

Terri-Ann English  
A/Director  
Department of Climate Change, Energy, the Environment and Water  
John Gorton Building, King Edward Terrace Parkes ACT 2600

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Re: Kamay Ferry Wharves Project, NSW – Response to DCCEEW RFI (EPBC ref: 2020/8825)

30 January 2023

Attention: Ali Strous, Lucinda Bilstoft

**Dear Terri-Ann English,**

I refer to the Department of Climate Change, Energy the Environment and Water (DCCEEW) letter dated 22 November 2022 request for further information on the potential impacts associated with the proposed Kamay Ferry Wharves project.

Transport provides the following in response to the request for information.

## 1. Request for Information

DCCEEW requested Transport undertake further investigation and provide additional information in regard to potential contamination and potential impacts to protected matters associated with the Kamay Ferry Wharves Project:

- Undertake surficial sediment characterisation at both sites (including chemical, physical and biological) within the upper 1 metre of the marine deposit profile using detection limits in Table 1 of the *National Assessment Guidelines for Dredging, Commonwealth of Australia, Canberra, 2009*. The department notes that dredging does not form a component of the proposed action, however, these guidelines provide relevant limits for typical sediment contaminants and other analytical parameters.
- Provide an analysis of the sampling and include, at a minimum:
  - the common metals and metalloids such as copper, lead, zinc, chromium, nickel, arsenic and selenium, cadmium and mercury;
  - total petroleum hydrocarbons (TPH), volatile hydrocarbons benzene, toluene, ethylbenzene, xylenes and naphthalene (BTEXN), and polycyclic aromatic hydrocarbons (PAHs) present in petroleum hydrocarbons;
  - organotins from antifouling paints (TBT);
  - organochlorines and polychlorinated biphenyls (PCBs);
  - grainsize analysis and Total Organic Carbon (TOC); and

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- any other contaminants of potential concern determined from a detailed review of known and likely pollution sources to the water and sediments of Botany Bay.
- Determine whether the sediment, soil, groundwater or pore water is contaminated based on the following guidelines:
- Toxicant default guideline values for water quality in aquatic ecosystems, Australian and New Zealand Guidelines for Fresh & Marine Water Quality (2020) available at: <https://www.waterquality.gov.au/anz-guidelines/guideline-values/default/water-quality-toxicants>; and
- Toxicant default guideline values for sediment quality, Australian and New Zealand Guidelines for Fresh & Marine Water Quality (2019) available at <https://www.waterquality.gov.au/anz-guidelines/guideline-values/default/sediment-quality-toxicants>.
- If contamination exceeds the above guidelines DCCEEW has requested that TfNSW
- Describe the likely dispersal pathways during construction and operation for contaminants identified in the sediment analysis.
- Discuss the potential impacts of contamination on protected matters during construction and operation, including Posidonia australis Seagrass Meadows of the Manning-Hawkesbury Ecoregion, White's Seahorse (*Hippocampus whitei*), Cauliflower Soft Coral (*Dendronephthya australis*), and Black Rockcod (*Epinephelus daemeli*).
- Demonstrate how contamination will be managed to ensure construction and operation do not impact protected matters.

## 2. Response

Transport has undertaken the additional requested investigation, analyses and assessment to assist DCCEEW in the decision making process and also to support the conclusions of the EIS.

### 2.1 Sampling Analysis Quality Plan

A Sampling Analysis Quality Plan (SAQP) was developed consistent with the stated guidelines including the National Assessment Guidelines for Dredging (Table 1 and Table 6) and in consultation with the Eco-toxicologist (EnRisk), DCCEEW and the accredited NSW Site Auditor required under the NSW Infrastructure Approval (SSI-10049).

The objective of the SAQP is to provide the Data Quality Objectives and the methodologies for the proposed works, including sampling, analytical and reporting requirements.

The SQAP has been included in as Attachment A of this letter.

## 2.2 Sediment sampling and characterisation

Sampling was undertaken at each site (15<sup>th</sup> and 16<sup>th</sup> December for Kurnell and 22<sup>nd</sup> and 23<sup>rd</sup> December 2022 at La Perouse) to meet the requirements of Table 1 and Table 6 of the National Assessment Guidelines for Dredging.

The number of samples taken include the following:

- A total of 36 representative samples were collected from twelve cores (6 cores at each site) between 0.25 and 1 metre below the sea floor (three samples were collected from each core).
- one sea water sample for elutriate testing from both sites .

## 2.3 Analyses results

Analysis has been undertaken at two NATA accredited laboratories (Eurofins and National Measurement Institute) for Contaminants of Potential Concern (COPCs) requested in the RFI.

Result from the Eurofins Laboratory identified the following:

- laboratory analytical results reported for sediment and elutriate samples collected from La Perouse were all below the adopted screening criteria
- laboratory analytical results reported for Kurnell were below the adopted screening criteria, with the exception of 2 samples for mercury (0.2mg/kg) that exceeded the sediment Default Guideline Value (DGV) (0.15mg/kg) but in both cases below the Guideline Value (GV) -High (1mg/kg). It should be noted that this concentration is essentially the same as the Limits of Reporting (within the measurement error).

Due to the limits of reporting in the initial testing for organotins and pesticides by Eurofins, Transport completed additional more sensitive laboratory testing at the National Measurement Institute to be able to comply with the RFI.

The results from the National Measure Institute identified organotins and pesticides below the screening criteria identified in the RFI.

The Detailed Site Investigation is included as an Appendix to Attachment B to this letter.

## 2.4 Assessment of potential impacts of contamination on Protected Matters

The sampling results have been provided to the Eco-toxicologist (EnRisk) to undertake an assessment on the potential impact to Protected Matters identified in the RFI for both construction and operation.

The Project EIS and other publicly available information was also used as part of the eco-toxicological assessment (Attachment B).

The assessment on Protected Matters was based on the potential construction and operational impacts from the Project including:

- Smothering, reducing light penetration
- exposure from direct contact of contaminants in sediments
- exposure from release of chemical contaminants into the water column

The assessment evaluated pathways to exposure:

- whether sediments can be disturbed during construction and operation
- whether a significant amount of disturbed sediment can move to areas where protected matters are present
- whether disturbed mobile sediments contain COPCs

This assessment concluded that the impact of disturbed sediments is low/negligible. A copy of the report is attached (Attachment B)

If you have any questions about this response, please contact Transport for NSW Senior Environment and Sustainability Officer via email [christopher.williams2@transport.nsw.gov.au](mailto:christopher.williams2@transport.nsw.gov.au) or on 0427 468 630.

Sincerely,

A handwritten signature in black ink that reads "Andrew Dooley".

Andrew Dooley  
TfNSW Project Director

### Appendices

- Appendix A – Sampling Analysis Quality Plan, ERM, January 2023
- Appendix B – Assessment of Protected Matters, Enriska, January 2023



## **Attachment A**

Sampling Analysis Quality Plan



## **Attachment B**

Assessment of Protected Matter