

Kamay Wharf, Captain Cook Drive, Kurnell and Anzac Parade,  
La Perouse

Audit Number: MP186\_B

21 February 2025

# Site Audit Report





# Document Information

## Site Audit Report

**Kamay Wharf, Captain Cook Drive, Kurnell and Anzac Parade, La Perouse**

**Audit Number: MP186\_B**

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# List of Acronyms

Acronym	Definition
<b>Measures</b>	
%	per cent
ha	Hectare
km	Kilometres
m	Metre
mbgl	Metres below ground level
mg/kg	Milligrams per Kilogram
mg/L	Milligrams per Litre
ACL	Added Contaminant Limit
ACM	Asbestos Containing Material
AF	Asbestos Fines
ALS	Australian Laboratory Services
ANZECC	Australian and New Zealand Environment and Conservation Council
ANZG	Australian and New Zealand Guidelines
BaP	Benzo(a)pyrene
BTEX	Benzene, Toluene, Ethylbenzene, Xylenes & Naphthalene
CLM Act	NSW Contaminated Land Management Act 1997
COC	Chain of Custody
DA	Development Application
DP	Deposited Plan
DQI	Data Quality Indicator
DQO	Data Quality Objective
EDP	EDP Consultants Pty Ltd
EIL	Ecological Investigation Level
EPA	Environment Protection Authority (NSW)

Acronym	Definition
ERM	Environmental Resources Management Australia Pty Ltd
ESL	Ecological Screening Level
FA	Fibrous Asbestos
HIL	Health Investigation Level
HSL	Health Screening Level
IAA	Interim Audit Advice
LCS	Laboratory Control Sample
Mercury	Inorganic mercury unless noted otherwise
Metals	As: Arsenic, Cd: Cadmium, Cr: Chromium, Cu: Copper, Ni: Nickel, Pb: Lead, Zn: Zinc, Hg: Mercury
ML	Management Limits
MS	Matrix Spike
NATA	National Association of Testing Authorities
ND	Not Detected
NEPM	National Environment Protection Measure
NHMRC	National Health and Medical Research Council
NL	Non-Limiting
n	Number of Samples
OCPs	Organochlorine Pesticides
OPPs	Organophosphorus Pesticides
PAHs	Polycyclic Aromatic Hydrocarbons
PCBs	Polychlorinated Biphenyls
PFAS	Perfluoroalkyl and Polyfluoroalkyl Substances



Acronym	Definition
<b>pH</b>	A measure of acidity, hydrogen ion activity
<b>PID</b>	Photoionisation Detector
<b>PQL</b>	Practical Quantitation Limit
<b>QA/QC</b>	Quality Assurance/Quality Control
<b>RAP</b>	Remediation Action Plan
<b>RPD</b>	Relative Percent Difference
<b>SAR</b>	Site Audit Report
<b>SAS</b>	Site Audit Statement
<b>SVOCs</b>	Semi Volatile Organic Compounds
<b>TPHs</b>	Total Petroleum Hydrocarbons
<b>TRHs</b>	Total Recoverable Hydrocarbons
<b>VENM</b>	Virgin Excavated Natural Material
<b>VOCs</b>	Volatile Organic Compounds
-	On tables is "not calculated", "no criteria" or "not applicable"



# 1.0 Introduction

A site contamination audit has been conducted in relation to portions of the Kamay Wharves project footprint limited to the remedial areas located at Captain Cook Drive, Kurnell and Anzac Parade, La Perouse NSW (the site).

The audit was conducted to provide an independent review by an EPA Accredited Auditor of whether the land is suitable for any specified use or range of uses i.e. a “Site Audit” as defined in Section 4 (1) (b) (iii) of the NSW Contaminated Land Management Act 1997 (the CLM Act).

Development consent (SSI 10049, issued on 21 July 2022) was granted by the Minister for Planning for the construction of two wharves one at La Perouse and one at Kurnell. The consent was subject to several requirements of which conditions E64, E65 – E70 relate to contamination and require a site audit statement as follows:

## Contaminated sites

- E62 The Proponent must engage a **NSW EPA-accredited site Auditor** to review contamination reports relating to the site throughout the duration of the project to ensure that any work required in relation to sediment, soil or groundwater contamination is appropriately managed.
- E68 Where remediation has taken place, a **Section A1 Site Audit Statement** – or a **Section A2 Site Audit Statement** (SAS) accompanied by an Environmental Management Plan – and a **Site Audit Report** (SAR) must be prepared certifying that the remediation works have made the land suitable for the intended land use.

The audit was initiated to comply with the conditions of the Development Application (DA) approval and is therefore a statutory audit. Notification of the site audit (MP186) was forwarded to the EPA on 25 August 2022 (EPA Ref: DOC23/540196).

Details of the audit are:

Requested by: Rajun Vutukuri on behalf of Transport for NSW (TfNSW)

Request/Commencement Date: 25 August 2022

Auditor: Melissa Porter

Accreditation No.: 0803

The scope of the current audit included:

- Review of the following reports:
  - ‘Remedial Action Plan, Kamay Ferry Wharves, Kurnell and La Perouse NSW’ dated 26 September 2023 by EDP Consultants Pty Ltd (EDP).
  - ‘Site Remediation & Validation Report, Kamay Ferry Wharves, Kurnell and La Perouse NSW’ dated 20 February 2024 by EDP.
- Discussions with TfNSW.

Several Interim Audit Advice (IAA) letters have been prepared giving audit comments following review of the above reports. IAA No. 1 and 2 provided comments on the RAP, and IAA No. 3 to 7 provided comments on the Validation Report. IAA’s are provided in **Appendix C**.



A Section B Site Audit Statement (SAS) and Site Audit Report (SAR) (SAS MP186) dated 7 July 2023 were issued to satisfy conditions E63, E64 and E66 of the development consent. The Section B SAS and SAR included the following scope of work:

- Review of the following reports ('contamination reports' as per E62):
  - 'Kamay Wharf Project, Preliminary Site Investigation – La Perouse Site' dated 6 December 2022 by Environmental Resources Management Australia Pty Ltd (ERM).
  - 'Kamay Wharf Project, Preliminary Site Investigation – Kurnell Site' dated 6 December 2022 by ERM.
  - 'Kamay Wharf Project - Sediment Investigation, Sampling and Analysis Quality Plan' dated 18 January 2023 by ERM.
  - 'Kamay Wharf Project - Sediment Investigation' dated 5 May 2023 by ERM.
  - 'Re: Response to RFI – Kamay Ferry Wharves' dated 25 April 2023 by Environmental Risk Sciences Pty Ltd (EnRisk) (Assessment of Protected Matters).
  - 'Kamay Wharf Project, Targeted Site Investigation' dated 28 June 2023 by ERM (TSI).
- Review of the following report ('Soil and Water Management Plan' as per E63) with respect to works to manage identified contamination in accordance with the scope of a site audit:
  - 'CEMP Appendix B6. Soil, Water and Contamination Management Plan, Kamay Ferry Wharves' dated June 2023 by McConnell Dowell.

The Section B SAS MP186 and SAR concluded that:

- The nature and extent of contamination has been appropriately determined and that the risk from contaminants, other than asbestos, to human health and the environment associated with construction and operation of Kamay Wharves is low.
- Remediation of asbestos contamination is required and it is recommended that a Remedial Action Plan be prepared in accordance with the guidelines made and approved under section 105 of the Contaminated Land Management Act 1997. This RAP should be reviewed by an EPA-accredited Site Auditor. This process is contemplated and required in Conditions E64 to E69 of the planning consent.

Parts of the Section B SAR have been repeated within this SAR to provide context for the current review of the validation works.





## 2.0 Site Details

### 2.1 Location

The site locality is shown on **Attachment 1, Appendix A**.

The site details are as follows:

Street address:	Captain Cook Drive, Kurnell NSW 2231 and Anzac Parade, La Perouse NSW 2036
Identifier:	Kurnell: N/A – no lot and Deposited Plan (DP) available. La Perouse Headland: Lot 1 DP 915424, Lot 5113 DP 752015.
Local Government:	Kurnell: Sutherland Shire Council, La Perouse: Randwick Council
Site Area:	Approximately 0.011 ha (Kurnell) and 0.11 ha (La Perouse).

The boundaries of the site are not well defined by streets/adjoining properties, areas of the site that are the subject of this audit are the remedial areas. A survey plan of the site has been provided (**Attachments 2 and 3, Appendix A**).

### 2.2 Zoning

The current zoning of the site, as provided by ERM, is as follows:

- Kurnell: E1 – National Parks and Nature Reserves, E2 – Environmental Conservation, W1 – Natural Waterways and B1 – Neighbourhood Centres.
- La Perouse: E1 – National Parks and Nature Reserves, RE1 – Public Recreation and SP2 - Infrastructure.

### 2.3 Adjacent Uses

The site is located within an area of residential and recreational land. The surrounding site use includes:

Kurnell

North: Botany Bay.

East: Undeveloped recreational bushland followed by Botany Bay/Pacific Ocean.

South: Low density residential dwellings followed by the former Kurnell refinery (Caltex Kurnell Terminal).

West: Low density residential dwellings followed by undeveloped bushland/wetlands and Botany Bay.

The Caltex Kurnell Terminal is located approximately 225 m to the south east. A clean up notice was issued for the terminal by the NSW EPA. The former Caltex Kurnell Service Station is located approximately 850 m to the south west. A number of historical businesses were noted at or near to the Kurnell site between 1930 and 2010 including chemical, electrical and paint manufacturing, retail grocers, light carriers, dog and cat breeders, glass merchants, carpenters, concrete contractors, patternmakers/engineering, air conditioning, demolition contractors, and nurseries. A NSW EPA surrendered licence for discharge to water was noted for Ausgrid at the site.



## La Perouse

North: Frenchmans Bay followed by low density residential dwellings and recreational parkland.

East: Undeveloped recreational bushland followed by Botany Bay/Pacific Ocean.

South: Botany Bay.

West: Botany Bay followed by industrial land comprising fuel/chemical storage located approximately 1.5 km to the west of the site.

Historical businesses were noted at or near to the La Perouse site between 1930 and 2010 including boat launches, equipment, hires and repairs, electrical contractors, printing engineers and pest control services. Surrendered licences were noted near to the site for discharge to waters and water based extractive activities for Ausgrid and the NSW state government. A portion of Botany Bay has also been identified as containing potential unexploded ordnance (UXO) adjacent to the southeast of the site.

It is also noted that Botany Bay has some sources of per- and polyfluoroalkyl substances (PFAS) in the area making it difficult to attribute detections to individual sources.

## 2.4 Site Condition and Development

ERM noted the following:

- The Kurnell site is used as a public recreation area including beach, open grass parkland, vegetated bushland, open water and public roadways.
- Captain Cook Drive is present along the southern boundary of the Kurnell site.
- The Kurnell site is generally flat with a slight slope to the north/northeast.
- The La Perouse site is currently comprised of undeveloped recreational land including open grass parkland and open water.
- Anzac Parade is present along the southern portion of the La Perouse site.
- The La Perouse site is generally flat with a slight slope to the south/southeast.

## 2.5 Proposed Development

The site has been redeveloped by Transport for NSW as a ferry wharf in both Kurnell and La Perouse to allow crossing between the two locations.

For the purposes of this audit, the 'recreational' land use scenario was assumed.



## 3.0 Site History

ERM provided a site history based on aerial photographs, site photographs, NSW EPA records, WorkCover dangerous goods records and/or Certificates of Title (CT) and is summarised in **Table 3.1**.

**Table 3.1: Site History**

Date	Activity
<b>1930s</b>	La Perouse – undeveloped land with rock outcroppings. Anzac Parade is present and unsealed. A small jetty is located on the western boundary. The surrounding area is generally undeveloped land with several residential building to the north.
<b>1940s to early 1950s</b>	La Perouse – buildings appear to have been constructed to the east of the site. These are understood to be part of Defence operations in the area. Additional residential properties were constructed to the north. One building from the Defence operations to the east of the site remained by 1951 likely the La Perouse Museum building.
<b>Mid 1950s to 1960s</b>	Kurnell – undeveloped land with scattered vegetation, Captain Cook Drive is present and unsealed. The surrounding area is generally undeveloped bushland with low density residential properties to the west and Kurnell Caltex Terminal to the south. The oil refinery wharf extending from the Kurnell refinery into Botany Bay is located approximately 500m to the west of the site. A small jetty was constructed at the site between 1956 and 1961. La Perouse – Anzac Parade was sealed.
<b>1970 to 2023</b>	Kurnell – Captain Cook Drive has been sealed. The jetty was removed between 1972 and 1975. Significant sedimentation was noted, this was removed by 1978. La Perouse – The jetty was removed between 1971 and 1975.
<b>2023- current</b>	Construction site for the Kamay Ferry Wharves.

The summary indicates that both the Kurnell and La Perouse sites have largely been undeveloped land. The Caltex Terminal has been located to the south east of the Kurnell site since at least the mid-1950s. The La Perouse site was adjacent to Defence operations during World War 2. Jetties were present at both of the sites however had been demolished by 1975.

In the auditor's opinion, the site history provides an adequate indication of past activities.



## 4.0 Contaminants of Concern

As part of the previous audit (SAS MP186), ERM provided a list of the contaminants of concern and potentially contaminating activities to inform the initial investigations which are provided in **Table 4.1**. The auditor (SAS MP186) considered 'that the analyte list used by ERM adequately reflects the site history and condition'.

**Table 4.1: Contaminants of Concern**

Area	Activity	Potential Contaminants
<b>Kurnell and La Perouse</b>	Uncontrolled fill	Metals, total recoverable hydrocarbons (TRH), benzene, toluene, ethyl benzene and xylene (BTEX), polycyclic aromatic hydrocarbons (PAHs), organochlorine pesticides (OCPs), organophosphate pesticides (OPPs), phenols, semi volatile organic compounds (sVOCs), volatile organic compounds (VOCs) and asbestos.
<b>Kurnell and La Perouse</b>	Historical onsite and surrounding land uses	Metals, TRH, BTEX, sVOCs, VOCs, nutrients, inorganics, PFAS and tributyltin (TBT).
<b>Kurnell and La Perouse</b>	Hazardous building material	Lead, polychlorinated biphenyls (PCBs) and asbestos.
<b>La Perouse</b>	Adjacent Defence operations	Unexploded ordinances (UXO).

Following the ERM investigation, the auditor (SAS MP186) concluded that 'the soil analytical results are consistent with the site history. The nature and extent of contamination within the soil at the site has been adequately characterised'.

Since issue of the SAS MP186, EDP undertook further investigations to inform waste classification with the results reported in Site Contamination Assessment (SCA) reports. A review by the auditor confirmed that the results were consistent with those previously reported by ERM.

During that investigations by ERM potential asbestos containing material (ACM) was identified within fill at several test pits at both the Kurnell and La Perouse sites and has since been the subject of remediation (refer to Section 13) and this current audit.



## 5.0 Stratigraphy and Hydrogeology

Following a review of the reports provided, a summary of the site stratigraphy and hydrogeology was compiled as follows.

### 5.1 Stratigraphy

The nature of the soil prior to redevelopment was as follows:

- Kurnell – sandy topsoil overlying sandy fill (approximately 0 - 0.7 metres below ground level (mbgl)) overlying sand and clay (typical depths 0.2/0.7 – 2.0 mbgl) and overlying sandstone (approximately 2 m depth).
- La Perouse - sandy topsoil overlying sandy fill (approximately 0 - 0.7 mbgl) overlying sand and clay (typical depths 0.2/0.7 – 2.0 mbgl) and overlying sandstone (approximately 2 m depth).
- Sandy fill had inclusions of plastic, concrete, gravel, glass and ACM identified. Historical road base also identified at one location in La Perouse.

Some investigation locations into soil were terminated in fill. However, there is sufficient information overall to determine the likely depth to natural across the site.

The auditor considers that the depth of fill and underlying stratigraphy has been adequately characterised.

### 5.2 Hydrogeology

Groundwater investigations at the site have not been undertaken. Depth to groundwater over the site is not known. Groundwater was not encountered during the intrusive investigation. Groundwater is considered likely to flow to Botany Bay at each of the sites.

The nearest surface water receptor is Botany Bay. ERM reported that surface water from the site is likely to flow into the stormwater infrastructure of Captain Cook Drive for the Kurnell site and Anzac Parade for La Perouse site and to infiltrate into the site soil in unsealed portions or flow into Botany Bay.

Registered bores for water supply, domestic, household and monitoring purposes are located within a 2km radius of the Kurnell and La Perouse sites, with 11 and 37, respectively. The search was conducted by Land Insight and Resources on 28 July 2020 and 12 August 2020. Standing water levels (SWLs) for bores within the radius for the Kurnell site were between 0 and 3 mbgl and for the La Perouse site were between 0 and 143 mbgl (with the majority reported between 3 and 8 mbgl).

The auditor concludes that the shallow formation underlying the site is of low permeability and therefore the potential for significant groundwater contamination or migration of contamination is low. Given that significant soil contamination has not been identified at the site (see Section 8), the auditor is satisfied that intrusive assessment of groundwater is not required at the site.

The site is located in a low-lying area and includes Botany Bay. As such groundwater is likely to be tidal, saline and unsuitable for use. Considering this, characterisation of the groundwater is not considered necessary from the perspective of land suitability. ERM (TSI) consider that 'where groundwater will not be intersected, it is the opinion of ERM that the risk from potential contamination within underlying groundwater aquifers to impact the project is considered to be low'.





## 6.0 Evaluation of Quality Assurance and Quality Control

The auditor assessed the overall quality of the data by review of the information presented in the referenced investigation reports, supplemented by field observations as discussed in SAS MP186.

In considering the data as a whole the auditor concluded that:

- The data is likely to be representative of the overall conditions of the site.
- The data is complete.
- There is a high degree of confidence that data is comparable for each sampling and analytical event.
- The primary laboratory provided sufficient information to conclude that data is of sufficient precision.
- The data is likely to be accurate.



## 7.0 Environmental Quality Criteria

The auditor has assessed the results against Tier 1 criteria from National Environmental Protection Council (NEPC) National Environmental Protection (Assessment of Site Contamination) Measure 1999, as Amended 2013 (NEPM, 2013). Other guidance has been adopted where NEPM (2013) is not applicable or criteria are not provided. Based on the proposed development, the criteria for 'recreational land use' has been referred to.

The auditor has assessed the remediation and validation **soil** data provided with reference to Tier 1 (screening) criteria from the following:

- Human Health Assessment
  - Asbestos Health Screening Levels (HSL C).
- Aesthetics
  - The auditor has considered the need for remediation based on the 'aesthetic' contamination as outlined in the NEPM (2013).



## 8.0 Evaluation of Conceptual Site Model

A conceptual site model (CSM) is a representation of the source, pathway and receptor linkages at a site. ERM developed a CSM which was used throughout the site assessment to inform decisions around investigation and management requirements. The CSM has been updated by EDP following remediation. **Table 8.1** details the auditors review of the final CSM used by EDP to conclude on site suitability.

**Table 8.1: Review of the Conceptual Site Model**

Element of CSM	Consultant	Auditor Opinion
<b>Contaminant source and mechanism</b>	Asbestos (non-friable)	Asbestos was detected during the investigation phase which required remediation as it was unsuitable for ongoing site uses. Acceptable.
<b>Affected media</b>	Soil (fill)	Acceptable.
<b>Receptor identification</b>	Future recreational site users Future workers	Acceptable.
<b>Exposure pathways</b>	Inhalation of dust/fibres Direct contact/ingestion	Acceptable.
<b>Assessment of risk</b>	Low due to incomplete source-receptor-pathway as asbestos has been removed from the remedial boundaries.	Acceptable.



## 9.0 Evaluation of Remediation

### 9.1 Remediation Required

Based on the investigations completed by EDP, asbestos impacted soil at La Perouse: Part of Areas 1, 2 and 3 and Kurnell: Part of Areas 1 and 2 were targeted for excavation and off-site disposal.

Remediation was undertaken by McConnell Dowell with environmental consulting provided by EDP between October 2023 and July 2024.

### 9.2 Remedial Extents and Validation Activities

The remedial works and validation activities undertaken are summarised in **Table 9.1**. The remedial extents are shown on **Attachments 4 and 5** in **Appendix A**.

**Table 9.1: Validation Activities**

Element	Works Undertaken	Verification
<b>La Perouse – Asbestos Impacted Soil</b>	<p>Excavation of impacted fill and off-site disposal. Refer to Section 9.2.3 for further details of waste disposal. Excavations were backfilled with imported material, refer to Section 9.2.4 for further details.</p> <ul style="list-style-type: none"> <li>Area 1: Excavation approximately 1 m deep and 37 m x 10 m and 40 m x 5 m.</li> <li>Area 2: Excavation approximately 160 m x 1 m x 0.8 m. 34 wall samples and 34 base samples.</li> <li>Area 3: Excavation approximately 35 m x 4 m x 0.5 m.</li> </ul>	<p>Collection of validation samples from the walls and base of each excavation at a density of 1 sample per 10 linear m (walls) and 1 sample per 25 m<sup>2</sup> (base) in accordance with the RAP. 10L samples were collected from each validation sample location and sieved for asbestos. Refer to Section 9.2.2 for results.</p> <p>A walkover was undertaken to inspect the remedial excavations. Photographs of the remedial excavations were provided. The consultant stated that no asbestos, road building or pavement material and C&amp;D waste was observed.</p> <p>Asbestos clearance certificates were provided for Area 1, Area 2 and the northern end of Area 3.</p> <p>Validation sampling for each area are summarised as follows:</p> <ul style="list-style-type: none"> <li>Area 1: 14 wall samples for asbestos sieving. No base samples due to bedrock. Visual inspection completed. The samples were described as fill comprising silty sand. The bedrock was described as sandstone.</li> <li>Area 2: 28 wall samples and 14 base samples for asbestos sieving. The wall samples were described as fill comprising silty sand and sand, and the base samples as sand.</li> <li>Area 3: 8 wall samples and 6 base samples for asbestos sieving. The samples were described as fill comprising silty clayey sand.</li> </ul>
<b>Kurnell – Asbestos Impacted Soil</b>	<p>Excavation of impacted fill and off-site disposal. Refer to Section 9.2.3 for further details of waste disposal. Excavations were backfilled with imported material, refer to Section 9.2.4 for further details.</p> <ul style="list-style-type: none"> <li>Area 1: Excavation approximately 10 m x 1 m x 0.6 m.</li> <li>Area 2: Excavation approximately 15 m x 4 m x 0.6 m.</li> </ul>	<p>Collection of validation samples from the walls and base of each excavation at a density of 1 sample per 10 linear m (walls) and 1 sample per 25 m<sup>2</sup> (base). 10L samples were collected from each validation sample location and sieved for asbestos. Photographs of the remedial excavations were provided.</p> <p>Asbestos clearance certificates were provided.</p> <ul style="list-style-type: none"> <li>Area 1: 4 wall samples and 1 base sample for asbestos sieving. The wall samples were described as fill comprising sand, and the base samples as sand.</li> <li>Area 2: 5 wall samples for asbestos sieving with no base samples due to water. The samples were described as fill comprising of sand, and the base samples as sand.</li> </ul>

In the auditor's opinion, remediation works and validation sampling undertaken are appropriate and in accordance with the RAP.



### 9.2.1 Evaluation of Quality Assurance and Quality Control

The auditor has assessed the overall quality of the data in **Table 9.2** by review of the information presented in the validation report.

**Table 9.2: QA/QC Summary**

QA/QC	Consultant Reports	Auditor Comments
<b>Sampling and Analysis Methodology Assessment</b>	<ul style="list-style-type: none"> <li>Data quality indicators were predetermined by EDP for the validation assessment.</li> <li>Validation samples: Samples were collected across the base (where applicable) and walls of the excavations for asbestos field sieving in accordance with the RAP.</li> <li>Importation samples: Samples collected from non-quarried material and analysed for asbestos.</li> <li>Samples were collected by hand.</li> <li>Disposable gloves were reported as being used for each sample event.</li> <li>Samples were reported to have been placed in laboratory supplied jars and sample bags for asbestos and transported to the laboratory.</li> </ul>	Overall, the sampling and analysis methodology assessment was adequate.
<b>Field and Lab Quality Assurance and Quality Control</b>	<ul style="list-style-type: none"> <li>NATA accredited laboratory was SGS.</li> <li>Analysis was only for asbestos so QC samples were not applicable.</li> </ul>	Overall, the field and lab quality assurance and quality control was adequate.

Overall, the auditor considers the quality assurance and quality control acceptable for the validation undertaken.

### 9.2.2 Evaluation of Soil Validation Analytical Results

A summary of the results have been tabulated in **Table 9.3**. Validation sample locations are shown in **Attachments 4 and 5, Appendix A**.

**Table 9.3: Evaluation of Validation Sample Results – Summary Table (mg/kg)**

Analyte	N	Detections	Maximum	n > Human Health Screening Criteria	n > Terrestrial Ecological Screening Criteria
<b>Asbestos (ACM)</b>	80	0	ND	0 above 0.02%	-
n	number of samples				
-	No criteria available/used				
NL	Non-limiting				
<PQL	Less than the practical quantitation limit				

No asbestos was identified in any of the validation samples.





### 9.2.3 Material Disposed Off-Site

Approximately 93.1 T of material from Kurnell and 1,033 T from La Perouse was disposed off-site. Further discussion of disposal and classification is provided in Section 12.0.

### 9.2.4 Imported Material

Approximately 857.37 tonnes of quarried material, recycled material and mulch was imported to La Perouse and 500.12 tonnes of quarried material was imported to Kurnell, as summarised in **Table 9.4**.

It is noted that material tracking was undertaken for the broader project footprint and not just for the remedial and audit boundaries, so exact quantities for the audit area were not able to be provided as some of the material may have been placed elsewhere in the project boundary.

**Table 9.4: Imported Material**

Source Site	Volume imported (tonnes)	Material Description (Consultant)	Supplier Information	Summary of Validation Data	Auditor Comments
<b>La Perouse</b>					
<b>Benedict Sandy Point Quarry 14309 Heathcote Road, Menai NSW</b>	501.04	Quarried rock (high compact sand, S30, 40 mm drainage aggregate, DSG40)	Quarry	Letter from the supplier confirming the material referred to as B30 is a quarried product. EDP reviewed the supplied documentation prior to import and confirmed the material was suitable. The material was reported as being inspected upon arrival to site. Some imported material dockets were provided for DGB30. The material was placed within the hydraulics line, retaining structure and carpark. An imported material tracking register was provided.	Limited supporting documentation was provided for imported material; however, some dockets were provided, and the contractor reportedly inspected the material as it arrived to site, and the material has been placed beneath concrete or turf.
	40.52	Smart mix 6	Quarry	Letter from the supplier confirming the material is a blend of quarried product and mulch. The consultant inspected the material after import to confirm it is consistent with material description in the letter from the supplier. The consultant collected three samples for asbestos analysis. No asbestos was detected in the samples. Photographs of the material were provided and they appeared to be consistent with the material description by the supplier. No imported material dockets were provided. The material was reported as being inspected upon arrival to site. An imported material tracking register was provided. The material was used for landscaping.	Whilst no dockets were provided, the material was inspected and sampled by the consultant following import, and the material was confirmed by the consultant to be suitable.
	57.23	Topsoil	Quarry	Letter from the supplier confirming the material is a blend of quarried products, VENM, pasteurised garden organics, mulch, compost, manure and coal ash. The material is covered by a Resource Recovery Order and Resource Recovery Exemption (RRO/RRE) which was provided. The consultant inspected the material after import to confirm it is consistent with material description in the letter from the supplier. The consultant collected six samples over two rounds for asbestos analysis. No asbestos was detected in the samples. Photographs of the material were provided and they appeared to be consistent with the material description by the supplier. No imported material dockets were provided. The material was reported as being inspected upon arrival to site. An imported material tracking register was provided. The material was used within the retaining structure, as landscaping and hardscaping.	Whilst no dockets were provided, the material was inspected and sampled by the consultant following import, and the material was confirmed by the consultant to be suitable.
<b>Boral Dunmore Quarry</b>	250.58	Quarried VENM (DGB ED7, 200-300 m spalls)	Quarry Also supplied by	Letters from the supplier confirming the material are quarried products (DGB20, armour stone, 40 mm drainage aggregates). EDP reviewed the supplied documentation prior to import and confirmed the material was suitable. The material	Limited supporting documentation was provided for imported material; however, some dockets were



Source Site	Volume imported (tonnes)	Material Description (Consultant)	Supplier Information	Summary of Validation Data	Auditor Comments
<b>38 Tabbita Road, Dunmore NSW</b>			Coastwide Civil.	was reported as being inspected upon arrival to site. Some imported material dockets were provided for DGB ED7. An imported material tracking register was provided. The material was used within the retaining structure and as hard landscaping.	provided, and the contractor reportedly inspected the material as it arrived to site, and the material has been placed beneath concrete or turf.
<b>Ecodynamics</b>	8	Mulch	Sourced from natural forest	Letter from the supplier outlining how the mulch is prepared and that it is a natural product and not blended with any other material. The consultant inspected the material after import to confirm it is consistent with material description in the letter from the supplier. The consultant collected three samples for asbestos analysis. No asbestos was detected in the samples. Photographs of the material were provided and they appeared to be consistent with the material description by the supplier. No imported material dockets were provided. The material was reported as being inspected upon arrival to site. An imported material tracking register was provided. The material was used for landscaping.	Whilst no dockets were provided, the material was inspected and sampled by the consultant following import, and the material was confirmed by the consultant to be suitable.
<b>Kurnell</b>					
<b>All Sands Quarry 280 Captain Cook Drive, Kurnell NSW</b>	344.94	Quarried sand	Quarry	Two letters from the supplier confirming the material is a quarried product. EDP reviewed the supplied documentation prior to import and confirmed the material was suitable. One imported material docket was provided. The material was reported as being inspected upon arrival to site. An imported material tracking register was provided. The material was used as backfill for the watermain crossing and CSR trench.	Limited supporting documentation was provided for imported material; however, some dockets were provided, and the contractor reportedly inspected the material as it arrived to site, and the material has been placed beneath concrete or turf.
<b>Boral Dunmore Quarry 38 Tabbita Road, Dunmore NSW</b>	155.18	Quarried rock (20 mm DGB20 ED7)	Quarry Also supplied by Coastwide Civil.	Letter from the supplier confirming the material is a quarried product. EDP reviewed the supplied documentation prior to import and confirmed the material was suitable. The material was reported as being inspected upon arrival to site. Some imported material dockets were provided. An imported material tracking register was provided.	Limited supporting documentation was provided for imported material; however, some dockets were provided, and the contractor reportedly inspected the material as it arrived to site, and the material has been placed beneath concrete or turf..



While there are inconsistencies in supporting documentation and the assessment of the imported material in accordance with the RAP, the auditor considers that overall the imported material is likely suitable and risks in uncertainties are considered low due to the following:

- The consultant reviewed material documentation provided by the suppliers prior to import and confirmed it was suitable.
- Some imported material dockets were provided for quarried material.
- For non-quarried material, the consultant inspected the material after arrival to site and collected samples for asbestos analysis with results below detection.
- The contractor provided some evidence to show that processes were in place with regard to approvals and checks of the imported material for non-quarried products as it arrived to site.
- For quarried material that that did not have supporting photographs or samples collected after import, the material was placed in inaccessible areas (beneath concrete or turf and within service trenches).
- No recycled material was imported to site, such that the expectation is that clean quarried material was being used as backfill.



## 10.0 Contamination Migration Potential

Following removal of ACM impacted fill, the auditor considers that there would be little or no potential for migration of contamination from the site in surface water or dust. In the auditors' opinion, there is no evidence of significant migration of contamination and little potential for future migration given the remedial works proposed.





## 11.0 Assessment of Risk

Remediation and validation works have included the excavation of impacted material and off-site disposal. In the context of the known site history and with consideration to the reported remediation and validation activities, the auditor considers the risk to human health and the environmental to be low.



## 12.0 Compliance with Regulatory Guidelines and Directions

The auditor has used guidelines currently approved by the EPA under Section 105 of the NSW Contaminated Land Management Act 1997 (Appendix C).

The investigation was generally conducted in accordance with SEPP (Resilience and Hazards) 2021 and reported in accordance with the NSW EPA (2020) Consultants Reporting on Contaminated Sites Contaminated Land Guidelines. The checklist included in that document has been referred to. The EPA's Checklist for Site Auditors using the EPA Guidelines for the NSW Site Auditor Scheme 2017 (October 2017) has also been referred to.

### 12.1 Notification

EDP indicate that the remediation works were notified to Council by TfNSW.

### 12.2 Development Approvals

Development consent (SSI 10049) requires the following:

- E68     Where remediation has taken place, a **Section A1 Site Audit Statement** – or a **Section A2 Site Audit Statement** (SAS) accompanied by an Environmental Management Plan – and a **Site Audit Report** (SAR) must be prepared certifying that the remediation works have made the land suitable for the intended land use.

The above condition has been interpreted to require a Site Audit Statement commenting on site suitability for public open space land. This Site Audit Report and accompanying Site Audit Statement has been completed in order to comply with this condition.

### 12.3 Waste Disposal

The auditor has assessed the overall waste management process by review of the information presented in the referenced reports, supplemented by field observations. The key documents provided relating to waste include:

- In-situ waste classification assessments prepared by EDP between April 2024 and June 2024.
- A waste register which includes date, location of material, volume, truck register, receiving facility and waste classification.
- Weighbridge receipt dockets.

An assessment of the waste classification process in consideration of Waste Classification Guidelines, Part 1: Classifying Waste (EPA 2014) was undertaken. The consultant indicated wastes were classified and managed in accordance with the Waste Classification Guidelines, Part 1: Classifying Waste (EPA 2014).



It is noted that during the initial site investigations, some samples within the remedial zone of Area 1 in La Perouse reported concentrations above the restricted waste criteria for PAHs. ERM noted that bitumen was present in the material and gave it a preliminary waste classification of general solid waste (special), with the requirement for further sampling to confirm this. This material was subsequently classified by EDP as hazardous waste (special waste) who noted that no bitumen was present in the material. Due to the presence of asbestos, this material was excavated and removed off-site for disposal. During validation sampling of the walls of the remedial excavation, EDP noted that bitumen/asphalt was present. The material remained classified as hazardous waste (special waste). This material was disposed off-site to a facility that is lawfully not able to receive hazardous solid waste. Whilst it is unclear whether the material contained bitumen or asphalt which caused elevated concentrations of PAHs in samples and could be pre-classified as general solid waste with leaching results, the consultant classified the material as hazardous waste and it went to a facility not lawfully able to receive it. The auditor has notified this to the EPA. The notification is provided in **Appendix D**.

Whilst other inconsistencies are present in the validation report such as data gaps in waste tracking documentation and that waste transported off-site as VENM met the definition, the auditor considers that the material likely moved off-site and to facilities able to receive it.

## 12.4 Imported Material

Based on the information in **Section 9.0** and the site visit on 31 January 2025, the auditor is of the opinion that the material imported to the site is likely consistent with quarried material or material covered by a RRO/RRE.

## 12.5 Licenses

Excavation and removal of asbestos fibre contaminated soils were required to be conducted by a Class A licensed contractor. Excavation, onsite remediation and off-site removal of ACM contaminated soils were required to be conducted by at least a Class B licensed contractor.

EDP confirmed that during the remedial excavations, disposal and civil works were completed by New South Wales Contracting Pty Ltd and Aztech Services Australia Pty Ltd as the licensed asbestos removal contractors. Licence numbers were provided to the auditor. EDP were engaged to conduct asbestos air monitoring, clearance inspections and validation sampling.



## 13.0 Conclusions and Recommendations

EDP concluded the following:

“EDP considers that the site has been successfully remediated and validated. EDP concludes that identified risks associated with asbestos contamination has been remediated. As such, EDP consider the site appropriate for continued use as public open space without the need for ongoing management.”

Based on the information presented in EDP reports and observations made on-site, and following the Decision-Making Process for Assessing Urban Redevelopment Sites in NSW EPA (2017) Guidelines for the NSW Site Auditor Scheme, the auditor concludes that the site is suitable for the purposes of recreational public open space.



## 14.0 Other Relevant Information

This audit was conducted on the behalf of TfNSW for the purpose of assessing whether the land is suitable for the proposed recreational/public open space uses i.e. a “Site Audit” as defined in Section 4 (definition of a ‘site audit’ (b)(iii)). The audit report has been prepared to satisfy a requirement for the redevelopment the site.

This summary report may not be suitable for other uses. EDP included limitations in their report. The audit must also be subject to those limitations. The auditor has prepared this document in good faith, but is unable to provide certification outside of areas over which the auditor had some control or is reasonably able to check.

In drawing conclusions, the auditor used reasonable care to avoid reliance upon data and information that may be inaccurate, however a degree of uncertainty is inherent in all subsurface investigations and there remains the possibility that variations may occur between sample locations. The audit and this report are limited by and rely upon the scope of the review, and the information provided by the Client and their consultants and representatives through documents provided to the auditor. The audit is based on a review of the subsurface condition of the site at the time of assessment, as described in the assessment reports attached to the audit report and site inspections conducted by the auditor and their representatives. The auditor’s conclusions presented in this report are therefore based on the information made available to them and arising from their own observations conducted during the audit. If the auditor is unable to rely on any of those documents, the conclusions of the audit could change.

It is not possible in a Site Audit Report to present all data which could be of interest to all readers of this report. Readers are referred to the referenced reports for further data. Users of this document should satisfy themselves concerning its application to, and where necessary seek expert advice in respect to, their situation.

In reaching their conclusions about the site, the Client and NSW EPA may use this audit report and site audit statement. The scope of work performed as part of the audit process may not be appropriate to satisfy the needs of any other person. Any other person’s use of, or reliance on, the audit document and report, or the findings, conclusions, recommendations or any other material presented or made available to them, is at that person’s sole risk.



## Appendix A: Attachments



Kamay Ferry Wharves Project, Kurnell and  
La Perouse NSW

Figure 1: Project Boundary

For Visual Indicative Purpose Only. For  
surveyed plans refer to Appendix J.





LEGEND:	
	Approximate La Perouse Project Boundary
	Approximate Kurnell Project Boundary

Image courtesy of Nearmap: dated 12 March 2024

DETAILS:	
Figure Name:	Figure 1: Project Boundary
Client Name:	McConnell Dowell
EDP Reference:	S-05009.SRVR.002
Date:	12 August 2024








LA PEROUSE BOUNDARY SETOUT TABLE		
POINT	EASTING	NORTHING
LPA1-1	336532.5710	6237747.81
LPA1-2	336533.2370	6237741.65
LPA1-3	336535.6220	6237767.46
LPA1-4	336535.8870	6237754.99
LPA1-5	336542.6275	6237772.95
LPA1-6	336547.1118	6237769.23
LPA1-7	336547.2010	6237752.08
LPA1-8	336548.0410	6237761.64
LPA1-9	336553.2730	6237758.39
LPA1-10	336557.6230	6237757.56
LPA1-11	336559.0780	6237756.27
LPA1-12	336523.1373	6237787.40
LPA1-13	336526.8746	6237789.67
LPA1-14	336540.0937	6237772.17
LPA2-1	336552.6344	6237735.71
LPA2-2	336552.7860	6237735.44
LPA2-3	336559.3590	6237739.36
LPA2-4	336559.3290	6237738.80
LPA2-5	336594.4140	6237749.33
LPA2-6	336595.3180	6237749.00
LPA2-7	336608.0707	6237753.61
LPA2-8	336608.1956	6237753.34
LPA2-9	336621.2350	6237760.39
LPA2-10	336621.5000	6237759.95
LPA2-11	336629.0983	6237765.52
LPA2-12	336629.3235	6237765.11
LPA2-13	336638.3030	6237773.32
LPA2-14	336638.6080	6237772.95
LPA2-15	336647.2708	6237776.91
LPA2-16	336647.3799	6237776.60
LPA2-17	336662.8060	6237784.72
LPA2-18	336662.6400	6237783.88
LPA2-19	336664.7685	6237782.38
LPA2-20	336664.6481	6237781.65
LPA2-21	336667.3775	6237780.51
LPA2-22	336667.2382	6237779.85
LPA2-23	336671.1579	6237779.04
LPA2-24	336682.3810	6237779.90
LPA2-25	336682.6830	6237778.64
LPA3-1	336557.7720	6237673.87
LPA3-2	336558.1250	6237674.17
LPA3-3	336591.7590	6237647.80
LPA3-4	336591.5580	6237647.33

Client

Project

**NOT TO SCALE**

North Point

A circular north arrow with a vertical line through the center. The top half of the circle is shaded black, and the word "North Point" is written above it.

**NOT TO BE USED FOR CONSTRUCTION**



## KAMAY FERRY WHARVES

# LA PEROUSE WHARF BOUNDARY SETOUT PLAN

Thursday, 20 February 2025 3:52:33 PM





Kamay Ferry Wharves Project, Kurnell and  
La Perouse NSW

Figure 4: Kurnell Validation Samples

For Visual Indicative Purpose Only. For  
surveyed plans refer to Appendix J.



LEGEND:







	Approximate Kurnell Project Boundary
 / 	Approximate Area 1 Boundary / Remedial Extent
 / 	Approximate Area 2 Boundary / Remedial Extent
	Approximate Validation Sample Location

Image courtesy of Nearmap: dated 18 June 2024

DETAILS:

<b>Figure Name:</b>	Figure 4: Kurnell Validation Samples
<b>Client Name:</b>	McConnell Dowell
<b>EDP Reference:</b>	S-05009.SRVR.002
<b>Date:</b>	12 August 2024





Kamay Ferry Wharves Project, Kurnell and  
La Perouse NSW

Figure 5: La Perouse Validation Sample  
Locations



LEGEND:

	Approximate Area 1 Boundary (Remedial Extent)
	Approximate Area 2 Boundary (Remedial Extent)
	Approximate Area 3 Boundary
	Approximate Area 3 Asbestos Hotspot (Remedial Extent)
	Approximate validation sample locations

Image courtesy of Nearmap: dated 12 March 2024

DETAILS:

<b>Figure Name:</b>	Figure 5: La Perouse Validation Sample Locations
<b>Client Name:</b>	McConnell Dowell
<b>EDP Reference:</b>	S-05009.SRVR.002
<b>Date:</b>	12 August 2024





## Appendix B: EPA Guidelines



## Guidelines made or approved by the EPA under section 105 of the Contaminated Land Management Act 1997

(as of: 12 August 2022)

Section 105 of the CLM Act allows the EPA to make or approve guidelines for purposes connected with the objects of the Act. The EPA must consider these guidelines whenever they are relevant. Other people must also consider the guidelines, namely, accredited site auditors when conducting a site audit; contaminated land consultants when investigating, remediating, validating and reporting on contaminated sites; and those responsible for land contamination with a duty to notify the EPA.

A current list of guidelines made or approved by the EPA under the CLM Act appears below.

### Guidelines made by the EPA

- Assessment and management of hazardous ground gases: Contaminated land guidelines (PDF 4MB)
- Guidelines for the vertical mixing of soil on former broad-acre agricultural land (PDF 148KB)
- Contaminated land sampling design guidelines part 1 – application (PDF 3.3MB)
- Contaminated land sampling design guidelines part 2 – interpretation (PDF 1MB)
- Guidelines for assessing banana plantation sites (PDF 586KB)
- Consultants reporting on contaminated land: Contaminated land guidelines (PDF 1MB)
- Guidelines for assessing former orchards and market gardens (PDF 172KB)
- Guidelines for the NSW Site Auditor Scheme, 3rd edition (PDF 999KB)
- Guidelines for the assessment and management of groundwater contamination (PDF 604KB)
- Guidelines on the duty to report contamination under the Contaminated Land Management Act 1997 (PDF 412KB)

### Guidelines that refer to the:

- Australian Water Quality Guidelines for Fresh and Marine Waters (ANZECC, October 2000), are replaced as of 29 August 2018 by the Australian and New Zealand Guidelines for Fresh and Marine Water Quality (ANZG, August 2018), with the exception of the water quality for primary industries component, which still refer to the ANZECC & ARMCANZ (2000) guidelines
- National Environment Protection (Assessment of Site Contamination) Measure 1999 are replaced as of 16 May 2013 by the National Environment Protection (Assessment of Site Contamination) Measure 1999 (April 2013).

### Guidelines approved by the EPA

- Australian and New Zealand Guidelines for Fresh and Marine Water Quality, ANZG (August 2018)
- Australian and New Zealand Guidelines for Fresh and Marine Water Quality, Volume 3, Primary Industries - Rationale and Background Information (ANZECC & ARMCANZ (October 2000)
- Composite sampling, Lock, W. H., National Environmental Health Forum Monographs, Soil Series No.3, 1996, SA Health Commission, Adelaide. Email [enHealth.Secretariat@health.gov.au](mailto:enHealth.Secretariat@health.gov.au) for a copy of this publication.
- Environmental health risk assessment: Guidelines for assessing human health risks from environmental hazards, Department of Health and Ageing and EnHealth Council, Commonwealth of Australia (June 2012)
- National Environment Protection (Assessment of Site Contamination) Measure 1999 (April 2013)\* (ASC NEPM)
- Guidelines for the Assessment and Clean Up of Cattle Tick Dip Sites for Residential Purposes, NSW Agriculture and CMPS&F Environmental (February 1996)
- Australian Drinking Water Guidelines, NHMRC and Natural Resource Management Ministerial Council of Australia and New Zealand (2011)

\*The ASC NEPM was amended on 16 May 2013.



## Appendix C: Interim Audit Advice

1 September 2023

Christopher Williams  
Senior Environment and Sustainability Officer  
Transport for NSW  
130 George Street  
PARRAMATTA NSW 2150

Dear Christopher,

## Re: Interim Audit 1: Kamay Wharf; Captain Cook Drive, Kurnell and Anzac Parade, La Perouse Review of Remediation Action Plan

### 1. Introduction and Background

Melissa Porter (the Site Auditor) of Senversa Pty Ltd (Senversa) has been engaged by Transport for NSW (TfNSW) as a NSW Environment Protection Authority (EPA) Accredited Contaminated Site Auditor for the proposed redevelopment of site, located at Kamay Wharf, Captain Cook Drive, Kurnell and Anzac Parade, La Perouse (hereafter referred to as 'the site').

The auditor issued a Section B Site Audit Statement (MP 186) and a Site Audit Report on 23 June 2023 that concluded that:

*'Based on the information presented in the contamination reports, the auditor concludes that:*

- The nature and extent of contamination has been appropriately determined and that the risk from contaminants, other than asbestos, to human health and the environment associated with construction and operation of Kamay Wharves is low.*
- Remediation of asbestos contamination is required and it is recommended that a Remedial Action Plan be prepared in accordance with the guidelines made and approved under section 105 of the Contaminated Land Management Act 1997. This RAP should be reviewed by an EPA-accredited Site Auditor. This process is contemplated and required in Conditions E64 to E69 of the planning consent.'*

The following report has now been provided to the auditor:

- 'Remedial Action Plan, Kamay Ferry Wharves, Kurnell and La Perouse NSW' dated 16 August 2023 by EDP Consultants Pty Ltd (EDP).

This interim audit advice (IAA) details the review of the Remedial Action Plan (RAP) in relation to the contamination status of the site.



## 2. Review Comments

The site auditor has undertaken a review of the RAP against the requirements specified in the *Guidelines for the NSW Site Auditor Scheme (3<sup>rd</sup> edition)* (NSW EPA, 2017) and the *Guidelines for Consultants Reporting on Contaminated Sites* (NSW EPA, 2020).

- It is understood that the preferred remedial method is:
  - Excavation and off-site disposal of the materials located within the excavation footprint. All fill within the excavation plan is considered to be asbestos contaminated.
  - Should further contamination be identified within the site but outside the excavation footprint, on-site management will apply. On-site management will be carried out in accordance with the site's Asbestos Management Plan (AMP).
  - Excavation to 'the depth of natural'.
  - Emu picking may be required along sidewalls to remove any residual asbestos prior to attempting validation sampling.
- It is understood that the audit area (subject of the Section A SAS) will be limited to the excavation area. Please confirm.
- The auditor notes that Appendix B and Appendix C will be provided in another revision, so these have not yet been reviewed.
- Section 4.1.
  - Provide details of the proposed further intrusive investigation for Kurnell (i.e., sample numbers, locations and depths, laboratory analysis).
  - Asbestos was identified at three locations. Please update.
- Section 4.2. Provide vertical remedial extent (to the depth of natural).
- Section 5. The NSW EPA draft position statement: management of asbestos – contaminated sites should be considered, specifically for onsite reuse of asbestos-contaminated soils that have been remediated: <https://www.epa.nsw.gov.au/your-environment/contaminated-land/other-contamination-issues/managing-asbestos-in-and-on-land/position-statement-wa-managment-of-asbestos-sites/draft-position-statement>
- Section 6. Update lot and Deposited Plan (DP) numbers for both sites for the project boundary as it appears these lots aren't included in the project boundaries in the figures. Consider including lot and DPs on a figure.
- Section 8. Asbestos was identified in seven test pits overall, with four locations at La Perouse. Please update.
- Section 12.1. Table 6. This table isn't referenced elsewhere and should be removed as all imported material should report concentrations commensurate with the documentation with the expectation that organics are less than PQL and metals are less than background and the material contains no asbestos.  
It is noted that 'Materials imported as VENM must at minimum include heavy metals, TRH, BTEX, PAH, OCP, OPPs, PCBs and asbestos'. Please reword to clarify that the analytical list should include these contaminants rather than the VENM
- Section 12 – there are criteria for imported material, waste classification and re-use of soil. What are the validation criteria for the walls and base of the excavation?
- Section 12.3. Please note the material will need to be confirmed as not PASS/ASS.
- Section 13, paragraph 3. Section 4.1 states that additional investigations will be undertaken for Kurnell. Please update wording so it is consistent.
- Section 13. Confirm what the excavations will be backfilled with i.e., VENM, ENM or onsite material suitable for reuse.





- Section 13.2. The material movement onsite will need to be tracked, and the following will need to be included in the validation report for auditor review:
  - Material Excavation Form: a record of excavated materials which includes the date, material type/description, excavated quantity, origin and intended destination.
  - Stockpile Register: a record of all materials placed in stockpiles which include the date, material type/description, stockpiled quantity, origin and intended end use (e.g. “for backfilling” or “for offsite disposal”). Material excavated and stockpiled will be identified with a marker flag or stake clearly labelled with the stockpile source information and a stockpile ID.
  - Material Placement Form: a record of all materials backfilled on the site (if any) and including the date, material type, quantity backfilled and origin.
- Section 14.2. A 1 m by 1 m walkover should be conducted across the excavation area for both sites to confirm if asbestos remediated material is reused within the excavation footprints to verify no residual asbestos fragments are present on the surface.
- Section 14.2.1, second dot point. Remove or provide clarification to the following text: ‘commencement of capping produces of contaminated material.’
- Section 14.2.3 and 14.2.4. The material will need to be inspected by the environmental consultant upon import with supporting documentation that the material is consistent with the supplier documentation i.e. photos, field notes.
- Section 14.3.6. For waste classification. Note that a 95% UCL can't be calculated for asbestos.
- Section 14.4. Remove references to marker layer installation and capping media installation as this is not the chosen remediation method.
- Section 16.2.2. Validation sampling will need to be conducted following further excavation. Please update.
- Figures 2 and 3.
  - Please update/distinguish the yellow and red boundary lines in the legend.
  - Please include a scale.
- Figure 2. The proposed remediation footprint does not appear to include the locations where ACM was previously found. Please provide a figure showing the asbestos detections in relation to the current site boundary and provide explanation for why this area is suitable to be excluded from the excavation/remediation area.
- Figure 3.
  - Confirm what the red shaded area is.
  - Include the locations where asbestos was detected.

Please also note the auditor has only reviewed the documents listed within this IAA. We will also require a survey plan of the audit site boundary which is expected to be the excavation area. Please provide site area and Lot/DP numbers for that area.

### 3. Close

We look forward to receiving a response to the comments above and trust this meets your current requirements. Should you have any queries or require further information, please do not hesitate to contact the undersigned.

Yours sincerely,  
On behalf of **Senversa Pty Ltd**

**Melissa Porter**  
NSW EPA Accredited Site Auditor (0803)

KR/MP



**Technical Limitations and Uncertainty** – This Interim Advice is not a Site Audit Report or a Site Audit Statement, as defined in the Contaminated Land Management Act 1997, but forms part of the Site Audit process. It is intended that a Site Audit Statement and report will be issued at the completion of the site audit.

Consistent with NSW EPA requirements for staged “sign-off” of sites that are the subject of progressive assessment, remediation and validation, the Auditor is required to advise that:

- This site audit advice does not constitute a site audit report or statement.
- This letter is considered by the Auditor to be consistent with NSW EPA guidelines and policies.
- This letter will be documented in the final Site Audit Statement and associated documentation.
- At the completion of the site audit, a Site Audit Statement will be prepared, for the consent agency to include the Site’s property information, held by the local council.

**Reliance** – This document has been prepared solely for the use of TfNSW. No responsibility or liability to any third party is accepted for any damages arising out of the use of this document by any third party.

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26 September 2023

Christopher Williams  
Senior Environment and Sustainability Officer  
Transport for NSW  
130 George Street  
PARRAMATTA NSW 2150

Dear Christopher,

## Re: Interim Audit 2: Kamay Wharf; Captain Cook Drive, Kurnell and Anzac Parade, La Perouse Review of Remediation Action Plan

Melissa Porter (the Site Auditor) of Senversa Pty Ltd (Senversa) has been engaged by Transport for NSW (TfNSW) as a NSW Environment Protection Authority (EPA) Accredited Contaminated Site Auditor for the proposed redevelopment of site, located at Kamay Wharf, Captain Cook Drive, Kurnell and Anzac Parade, La Perouse (hereafter referred to as 'the site').

The auditor issued a Section B Site Audit Statement (MP 186) and a Site Audit Report on 23 June 2023 that concluded that:

*'Based on the information presented in the contamination reports, the auditor concludes that:*

- The nature and extent of contamination has been appropriately determined and that the risk from contaminants, other than asbestos, to human health and the environment associated with construction and operation of Kamay Wharves is low.*
- Remediation of asbestos contamination is required and it is recommended that a Remedial Action Plan be prepared in accordance with the guidelines made and approved under section 105 of the Contaminated Land Management Act 1997. This RAP should be reviewed by an EPA-accredited Site Auditor. This process is contemplated and required in Conditions E64 to E69 of the planning consent.'*

The following report has now been provided to the auditor:

- 'Remedial Action Plan, Kamay Ferry Wharves, Kurnell and La Perouse NSW' dated September 2023 by EDP Consultants Pty Ltd (EDP).

Interim audit advice (IAA) No. 1 detailed our initial review of the Remedial Action Plan (RAP) in relation to the contamination status of the site. This IAA details the review of the final RAP in relation to the contamination status of the site.



The site auditor has undertaken a review of the RAP against the requirements specified in the *Guidelines for the NSW Site Auditor Scheme (3<sup>rd</sup> edition)* (NSW EPA, 2017) and the *Guidelines for Consultants Reporting on Contaminated Sites* (NSW EPA, 2020).

The auditor considers that the final RAP addresses previous comments presented in IAA No. 1.

The auditor concludes that the RAP is appropriate and that the site can be made suitable for the proposed uses, following implementation of the RAP.

Should you have any queries or require further information, please do not hesitate to contact the undersigned.

Yours sincerely,  
On behalf of **Senversa Pty Ltd**

**Melissa Porter**

NSW EPA Accredited Site Auditor (0803)

MP

**Technical Limitations and Uncertainty** – This Interim Advice is not a Site Audit Report or a Site Audit Statement, as defined in the Contaminated Land Management Act 1997, but forms part of the Site Audit process. It is intended that a Site Audit Statement and report will be issued at the completion of the site audit.

Consistent with NSW EPA requirements for staged “sign-off” of sites that are the subject of progressive assessment, remediation and validation, the Auditor is required to advise that:

- This site audit advice does not constitute a site audit report or statement.
- This letter is considered by the Auditor to be consistent with NSW EPA guidelines and policies.
- This letter will be documented in the final Site Audit Statement and associated documentation.
- At the completion of the site audit, a Site Audit Statement will be prepared, for the consent agency to include the Site’s property information, held by the local council.

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10 July 2024

Hannah D'eau  
Senior Environment and Sustainability Officer  
Eastern Harbour and Central Rivers  
Transport for NSW

Dear Hannah,

**Re: Interim Audit Advice #3: Kamay Wharf; Captain  
Cook Drive, Kurnell and Anzac parade, La Perouse  
Review of Interim Draft Validation Report**

## 1.0 Introduction and Background

Melissa Porter (the Site Auditor) of Senversa Pty Ltd (Senversa) has been engaged by Transport for NSW (TfNSW) as a NSW Environment Protection Authority (EPA) Accredited Contaminated Site Auditor for the proposed redevelopment of site, located at Kamay Wharf, Captain Cook Drive, Kurnell and Anzac Parade, La Perouse (hereafter referred to as 'the site').

The auditor issued a Section B Site Audit Statement (MP 186) and a Site Audit Report on 23 June 2023 that concluded that:

*'Based on the information presented in the contamination reports, the auditor concludes that:*

- The nature and extent of contamination has been appropriately determined and that the risk from contaminants, other than asbestos, to human health and the environment associated with construction and operation of Kamay Wharves is low.*
- Remediation of asbestos contamination is required and it is recommended that a Remedial Action Plan be prepared in accordance with the guidelines made and approved under section 105 of the Contaminated Land Management Act 1997. This RAP should be reviewed by an EPA-accredited Site Auditor. This process is contemplated and required in Conditions E64 to E69 of the planning consent.'*

The following reports have been provided to the auditor:

- 'Remedial Action Plan, Kamay Ferry Wharves, Kurnell and La Perouse NSW' dated September 2023 by EDP Consultants Pty Ltd (EDP).
- 'Site Remediation & Validation Report, Kamay Ferry Wharves, Kurnell and La Perouse NSW' dated 24 June 2024 by EDP.

Interim audit advice (IAA) No. 1 and No. 2 detailed our initial review of the Remedial Action Plan (RAP) in relation to the contamination status of the site. This IAA details the review of the Interim Draft Validation Report in relation to the contamination status of the site.



## 2.0 Review Comments

The Site Auditor has undertaken a review of the Interim Draft Validation Report against the requirements specified in the *Guidelines for the NSW Site Auditor Scheme (3<sup>rd</sup> edition)* (NSW EPA, 2017) and the *Guidelines for Consultants Reporting on Contaminated Sites* (NSW EPA, 2020).

Review comments are detailed herein.

- It is noted that the off-site disposal and imported material details have not been included in this version of the report and will be provided in a future version.
- Section 11.4. Confirm the location from which PAH validation samples were collected from (walls or base). It appears there are discrepancies / missing samples for the PAH validation samples between the figures and Table B. Please revise.
- Confirm if imported material was inspected upon arrival to site by the environmental consultant.
- Confirm if field QA/QC samples were collected and include summary tables.
- Provide licence numbers of the asbestos removal contractors.
- Section 13.3.
  - It is stated only samples from KN-Area 1 were collected for Kurnell. Confirm if samples were collected from KN-Area 2.
  - It is stated only LP-Area 2 was excavated and validated along the entire footprint and the eastern portion of LP-Area 1 and western portion of LP-Area 3 were not removed and validated. This contradicts Section 11.4. Please confirm areas that have been successfully excavated and validated or specify that this is for BaP. Confirm areas where residual contamination has been left in-situ.
  - Please provide details of samples that failed validation criteria and further remedial/validation activities undertaken.
- Section 15.1. As waste tracking details have not been provided for review, the auditor is unable to comment on the discrepancy of waste tracking for the sites. Please ensure all relevant waste tracking details are provided in the updated report. The auditor has not undertaken a detailed review of waste classification reports for this interim draft validation report.

## 3.0 Close

We look forward to receiving a response to the comments above and trust this meets your current requirements. Should you have any queries or require further information, please do not hesitate to contact the undersigned.

Yours sincerely,

On behalf of **Senversa Pty Ltd**

**Melissa Porter**

NSW EPA Accredited Site Auditor (0803)

KR/MP

**Technical Limitations and Uncertainty** – This Interim Advice is not a Site Audit Report or a Site Audit Statement, as defined in the Contaminated Land Management Act 1997, but forms part of the Site Audit process. It is intended that a Site Audit Statement and report will be issued at the completion of the site audit.

Consistent with NSW EPA requirements for staged “sign-off” of sites that are the subject of progressive assessment, remediation and validation, the Auditor is required to advise that:

- This site audit advice does not constitute a site audit report or statement.
- This letter is considered by the Auditor to be consistent with NSW EPA guidelines and policies.
- This letter will be documented in the final Site Audit Statement and associated documentation.
- At the completion of the site audit, a Site Audit Statement will be prepared, for the consent agency to include the Site’s property information, held by the local council.



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15 October 2024

Hannah D'eau  
Senior Environment and Sustainability Officer  
Eastern Harbour and Central Rivers  
Transport for NSW

Dear Hannah,

## **Re: Interim Audit Advice #4: Kamay Wharf; Captain Cook Drive, Kurnell and Anzac Parade, La Perouse**

### **Review of Updated Interim Draft Validation Report**

## **1.0 Introduction and Background**

Melissa Porter (the Site Auditor) of Senversa Pty Ltd (Senversa) has been engaged by Transport for NSW (TfNSW) as a NSW Environment Protection Authority (EPA) Accredited Contaminated Site Auditor for the proposed redevelopment of site, located at Kamay Wharf, Captain Cook Drive, Kurnell and Anzac Parade, La Perouse (hereafter referred to as 'the site').

The auditor issued a Section B Site Audit Statement (MP 186) and a Site Audit Report on 23 June 2023 that concluded that:

*'Based on the information presented in the contamination reports, the auditor concludes that:*

- The nature and extent of contamination has been appropriately determined and that the risk from contaminants, other than asbestos, to human health and the environment associated with construction and operation of Kamay Wharves is low.*
- Remediation of asbestos contamination is required and it is recommended that a Remedial Action Plan be prepared in accordance with the guidelines made and approved under section 105 of the Contaminated Land Management Act 1997. This RAP should be reviewed by an EPA-accredited Site Auditor. This process is contemplated and required in Conditions E64 to E69 of the planning consent.'*

The following reports have been provided to the auditor:

- 'Remedial Action Plan, Kamay Ferry Wharves, Kurnell and La Perouse NSW' dated September 2023 by EDP Consultants Pty Ltd (EDP).
- 'Site Remediation & Validation Report, Kamay Ferry Wharves, Kurnell and La Perouse NSW' dated 12 August 2024 by EDP.





Interim audit advice (IAA) No. 1 and No. 2 detailed the initial review of the Remedial Action Plan (RAP) in relation to the contamination status of the site. IAA No. 3 detailed review of a former version of the Interim Draft Validation Report. This IAA details review of an updated version of the Interim Draft Validation Report in relation to the contamination status of the site.

## 2.0 Review Comments

The Site Auditor has undertaken a review of the updated Interim Draft Validation Report against the requirements specified in the *Guidelines for the NSW Site Auditor Scheme (3<sup>rd</sup> edition)* (NSW EPA, 2017) and the *Guidelines for Consultants Reporting on Contaminated Sites* (NSW EPA, 2020).

Review comments are detailed herein.

- Please provide a survey plan of the remedial areas in the completed validation report.
- All disposal dockets and a waste tracking register still need to be provided for Kurnell and La Perouse. Please provide this in the completed validation report. Please ensure the details provided in Section 15.1 correspond with the waste tracking register and disposal dockets.
- As the appendices have not been provided, the auditor is unable to cross-check updates against the report and Figure 5. Please consider holding off providing partial interim reports and provide a complete report once all validation is completed and all documentation received.
- Include field observations noted during validation. Confirm if observations are consistent with analytical results and expected conditions of remediated/validated material. Confirm depth of wall samples collected.
- Comment No. 5. Noted. Please include details of visual inspection in the completed validation report.

## 3.0 Close

We look forward to receiving a response to the comments above and trust this meets your current requirements. Should you have any queries or require further information, please do not hesitate to contact the undersigned.

Yours sincerely,  
On behalf of **Senversa Pty Ltd**

**Melissa Porter**  
NSW EPA Accredited Site Auditor (0803)

KR/MP

**Technical Limitations and Uncertainty** – This Interim Advice is not a Site Audit Report or a Site Audit Statement, as defined in the Contaminated Land Management Act 1997, but forms part of the Site Audit process. It is intended that a Site Audit Statement and report will be issued at the completion of the site audit.

Consistent with NSW EPA requirements for staged “sign-off” of sites that are the subject of progressive assessment, remediation and validation, the Auditor is required to advise that:

- This site audit advice does not constitute a site audit report or statement.
- This letter is considered by the Auditor to be consistent with NSW EPA guidelines and policies.
- This letter will be documented in the final Site Audit Statement and associated documentation.
- At the completion of the site audit, a Site Audit Statement will be prepared, for the consent agency to include the Site’s property information, held by the local council.

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30 January 2025

Hannah D'eau  
Senior Environment and Sustainability Officer  
Eastern Harbour and Central Rivers  
Transport for NSW

Dear Hannah,

## **Re: Interim Audit Advice #5: Kamay Wharf; Captain Cook Drive, Kurnell and Anzac Parade, La Perouse      Review of Updated Validation Report**

### **1.0 Introduction**

Melissa Porter (the Site Auditor) of Senversa Pty Ltd (Senversa) has been engaged by Transport for NSW (TfNSW) as a NSW Environment Protection Authority (EPA) Accredited Contaminated Site Auditor for the proposed redevelopment of site, located at Kamay Wharf, Captain Cook Drive, Kurnell and Anzac Parade, La Perouse (hereafter referred to as 'the site').

### **2.0 Background**

The auditor issued a Section B Site Audit Statement (MP 186) and a Site Audit Report on 23 June 2023 that concluded that:

*'Based on the information presented in the contamination reports, the auditor concludes that:*

- The nature and extent of contamination has been appropriately determined and that the risk from contaminants, other than asbestos, to human health and the environment associated with construction and operation of Kamay Wharves is low.*
- Remediation of asbestos contamination is required and it is recommended that a Remedial Action Plan be prepared in accordance with the guidelines made and approved under section 105 of the Contaminated Land Management Act 1997. This RAP should be reviewed by an EPA-accredited Site Auditor. This process is contemplated and required in Conditions E64 to E69 of the planning consent.'*



The following reports have been provided to the auditor:

- 'Remedial Action Plan, Kamay Ferry Wharves, Kurnell and La Perouse NSW' dated September 2023 by EDP Consultants Pty Ltd (EDP).
- 'Site Remediation & Validation Report, Kamay Ferry Wharves, Kurnell and La Perouse NSW' dated 14 January 2024 by EDP.

Interim audit advice (IAA) No. 1 and No. 2 detailed the initial review of the Remedial Action Plan (RAP) in relation to the contamination status of the site. IAA No. 3 and IAA No. 4 detailed reviews of former versions of the Interim Draft Validation Report. This IAA details review of an updated version of the Validation Report in relation to the contamination status of the site.

## 3.0 Review Comments

The Site Auditor has undertaken a review of the updated Validation Report against the requirements specified in the *Guidelines for the NSW Site Auditor Scheme (3<sup>rd</sup> edition)* (NSW EPA, 2017) and the *Guidelines for Consultants Reporting on Contaminated Sites* (NSW EPA, 2020).

Review comments are detailed herein.

- Please clarify the audit boundary and provide site surveys. It is understood the audit boundary is contained to the remedial areas. If any data/information is included that does not relate to the site/audit boundary, please indicate this (e.g. import/export information). It appears several reports and documents in relation to waste tracking have not been provided and as such, the auditor has been unable to undertake a complete review.
- Sections 7.5 and 7.6.
  - Please provide the Soil Contamination Assessments (SCA) for Kurnell and La Perouse (EDP 2023b/c) to the auditor for review. Confirm if the samples collected during these assessments are included in the waste classification reports in Appendix G.
  - For La Perouse, based on the SCA, the site was also deemed unsuitable due to concentrations of PAHs. Clarify if this changed the proposed remedial strategy and validation activities outlined in the RAP.
  - It isn't overly clear the timing of the SCA, further sampling outlined in the waste classification report and validation sampling during remediation specifically in terms of PAHs. Table 6 in Section 11.4 states that validation sampling was undertaken and reported in the SCA (EDP 2023c). Please clarify.
- Section 10.1, dot point 2. Should this also include KN-Area 2?
- Section 11.4.
  - As noted in IAA No. 4:
    - Include field observations noted during validation. Confirm if observations are consistent with analytical results and expected conditions of remediated/validated material. Confirm depth of wall samples collected.
    - Please include details of visual inspections undertaken.
  - Table 6.
    - La Perouse, Area 1. In the tables, it appears samples for PAHs were also collected. Please clarify.
    - La Perouse, Area 3. Clarify why the entire area outlined in the RAP wasn't remediated/validation.
  - Second last paragraph. Under-boring and utility pits. Confirm if this has affected the remediation/validation for these areas. Confirm if the residual material is suitable for the proposed land uses, and if the material has been capped.
  - Last paragraph. Specify which samples failed validation criteria and what the new validation samples that passed are. Outline how much more was excavated before collecting a new sample. It doesn't appear PAH samples are presented in Appendix A.



- Include a description of finished site conditions after remediation and expected subsurface conditions, including any residual soil not removed and any imported material (for all areas and sites).
- Section 13.4.
  - Confirm which six sites the VENM was from (is this referring to source sites or suppliers?).
  - Provide details of inspections of the material at the source sites (e.g. dates of inspection, consultant representative, inspection checklist, material description, photographs).
  - Following on from IAA No. 3, confirm if MCD inspected material upon arrival to site and provide details (e.g. MCD representative who undertook the inspection, photographs, inspection checklist).
- Section 15.1.
  - Please provide volume of material (m<sup>3</sup>).
  - Table 7. It appears most of the reports referenced here are not cross-referenced in the Waste Register and have not been provided in Appendix G. Please provide all reports.
  - Please confirm if all material was directly loaded onto trucks for off-site disposal, or stored on-site first. If stored on-site, please provide stockpile tracking register, how stockpiles were segregated and tracked, as well as details regarding validation of stockpile footprints.
  - The material classified as hazardous waste (special waste) from La Perouse Area 1 has not been discussed anywhere. Confirm if this material was removed off-site and provide details.
- Section 15.2.
  - Please refer to Section 14.2.4 of the RAP for verification of imported materials (e.g. for VENM a minimum of three samples per source site, assessment of environment, material description, photographs and visual assessment). Please update the report to include verification details for the imported material and outline and justify any discrepancies. If no sampling of imported material was undertaken, at a minimum, photographs of each material will need to be provided alongside evidence and details of visual inspections.
  - Whilst material from Hanson, Select Quarries and Concrete Recyclers were imported prior to preparation of the RAP, if they were placed within the site/audit boundary, please provide proof that these materials are suitable for the site (refer to requirements outlined in the RAP/above comment).
  - Table 8:
    - Please provide volume of imported material (m<sup>3</sup>).
    - Separate the quantity of imported material for Holcim Abion Park and Holcim Lynwood. Please also do this for the tracking register.
    - Update the table to include VENM (sandstone) imported from 320 Badgerys Creek Road, Bradfield.
    - Update the second column (Description) to list all material types imported for each source site.
- Figures. La Perouse.
  - PAH Validation. Present all locations of validation samples collected (including those that failed and subsequent further samples were collected).
  - Some names locations in Area 1 appear to be incorrect (e.g. A3-03, A1-19). Please update.
- Appendix E. Waste Register.
  - Provide all dockets for waste disposal. If these are provided as links in the 'Documents' column, the links aren't working. Please include as attachments to the report.
  - Provide waste locate dockets.



- Appendix E. Imported Materials Register.
  - Please provide an excel version of the spreadsheet.
  - Benedicts. The Imported Material Validation Certificate only refers to material type B30. Other material including 'high compact sand', 'S30', '40 mm drain agg', 'DGS40' and 'DGB20' are listed as being imported to the site. Imported Material Validation Certificates will need to be provided to cover all types of material. This will need to be done for all other suppliers/source sites and material types.
  - Update so all entries include 'Use onsite' and 'Location' details.
  - Update to include all 'Rego' details. If unable to be provided, please explain why and justify why it isn't significant.
  - As mentioned in an earlier comment, 'Import Material Verification' will still need to be provided for material imported prior to preparation of the RAP.
  - Provide all dockets for imported material. If the hyperlink above 'Docket No.' is meant to take you to the dockets, this link isn't working.
- Appendix F. Imported Material Validation Certificates.
  - Letter reference S-05009.IMV.001.QRY.Allsands V3. The AllSands letterhead states their material is no longer VENM after it is processed. Clarify the material type (ENM?) and that it was validated in accordance with the RAP.
  - Letter reference S-05009.IMV.003.QRY.Boral Dunmore V4 includes a letterhead from Coastwide Civil, but this supplier is not listed anywhere else. Please confirm if any material was supplied by Coastwide Civil, and update the report and tracking register if so.
  - Letter reference S-05009.IMV.002.QRY.Holcim V2. The Alliance report says the samples were collected from the Kurnell Recycling Facility and not the Lynwood Quarry. Please confirm if these samples are relevant to the quarried material sourced from Holcim. If not, please remove.
  - Letter references S-05009.IMV.008, S-05009.IMV.009 and S-05009.IMV.010 don't appear to be included. Please update.
  - Letter reference S-05009.IMV.QRY.006. The letter from the supplier references B30 material, not DGB20 as stated in Table 8 in the report. Please clarify, noting that other material types have also been imported to the site.
- Appendix G. Waste Classification Certificates.
  - It appears only reports S-05009.WCC.003 V4 and S-05009.WCC.004 LP V6 have been provided. Please provide all other reports.
  - Please provide all historical results in the analytical tables and provide all laboratory reports.
  - Provide 95% UCL calculations. Confirm all results considered in the 95% UCL calculations were from samples collected within the same stratigraphy (fill).
- Appendix J. Site Survey Plans.
  - The survey plans provided do not appear relevant to the audit or do not clearly show the site boundary and remedial areas. Provide survey plans for the site audit boundaries which are understood to be the remedial areas.



## 4.0 Close

We look forward to receiving a response to the comments above and trust this meets your current requirements. Should you have any queries or require further information, please do not hesitate to contact the undersigned.

Yours sincerely,  
On behalf of **Senversa Pty Ltd**

**Melissa Porter**

NSW EPA Accredited Site Auditor (0803)

KR/MP

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Consistent with NSW EPA requirements for staged “sign-off” of sites that are the subject of progressive assessment, remediation and validation, the Auditor is required to advise that:

- This site audit advice does not constitute a site audit report or statement.
- This letter is considered by the Auditor to be consistent with NSW EPA guidelines and policies.
- This letter will be documented in the final Site Audit Statement and associated documentation.
- At the completion of the site audit, a Site Audit Statement will be prepared, for the consent agency to include the Site’s property information, held by the local council.

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12 February 2025

Hannah D'eau  
Senior Environment and Sustainability Officer  
Eastern Harbour and Central Rivers  
Transport for NSW

Dear Hannah,

## **Re: Interim Audit Advice #6: Kamay Wharf; Captain Cook Drive, Kurnell and Anzac Parade, La Perouse**

### **Review of Updated Validation Report**

## **1.0 Introduction**

Melissa Porter (the Site Auditor) of Senversa Pty Ltd (Senversa) has been engaged by Transport for NSW (TfNSW) as a NSW Environment Protection Authority (EPA) Accredited Contaminated Site Auditor to provide auditor services with regards to areas within the construction extent of the Kamay Ferry Wharves project located at Kamay Wharf, Captain Cook Drive, Kurnell and Anzac Parade, La Perouse (hereafter referred to as 'the site').

## **2.0 Background**

The auditor issued a Section B Site Audit Statement (MP 186) and a Site Audit Report on 23 June 2023 that concluded that:

'Based on the information presented in the contamination reports, the auditor concludes that:

- The nature and extent of contamination has been appropriately determined and that the risk from contaminants, other than asbestos, to human health and the environment associated with construction and operation of Kamay Wharves is low.
- Remediation of asbestos contamination is required and it is recommended that a Remedial Action Plan be prepared in accordance with the guidelines made and approved under section 105 of the Contaminated Land Management Act 1997. This RAP should be reviewed by an EPA-accredited Site Auditor. This process is contemplated and required in Conditions E64 to E69 of the planning consent.'

The following reports have been provided to the auditor:

- 'Remedial Action Plan, Kamay Ferry Wharves, Kurnell and La Perouse NSW' dated September 2023 by EDP Consultants Pty Ltd (EDP).
- 'Site Remediation & Validation Report, Kamay Ferry Wharves, Kurnell and La Perouse NSW' dated 7 February 2024 by EDP.





Interim audit advice (IAA) No. 1 and No. 2 detailed the initial review of the Remedial Action Plan (RAP) in relation to the contamination status of the site. IAA No. 3, No. 4 and No. 5 detailed reviews of former versions of the Interim Draft Validation Report. This IAA details review of an updated version of the Validation Report in relation to the contamination status of the site.

## 3.0 Review Comments

The Site Auditor has undertaken a review of the updated Validation Report against the requirements specified in the Guidelines for the NSW Site Auditor Scheme (3<sup>rd</sup> edition) (NSW EPA, 2017) and the Guidelines for Consultants Reporting on Contaminated Sites (NSW EPA, 2020).

Review comments are detailed herein.

- Section 11.4. To further clarify previous IAA requests, please include soil descriptions of validation samples collected. Include soil descriptions of the residual material in the remedial excavations.
- It is understood that fill located within part of Area 2 was not removed or remediated for asbestos as underground boring was completed instead of excavation to ensure retention of the road. Confirm whether this unremediated section is located within the audit boundary i.e., requires audit sign off. If this area is located outside the audit boundary, please update figures and the survey plan to exclude this area. In any case, please comment on whether there are any residual risks i.e., any potential remaining asbestos. The CSM will need to be updated to reflect this.
- Figures and Appendix J.
  - The boundaries indicated on the figures and survey plan do not align, please amend so they are consistent.
  - Figures. Please make it clear the extent of the site boundaries on the figures (i.e., the remedial areas). Currently, areas outside the remedial areas are presented as being included in the site boundary including the broader La Perouse Area 3, the footpath associated with the broader Area 2 in Kurnell, and the under road area in Kurnell Area 1.
  - Appendix J. The Kurnell figures do not appear to reflect the remedial/site boundaries. The first figure appears to be a line following the footpath, and the second figure is not legible. Please update.
- Imported material. As a last resort, if complete supporting documentation for imported material is unable to be provided (all receipts supported by photographs, inspection checklists, sample results), then confirmation from the suppliers is required stating that X amount of material was purchased and delivered to the sites.
  - Imported material dockets will need to be appended to the validation report.
  - The imported material dockets sent through do not appear to be complete. Please provide all dockets for imported material. If unable to be provided, please comment (if applicable) why this isn't significant.
  - Provide any photographs of imported material not currently provided.
  - Noting imported material checklists were available for the mulch and turf/foam imported to areas outside the site boundaries, confirm if these are available for the rest of the imported material and if so, please append to the validation report.
  - Confirm if any dockets are available for topsoil (57.23 tonnes) imported to La Perouse from Benedicts and mulch (8 tonnes) imported to La Perouse from Ecodynamics.
  - Imported Material Validation Certificate letter S-05009.IMV.010. Table 2, first row. 'EDP intends to complete a site inspection and validation assessment'. Confirm if this was undertaken or intended to be undertaken.
  - Appendix E. What is the 'CSR trench'?





- Exported material. If insufficient documentation is able to be provided that indicates that all waste was transported off-site to facilities lawfully able to receive them, the auditor is required to notify this to the EPA and note this in the SAR, which will not affect SAS delivery.
  - It is understood waste locate docket were not available at the time of responding to the previous IAA. Confirm if they are now available and append to the validation report. It is noted that tracking asbestos movement is a requirement of the NSW EPA.
  - Waste Register and docket. It appears only 26 docket have been provided for the approximate 77 entries in the register. Please provide all docket. Please also confirm if the material classified as hazardous material was taken off-site to a facility lawfully able to receive it, or if the waste was subsequently reclassified.
  - Some material is listed as being exported as VENM. Provide the VENM certificates and details of receiving sites (including addresses), as well as docket if available.
- Include details that council was notified of remediation works and whether it was category 1 or 2.

## 4.0 Close

We look forward to receiving a response to the comments above and trust this meets your current requirements. Should you have any queries or require further information, please do not hesitate to contact the undersigned.

Yours sincerely,  
On behalf of **Senversa Pty Ltd**

**Melissa Porter**

NSW EPA Accredited Site Auditor (0803)

KR/MP

**Technical Limitations and Uncertainty** – This Interim Advice is not a Site Audit Report or a Site Audit Statement, as defined in the Contaminated Land Management Act 1997, but forms part of the Site Audit process. It is intended that a Site Audit Statement and report will be issued at the completion of the site audit.

Consistent with NSW EPA requirements for staged “sign-off” of sites that are the subject of progressive assessment, remediation and validation, the Auditor is required to advise that:

- This site audit advice does not constitute a site audit report or statement.
- This letter is considered by the Auditor to be consistent with NSW EPA guidelines and policies.
- This letter will be documented in the final Site Audit Statement and associated documentation.
- At the completion of the site audit, a Site Audit Statement will be prepared, for the consent agency to include the Site’s property information, held by the local council.

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18 February 2025

Hannah D'eau  
Senior Environment and Sustainability Officer  
Eastern Harbour and Central Rivers  
Transport for NSW

Dear Hannah,

**Re: Interim Audit Advice #7: Kamay Wharf; Captain  
Cook Drive, Kurnell and Anzac Parade,  
La Perouse  
Review of Updated Validation Report**

## 1.0 Introduction

Melissa Porter (the Site Auditor) of Senversa Pty Ltd (Senversa) has been engaged by Transport for NSW (TfNSW) as a NSW Environment Protection Authority (EPA) Accredited Contaminated Site Auditor to provide auditor services with regards to areas within the construction extent of the Kamay Ferry Wharves project located at Kamay Wharf, Captain Cook Drive, Kurnell and Anzac Parade, La Perouse (hereafter referred to as 'the site').

## 2.0 Background

The auditor issued a Section B Site Audit Statement (MP 186) and a Site Audit Report on 23 June 2023 that concluded that:

'Based on the information presented in the contamination reports, the auditor concludes that:

- The nature and extent of contamination has been appropriately determined and that the risk from contaminants, other than asbestos, to human health and the environment associated with construction and operation of Kamay Wharves is low.
- Remediation of asbestos contamination is required and it is recommended that a Remedial Action Plan be prepared in accordance with the guidelines made and approved under section 105 of the Contaminated Land Management Act 1997. This RAP should be reviewed by an EPA-accredited Site Auditor. This process is contemplated and required in Conditions E64 to E69 of the planning consent.'



The following reports have been provided to the auditor:

- 'Remedial Action Plan, Kamay Ferry Wharves, Kurnell and La Perouse NSW' dated September 2023 by EDP Consultants Pty Ltd (EDP).
- 'Site Remediation & Validation Report, Kamay Ferry Wharves, Kurnell and La Perouse NSW' dated 14 February 2024 by EDP.

Interim audit advice (IAA) No. 1 and No. 2 detailed the initial review of the Remedial Action Plan (RAP) in relation to the contamination status of the site. IAA No. 3, No. 4, No. 5 and No. 6 detailed reviews of former versions of the Validation Report. This IAA details review of an updated version of the Validation Report in relation to the contamination status of the site.

## 3.0 Review Comments

The Site Auditor has undertaken a review of the updated Validation Report against the requirements specified in the Guidelines for the NSW Site Auditor Scheme (3<sup>rd</sup> edition) (NSW EPA, 2017) and the Guidelines for Consultants Reporting on Contaminated Sites (NSW EPA, 2020).

Review comments are detailed herein.

- Imported material. As limited supporting documentation has been provided that shows that the imported material is consistent with quarried material or material covered by a RRO/RRE, please provide letters from the suppliers confirming that X amount of material was delivered to the site, or please outline why any uncertainty in the quality of the imported material is considered low and acceptable, and the site is suitable for ongoing uses as public open space. For example, whether the material was placed below readily accessible areas (beneath concrete or turf, within service trenches), or the volume of material placed was minimal (mostly limited to trenches) and the potential for gross contamination to be placed within these areas is low.
  - No records have been provided for mulch imported to Kurnell. Please update. Confirm if other material (topsoil) was imported to the Kurnell sites.
  - As mentioned in the previous IAA, not all imported material dockets have been provided. No dockets have been provided for smart mix 6 and topsoil from Benedicts, and mulch from Ecodynamics. Limited dockets have been provided for other material. The auditor will note this in the Site Audit Statement and Site Audit Report.
- Exported material.
  - In the previous IAA, the VENM certificate was requested to be provided for material exported from the site classified as VENM. In return, a letter from the receiving facility was provided saying they can accept the VENM sandstone per the waste classification letter. Please include the waste classification letter in the report.
  - The material classified as hazardous by EDP was given a preliminary waste classification of general solid waste (special waste) by ERM due to the presence of bitumen. EDP subsequently prepared a waste classification report and classified the material as hazardous waste (special waste) stating that all classifications exclude bitumen material. Soil descriptions by EDP from the walls of the remedial excavation stated that trace bitumen and asphalt were present. Since the material was classified by EDP as hazardous waste and it did not go to a facility able to receive hazardous waste, the auditor will notify this to the EPA and note this in the SAR.
- Figures and Appendix J. The survey plans are still incomplete. Please refer to follow up email.



## 4.0 Close

We look forward to receiving a response to the comments above and trust this meets your current requirements. Should you have any queries or require further information, please do not hesitate to contact the undersigned.

Yours sincerely,  
On behalf of **Senversa Pty Ltd**

**Melissa Porter**  
NSW EPA Accredited Site Auditor (0803)

KR/MP

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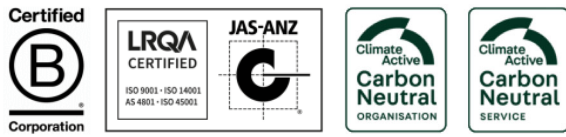
- This site audit advice does not constitute a site audit report or statement.
- This letter is considered by the Auditor to be consistent with NSW EPA guidelines and policies.
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## Appendix D: Notification to the EPA



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# Senversa Pty Ltd

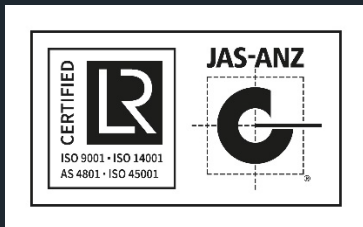
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