

Flinders Ports Pty Ltd  
**Outer Harbor Channel Widening  
Project**  
Closure Plan (U-995)

Issue 3 | 05 June 2019

This is the approved Closure Plan under condition  
2.4.1 of EPA Licence 50556.

Reviewed by Jackie Dupavillon Date 5 June 2019

Signed: [REDACTED]

Approved by David Vaughan Date 5 June 2019

Signed: [REDACTED]

This report takes into account the particular  
instructions and requirements of our client

It is not intended for and should not be relied  
upon by any third party and no responsibility  
is undertaken to any third party

Job number 253257-00

**Arup**  
Level 5  
151 Clarence Street  
Sydney NSW 2000  
Australia  
[www.arup.com](http://www.arup.com)

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# Document Verification

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		Name	John Haese	Jasvindar Opkar	John Haese
		Signature			
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### Appendix A

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## 1 Introduction

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Flinders Ports has prepared this Closure Plan to comply with the requirements of the Dredge Licence issued by the Environmental Protection Authority (EPA) on the 12 March 2019 (#50556).

This document should be read in conjunction with the Environmental Monitoring Program (EMP) and Dredge Management Plan (DMP) prepared and approved for the Project. It summarises for brevity the key information and activities which is contained within these two documents to avoid duplicating the information and ensure consistency and clarity across documents.

The DMP / EMP documents can be located at the following website:

<https://www.flindersports.com.au/about-the-project/resources/>

## 2 Closure Plan Details

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This Plan details how Flinders Ports will manage the finalisation and demobilisation of the Dredge Contractor as well as the completion of the Environmental Monitoring Program.

The Closure Plan addresses the actions required to successfully close-out the Project and is based upon full completion of the DMP and EMP dredging activities contained within those plans.

## 2.1 Roles and Responsibilities

The primary roles and responsibilities associated with the Closure Plan are summarised below and in Table 1.

Entity	Role
Flinders Ports	<ul style="list-style-type: none"> <li>Ensuring the dredge contractor has undertaken all necessary biosecurity inspections</li> <li>Ensure all necessary plans or surveys have been approved by relevant approval agencies prior to dredging completion</li> <li>Ensuring the dredge contractor has appropriate environmental management systems and reporting protocols in place</li> <li>Providing a complaints hotline and responding formally to complaints received</li> <li>Reporting any environmental incidences or approval non-conformances to relevant approval agencies</li> <li>Complying with conditions of the Dredging Licence, as the licence holder.</li> <li>Ensuring all Closure activities and deliverables have been completed to the satisfaction of the EPA and associated agencies.</li> </ul>
Dredge Contractor	<ul style="list-style-type: none"> <li>Complying with all relevant legislation and approvals during dredging and placement operations and throughout demobilisation</li> <li>Assist FP and the Environmental Representative with reporting requirements</li> <li>Assist FP and the Environmental Representative in investigating and responding to complaints received</li> <li>Provide FP with an End of Works Environmental Report</li> <li>Notify FP and the EPA in the event of an environmental incident</li> <li>Prepare and comply with a detailed Dredge Management Plan that meets the objectives of the strategic DMP</li> </ul>
Environmental Representative	<ul style="list-style-type: none"> <li>Demobilise all water quality monitoring equipment once approved to remove</li> <li>Prepare post-dredging reports for FP and regulators</li> <li>Undertake post biological surveys required as part of the Closure plan and EMP</li> </ul>
Flinders Ports Hydrographic Surveyors	<ul style="list-style-type: none"> <li>Perform hydrographic survey of Dredge Area and DMPA to required level of quality and detail for declaration of depths and update to navigational charts (as required)</li> </ul>

Table 1: Roles and Responsibilities

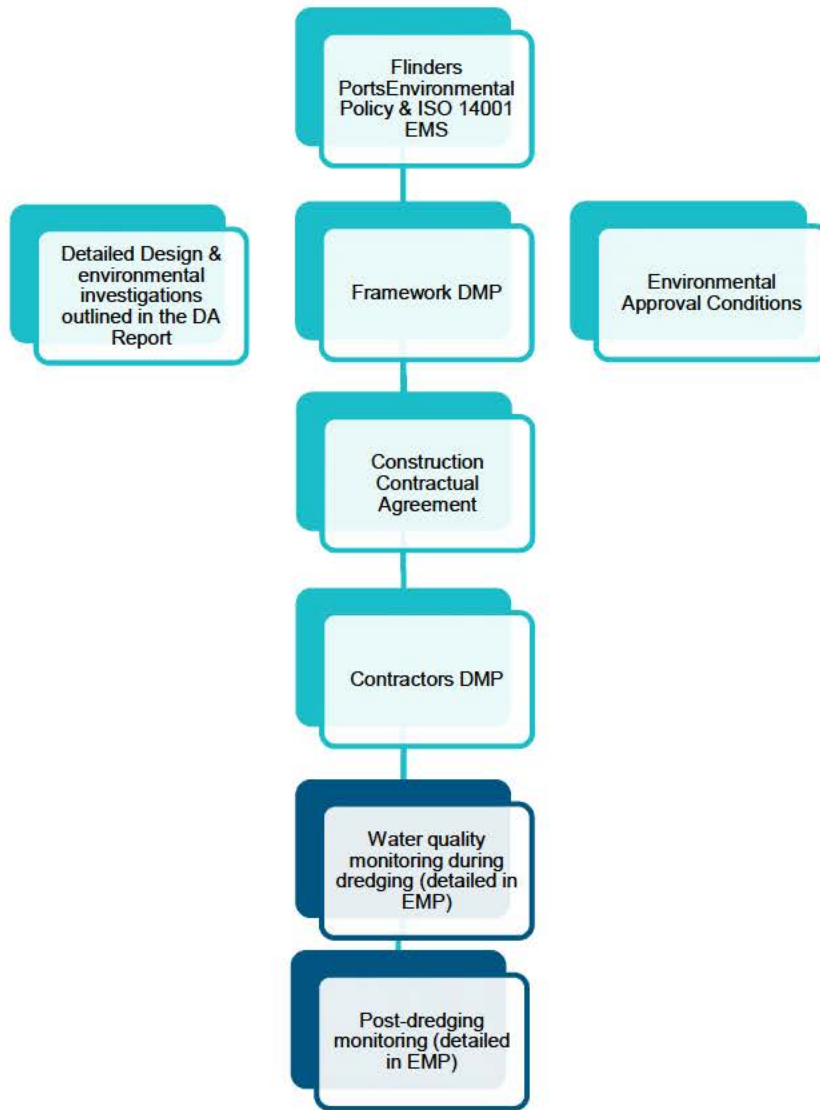


Figure 1 Environmental Management Framework

## 2.2 Relevant Legislation and Policy

The activities related to this Closure Plan will be implemented in accordance with the relevant legislation, policies and regulations and as detailed within the EMP and DMP or otherwise as required at all times.

## 2.3 Environmental Risks

A risk-based approach has been adopted for the complete development of the Project from the original Development Approval Report (Arup, 2017) through to

the detailed planning and assessment for the works and will continue to be adopted throughout the delivery stage.

The DMP addresses the key environmental risks associated with the delivery of the works and this Closure Plan focusses on the risks and activities associated with demobilisation and finalisation of the Project based upon full completion of the DMP activities prior.

## **3 Project Details**

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### **3.1 Prescribed Activity**

The prescribed activity is described in EPA Licence No. 50556 and includes the dredging of approximately 1.55million m<sup>3</sup> (+/- 20%) of material from the Dredge Area and placing this material at the DMPA.

The conditions are detailed in the Licence that must be adhered to throughout the Project. This Closure Plan is a requirement of the Licence.

### **3.2 Dredging Method and Plant**

Dredging will be undertaken by a Trailing Suction Hopper Dredger (TSHD) and a Backhoe Dredge (BHD). The softer material will typically be dredged by the TSHD and the harder material by the BHD. The BHD will load the dredged material into Split Hopper Barges (SHB) which will transport the material to the DMPA where the dredged material will be placed by opening the hopper doors.

For technical details and complete dredge working method statement for the TSHD and BHD refer to the DMP.

### **3.3 Project Timing**

Dredging equipment utilised on the project will operate on a 7 day and 24 hour basis, stopping only for maintenance and bunkering requirements. Auxiliary vessels will operate on an as and when required schedule. The expected duration of the dredging works is approximately 11 weeks and are anticipated to commence in June 2019 with a target completion in early September and no later than 30<sup>th</sup> November 2019 as a condition of the Licence.

A requirement of the Licence includes ongoing monitoring of seagrass with the final scheduled activity to be a seagrass survey report in April 2022 as part of the EMP.

## 4 Closure Deliverables

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Upon completion of the prescribed activity, the following activities and deliverables will be provided to the EPA (and other agencies as identified and required as part of the permits, licences and approvals associated with the Project). A timetable of activities for completion is also included for clarity and a gantt chart included as Appendix A to this Plan.

### 4.1 Dredging Completion

The Dredge Contractor must perform the works in accordance with the approved DMP at all times. In order to validate completion of the works, the Dredge Contractor is required to demonstrate to Flinders Ports as the Licence holder that all works have been performed in accordance with the DMP.

This process is a progressive, “live” process whereby through both contractual and regulatory reporting and documentation requirements, the Contractor will be demonstrating throughout the duration of the dredge works compliance and validation of the DMP and contractual requirements.

To establish “Completion of Dredging” the Contractor and Flinders Ports must agree that the -14.2LAT depth has been achieved fully within the Dredge Area and that all conditions and requirements of the DMP have been adhered to such as uniform deposition across the DMPA. This will be completed through the use of pre-dredge and post-dredge bathymetric surveys to establish clearly that the objectives have been achieved. This is a staged process to ensure the final calculations and validation is achieved within the shortest timeframe possible upon completion of works to avoid stand-by time for the major dredge plant.

In relation to this Closure Plan, the end of dredging works is deemed to be Practical Completion of the works under contract. There is then a period to prepare all the required documentation and reports for review and approval as well as demobilising the last elements of the works effectively and to mitigate any environmental harm (these are detailed in Section 4.2 below and the appended schedule of activities). Final approval of the documentation provided is the milestone for achieving Completion under the contract. The schedule of activities appended to this report reflects this process.

### 4.2 Dredging Demobilisation

Once Completion of Dredging has been established, the Dredge Contractor will collate and provide an End of Works Environmental Report, detailing compliance of the Project against the requirements of the DMP and all legislative requirements and confirming final demobilising activities as described below have been completed. This will be provided to the Principal’s Environmental Representative and EPA once approved by Flinders Ports for inclusion in a Completion of Dredge Report.

Flinders Ports will complete documentation and issue the 100% post-dredge bathymetric survey of both the Dredge Area and the DMPA within 30 days of



Completion of Dredging (subject to weather). This will be submitted to the EPA. During the works progressive surveys will be undertaken to monitor and manage compliance with the DMP and to ensure timely validation of the Completion of Dredging.

Declaration of the channel depth at -14.2LAT by the Harbour Master is a mandatory requirement for acceptance of Completion of Dredging by Flinders Ports.

It is scheduled that the final demobilisation activities will be completed within 30 days of the end of dredging. The Dredge Plant will demobilise during this period and prepare to depart South Australian waters once Practical Completion has been granted. Dredging demobilisation includes the preparation and submission of an Environmental End of Works Report from Dredge Contractor.

The Environmental End of Works Report will document the compliance to the DMP throughout the dredging works to address the environmental risks identified in the DMP. The management of these risks are detailed within the DMP and occur progressively throughout the works and verified through an auditing and reporting program implemented by Flinders Ports.

The Dredge vessels are 'self-contained' throughout operations noting:

- The only land-based area requiring decommissioning are the site-offices located at Berth 8 which will be vacated by the Dredge Contractor and handed back to Flinders Ports in the same condition as prior to the works;
- All mechanical/equipment repairs are done on the vessels. In the event during works repairs are required and unable to be performed on the vessel, these may be undertaken onshore and completed by a recognised specialised workshop. This would be performed in accordance with the DMP and standard compliance with Flinders Ports policy and procedures;
- All wastes, sewage and hazardous material will be stored on board the vessels, and if / when required to be unloaded to shore will be disposed of using a licensed waste contractor (Cleanaway) and in accordance with MARPOL 73/78 and the DMP. This will occur progressively during the dredging works as required and scheduled;
- Refuelling will be performed in accordance with the DMP and utilising licenced contractors during berthing at Outer Harbor during the dredging works as required and scheduled. There will be no land-based refuelling storage or facilities to decommission; and
- No equipment is deployed in the water requiring removal except the water quality monitoring buoys which will be removed by Flinders Ports upon completion of dredging and within the timeframe set out in the attached schedule.

The Dredge vessels (listed below) will depart Outer Harbor in the normal manner, notifying the Port Control Centre of planned departure time and will depart South Australian waters.

Vessels include:

- Tugboat Union Onyx
- Tugboat Union Topaz
- BHD Magnor
- TSHD Gateway
- Barge Terraferre 501
- Barge Terraferre 502
- Sweep Vessel Molly Grace

### **4.3 Environmental Monitoring Program**

In accordance with the Seagrass Monitoring Plan (appended to the EMP) there will be two seagrass surveys performed post dredging. The initial survey will occur in April 2020, with a final survey undertaken in April 2022. A detailed report will be issued to the EPA's satisfaction upon completion of each survey and identifying the impacts and condition of seagrass in accordance with the approved EMP.

The Environmental Representative will prepare a Completion Report upon receipt of the Dredge Contractor's End of Works Environmental Report and submit to the EPA. This report will detail the compliance of the Project against all the Licence conditions (and other permits and approvals associated with the Project and as relevant) and include details of any non-conformances and corrective actions adopted throughout the Project.

### **4.4 Native Vegetation Clearance Report**

In accordance with the Native Vegetation Clearance approval reports will be provided following the seagrass surveys (April 2020 and 2022) including calculations and payment of the agreed Significant Environmental Benefit (SEB) requirements.

### **4.5 Notification of Dredge Completion**

At the conclusion of the Dredge works, and once the Closure Plan activities associated with the demobilisation have been completed, Flinders Ports will provide notification to both the EPA as well as issuing notification through the Community Engagement Plan stakeholder database using Electronic Direct Mail (EDM).

## 4.6 Summary Action Table

Item	Content	Responsibility	Relevant Document	Relevant Approval	Approving Authority
Closure Plan Activities					
Post Dredge Bathymetric Survey (DMPA and Dredge Area)	Within 30 days of completion of dredging	Flinders Ports & Dredge Contractor	DMP	Flinders Ports	EPA
Navigation Chart update	Incorporate bathymetric survey details	Harbour Master & DPTI	DMP	Flinders Ports	Flinders Ports
Completion of Dredge Report	Within 30 days of completion of dredging	Flinders Ports	Closure Plan	Licence 50556	EPA
End of Works Environmental Report	Within 30 days of completion of dredging	Dredge Contractor	Contract	U-995 Closure Plan	EPA
Native Vegetation Report Post Dredging	Post Dredge in April, 2020	Environmental Representative	SMP	Flinders Ports	DEW / NVC
DMPA Licence Close-out	Bathymetric Survey details	Flinders Ports	DMP	Crown Lease	DPTI
Seagrass monitoring survey & report post dredging	Post Dredge in April, 2020	Environmental Representative	SMP	U-998, Condition 3.3.2 (Dredge Licence)	EPA
Seagrass monitoring survey & report final	Post in April 2022	Environmental Representative	SMP	U-998, Condition 3.3.2 (Dredge Licence)	EPA
Native Vegetation Report Final	Post Dredge in April, 2022	Environmental Representative	SMP	Flinders Ports	DEW / NVC
EPA Licence 50556 Surrender	Pre-Feb 2023	Flinders Ports	Licence 50556	N/A	EPA
Completion of Dredging Notification	Notify EPA & Issue EDM	Flinders Ports		N/A	EPA

Table 2: Summary Action Table

## **Appendix A**

### **Closure Gantt Chart**

# A1 Closure Gantt Chart

