



# Construction Compliance Report #2

Eden Breakwater Wharf Extension

September 2018

Level 17, 141 Walker St  
North Sydney NSW 2060  
Australia

301311-13734-EN-REP-003737

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WorleyParsons Group



## Synopsis

The Construction Compliance Report has been prepared by Advisian to provide details of the results of compliance with the terms of the State Significant Infrastructure (SSI) Approval granted under the *Environmental Planning & Assessment Act 1979* for the Eden Breakwater Wharf Extension (the Project). The Project is to be carried out by NSW Department of Industry (the Principal).

Specifically, this Report has been prepared to address the requirements in **Conditions A21 and A23** of the Infrastructure Approval (SSI 7734).

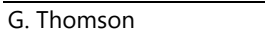
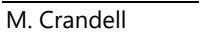
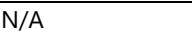
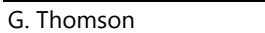





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## Project No: 301311-13734-EN-REP-0037 – Construction Compliance Report #2: Eden Breakwater Wharf Extension

Rev	Description	Author	Review	Advisian Approval	Date
A	Draft for Review	 G. Thomson	 M. Crandell	 N/A	15.09.2018
B	Draft for Client Review	 G. Thomson	 G. Vardy	 N/A	18.09.2018
0	Issued for Use	 G. Thomson	 G. Tallentire	 G. Tallentire	25.09.2018

### Endorsement by Environmental Representative

Name: Sofie Mason-Jones

Signature:



Date: 26.09.2018



## Table of Contents

Acronyms and Terms.....	iv
1 Introduction.....	1
1.1 Purpose and Content of this Report .....	1
1.2 Project Description .....	1
1.3 Project Status.....	2
2 Summary and Analysis of Environmental Monitoring .....	3
2.1 Noise and Vibration Monitoring.....	3
2.1.1 Stage 2 – Marine Structures; Noise Monitoring Summary.....	3
2.1.2 Stage 2 – Marine Structures; Vibration Monitoring Summary.....	3
2.2 Marine Ecology Monitoring.....	3
2.2.1 Stage 2 – Marine Structures; Marine Ecology Monitoring Summary	4
2.3 Water Quality (Turbidity) Monitoring .....	4
2.3.1 Stage 2 – Marine Structures; Water Quality Monitoring Summary ...	4
3 Complaints Register Summary .....	5
4 Review and Amendments to the CEMP .....	6
5 Consistency Assessments.....	7
6 Environmental Audits .....	8
7 Environmental Incidents.....	9
8 Other Matters .....	10
9 References.....	11

## Appendix List

Appendix A: Marine Ecology Monitoring Summary for Stage 2



## Acronyms and Terms

Acronym/Term	Definition
CEMP	Construction Environmental Management Plan
Consistency assessment	An assessment of whether a proposed activity for the purpose of the SSI is consistent with the terms of approval
Construction	<p>Includes all physical work required to construct the SSI, other than the following low impact work:</p> <ul style="list-style-type: none"> <li>a. Survey works including carrying out general alignment survey, installing survey controls (including installation of global positioning system (GPS)), installing repeater stations, carrying out survey of existing and future utilities and building and road dilapidation surveys, and hydrographic survey;</li> <li>b. Background and/or baseline monitoring works;</li> <li>c. Investigations including investigative drilling and excavation;</li> <li>d. Establishment of ancillary facilities in approved locations or in locations meeting the criteria identified in Conditions A9 and Condition A11 of the approval including constructing ancillary facility access roads and providing utilities to the facility;</li> <li>e. Operation of ancillary facilities if the ER has determined the operational activities will have minimal impact on the environment and community;</li> <li>f. Minor clearing and relocation of native vegetation, as identified in the EIS/Submissions Report;</li> <li>g. Installation of mitigation measures including erosion and sediment controls, temporary exclusion fencing for sensitive areas and acoustic treatments;</li> <li>h. Relocation and connection of utilities where the relocation or connection does not present a significant risk to the environment as determined by the ER;</li> <li>i. Archaeological testing under the <i>Code of practice for archaeological investigation of Aboriginal objects in NSW</i> (DECCW 2010) or archaeological monitoring undertaken in association with [a]-[i] above to ensure that there is no impact on heritage items;</li> <li>j. Other activities determined by the ER to have minimal environmental impact which may include construction of minor access roads, temporary relocation of pedestrian and cycle paths and the provision of property access; and</li> <li>k. Maintenance of existing buildings and structures required to facilitate the carrying out of the SSI.</li> </ul> <p>However, where heritage items, or threatened species, populations or ecological communities (within the meaning of</p>



Acronym/Term	Definition
	<p>the EP&amp;A Act) are affected or potentially affected by any low impact work, that work is construction, unless otherwise determined by the Secretary in consultation with OEH or DPI Fisheries (in the case of impact upon fish, aquatic invertebrates or marine vegetation).</p> <p>The low impact work described in this definition becomes construction with the approval of a Construction Environmental Management Plan.</p>
Department of Industry	Including NSW Department of Industry
DISRD	(former) NSW Department of Industry, Skills and Regional Development. Now Department of Industries
DP&E	NSW Department of Planning and Environment
DPI	NSW Department of Primary Industries including DPI Agriculture, DPI Biosecurity and Food Safety, DPI Water and DPI Fisheries
EIS	<p>The <i>Eden Breakwater Wharf Extension State Significant Infrastructure – Environmental Impact Statement</i>, dated 3 November 2016, submitted to the Secretary seeking approval to carry out the SSI and as revised if required by the Secretary under the EP&amp;A Act</p>
EPA	NSW Environment and Protection Authority
EPL	Environment Protection Licence under the POEO Act
ER	The Environmental Representative for the SSI
Incident	<p>An occurrence or set of circumstances that:</p> <ul style="list-style-type: none"> <li>▪ Causes, or threatens to cause, material harm to the environment, community or any member of the community, being actual or potential harm to the health or safety of human beings or to threatened species, endangered ecological communities or ecosystems that is not trivial; or</li> <li>▪ Results in non-compliance with the approval.</li> </ul> <p><i>Note: this meaning of “material harm” applies for the purpose of the approval only</i></p>
Infrastructure Approval	<p>Infrastructure Approval (SSI 7734) issued by the Executive Director, Priority Projects Assessment (as delegate of the Minister for Planning) DP&amp;E under Section 115ZB of the <i>Environmental Planning and Assessment Act 1979</i>, dated 5 July 2017.</p>
POEO Act	<i>Protection of the Environment Operations Act 1997</i> (NSW)
NSWPA	Port Authority of NSW
NTU	Nephelometric Turbidity Unit
Relevant Maritime Authority	<p>Harbour Master or authorised officer as defined in the <i>Marine Safety Act 1998</i>, or authorised officer or inspector under the <i>Marine Pollution Act 2012</i></p>
Secretary	<p>Secretary of the NSW Department of Planning and Environment (or nominee, whether nominated before or after the date in which the SSI approval was granted)</p>



Acronym/Term	Definition
RTS	<i>Response to Submissions Report Eden Breakwater Wharf Extension, dated 24 February 2017, including the Summary of Proposed Mitigation Measures.</i>
SSI	The State Significant Infrastructure, as generally described in Schedule 1 (SSI 7734), the carrying out of which is approved under the terms of the approval



# 1 Introduction

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Advisian has been engaged by the NSW Department of Industry (the Principal) to prepare this Construction Compliance Report for the Eden Breakwater Wharf Extension (the Project).

## 1.1 Purpose and Content of this Report

This report addresses Conditions A21 and A23 of the State Significant Infrastructure (SSI) Approval No. 7734 (Infrastructure Approval).

The above-mentioned conditions require a Construction Compliance Report to be prepared and submitted to the Secretary for information every six months from the date of the commencement of Construction or within another timeframe agreed with the Secretary.

The Construction Compliance Report includes the following, as required by Condition A23:

- (a) A results summary and analysis of environmental monitoring (Section 2);
- (b) A summary of the Complaints Register required under Condition A28 including the number of any complaints received, a summary of main areas of complaint, action taken, response given and proposed strategies for reducing the recurrence of such complaints (Section 3);
- (c) Details of any review of, and minor amendments made to the Construction Environmental Management Plan (CEMP) (Section 4);
- (d) A register of any consistency assessments undertaken and their status (Section 5);
- (e) Results of any independent environmental audits and details of any actions taken in response to the recommendations of an audit (Section 6);
- (f) A summary of all incidents notified in accordance with Condition A33 and Condition A34 of the Infrastructure approval including actions taken to address the cause or impact of an incident (Section 7); and
- (g) Any other matter relating to compliance with the terms of this approval or as requested by the Secretary (Section 8).

Construction commenced on the 4 September 2017. This report covers the second six month period from March 2018 to August 2018.

## 1.2 Project Description

The Project comprises the extension of the existing Eden Breakwater Wharf and dredging of the approach channel and berth pocket with offshore disposal, to accommodate the berthing of cruise ships of up to 325m in length.



Key features of the Project include:

- Extension of the existing wharf by approximately 95m;
- Installation of three mooring dolphins and two berthing dolphins;
- Installation of new landside bollards to restrain the ship's bow;
- Dredging of approximately 231,500m<sup>3</sup> of in-situ material (including over-dredging allowance);
- Transport and placement of the dredge material at an offshore disposal site;
- Installation of minor services (lighting, power, potable water and emergency water); and
- Installation of navigational aids.

The Eden Breakwater Wharf is located in Snug Cove, Eden, New South Wales and the offshore disposal site is approximately 6 nautical miles offshore from Twofold Bay.

### **1.3 Project Status**

During the period covered by this report (March 2018 to August 2018), the following key activities have been undertaken relative to Stage 2 as outlined in the Project Staging Report (Advisian 2017, as submitted to the Secretary 24 July 2017 in accordance with Condition A37 of the Infrastructure Approval):

- Marine Structures Contractor mobilised to site 7 March 2018
- Nearby building conditions surveys complete
- Noise and Vibration monitoring equipment installed and monitoring complete
- Fabrication of pre-cast deck planks commenced and was completed on 15 August 2018, Silane treatment ongoing
- Fabrication of Headstock troughs commenced and is ongoing, 18 have been poured
- Piles were received and stored at the PANSW storage facility on the southern side of Twofold Bay
- Piling works commenced on the 28 April 2018 and is ongoing with 78 wharf piles (56 complete and 22 partially complete) and nine onshore bollard piles having been completed
- Dolphin topside fabrication is ongoing (off-site fabrication)
- One headstock installed on the wharf
- Temporary works have commenced for transition wharf
- Trimming piles is ongoing
- Removal of rock armour and pile gate poured for navigational aid/tower
- The Jack-up barge has mobilised to site and has been assembled and commissioned.





## **2 Summary and Analysis of Environmental Monitoring**

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### **2.1 Noise and Vibration Monitoring**

In accordance with Conditions C3 and C10 of the Infrastructure Approval a Construction Noise and Vibration CEMP Sub-plan and Construction Noise Monitoring Program (Revision 1, 6 February 2018) were approved by the Secretary of DP&E on 28 February 2018.

The CEMP Sub-plan and monitoring program have been implemented for Stage 2 activities. Noise and vibration monitoring was completed for the first two weeks of piling as required by the Noise and Vibration Monitoring CEMP Sub-plan.

#### **2.1.1 Stage 2 – Marine Structures; Noise Monitoring Summary**

Two noise loggers were deployed by sub-contractor ERM (previously Pacific Environment Limited (PEL)) on the 27 April 2018 and commenced continuous logging. An intensive monitoring period was undertaken during the commencement of piling by ERM and covered the two-week period from 27 April and 10 May 2018. The results of the intensive monitoring were compared to the Project Approval limits and the measured noise levels were typically within the Approval limits.

During the period covered by this report (March 2018 to August 2018), continuous noise monitoring was carried out with no exceedances of the predicted levels occurring, nor any complaints received from the community.

#### **2.1.2 Stage 2 – Marine Structures; Vibration Monitoring Summary**

Short term attended and long term vibration monitoring were completed at a location representative of the nearest structure, a commercial building adjacent to the existing wharf and adjacent to the nearest receivers on By St.

Observations during attended measurements identified that piling activities were below relevant criteria and limits for all observed activities.

### **2.2 Marine Ecology Monitoring**

In accordance with Conditions C3, C10 and C17 of the Infrastructure Approval, an Aquatic Ecology CEMP Sub-plan and Marine Ecology Construction Monitoring Program were developed and have been implemented for Stage 2 activities.

The Marine Ecology CEMP Sub-plan and Construction Monitoring Program apply to both Stages 1 and 2.



## **2.2.1 Stage 2 – Marine Structures; Marine Ecology Monitoring Summary**

Marine Ecology Monitoring relating to Stage 2 of the Project (marine structures) involves the monitoring of cetaceans (whales) and is a requirement of the Environment Protection and Biodiversity Conservation (EPBC) referral (EPBC 2016/7828).

During the period covered by this report (March 2018 to August 2018), monitoring of whales (as listed under the *EPBC Act*) has been undertaken by Marine Mammal Observers in line with the EPBC Referral Decision (as described in Section 2.2) to ensure piling operation procedures do not impact whales.

No incidents or issues in relation to monitoring of whales were identified with Marine Mammal Observations and Marine Fauna Observation completed during piling activities and during vessel movements.

The whale register containing all sightings of whales during piling activities is contained in Appendix A.

## **2.3 Water Quality (Turbidity) Monitoring**

In accordance with Condition C10c of the Infrastructure Approval, a Water Quality (Turbidity) CEMP Sub-plan, including the Water Quality Construction Monitoring Program (Revision 1, 8 February 2018) was approved by the Secretary on 28 February 2018 and implemented for Stage 2 activities.

### **2.3.1 Stage 2 – Marine Structures; Water Quality Monitoring Summary**

The Environmental Risk Assessment undertaken for Stage 2 of the Project has assessed the residual risk of increased turbidity as low. In addition, the risk analysis undertaken as part of the EIS also did not identify a need for turbidity monitoring relating to piling activities.

During the period covered by this report (March 2018 to August 2018), water quality observations have been documented on a daily basis. No issues or concerns arising have been reported as part of the Contractor(s) weekly report to the Principal.



### **3 Complaints Register Summary**

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During the period covered by this report (March 2018 to August 2018), there have been no complaints received.



## 4 Review and Amendments to the CEMP

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The CEMP was updated to include Marine Structures Contractor Environmental Risk Assessment, CEMP Sub-plans and additional Mitigation Measures to be implemented for Stage 2. These updates/inclusions were accepted by DP&E on 28 February 2018 and have been implemented during Stage 2.

During the period covered by this report (March 2018 to August 2018), only one minor amendment was made to the CEMP (in accordance with Condition A16j) and is detailed in Table 1

**Table 1 Reviews of and Amendments to the CEMP, CEMP Sub-plans and Community Communication Strategy.**

Date	Suggested amendment	Outcome
21/06/18	Updated Community Communication Strategy with updated contact information titles and Action Plan	Community Communication Strategy updated and revision provided (and accepted) by DP&E.



## 5 Consistency Assessments

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Informal consistency assessments occurred weekly during construction in accordance with the Project's approved Compliance Tracking Program. Each week, the tracking spreadsheet is filtered for different environmental aspects; traffic, community, marine ecology, noise, etc. and checks carried out to confirm compliance with the Infrastructure Approval, EPBC Act referral decision notice, Sea Dumping Permit Variation, Harbour Master approval and mitigation measures from the EIS/RTS.

These assessments and their outcomes are provided to the ER for his information and outcomes are incorporated into the monthly Environment Representative Report submitted to DP&E.

No non-conformances have been identified to date.



## 6 Environmental Audits

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No independent audits have been completed. The first independent audit is scheduled for September 2018, in accordance with Condition A24 of the Infrastructure Approval, requiring compliance audits be conducted annually.

The ER has completed environmental audits and/or reviews during each of his visits (approximately monthly) of which the actions and outcomes have been submitted to DP&E as part of the monthly ER report.



## **7 Environmental Incidents**

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Zero environmental incidents occurred during the period of this report (March 2018 to August 2018).



## 8 Other Matters

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There are no other matters relating to the compliance with the terms of the Infrastructure Approval or has been requested by the Secretary during the period covered by this report (March 2018 to August 2018).





## 9 References

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Advisian (2016). Environmental Impact Statement. Prepared for the NSW Department of Industry – Lands. 3 November 2016.

Advisian (2017). Response to Submissions Report. 24 February 2017.



**Advisian**

WorleyParsons Group

Department of Industry  
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## Appendix A: Marine Ecology Monitoring Summary for Stage 2

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