issue is being developed for consideration by SEWPaC.
6	The Minister believes that it is necessary or convenient for the better protection of listed threatened or listed migratory species to do so, the Minister may request that the person taking the action make specified revision 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	Not Applicable – The Minister has not submitted a request for a revised plan

East Arm Wharf Expansion Works EPBC Approval 2010/5304

East Arm whari Expansion works EPBC Approval 2010/5504		
Condition Number	Action	Comment
	request. The revised approved plans or strategy must be implemented. Unless the Minister has approved the revised plans or strategy, 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 5 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	Work has commenced, so this condition is no longer applicable.
8	Unless otherwise agreed in writing by the Minister, the person taking the action must publish all plans and strategies referred in these conditions of approval on their website. Each plan or strategy must be published on the website within one month of being approved.	All approved plans have been uploaded to the following web site <u>www.eastarmwharf-</u> <u>eis.nt.gov.au</u> , though outside of the required timeframe.
9	The expansion of the East Arm Wharf must be constructed in accordance with the footprint as shown at Annexure 1 of this approval, subject to the Conditions set out below.	Complied.
10	No Blasting Works are to be undertaken	Complied.
11	The person taking the action must ensure a dredging Technical Advisory Group (TAG) is established, prior to and for the duration of <b>dredging</b> operations, to provide advice to the person taking the action on the development, endorsement, implementation and review for adaptive management purposes of the Dredge and Dredge Spoil Placement Management Plan (DDSPMP), referred to at condition 16.	Complied. The TAG was appointed 25 March 2012, well prior to the commencement of dredge operations on 2 October 2012.
12	The members of the TAG must include at least three <b>independent</b> scientific experts, with expertise in water quality, migratory birds, and large marine species, and an <b>independent dredging</b> technical advisor. The membership of the TAG must be submitted	Complied. The TAG includes independent experts on water quality, turtles, dolphins, migratory birds, water quality and dredging.

East Arm Wharf Expansion Works EPBC Approval 2010/5304

Condition Number	Action	Comment
	to the Department for approval in writing prior to the development and submission of the DDSPMP to the Minister for Approval.	
	The person taking the action must ensure that the TAG undertakes the following:	
13	<ul> <li>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 (EPBC2008/4208) dredging program, and dredge and spoil placement methodology to protect water quality, dolphins, marine turtles, dugongs, migratory birds and their habitat; and</li> <li>b) Provide advice on exceedance of trigger values and changes to dredge practices, through the DDSPMP, as required.</li> </ul>	Complied – The TAG is providing advice on the range of matters specified in the approval.
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 1 week of the person taking the action receiving advice from the TAG in respect to Condition 13a) and within 48 hours in respect to condition 13b)	All TAG advices/recommendations have been referred to SEWPaC. Some of the advices have been submitted outside of the required time.
15	The person taking the action must ensure <b>capital dredging and</b> <b>dredge spoil</b> placement into the ponds is only undertaken outside the <b>wet season. Capital dredging and</b> dredge spoil placement must not be undertaken during November other than in accordance with and approved DDSPMP which contains additional management measures to minimise turbidity impacts and disturbance to migratory birds.	Complied – Dredging ceased on 23 November 2012, in line with approval condition.

East Arm Wharf Expansion Works EPBC Approval 2010/5304

Condition Number	Action	Comment
16	The person taking the action must submit a Dredge and Dredge Spoil Placement Management Plan to the Minister for approval.	Complied – The DDSPMP was approved on 2 October 2012.
17	<ul> <li>The DDSPMP must include the following</li> <li>a) Monitoring, trigger levels and management actions to ensure that areas outside the zones of high impact, moderate impact and influences as identified in the NT Department of Lands and Planning East Arm Wharf Expansion project Marine Environment Impact Assessment Technical Report 18 January 2012, figure 4 (Annexure 2) are not impacted by suspended sediment concentrations.</li> <li>b) Monitoring, trigger levels and management actions which consider the dredging program for the INPEX LNG Project (EBC2008/4208) and areas that may be impacted by both dredging programs;</li> <li>c) Consider the results of the Sediment Sampling and Analysis Plan (SSAP) required at Condition 24;</li> <li>d) Management measures, including consideration of avoiding dredging outgoing tides and low tidal heights to minimise impact upon sensitive receptors;</li> <li>e) Management measures, trigger levels, contingency measures, corrective actions, operational procedures and responsible persons to minimise the impacts to marine turtles, dolphins, dugong, sawfishes, migratory birds and their habitat during dredging and dredge spoil placement;</li> <li>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.</li> <li>This must include undertaking at least two summer surveys 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 management measures at POnd D.</li> <li>The surveys identified in 17(f)(i) must be compliant with the current <i>Significant impact guidelines for 36 migratory shorebird species policy statement</i>, produced by the Department</li> </ul>	Complied – refer Condition 16

East Arm Wharf Expansion Works EPBC Approval 2010/5304

	East Arm Whart Expansion Works EPBC Approval 2010/5304		
Condition Number	Action	Comment	
	<ul> <li>g) Report 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.</li> <li>h) Unless otherwise agreed in writing by the Minister, the person taking the action must publish a monitoring program report which shows the monitoring results for the DDSPMP 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.</li> </ul>		
18	Following receipt of advice from the TAG, the DDSPMP must be submitted for approval by the Minister prior to the commencement of dredging, unless otherwise approved in writing by the Minister.	Complied – Dredge operation commenced immediately following receipt of the Minister's approval of the DDSPMP on 2 October 2012.	
19	The DDSPMP must be reviewed and revised upon the advice of the TAG, referred to in Condition 11, to enable continuous improvement and adaptive management of the dredge and spoil placement methodology	Complied - The TAG reviews all weekly, monthly and exceedance reports in association with the DDSPMP. Various comments/recommendations have been made that have been implemented. For the period of this Compliance Report the TAG has not requested that Plan be modified to address either management of the process or the specified triggers.	
20	Any proposed alteration to Monitoring, Triggers and Management actions must be referred to TAG for advice, referred to at Condition 11, prior to submission to the Minister, in accordance with Condition 5	Complied	
21	The person undertaking the action must not commence Dredging unless the Minister has approved the DDSPMP. If the Minister approves the DDSPMP then the approved DDSPMP must be	Complied	

#### East Arm Wharf Expansion Works EPBC Approval 2010/5304

East Arm whart Expansion works EPBC Approval 2010/5304		
Condition Number	Action	Comment
	implemented	
22	The person taking the action must ensure all water flows out of the ponds must be controlled.	Complied.
23	The person taking the action must not undertake any overwater maintenance, to limit impacts to listed threatened species or listed migratory species.	Complied
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.	Complied
25	The SAP must detail the sampling and testing methodology for in accordance with <i>National Assessment Guidelines for Dredging (2009).</i> The SAP must be submitted for approval by the Minister. If the Minister approves the SAP then the approved SAP must be implemented.	Complied - SSAP approved 9 May 2012, and 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 incorporated into the Water Quality Management Plan (WQMP) referred to at Condition 27	Complied – SSAP provided to SEWPaC 9 May 2012 and incorporated into the WQMP contained in the DDSPMP approved 2 October 2012.
27	The person taking the action must submit a WQMP to the Minister for approval, to minimise the impacts to marine turtles, dolphins, dugongs, sawfish, migratory birds and their habitat during dredging, dredge spoil placement and dewatering	Complied. WQMP forms part of the approved DDSPMP
28	The WQMP must include the following: a) Consideration of the results of the SAP (Condition 24);	Complied. WQMP forms part of the approved DDSPMP
	b) Monitoring program, management triggers, contingency measures,	

East Arm Wharf Expansion Works EPBC Approval 2010/5304

East Arm Whart Expansion Works EPBC Approval 2010/5304		
Condition Number	Action	Comment
	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 bund walls to ensure appropriate design o prevent water quality impacts by 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.	Complied. WQMP forms part of the approved DDSPMP
30	No Marine Piling is to be undertaken	Complied.
	<ul> <li>The person undertaking the action must undertake Piling in the following way:</li> <li>a) Establish a 500m exclusion zone for marine turtles, dugongs and dolphins;</li> <li>b) Pre-start visual observations: Visual observations for marine turtles,</li> </ul>	
31	dugongs and dolphins must be undertaken to the 500m exclusion zone by a dedicated and suitably trained crew member for at least 30 minutes before the commencement of piling activities.	Complied
	<ul> <li>c) Operating procedure: While piling is undertaken, the following procedures must be implemented:</li> <li>Visual observations of the 500m exclusion zones from the pile hammer must be maintained continuously to identify if there are any marine turtles, dugongs or dolphins present.</li> <li>If marine turtles, dugongs o dolphins are sighted within the exclusion zone action to cease all piling within 2 minutes or as soon as is safely possible.</li> <li>Piling activities must not recommence until marine turtles, dugongs,</li> </ul>	

East Arm Wharf Expansion Works EPBC Approval 2010/5304

	East Arm whart Expansion works EPBC Approval 2010/5304		
Condition Number	Action	Comment	
	<ul> <li>dolphins are observed to move out of the exclusion zone or 30 minutes have passed since the last observation.</li> <li>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 start procures may only commence if no marine turtles, dugongs or dolphins have been sighted within the exclusion zone during the pre start up visual observations.</li> <li>Piling commenced prior to sunset or prior to a period of low visibility can continue between the hours o sunset to sunrise, unless piling has been suspended for more than 15 minutes or there have been three or more marine turtle, dugong, dolphin instigated shut down situations within the last 12 hours.</li> </ul>		
32	The person taking the action must submit a Biodiversity Impact Mitigation and Offset 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 the East Arm Wharf, including dredging, increases vessel usage of the area and associated impacts to the species.	Complied. The BIMOS was approved on 2 October 2012.	
33	<ul> <li>To address residual impacts to listed and threatened migratory 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 marine works are completed. The program should:</li> <li>a) Address threats to listed threatened species and listed migratory species in Darwin Harbour and Surrounds</li> <li>b) Provide harbour surveillance patrols and reporting for vessel speed and vessel interactions with listed threatened species and listed migratory species.</li> <li>c) Monitor and handle stranded, injured or dead large marine fauna species.</li> </ul>	Complied.	

East Arm Wharf Expansion Works EPBC Approval 2010/5304

East Arm whart Expansion works EPBC Approval 2010/5304		
Condition Number	Action	Comment
	<ul> <li>d) Increase community awareness about marine debris.</li> <li>e) Assist with the implementation of the education campaign at Condition 45d).</li> </ul>	
34	The BIMOS must include a timeline for submission and implementation of the Migratory Bird Management Plan (MBMP), at Condition 36, the Coastal Offset Plan (COP), at Condition 40, and the Port Environmental Protection Plan (PEPP), at Condition 45.	Complied.
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.	Complied – Marine works commenced 2 October 2012 following receipt of the approved BIMOS on that date.
	The person taking the action must submit a Migratory Bird 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 and dredge spoil disposal and the associated impacts to the species. The MBMP must include, but may not be limited to the following:	
36	<ul> <li>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:</li> <li>Restriction of access to public and animals (dogs);</li> <li>Management and control of feral animals and invasive species within the area to be protected.</li> </ul>	A MBMP was submitted in November 2012. SEWPaC has requested revisions and the plan is yet to be approved.
	<ul> <li>b) Undertake 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 Pond D, until 5 years after the cessation of dredge spoil placement at Pond D to monitor the use of the dredge spoil ponds by the migratory birds and to measure the</li> </ul>	

East Arm Wharf Expansion Works EPBC Approval 2010/5304

East Arm whart Expansion works EPBC Approval 2010/5504		
Condition Number	Action	Comment
	effectiveness of the management measures at pond D.	
	c) Consideration of capturing, banding and marking migratory shorebirds that currently use the East Arm Wharf Spoil Ponds, to track their response to the expansion works and to monitor the effectiveness of the management measures referred to under section 36a).	
	<ul> <li>d) Undertake adaptive Management Measures for 36a), taking into account the surveys completed through Conditions 36b) and 36 c).</li> </ul>	
37	The MBMP must be submitted no later than 1 years from commencement of action	Complied - A plan was submitted to the Commonwealth 27 Nov 2012.
38	The person taking 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.	Complied.
39	If the Minister approves the MBMP then the approved MBMP must be implemented.	Not applicable.
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 impact to the 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 associated impacts to species.	Not applicable - Plan under development.
41	The COP must include identification of 50 hectares of verified habitat for dolphins and provision for the protection and management of the area in perpetuity.	Not applicable - Plan under development.
42	The COP must be submitted for approval by the Minister no later than two years from the commencement of the action.	Not applicable - Plan under development.

East Arm Wharf Expansion Works EPBC Approval 2010/5304

Condition Number	Action	Comment
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.	Complied.
44	If the Minister approves the COP the approved COP must be implemented.	Not Applicable.
45	<ul> <li>The person taking the action must submit a Port Environment Protection Plan (PEPP) to the Minister for approval. The PEPP must address the consequential and residual impacts of 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:</li> <li>a. Measures to manage the risk of vessel strike to marine fauna. The must include prescribed maximum commercial vessel speed limits; enforcement of speed limits; monitoring and reporting of vessel strike; and adaptive management measures.</li> <li>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.</li> <li>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.</li> <li>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.</li> </ul>	Complied - A PEPP was submitted to the Commonwealth on 10 October 2012. SEWPaC has requested revisions and the plan is yet to be approved.
46	The PEPP must be submitted for approval by the Minister no later	Complied
.0	than 6 months from the commencement of the action.	A draft PEPP was submitted on 10 October

East Arm Wharf Expansion Works EPBC Approval 2010/5304

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Condition Number	Action	Comment	
		2012.	
47	The person undertaking the action must not commence work on the Tug and small vessels berths or barge ramp and hardstand area, as identified in Annexure 1, unless the Minister has approved the PEPP.	Complied – Work has not commenced on the tug and small vessel berths or barge ramp and hardstand	
48	Commercial use of the MSB cannot begin until the Minister has approved the PEPP	Complied – Construction of the MSB is still underway. No commercial use has occurred.	
49	If the Minister approves the PEPP then the approved PEPP must be implemented.	Not applicable.	