

Flinders Ports Pty Ltd

**Outer Harbor Channel Widening  
Project**

EPA Dredge Licence Application -  
Consultation Response

Issue | 4 December 2018

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

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# 1 Introduction

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Flinders Ports Pty Ltd (Flinders Ports) has identified the need for an upgrade of the existing infrastructure at Port Adelaide as a priority project for Flinders Ports. A detailed Development Application (DA) Report was submitted in July 2017 in accordance with the *Development Act 1993*, as a Section 49 application given this project is defined as *public infrastructure*. Sponsorship for this application was received from the Minister for Transport and Infrastructure prior to lodgement in May 2017.

Flinders Ports DA 010/V048/17 received approval on 28th May 2018. In accordance with the *Environment Protection Act 1993*, Flinders Ports has prepared a Dredge Management Plan (DMP) to comply with the requirements of the Dredge Licence that will be issued by the Environmental Protection Authority (EPA).

Public consultation has been conducted by the EPA which concluded on the 30<sup>th</sup> November 2018. This report addresses the submissions received, which have been summarised based upon the key issues raised in submissions received as follows to facilitate clarity in the responses provided:

Many submissions covered multiple issues but there were 6 main themes and specific issues identified upon review which have been addressed. The number of submissions column (third column in Table 1 below) is targeted at ensuring all 83 responses have been addressed, with the main issue as determined from each individual response being allocated across the 6 issues identified (i.e. an individual submission may address several of the issues identified, but is counted only once in the table against the core theme of the submission).

Key Issue(s) Identified	Response Section	Number of Submissions
<p>Conditions of Licence</p> <ol style="list-style-type: none"> <li>1. A comprehensive independent environmental evaluation has been undertaken</li> <li>2. All stakeholders have been properly consulted (including the fishing industry and conservation groups)</li> <li>3. Comprehensive real-time monitoring and reporting arrangements are in place with all work to stop if conditions deteriorate</li> <li>4. An adequate security bond of at least \$100million is in place to cover the cost of environmental damage and to compensate the fishing industry and others when things go wrong</li> </ol>	Section 2.1	55
<p>Environmental Harm - Water Quality</p> <p>Historical Project (Deepening Project in 2005) and concerns with dredging process to cause significant environmental harm and hence the Widening Project should not be granted a licence due to water quality impacts throughout the works.</p>	Section 2.2	24
<p>Bio-Security</p> <p>Management of <i>Caulerpa taxifolia</i> (an invasive pest species) to prevent further spread within the marine environment</p>	Section 2.3	1
<p>Dolphin Sanctuary</p> <p>Seagrass impacts &amp; impacts upon the Dolphin Sanctuary potentially being detrimental to dolphins and the sanctuary</p>	Section 2.4	1
<p>Bird Island</p> <p>Impacts upon Bird Island / bird populations in the general vicinity due to impacts of the Project.</p>	Section 2.5	1
<p>Dredge Methodology</p> <p>Seeking an alternative to the proposed dredging methodology including longer, less intense approach (over years) with land-based disposal</p>	Section 2.6	1
<b>Total Submissions Received</b>		<b>83</b>

Table 1 Summary of key issues

## 2 Responses to Submissions

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This section provides a response to the submissions as received at the conclusion of the public consultation period. To facilitate a clear and balanced response, the key issues as identified in the consultation submissions are addressed individually and draw upon the numerous reports, studies and commitments made to date throughout the planning and approvals stages of the Project.

Flinders Ports has committed to an ongoing stakeholder engagement strategy for the duration of the Project and will seek to inform the public and interested stakeholders throughout the delivery stage of the Project.

### 2.1 Conditions of License

**Issue:** Concerns raised about the potential impacts to Gulf St Vincent and the marine environment through undertaking the dredging works. Respondents sought the following (quoted directly from submissions):

- a. *A comprehensive independent environmental evaluation has been undertaken*
- b. *All stakeholders have been properly consulted (including the fishing industry and conservation groups)*
- c. *Comprehensive real-time monitoring and reporting arrangements are in place with all work to stop if conditions deteriorate*
- d. *An adequate security bond of at least \$100million is in place to cover the cost of environmental damage and to compensate the fishing industry and others when things go wrong*

**Response:** The Development Application Report and supporting Addendum (#1 and #2) provided detailed assessment of the potential impacts upon the environment and detailed the actions and mitigations that will be adopted during delivery of the Project. This assessment involved detailed investigation and assessment of the impacts of the project to water quality, seagrass, fisheries values and other aquatic fauna. The Development Assessment process required that consultation was undertaken with the government agencies, the community and other stakeholders. The conditions of approval detail specifically the mandatory obligations that Flinders Ports must adhere to throughout the delivery of the Project.

Flinders Ports has also committed to a detailed Stakeholder Engagement strategy to inform the Dredging Licence application, which will continue until completion of the Project. Stakeholders have been and will continue to be afforded the opportunity to engage with the Project at all times, including the fishing industry and conservation groups amongst others. Further details can be located at <https://www.flindersports.com.au/channelwidening/>.

The monitoring and controls to be implemented for the Project are detailed within the DMP provided and are also a condition of approval that will be adhered to by Flinders Ports. This monitoring program is specifically designed to manage the

dredge activity throughout the works to mitigate the impacts upon seagrasses and the marine environment (Refer DMP Section 2.3 Marine Water Quality and 2.5 Seagrass Management).

Flinders Ports has committed to a range of actions through the development approvals process that provide best practice approach to the mitigation of environmental impacts, including the “no-side casting” approach to dredging. In addition, and parallel to this application, Flinders Ports has undertaken a detailed assessment of the project in accordance with the *Native Vegetation Act 1991* and proposed to apply a Significant Environmental Benefit (in the form of payment) to account for the predicted impacts upon seagrasses through undertaking the Project.

## 2.2 Environmental Harm

**Issue:** Water Quality

**Response:** The 2005 dredge campaign was undertaken using a method involving ‘side-casting’, or double handling of material, which created significant dredge plumes. The conditions of the 2018 development approval do not allow this method to be used again. The volume of material to be dredged from the channel for this campaign (1.6 million cubic metres) is also much smaller than that removed in 2005 (2.7 million cubic metres), which further reduces dredge plumes produced when fine materials are disturbed in comparison to the previous campaign.

Flinders Ports are required under the Development Approval, to undertake real-time monitoring of the turbidity produced during dredging (this was not undertaken in 2005). This information will be provided instantaneously to the dredge contractor who is required to modify or halt dredging activity, should a water quality limit be triggered. Flinders Ports are required to report any exceedance of water quality limits to the EPA, for further investigation. This reactive monitoring program will also assist in controlling dredge plumes (DMP Section 2.3 Marine Water Quality). Flinders Ports have already deployed real-time instruments to collect data on baseline water quality (commenced in June 2018 - data has been made available to the EPA), which will be used to set water quality limits for the project.

The combination of improved methodology, reduced volume and real-time monitoring/reporting is predicted to significantly reduce water quality (and seagrass) impacts in comparison to the 2005 campaign, and in line with current global best practice standards for dredging projects.

## 2.3 Seagrass Loss

**Issue:** Turbidity from dredging activity will result in widespread seagrass loss and recovery will not occur.

**Response:** The proposed dredging methodology minimises the turbidity produced as much as possible. Further mitigation measures have also been proposed to further reduce the amount of seagrass lost as a result of dredging:

- Turbidity will be measured using real-time monitoring systems that will immediately alert the dredge contractor when limits are close to being reached. The dredging contractor will then be required to alter or cease dredging until water quality returns to set limits. This reduces the exposure of seagrass to turbid plumes and a reduction in light availability for a period of time that would cause loss, although some impacts are still predicted, particularly close to the shipping channel.
- Dredging is being undertaken in the winter months, when seagrass is dormant, and less sensitive to a reduction in light availability.
- Seagrass surveys will be undertaken before and after works to monitor impact and recovery.

Responders have highlighted the loss of seagrass following the previous dredge campaign. Whilst there was loss of seagrass immediately post-works, surveys did show recovery in areas surveyed after a 12 month period. Surveys were limited in extent however, so it is difficult to quantify the extent of short-term loss. The most recent seagrass surveys undertaken for the 2017 development application covered a wide area and show that seagrass beds either side of the channel are extensive and in good condition.

## 2.4 Bio-Security

**Issue:** Preventing the spread of *Caulerpa taxifolia*

**Response:** *Caulerpa taxifolia* (*C. taxifolia*) is a specific invasive species identified and addressed in the project planning stage. Flinders Ports will adhere to all requirements of bio-security including a specific action to ensure *C. taxifolia* is managed appropriately and as detailed in the development application. This was detailed in the DMP (Section 2.6 Marine Pests and Ballast Water). The most recent survey (2018) undertaken along the length of the area to be dredged only identified *C. taxifolia* in a small section of the swing basin, indicating that it is not widespread within the area to be disturbed.

A detailed survey prior to commencement of dredge works will be conducted to confirm the presence (and locations if identified as present) within the Project area and a risk assessment and management plan will be prepared for review and agreement with Bio-Security SA to ensure appropriate actions are identified, agreed and implanted to reduce the risk of any bio-security incidents.

## 2.5 Dolphin Sanctuary

**Issue:** Concerns raised about the impacts upon the Dolphin Sanctuary through the dredge works

**Response:** The Development Application report detailed the assessment of the Project and the Dolphin Sanctuary. The key risks and impacts were identified and are addressed through the provision of trained marine mammal observers who will be present during all dredge activity and vessel movement. Piling works (not associated with this licence) will be performed in accordance with the DPTI

Underwater Piling Noise Guidelines (2012) and with conditions of approval issued by the Commonwealth Department of Environment and Energy (DoEE). This includes ‘soft start’ procedures to encourage marine mammals to leave the area; and shut down procedures in the event of marine mammals being observed within proximity of piling activity. Flinders Ports are required to report any wildlife incidents to the EPA and DoEE immediately and investigate and rectify the cause.

The dredge plant maintains low speeds at all times during the works and will maintain strict protocols to avoid marine mammals in accordance with the DMP (Section 2.4 Marine Megafauna).

## 2.6 Bird Island

**Issue:** Protection of migratory bird species present at Bird Island

**Response:** The Federal Department of Environment and Energy assessed the impact of the project on internationally protected migratory birds, in accordance with the *Environment Protection and Biodiversity Conservation Act 1999*. The Department determined that the project was not a significant impact to migratory bird species and granted approval.

The DMP prohibits dredge contractors from entering Bird Island at any time.

## 2.7 Dredge Methodology

**Issue:** Propose an alternative methodology over longer time with land disposal

**Response:** The proposed methodology has been adopted following detailed assessment and comparison with other options as identified in the Development Application Report. Extending the duration albeit at a less intense dredge rate does not achieve the overall objectives for the Project and has been eliminated on this basis. It would expose seagrass to turbid conditions for a longer period, and likely result in greater seagrass loss.

As highlighted in the development report, there is an increasing number of Post Panamax class container vessels visiting the port, and this will continue to increase. As highlighted in the economic assessment, and noting Adelaide is the only mainland port unable to accommodate these larger container vessels currently, the risk of shipping “skipping” Adelaide increases over time without the Widening Project being completed, with the subsequent economic impacts detailed in the report.

The placement of material on land has been addressed in detail through the development approvals process (refer DA Report, Arup, 2017 and appendices for further details).