AUSTRALIAN
ENVIRONMENTAL AUDITORS

Site Audit Report

4 Mavie Street, Darwin, Northern Territory

Prepared for:
DWD Project Pty Ltd

Prepared by:
Australian Environmental Auditors Pty Ltd

Date:
29 October 2026

Project Number:
EA1237

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4 Mavie Street
Darwin, Northern Territory

Prepared for:

DWD Project Pty Ltd
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Date of Report:

29 October 2026

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(Accredited by the NSW EPA under the Contaminated Land Management Act 1997)

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Executive Summary

Alyson Macdonald of Australian Environmental Auditors Pty Ltd was engaged by DWD Project Pty Ltd to conduct a site audit on a portion of land at 4 Mavie Street, Darwin, Northern Territory (the site), encompassing parts of Lots 5280, 10881, and 10882 of the Town of Darwin and approximately 2,700 m^2 in area.

The audit was undertaken in response to a notice issued by the Northern Territory Environment Protection Authority (NT EPA) under Section 48(1) of the NT *Waste Management and Pollution Control Act 1998.* NT EPA required the audit to be completed by an approved person accredited under the NSW, Victorian, South Australian, Western Australian or Queensland Site Auditor Schemes. Alyson Macdonald is a site auditor accredited by the NSW Environment Protection Authority under the *Contaminated Land Management Act 1997* (NSW; Accreditation Number 1904).

The site comprised reclaimed land in Frances Bay that has been progressively infilled since 1977. The most recent filling event was unlicensed and undertaken by DWD Project Pty Ltd between 2015 and 2018, which led to the notice issued by NT EPA requiring a risk of harm audit. The audit site was defined by the EPA notice to be the area subject to recent filling, and overlapped portions of several properties.

It was estimated that during 2015 to 2018, between 4,130 m^3 and 8,700 m^3 of imported fill was deposited on the site. The imported fill was sourced from multiple construction/demolition sites in Darwin with no proper source tracking. Variable but significant quantities (estimated between 1,000 and 2,000 m^3) of construction and demolition waste (C&D) was found to be present in portions of the imported fill. Inclusions included, but were not limited to, concrete and bitumen rubble, plastic, steel reinforcing bars, broken glass, plastic and asbestos containing materials.

As a result of auditor reviews and inspections, data gaps were identified and supplementary information provided as required to finalise the audit.

JBS&G Pty Ltd (JBS&G) were the contaminated site consultants for this site, who undertook environmental site investigations for the purpose of providing sufficient information to allow this audit to be completed. To meet the requirements of the notice, JBS&G undertook soil, groundwater, surface water and sediment investigations.

Site investigations confirmed variable quantities of non-putrescible anthropogenic waste within the imported fill in the subsurface only. Asbestos was not observed on the site surface but was observed in minor quantities within the subsurface during earlier investigations. There is potential for more significant quantities of ACM to be present in portions of the subsurface, therefore caution should be exercised during future site excavations. The risk of harm to human health is considered low, provided that the current site fill layer is maintained.

Site investigations also identified elevated levels of arsenic, chromium, copper, nickel, zinc and PFAS at or adjacent to the site in at least one media. However, the arsenic, chromium and PFAS impacts were not considered to have originated from the on-site imported fill to any significant extent, and these contaminants were therefore not relevant to the audit objective. The risk of harm to human health was considered low for all contaminants, as there were no exceedances of human health criteria at the point of exposure.

Elevated concentrations of copper, nickel and zinc in soil were associated with the fill material but concluded to present a low risk of harm to the environment for the continued use of the site for commercial and industrial purposes. If the site was proposed to be redeveloped or the mangrove wetlands restored (i.e. change of use), further consideration of potential risk of harm may be required.

The imported fill at the site may be making a minor contribution to elevated copper and zinc levels in groundwater and surface water at and near the site. However, regional pollution and naturally occurring background concentrations of these metals are considered to be the major contributors and the additional risk of harm from the site-sourced impact is therefore considered low to negligible.

Low levels of dieldrin were reported in sediment samples recovered from Frances Bay directly adjacent to the site and are considered likely to be site-sourced contamination from on-site soil erosion. The reported concentrations don't exceed the recommended marine sediment quality guidelines and the risk of harm to the environment is therefore considered to be low.

Having reviewed the data provided, the site auditor is of the opinion that the site has been adequately investigated and documented to demonstrate that from a contamination perspective, the historical land filling activity poses a low risk of harm to the current use of the site (for industrial purposes) and to the surrounding environment. It is reiterated that as part of the general environmental duty, any fill material proposed to be imported to the audit site after the completion of this site audit must be tested and classified as per relevant NT EPA guidance.

To address the presence of asbestos, subsurface anthropogenic waste and potential for metals and dieldrin-impacted soil to erode into Frances Bay, an Operational Environmental Management Plan (OEMP) was recommended to minimise the risk of these contaminants from being exposed and migrating off-site. A copy of the resulting Site Audit Statement is provided as Appendix G, along with the Operational Environmental Management Plan prepared by JBS&G.

It is important to note that this Section B site audit report and statement do not constitute a land use suitability audit, but rather were prepared to respond to specific requirements of an EPA notice.

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1 Introduction

This Site Audit Report (SAR) and accompanying Site Audit Statement (SAS) were prepared by Alyson Macdonald, an employee of Australian Environmental Auditors Pty Ltd (AEA) and a site auditor accredited by the NSW Environment Protection Authority (EPA) under the NSW *Contaminated Land Management Act 1997* (Accreditation Number 1904).

This SAR was prepared in response to a request from Jasmine Brown of DWD Project Pty Ltd (DWD; site owner representative) to conduct a statutory site audit under Part 4 of the NSW *Contaminated Land Management Act 1997* (the NSW Act) to a Section 48 notice issued by the Northern Territory Environment Protection Authority (NT EPA) on 22 August 2025 to DWD Project Pty Ltd (DWD; the site owner), under Section 48(1) of the NT *Waste Management and Pollution Control Act 1998*.

JBS&G Pty Ltd (JBS&G) were the contaminated site consultants for this site, who undertook environmental site investigations for the purpose of providing sufficient information to allow this audit to be completed.

This SAR and SAS have been prepared in accordance with Part 4 of the NSW Act and relevant NSW and Northern Territory EPA guidance including the NT EPA *Contaminated Land Guideline*, NSW EPA *Contaminated Land Management, Guidelines for the NSW Site Auditor Scheme* (2017) and NSW EPA *Consultants Reporting on Contaminated Land: Contaminated Land Guidelines* (2020).

1.1 Site Definition

The site subject to this audit is identified as part of 4 Mavie Street, Darwin, Northern Territory (the site) and portions of adjacent properties. The audit site area was designated by the NT EPA on the basis of the estimated area where uncontrolled filling had occurred, and is shown by the red outline on **Figure 2**. The audit site includes portions of Lots 5280, 10881, and 10882 within the Town of Darwin and is approximately 2,700 m^2 in area. The site area is approximate and does not conform to the entirety of the cadastral boundaries of the referenced titles, on the basis that this was the site area nominated by NT EPA in the Section 48 notice.

The site is located adjacent to Frances Bay, approximately 430 m north-east of the Darwin Convention Centre on the Country of the Larrakia people. The site location is shown in **Figure 1** and **Figure 2**. The certificates of title for the three lots are included in **Appendix A**.

1.2 Current Land Use

The northern portion of the site (part of Lot 5280) comprises the vacant eastern portion of a marine vehicle maintenance workshop and storage yard. The southern portion (part of Lots 10881 and 10882) is currently vacant crown land. The entirety of the site comprises artificially reclaimed land through uncontrolled filling.

There were no permanent structures or buildings (i.e. sheds, warehouses, houses, etc.) present on-site, however a boat under repair was present on Lot 5280 at the time of the auditor's site inspection. The eastern site boundary along Lot 5280 is supported by a retaining wall, while the eastern boundary along Lots 10881 and 10882 is lined with miscellaneous concrete debris.

1.3 Purpose of the Statutory Site Audit

The audit was completed to meet the requirements of a notice issued by NT EPA, *Notice To Carry Out Environmental Audit Program,* dated 22 August 2025 (Section 48 notice; **Appendix D**) which supersedes a former Pollution Abatement Notice (PAN) No. 2018/02 (amended).

Requirement 1 of the notice states that an environmental audit program should be undertaken to evaluate:

> *The types, amount, distribution and mobility of contaminants present in the environment resulting from or in any way connected with historical land filling/reclamation activities the subject of the Supreme Court prosecution of Mr Michael Anthony and DWD Project Pty Ltd by the NT EPA on Indictment dated 22 March 2024.*

Requirement 8 of the notice stipulates that:

> *The **Environmental Audit Report** must include an assessment of actual environmental harm and potential risk of environmental harm from contaminants present in the environment at the premises resulting from or in any way connected with the historical land filling/reclamation activities.*

Requirement 2 states that the audit must be performed by a person registered under Section 68 of the *Waste Management and Pollution Control Act 1998*. The NT EPA has approved persons accredited under the NSW, Victorian, South Australian, Western Australian and Queensland Site Auditor Schemes as a class of persons suitable to undertake environmental audits in the Northern Territory in accordance with Section 68 of the NT's *Waste Management and Pollution Control Act 1998*.

As such, with permission from NT EPA, the auditor has elected to complete the audit under the NSW EPA audit system, with the assessment adopting NT and national guidance, where available. NSW guidance was also referred to for aspects where detailed NT guidance has not been published.

Under the NSW audit system, the auditor has determined that the risk of harm audit required by the Section 48 notice is a Section B1 audit, with the purpose to determine the nature and extent of contamination. This audit included assessment of the site regarding *historical land filling/reclamation activities* on the premises which were potentially impacting on environmental values. The auditor considered the site conditions relative to the current and potential uses and assessed the risk of harm, as well as all potential protected environmental values, as required by EPA guidelines. Discussions were held between the auditor and NT EPA during the course of the audit which confirmed that the audit should also incorporate a Section B2 component to determine the appropriateness of a management plan for the site.

The purpose of this audit was not to determine land use suitability.

1.4 Council Planning Scheme and Future Land Use

The site overlaps part of several lots, each with their own distinct zoning as listed below:

- Lot 5280: SD9 – Specific Use – Fisherman's Wharf locality. Waterfront and maritime industrial activities and mixed use residential, industrial and commercial.
- Lot 10881: MZ – Multi Zone.
- Lot 10882: CB – Central Business.

Further details are provided in the certificates of title in **Appendix A**.

The site is within the Frances Bay focus area of the *Central Darwin Area Plan* (NT Planning Commission 2019) and proposed to be potentially rezoned for mixed use (commercial, civic, residential and retail) in the future. This potential use has been considered in assessing appropriate site settings to select screening criteria for on-site receptors, whilst noting that a Section A site suitability audit would likely need to be undertaken as part of any rezoning or redevelopment planning, and this is outside of the scope of the current Section B audit.

1.5 Independence of the Site Auditor and Audit Team

The site audit system depends on the auditor undertaking an independent review of the consultant's activities to ensure the work complies with current regulations and guidelines and meets the standard appropriate for the proposed land use. EPA guidelines provide guidance on the auditor maintaining their independence and avoiding potential conflicts of interest.

Alyson Macdonald is the site auditor for this audit (Accreditation No. 1904). The auditor did not utilise any of her expert support team on this project.

1.6 Conflict of Interest Statement

As a site auditor accredited by the NSW EPA, accreditation number 1904, I make the following statement with respect to undertaking the audit for this site (ref: EA1237):

- I am not related to a person by whom any part of the land is owned or occupied.
- I do not have any pecuniary interest in any part of the land or any activity carried out on any part of the land.
- The site audit that I have been engaged to carry out does not involve my reviewing any aspect of work carried out by, or a report written by, me or a person to whom I am related; and
- I have not been engaged by the consultant whose work is to be reviewed.

2 Site Audit Framework

Contamination of land has occurred when a substance is present at elevated concentrations which presents a risk of harm to human health or the environment, and which is not naturally occurring at those concentrations. In the NT, the *Waste Management and Pollution Control Act 1998* (the NT Act) enables the NT EPA to regulate land that is potentially contaminated and which may pose a risk to human health and the environment. The NT Act enables NT EPA to require assessment, and if necessary, remediation to treat, contain, remove or manage the contamination. This requirement may include an environmental audit.

The audit is undertaken of a specified parcel of land, including surface water and groundwater.

A site audit is a critical review relating to management of (actual or potential) contamination of land, which is undertaken to determine the nature and extent of contamination, the management required for the current or any specified use, whether a management plan is suitable, and/or whether the land is suitable for a specified use. The site audit must ensure that all relevant human health and environmental values are considered for both current and potential future uses (based on land zoning). Once the auditor has formed an opinion based on professional judgement (and depending on the specific audit purpose), they must prepare a SAR (this document) which clearly states the audit findings and documents the audit process, and a SAS that summarises the audit findings on an EPA-approved form. Depending on its purpose, a SAR will demonstrate whether, in the auditor's opinion, the consultant's work complied with the relevant procedures and guidelines, whether it provides a robust basis for decisions or actions relating to the land concerned and/or whether the land is suitable for particular uses.

The scope of a site audit varies and depends on the required outcome. In this case the scope included an independent review of site assessment plans and the detailed site investigation report, an assessment of the nature and extent of contamination, an assessment of the (actual and potential) risk of harm from site contamination connected with the historical land filling/reclamation activities, and an assessment of the appropriateness of an environmental management plan. The scope was limited to the filling activities and did not assess contamination which may have been associated with other site activities, such as boat repair. The assessment of whether the site condition threatens the achievement or maintenance of relevant environmental values is undertaken by comparison against published qualitative and quantitative assessment criteria.

The scope included consideration of the potential for on-site sources of contamination to impact on the off-site environment. In this case, whilst the scope focussed on on-site sources of contamination, the potential for off-site sources of contamination to have impacted on the site was also considered, in order to differentiate adequately between sources. The audit considered all environmental media as relevant, including but not limited to surface water, groundwater, soil, sediment, dust, soil gas and ambient air.

2.1 Environmental Legislation, Regulations and Guidelines

In completing this audit, the auditor has drawn upon a range of data in forming an opinion regarding the environmental condition of the site. The amount, quality and nature of the data required to form this opinion is consistent with that recommended in relevant guidelines and standards published at the time of the audit. The auditor must comply with the requirements and guidelines of their accrediting jurisdiction (in this case NSW EPA) and the NT EPA guidelines.

The audit was undertaken in accordance with Section 47 of the NT Act which states in part that:

> *An environmental audit is an evaluation of any of the following:*
>
> *(d) the likelihood of waste management problems or pollution resulting in environmental harm occurring and the adequacy of safeguards in place to prevent their occurrence or limit their impact on the environment;*
>
> *(f) the types, amount, distribution or mobility of contaminants or waste present in the environment.*

When conducting this site audit, the following key pieces of legislation (and subordinate legislation) were considered:

- *Northern Territory Waste Management and Pollution Control Act 1998 (NT Act)* and the *Waste Management and Pollution Control (Administration) Regulations 1998; and*
- *NSW Contaminated Land Management Act 1997 (No. 140)* and the *Contaminated Land Management Regulation 2013 (491)*.

The following key documents for environmental auditing of contaminated land within the Northern Territory and NSW have been considered as part of the site audit process:

- NT EPA (2017) *Northern Territory Contaminated Land Guideline*;
- NSW EPA (2017) *Contaminated Land Management, Guidelines for the NSW Site Auditor Scheme*, 3rd edition;
- NSW EPA (2020) *Consultants Reporting on Contaminated Land: Contaminated Land Guidelines*;
- NSW EPA (2022a) *Sampling Design Part 1 – Application, Contaminated Land Guidelines*;
- NSW EPA (2022b) *Sampling Design Part 2 – Interpretation, Contaminated Land Guidelines*;
- National Environment Protection Council (NEPC) (2013) *National Environment Protection (Assessment of Site Contamination) Measure 1999* (ASC NEPM), as amended May 2013, National Environment Protection Council. Australian Government;
- EnHealth Council (2012) *Environmental Health Risk Assessment: Guidelines for Assessing Human Health Risks from Environmental Hazards*;
- Australian and New Zealand Governments (ANZG) (2018) *Australian and New Zealand Guidelines for Fresh and Marine Water Quality*, http://www.waterquality.gov.au/anz-guidelines;
- National Health and Medical Research Council (NHMRC), National Resource Management Ministerial Council (NRMMC) (2025) *National Water Quality Management Strategy, Australian Drinking Water Guidelines 6 2011*, current version 4.0 (rolling revision, referred to as ADWG 2025); and
- Heads of EPAs Australia and New Zealand (HEPA) (2026) *PFAS National Environmental Management Plan*, Version 3.1 (referred to as PFAS NEMP).

The auditor may also consider relevant Australian Standards or technical notes published by the NSW EPA, such as recognised industry best practice and management, and other technical documents. These documents, where used in this audit, are listed in **Section 10**.

2.2 General Environmental Duty

Under the NT Act, a general environmental duty (GED) applies to anyone undertaking activities that may cause pollution resulting in environmental harm to the NT environment. The general environmental duty requires all persons undertaking such activities to take all measures that are reasonable and practicable to prevent environmental harm.

Environmental harm is defined in the NT Act as "any potential harm (including the risk of harm and future harm) to or potential adverse effect on the environment, of any degree or duration". The GED includes ensuring that contaminated land is assessed, managed and remediated in accordance with the *NT Contaminated Land Guideline* (NT EPA 2017).

2.3 Audit Scope

The scope for the audit herein is based on the contribution and assessment of the information outlined in the sections below. Additionally, as outlined in the *Guidelines for the NSW Site Auditor Scheme* (NSW EPA 2017), the following checklist items were also considered prior to the SAR and SAS being prepared:

- Do all site assessment, remediation and validation reports follow applicable guidelines?

- Have any aesthetic issues relating to site soils been adequately addressed?
- Have the soils been assessed against relevant health-based investigation levels and potential for migration of contamination from soils to groundwater been considered?
- Has the groundwater (where relevant) been assessed against relevant health-based investigation levels and, if required, any potential impacts to buildings and structures from the presence of contaminants considered?
- Have hazardous ground gases (where relevant) been assessed against relevant health-based investigation levels and screening values?
- Are there any issues relating to local area background soil concentrations that exceed relevant investigation levels and have these been adequately addressed in the site assessment report(s)?
- Have the impacts of chemical mixtures been assessed?
- Have the potential ecological risks (where relevant) been assessed?
- Is there any evidence of, or potential for, migration of contaminants from the site and has this been appropriately addressed, including potential risks to off-site receptors, and reported to the site owner or occupier?
- Is the site management strategy (where relevant/applicable) appropriate, including any post-remediation environmental plans?

2.3.1 Reports Reviewed

The following documents were prepared prior to commencement of the audit, and were reviewed for background purposes:

- HiQA (2016) *Rapid Form System Informative Report Lot 5280 Mavie Street, Darwin NT*, 14 February 2016;
- AECOM (2017) *Mavie Street Development Area Detailed Site Investigation,* 11 July 2017;
- Coffey (2019) *Soil Sampling - 4 Mavie Street, Darwin NT*, 12 February 2019; and
- Senversa (2021) *Addendum Detailed Site Investigation Report Summary - Former Stokes Hill Naval Fuel Installation-site*, 10 December 2021.

Several other historical reports and documents were reviewed by the auditor but were considered of limited relevance to the audit. These were discussed in JBS&G reports listed below. AECOM and Senversa reports were prepared for off-site properties but have relevant information for this audit. Only the summary report for the Stokes Hill property was publicly available.

In addition, SLR completed historical environmental work in 2019, however no formal reporting was completed or provided to the auditor or JBS&G. SLR documentation includes laboratory reports and photographs, which have been considered where relevant and are summarised in JBS&G reports listed below.

The following documents were provided to the auditor for review and comment during the audit period, and were subsequently revised to meet auditor requirements (if required, only the final versions are listed below):

- JBS&G (2025) *Preliminary Site Investigation with a Sampling Analysis and Quality Plan – Parts of 4 Mavie Street, and Lots 10881 and 10882, Darwin NT*, 18 November 2025 [PSI].
- JBS&G (2026a) *Environmental Site Assessment – Parts of 4 Mavie Street, and Lots 10881 and 10882, Darwin NT*, 22 September 2026 [ESA].
- JBS&G (2026b) *Operational Environmental Management Plan – 4 Mavie Street, Darwin NT,* Rev 0 27 October 2026 [OEMP].

The final OEMP is attached to the SAS in Appendix G. Data tables reproduced from the consultant's reports are provided in **Appendix B**.

2.3.2 Correspondence with Client and their Consultants

During the course of the audit, the auditor issued a series of formal review letters to the client and their consultant. These letters typically document the outcome of the auditor's review of work plans and draft reports. The client also provided a letter to confirm their commitment to implement the OEMP. A copy of these letters is provided in **Appendix C**.

In addition, the auditor also provided numerous emails to the client and consultant. Copies of these documents are held with AEA.

2.3.3 Correspondence and Liaison with EPA

The auditor submitted a *Site Audit Notification* to the EPA on 15 September 2025. A copy of the SAN is provided in **Appendix D**.

On 9 September 2026, following the completion of all site investigations, the auditor met with a representative of NT EPA to discuss the investigation findings and likely audit recommendations. NT EPA followed up with written comments by email on 23 September 2026, including a preference that an Environmental Management Plan (EMP) was prepared for the site. NT EPA advised by telephone on 28 October 2026 that it was unnecessary to provide them with a draft version of the site audit report and statement prior to finalisation of these documents.

2.3.4 Audit Team and Expert Support

The auditor did not utilise any members of her expert support team as part of this audit. Technical support and assistance in conducting the audit was provided by the following AEA personnel:

- Bridget Rodger, Principal Environmental Engineer – project management, client meetings and review of consultant reports; and
- Maxwell Chng, Junior Environmental Engineer – review of consultant reports and assisted with audit reporting.

2.3.5 Site Inspections

The auditor undertook a site inspection to:

- Familiarise herself with the site and surrounding area;
- Meet consultant and client representatives to discuss site history and findings to date;
- Discuss proposed sampling locations; and
- Verify observations noted by the consultant.

A single site inspection was considered adequate for this audit, as no remediation works were required and the site layout remained unchanged whilst the audit was in progress. A summary of the site inspections and pertinent observations is provided in **Section 4.1**.

2.3.6 Verification Sampling

The auditor considered that verification sampling was not necessary to complete the audit. This determination was made based upon:

- The lack of unexplained pollution;
- The overall consistency of results compared with nearby data and site observations;

- The competency of the consultant who conducted the sampling and the laboratories which conducted the analysis;
- The quality of the documentation provided by the consultant and laboratories; and
- The general consistency between consultant's documentation and site observations by the auditor, except where noted.

2.3.7 Uncertainties of the Audit Process

This audit report has been prepared for DWD for the purposes described in the audit report. This document may not be suitable for other purposes.

The auditor has prepared this document in good faith, but is unable to provide certification outside of areas over which she had some control or is reasonably able to check.

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 investigation reports for further data. Users of this document should satisfy themselves concerning its application to, and where necessary, seek expert advice with respect to their situation.

The auditor notes that any comments and conclusions provided in this document are implicitly limited to consideration of contamination related issues as defined under the NT *Waste Management and Pollution Control Act 1998*.

3 Site History

3.1 Site History Reports

Site history information was provided primarily from the PSI (JBS&G 2025).

3.2 Site History Summary

For the purposes of the audit, the available site history information can be summarised as follows:

- In 1945, the site was originally part of Frances Bay with no made land until circa 1977.
- Around 1977, the southern portion of the site was partially infilled during extensive land reclamation activities along the shoreline in the area. At the time, the site was still predominantly within Frances Bay.
- Additional land reclamation occurred around 2004 along the western and north-eastern portions of the site. By this time, approximately 50% of the site comprised reclaimed land. A boat ramp and shed were also present along the westernmost portion of the site, straddling Lots 10881 and 10882. Vegetation (possibly mangroves) was present along portions of the southern and northern site boundaries. Surface water around Frances Bay shoreline appeared turbid in the aerial photograph.
- The boat shed had been removed by 2014, but the surrounding area (remainder of 4 Mavie Street) continued to operate as a boat yard.
- In October 2015, DWD took ownership of the site, and cleared it between 2015 and 2016. DWD began filling the site around October 2015, but the majority of the imported fill appears to have been deposited between 2017 and 2018. The filling activity ceased in April 2018. There were no significant works on-site post-2018 until the present day except for:
    - General vegetation regrowth;
    - The establishment of a concrete block retaining wall that runs east-west that generally separates Lot 5280 from Lots 10881 and 10882 and a concrete block retaining wall along the Lot 5280 shoreline; and
    - Potential lining of the eastern shoreline of Lots 10881 and 10882 with concrete debris, as an informal retaining wall.
- The most recent 2017/2018 filing event was an unlicensed activity that was subjected to scrutiny by NT EPA. This resulted in notices being issued to DWD.
- JBS&G estimated that approximately 4,130 m^3 and 8,700 m^3 of fill material was deposited on-site during this time. DWD sourced this material from multiple construction-sites in Darwin, with no records made available to the auditor. It was estimated that this filling event was 100 m in length and 6 m deep along the eastern boundary, grading to zero thickness along the western boundary.

3.2.1 Surrounding Site History

For the purposes of the audit, the available surrounding site history information can be summarised as follows:

- The land approximately 70 m to the west is occupied by the former Stokes Hill Naval Fuel Installation (SHNFI), which was a bulk fuel storage facility for Royal Australian Navy operations. According to the Australian Government Department of Defence, the facility operated from the mid-1920s until 2014[1]. The SHNFI facility was comprised of large fuel aboveground storage tanks (ASTs) and the associated infrastructure, including firefighting suppression systems. The SHNFI had not been decommissioned or demolished at the time of writing.

[1] https://www.defence.gov.au/about/locations-property/delivering-future-estate/stokes-hill-fuel-installation

- Land to the north of the audit site is occupied by Sea Swift, which has an Environmental Protection Licence to operate as a holding facility for waste received from ships, which is then managed and removed off-site by licensed third-party contractors. The licence allows for the holding of various wastes including (but not limited to) inks, dyes, solvents, mineral oils, pharmaceuticals, metals, sewage, contaminated soil and tyres. The exact commencement date of Sea Swift's operations is unknown, but historical aerial photographs indicate that similar industrial shipyard activity was present in this area since at least 1977.
- The former Stokes Hill Power Station was constructed along the southern portions of Lots 10881 and 10882, opened in June 1962 and was closed in 1987[2]. The facility was dormant until it was demolished in 1997. The site was being redeveloped as the Larrakia Cultural Centre during the auditor's site inspection in 2025.
- The surrounding area along the Stokes Hill shoreline has been subjected to extensive land reclamation, with parts of the shoreline now extending more than 100 m from its original location, based on the auditor's review of the historical aerial photographs.

The former Stokes Hill Power Station and SHNFI were historically investigated by other environmental consultants. A summary of the available information is provided in **Sections 3.2.1.1** and **3.2.1.2**.

3.2.1.1 AECOM (2017) - Former Stokes Hill Power Station

AECOM advanced test pits across the former Stokes Hill Power Station and found various exceedances of total recoverable hydrocarbons (TRH) of various fractions between 0.5 and 5.0 metres below ground level (mbgl) (**Figure 5**) and sporadic benzo(a)pyrene concentrations and asbestos in soils. These were considered contamination issues associated with the historical infrastructure present on that site. Soil samples were not analysed for heavy metals.

Groundwater was generally found between 4 to 6.8 metres below top of casing (mBTOC) or at an elevation of 0.1 to 3.3 metres Australian Height Datum (mAHD) and flowing to the east. Minor elevated concentrations of copper (maximum 0.002 mg/L), lead (maximum 0.006 mg/L), nickel (maximum 0.011 mg/L) and zinc (maximum 0.017 mg/L) were sporadically reported above the adopted groundwater criteria and are shown on **Figure 6**. No discussion was provided regarding the likely sources of these metals, including whether they may have been naturally occurring.

Trace concentrations of total recoverable hydrocarbons (TRH >C_{34}-C_{40} F4 fraction, maximum 530 µg/L) were identified in groundwater samples recovered from MW118 and MW203.

Other analytes including benzene, toluene, ethylbenzene, and xylene (BTEX), polyaromatic hydrocarbons, and chlorinated hydrocarbons (CHCs) and polychlorinated biphenyls (PCBs) were not detected in groundwater, and no analysis was undertaken for PFAS.

3.2.1.2 Senversa (2021) - SHNFI

Senversa investigated the former SHNFI, with some of the investigations also falling within the former Stokes Hill Power Station operational area. Senversa identified various potential contamination source areas within the former SHNFI, which included above-ground fuel storage tanks, firefighting foam storage sheds, stormwater retention ponds, and laydown areas. A full list is shown in **Figure 7**.

Senversa (2021) is a high-level summary document that does not include the full details (i.e. analytical results, methodology, etc.) of their assessment. It is understood that hydrocarbon and PFAS contamination was present in groundwater and most concentrated around the western portion of the former SHNFI.

Groundwater was generally found between 0 mAHD and 9 mAHD and flowed to the east (towards the current audit site and Frances Bay) during the wet season. However, during the dry season groundwater levels are lower, and the Sacred Site portion of the former SHNFI (vegetated area to the south) acts as a groundwater

[2] https://territorygeneration.com.au/about-us/our-history/darwins-heritage-power-stations/

sink, resulting in a localised groundwater depression and flow direction reversal towards the west in some areas.

From the available information, it is unclear what hydrogeological feature has specifically resulted in this flow reversal, but due to its presence, Senversa has inferred a dry season groundwater divide along Mavie Street, which indicates the approximate area where groundwater flow direction could reverse depending on the seasonal conditions. The auditor notes that based on this flow regime, groundwater is inferred to flow from the former SHNFI to the audit site during the west season, but not during the dry season.

Senversa's groundwater flow contours are shown in **Figure 8** and **Figure 9.**

3.3 Surrounding Environmental Audits and Environmental Investigations.

JBS&G undertook a search of the NT EPA public register in 2025 and identified a total of 11 sites with an audit statement and/or reports issued under the NSW or Victorian audit schemes. JBS&G identified that the environmental audits closest to the site were from the following properties:

- 38 McMinn Street, Darwin (approximately 680 m to the north-west of the site) - former Shell fuel terminal;
- 19 Kitchener Drive/10 Stokes Hill Road, Darwin (approximately 640 m south-west of the site) – uncontrolled filling; and
- 11 Frances Bay Drive, Darwin (approximately 250 m to the west of the site) – former Darwin rail terminal.

For currency, in August 2026 the auditor repeated the search via the NT EPA environmental audit public register and did not find any additional environmental audits that may be relevant.

The audits completed for 38 McMinn Street, Darwin and 19 Kitchener Drive/10 Stokes Hill Road, Darwin are considered unlikely to have impacted on the site due to their separation distance and the availability of more relevant groundwater information from the immediate surrounding areas included in the Senversa and AECOM reports.

The audit completed for 11 Frances Bay Drive, Darwin was considered potentially relevant for establishing background and regional conditions relative to the site, but only the environmental audit statement was published on the NT EPA register, with no audit reports published.

3.4 Potential Contamination Sources and Contaminants of Concern

The auditor considers that the key on-site contaminants of potential concern (CoPC) and likely locations for the site include:

- Importation of uncharacterised fill (heavy metals, TRHs, BTEX, PAHs, organochlorine pesticides [OCPs], organophosphate pesticides [OPPs], asbestos-containing material (ACM), phenols, per- and polyfluoroalkyl substances (PFAS) and hazardous ground gases (methane and carbon dioxide); and
- Boat maintenance including former on-site shed and ramp (heavy metals (particularly tin), TRHs, BTEXN, PAHs, and phenols).

The auditor considers that the key potential contaminants of concern from the off-site sources include:

- Current boat maintenance activities at 4 Mavie Street west of the audit site (CoPC as above);
- Former SHNFI bulk fuel storage (metals [particularly lead], TRHs, BTEXN, PAHs, phenols, chlorinated hydrocarbons [CHCs], and PFAS);
- Former Stokes Hill power station (metals, TRHs, BTEXNs, PAHs, CHCs, PFAS and PCBs);
- Current Sea Swift waste transfer facility (heavy metals, TRHs, BTEXNs, PAHs, CHCs, OPPs, nutrients and PFAS);
- Marine land reclamation (as per importation of uncharacterised fill above); and

- Urbanisation, sewage disposal and management (metals, nitrate, ammonia).

The results of the site history investigation indicate that the site could potentially be a source of contamination, however there are numerous potential off-site sources of contamination which may be impacting the site, particularly on groundwater. As noted previously, the audit scope aims to differentiate potential contamination and risks due to the uncontrolled site filling from both off-site sources of contamination and other on-site activities that may have resulted in contamination.

3.5 Adequacy of Site History Information

Table 1 provides information on the site history information sources investigated and adequacy for the audit purpose.

Based on the information provided, the auditor considers that the site history investigations have been generally undertaken with regard to relevant legislations and guidelines. The auditor notes that the data gaps identified in the above table and those inherent within site history investigations have been adequately addressed through broad screen analysis of both soil and groundwater.

The auditor considers that there is sufficient site history information to provide a suitable level of confidence regarding the historical uses of the site as they relate to the potential for contamination and to inform the requirements for detailed site investigations. The auditor therefore considers the site history investigations to be adequate.

Table 1: Adequacy of Site History Information

Information Requirements	Undertaken	Auditor's Comments
Land uses (previous and current)	Yes	Historical certificates of title, historical aerial photographs and other sources were reviewed to obtain this information and were documented in the consultant's report.
Owners, occupiers and users (previous and current)	Yes	Historical certificates of title were reviewed to obtain this information and were documented in the consultant's report.
Current and historical title search	Yes	Reviewed up to 2015, which was considered sufficient for this risk of harm audit.
Historical aerial photographs for the site and adjacent properties	Yes	Historical aerial photographs (1945, 1955, 1963, 1977, 1988, 2004, 2014 – 2026 (yearly) provided in the DSI.
NT EPA Contaminated Land Database	Yes	Documented in JBS&G's ESA report. A search of the NT EPA databases was undertaken, which included a review of EPA licenses, pollution abatement notices, Section 14 incident notifications, environmental audits, performance agreements and environmental impact assessments.
Previous environmental audits for site	Yes	Documented in JBS&G's ESA report and further reviewed by the auditor in the following section.
NT groundwater database	Yes	Documented in JBS&G's ESA report. No groundwater extraction is present within the vicinity of the site up to the former SHNFI and Lot 10882. A more detailed search was not undertaken by JBS&G. Based on the auditor's observations, the surrounding groundwater wells are installed in the vicinity of former industrial land of the Stokes Hill Wharf precinct development. There is likely limited groundwater extraction potential in these areas due to legacy contamination issues and groundwater likely being saline in the area.
Historical drainage plans and trade waste records	No	No such records were identified. It is noted that the deposition of C&D waste on-site for land reclamation was an unlicensed activity.
Local Council records	No	No documentation provided in the consultant's report, however not considered to be a significant data gap, given the site history and subsequent site investigation
Dangerous Goods Search	No	No such registers exist, which is expected as there were no licenced businesses on-site.

Information Requirements	Undertaken	Auditor's Comments
Review of asbestos register (if applicable)	No	No such registers exist. However, considering the C&D waste in the uncontrolled imported filling, ACM was considered a likely contaminant.
Interviews with person knowledgeable with the site	Yes	Documented in JBS&G's ESA (2026a) and the Section 48 notice.
Detailed site inspection	Yes	Sufficient site inspections undertaken.
Chemical inventory and storage details (including USTs)	Yes	No chemical inventory identified.
Review of previous investigations and critique on adequateness of data	Yes	Documented in consultant's report and undertaken by the auditor.
Chronological list of land use activities including potential information gaps and uncertainties	Yes	Documented in JBS&G's ESA (2026a).
List of potential contaminating activities, likely contaminants and locations	Yes	Documented in JBS&G's ESA (2026a).
Potential off-site sources of contamination identified	Yes	Documented in JBS&G's ESA (2026a).
Site plan showing historical site layout (if relevant)	Yes	Documented in JBS&G's ESA (2026a).
Environmental setting (i.e. nearby ecological receptors)	Yes	Documented in JBS&G's ESA (2026a).
Local geology and hydrogeology	Yes	Documented in JBS&G's ESA (2026a).
Landfills within 500 m	Yes	Documented in JBS&G's ESA (2026a). The site and surrounding area could be considered an uncontrolled 'landfill' due to historical land reclamation activities.
Potential for acid sulphate soils	Yes	Documented in JBS&G's ESA (2026a).
Potential for PFAS Contamination	Yes	PFAS is considered a potential contaminant due to historical activities predominantly off-site.

4 Preliminary Site Characterisation

4.1 Site Description and Observations from AEA Site Inspections

At the time of the auditor's site inspection on 30 June 2025, the site comprised unsealed vacant land. The site included a portion of Lot 5280, which was a boat maintenance and storage yard. The general site surface was reasonably tidy except around the southern extent of the shoreline (south of Lot 5280), where the shoreline was lined with large concrete chunks and boulders for erosion control. A retaining wall constructed from concrete blocks and a concrete footpath lined the northern shoreline within the premises of Lot 5280. A rock-lined boat ramp is located in the north-eastern site corner to access Frances Bay.

No potential asbestos-containing material (ACM) was observed by the auditor on the site surface during the inspection. On-site vegetation comprised weeds across most of the surface, and young mangroves near the shoreline.

Selected photographs taken during the auditor's site inspection are provided in **Appendix E**.

4.2 Surrounding Land Uses

The surrounding land uses were as follows:

- **North**: Sea Swift waste handling facility.
- **East**: Frances Bay. A beach is visible during low tide, however during the auditor's site inspection the water extended to the site retaining wall and no land was visible.
- **South**: Vacant reclaimed land, followed by a car parking area used for construction workers at the Larrakia Cultural Centre (under construction during the auditor's site inspection).
- **West**: Remainder of the 4 Mavie Street property comprising boat storage yard with a boat under repair and a boat maintenance shed. To the south-west, vacant reclaimed land followed by the disused SHNFI bulk fuel storage facility.

4.3 Topography and Surface Waters

The regional area's topography has been heavily altered from the natural elevation due to historical land reclamation activities on-site and off-site.

A site-specific survey was undertaken by Earl James & Associates in 2024 (Appendix D of JBS&G 2026a). The majority of the site sat around 5.5 mAHD on the western boundary and around 4.0 mAHD around the eastern boundary adjacent to the shoreline. The interface between the site and the bay then has a sharp 3 m drop over a 6 m distance.

There are no on-site surface water bodies. During the wet season, surface water run-off is expected to enter and flow over the site from neighbouring properties to the west.

The nearest surface water body is Frances Bay, located to the immediate east.

4.4 Geology and Hydrogeology

4.4.1 Regional Geology

A review of the *Australia 1:100,000 Geological Series* Darwin map sheet (Department of Mines and Energy 1983) indicates the regional geology in the vicinity of the site consists of Proterozoic Burrell Creek Formation of the Finniss River Group, comprising siltstone, shale, sandstone (quartz arenite, sublitharenite), quartz-pebble conglomerate and meta greenschist facies. This may be overlain by Quaternary intertidal marine alluvium (mud, clay and silt) close to Frances Bay.

JBS&G identified the regional geology as the Pine Creek Orogen geological formation, consisting of sedimentary sandstone and felsic volcanic rock. The auditor notes that this is a broader geological classification, of which the Finniss River Group is a subset[3].

There are no resources that indicate that naturally occurring asbestos would be present in the natural lithology. JBS&G noted that fragments of asbestos containing material (ACM) are commonly found in fill and disturbed natural soils in the Darwin area as a result of WWII bombing raids, Cyclone Tracey and subsequent emergency clean up events when ACM was commonly buried.

4.4.2 Potential Acid Sulphate Soils

AEA consulted the Northern Territory *Greater Darwin Region Acid Sulfate Soil 1: 50,00 Sheet 5073-2* map sheet to review the likelihood of acid sulphate soils (ASS) being present in the area. The map sheet indicated a high probability of ASS, due to the site being located in a *"non-tidal zone and profoundly disturbed".*

4.4.3 Site Geology and Observed Filling

Fill material was encountered across the whole site to a depth of 5 to 6.8 mbgl, comprising highly variable and heterogeneous materials described as orange/brown/grey/reddish gravelly clayey sand, gravelly sandy clay, clayey sand and sandy clay. There were no physical indicators of ASS in the imported fill on-site.

Anthropogenic inclusions comprising concrete, tiles, metal, plastic, asphalt, bricks, rubber and fabric were reported to be present in the imported fill. No liquid wastes, chemical drums or significant putrescible wastes were reported in the fill. JBS&G estimated that the waste content is approximately 5 to 10% based on soil bore testing, however limited historical test pitting by SLR indicated potentially up to 30% inclusions in some areas, at discrete intervals, based on the available site photographs (refer to **Appendix E**). Small quantities of ACM were historically observed within the fill but not on the site surface.

Natural soils comprised of brown, grey and yellow weathered siltstone. No sulfuric odours identified within the natural soils. The observed natural geology is consistent with the Pine Creek Orogen geological formation, noting the siltstone and sandstone are both sedimentary rocks that are commonly described interchangeably.

4.4.4 Regional Hydrogeology and Licensed Bore Search

A search of online groundwater records was undertaken by JBS&G on 17 August 2026 using the NT Know Your Bore website. Thirty-six (36) registered groundwater wells were identified within Lot 10882 and the former SHNFI, which covers the off-site groundwater in the immediate vicinity of the site. These wells are located either up- or cross-hydraulic gradient. There are no groundwater wells located down-hydraulic gradient of the site (**Figure 4**), as the site adjoins Frances Bay.

The nearby groundwater wells are associated with the investigations completed by AECOM and Senversa (**Section 3.2.1.1** and **3.2.1.2**).

The site was originally part of Frances Bay and below sea level, prior to the land reclamation activities. Regionally, groundwater is encountered at depths less than 5 mbgl within the weathered siltstone and imported fill that forms the regional reclaimed land. Groundwater is both seasonally and tidally influenced and locally recharged by rainfall.

Senversa inferred that a groundwater divide is present along Mavie Street during the dry season, based on observed groundwater levels. In addition to the seasonal variability, on-site groundwater close to Frances Bay is tidally influenced. During high tide, groundwater flow direction on-site may be reversed, resulting in localised western flow direction. Based on the available data, the auditor considered it most likely that the net regional groundwater flow direction is easterly, towards Frances Bay. However, as the flow may reverse

[3] Northern Territory Government (2010a) Chapter 5: Pine Creek Orogen in *Geology and Mineral Resources of the Northern Territory, Northern Territory Geological Survey Special Publication 5*.

at times, it is likely that some mixing between groundwater and surface water occurs, and this may have the effect of flushing and diluting groundwater underlying the site before it discharges into the bay.

Regional groundwater further inland also appears to be seasonally influenced, with a groundwater depression present at the Stokes Hill Sacred Site (**Figure 8**) during the dry season.

Considering the regional former industrial uses, the lack of any extractive groundwater bores in the area and the marine environment, the auditor considered the potential use of groundwater for extractive human uses (i.e. potable water, irrigation, stock watering, and recreational purposes) to be very low.

4.4.5 Site-specific Hydrogeology

Groundwater flow direction in the vicinity of the site is complex, due to a combination of seasonal and tidal level changes and an observed dry season groundwater divide to the west of the site.

Groundwater investigations at the site intersected groundwater at approximately 2 to 3 mbgl during drilling, within the imported fill. Standing water levels (SWLs) were gauged by JBS&G within an hour of high tide during groundwater monitoring events (GMEs) and ranged between 0.3 and 1.8 mbgl (0.24 to 3.93 mAHD) on-site and 4.7 and 6.3 mbgl (1.02 to 2.48 mAHD) off-site. The auditor noted that depth to groundwater was measured by JBS&G during gauging in different wells close to high tide (38 to 68 minutes afterwards during the wet season and one minute prior to 16 minutes afterwards during the dry season), not necessarily corresponding to when groundwater samples were collected. JBS&G did not gauge all wells during low tide. This makes interpretation of relative levels between wells over the whole tidal cycle and in turn inference of the groundwater flow direction more difficult, however the overall flow regime is described conceptually below as well as in the cross-section prepared by JBS&G (**Figure 16**).

Due to the tidal influence, it was anticipated that groundwater levels, particularly toward the shoreline, would fluctuate sinusoidally on a diurnal cycle and that flow direction may reverse during high tide periods. JBS&G undertook continuous level monitoring in two wells to confirm this hypothesis during the dry season sampling event. The results are shown in **Figure 13** and indicate groundwater tidal influence in both wells ranging from 0.3 to 1.7 m, and that MW01 (near the shore) was always up-gradient of MW116 (further inland and with a slight time lag from the tide) during this period. The auditor infers this data to indicate that groundwater flow is predominantly to the west during the dry season, although there may be a groundwater divide between MW116 and MW01 at low tide. Conceptually, sea water is likely to be mixing with groundwater in an intertidal mixing zone close to the shore, in contact with the imported fill and effectively flushing and diluting any contamination from this area into the bay, but there is not anticipated to be any migration of contaminants from the Stokes Hill area in this period. This is consistent with the Senversa CSM (**Figure 8**) which inferred a groundwater divide.

During the wet season, JBS&G did not undertake continuous level monitoring, but only gauged all wells once each, soon after high tide. The snapshot of gauged levels at this time also indicates an inferred westerly flow direction, which is apparently inconsistent with the wider regional flow to the east as observed by Senversa (**Figure 9**). The auditor interprets this data to indicate that groundwater flow is likely to be predominantly to the east during the wet season, with some flow reversal close to the shore during high tide. Water levels also vary from year to year, likely correlated with recent rainfall events. Conceptually, during the wet season, contaminants may migrate from the Stokes Hill area underneath the audit site and discharge into the bay, and there is still some mixing with sea water during high tide periods close to the shore prior to discharge. During the wet season, it is expected that a freshwater lens would be present at the top of the aquifer, with the intertidal mixing zone characterised by more saline water underneath. Groundwater samples should therefore be recovered close to the water table to target the freshwater lens.

The auditor also notes there is a large year-on-year variation in groundwater levels in the region of the site, based on reported groundwater levels in MW118 (4.5 mAHD in 2017 and 0.4 to 3.2 mAHD in 2021, compared with 2.4 to 2.5 mAHD in 2026).

JBS&G interpreted the groundwater level data slightly differently to the auditor with regard to the inferred location of the groundwater divide and timing of flow reversals, however this was not considered to have impacted on the overall audit outcome.

4.5 Preliminary Conceptual Site Model

A preliminary conceptual site model (CSM) was prepared by JBS&G, which provided an assessment of site conditions against the essential elements of a CSM, as stated in Section 4.3 of Schedule B2 to the ASC NEPM. Following site investigations, a diagrammatic representation of a cross-section of the CSM was provided by the consultant (**Figure 12**), and updated written information was provided in the CSM discussion in Section 10.6 of the ESA (JBS&G 2026a). The following sections provide the auditor's summary of the preliminary CSM prior to the JBS&G field investigations. The CSM has been updated to reflect post-investigation site conditions in **Section 7.5**.

4.5.1 Known and Potential Sources of Contamination

The primary on-site potential source of contamination and the focus of this site audit is uncontrolled importation of fill for land reclamation that occurred over multiple decades in stages. Boat maintenance activities formerly on-site, currently adjacent to audit site) are another source of potential contamination. The primary off-site potential sources of contamination are from regional land reclamation, the former SHNFI, the former Stokes Hill power plant and the Sea Swift waste transfer facility. Further details of potential sources of contamination are provided in **Section 3.4**.

4.5.2 Contaminants of Potential Concern (CoPC)

Based on the former and current use of the site and surrounding areas, the primary contaminants of concern are metals, TRHs, BTEXs, PAHs, OCPs, OPPs, PCBs, asbestos, phenols, PFAS, CHCs, nutrients and hazardous ground gas.

4.5.3 Potential Mechanisms of Contamination

The most likely mechanisms of contamination for fill from the site to surrounding areas are considered to be migration of fill by overland flow via erosion during high rainfall events, leaching of contaminants into groundwater and discharge of contaminated groundwater into Frances Bay. Erosion also has the potential to expose deeper contamination such as buried wastes, if present.

The mechanisms of contamination associated with off-site sources are primarily lateral migration in groundwater or surface water (via overland flow). Hazardous ground gas could also preferentially migrate via the soil vadose zone from on-site and off-site sources.

4.5.4 Potentially Affected Media

The potentially affected media are soil, sediments, groundwater and surface water.

Soil vapour in the soil vadose zone may require investigation if volatile contaminants are observed in groundwater or significant odour is noted. Hazardous ground gas was not targeted for field investigation, as there are currently no buildings or other enclosed structures on the site and therefore limited potential for gases to build up in areas where humans may be present. This is discussed further in **Section 6.6**.

4.5.5 Human and Ecological Receptors

The auditor considers that the ecological receptors of most concern are the aquatic ecosystems within Frances Bay to the immediate east. Terrestrial ecological receptors such as mangroves have also been observed on-site.

The auditor considers that the relevant human receptors are current site industrial workers, site visitors, future site users (residential and commercial workers) and construction workers associated with any future development. Risk to off-site human receptors, such as people swimming or boating in Frances Bay, will need consideration if the site is found to be a source of contamination that could migrate off-site.

4.5.6 Potential and Complete Exposure Pathways

Table 2 presents a summary of the auditor's assessment regarding the potential and complete exposure pathways which are of most concern. These are generally consistent with JBS&G's determinations. The auditor's determination on risks associated with potentially complete linkages between source and receptors is discussed throughout subsequent sections.

Table 2: Source – Pathway – Receptor Assessment

Source	Pathway/s	Receptor/s	Preliminary Assessment of Complete Linkage
On-site fill (primary source)	Dermal contact and incidental ingestion	• On-site commercial workers in boat yard • Visitors and recreational users in Crown land area • Future construction & intrusive maintenance workers • Future users following development (residents & commercial workers) • Terrestrial flora and fauna	• Possible • Possible • Likely • Possible • Likely
	Inhalation of dust and potential asbestos fibres	• On-site commercial workers in boat yard • Visitors and recreational users in Crown land area • Future construction & intrusive maintenance workers • Future users following development (residents & commercial workers)	• Likely • Likely • Likely • Possible
	Inhalation of vapours and hazardous ground gases	• On-site commercial workers in boat yard • Visitors and recreational users in Crown land area • Future construction & intrusive maintenance workers • Future users following development (residents & commercial workers)	• Incomplete (No enclosed structures) • Incomplete • Possible if volatiles/gas are present • Possible if volatiles/gas are present
	Migration of fill into off-site sediment via surface water run-off	• Aquatic ecosystems in Frances Bay, including species which may be harvested for human consumption • Recreational users of Frances Bay during low tide (dermal contact & incidental ingestion during walking, boating or fishing)	Possible
Groundwater underlying the site (secondary source)	Discharge into surface water	• Aquatic ecosystems in Frances Bay, including species which may be harvested for human consumption • People swimming or boating in Frances Bay (incidental water ingestion)	Likely
	Inhalation of vapours	• On-site commercial workers in boat yard • Visitors and recreational users in Crown land area • Future construction & intrusive maintenance workers • Future users following development (residents & commercial workers)	• Incomplete (No enclosed structures) • Incomplete • Possible if volatiles are present • Possible if volatiles are present
	Dermal contact and ingestion by humans	Persons extracting groundwater for use in domestic supply (drinking & cooking water, washing etc.), irrigation or for filling swimming pools	Incomplete pathway on-site - No existing extractive uses, & considered unlikely in future due to saline groundwater quality. Incomplete pathway down-gradient, as bay is immediately adjacent.
	Extraction for use (e.g. stock watering or irrigation)	• Ingestion by stock in down-gradient locations • Plants (gardens and crops)	Incomplete pathway as bay is immediately down-gradient
	Underground or retaining wall structures intersecting groundwater	• Existing concrete retaining wall along the eastern site boundary • Concrete or steel piles if the site is redeveloped in future	Likely as groundwater is shallow and seepage through the seawall may also occur.

5 Selection of Environmental Quality Criteria

In order to determine whether site contamination is present and whether there is a potential risk to human health or the environment, environmental quality criteria must first be selected. The criteria are selected by the consultant and reviewed by the auditor, and this process is summarised below. Where the consultant has selected criteria which are not from NT EPA approved or Australian guidelines, they should provide an explanation for the auditor to consider. Where the auditor considers that alternative criteria are more appropriate, this has also been discussed below.

The environmental assessments reviewed as part of the works discussed in this audit included site investigation and a Tier 1 (screening) risk assessment. The appropriate environmental quality criteria for this stage are site assessment criteria, sometimes known as screening levels or investigation levels, and are principally sourced from Schedule B1 of the ASC NEPM. At the investigation stage, criteria for both human health and ecological assessment (environmental values or beneficial uses) should be selected, based on the current use and setting of the audit site, as well as potential future uses compatible with the site zoning.

The ASC NEPM clearly states that the screening levels "*are not clean-up or response levels nor are they desirable soil quality criteria*". If screening levels are exceeded, a more detailed assessment is warranted.

Based on the current and potential site uses, the auditor considered the scenarios/settings from the ASC NEPM shown in **Table 3** are most applicable. The remainder of this section explains why these specific criteria were selected.

Table 3: Summary of Site Assessment Criteria Selection

Environmental Value	Environmental Media /Exposure Pathway	Setting(s)	Description
Human health	soil – direct contact pathways	land use: B, C & D	**HIL-B**: Residential with minimal opportunities for soil access; includes dwellings with fully and permanently paved yard space such as high-rise buildings and apartments. **HIL-C**: Public open space such as parks, playgrounds, playing fields (e.g. ovals), secondary schools and footpaths. This does not include undeveloped public open space where the potential for exposure is lower and where a site-specific assessment may be more appropriate. **HIL-D**: Commercial/industrial, includes premises such as shops, offices, factories and industrial sites. For asbestos, **HSL-B** and 'no visible asbestos'.
	soil – vapour intrusion pathways	land use: B, C & D	**HIL-B/HSL-A/B** **HIL-D/HSL-D** Note specific HSLs selected based on soil texture(s) and depth to sample.
	Hazardous ground gas	-	None considered necessary for this risk of harm audit.
	surface and groundwater – direct contact pathways	Recreational waters	NHMRC health-based recreation water criteria based on *Australian Drinking Water Guidelines.*
	groundwater – vapour intrusion pathways	land use: B, C & D	**HSL-A/B** **HSL-D** Note specific HSLs selected based on soil texture(s) and depth to sample.

Environmental Value	Environmental Media /Exposure Pathway	Setting(s)	Description
Ecosystems	soil – direct contact	Land use (site and surrounds)	**EIL/ESL**: Area of ecological significance **EIL/ESL**: Urban residential/public open space **EIL/ESL**: Commercial and industrial Note site-specific EILs calculated using the ASC NEPM toolbox, and ESLs selected based on soil texture.
	Surface water and groundwater – direct contact	marine water	Toxicant **DGVs** for aquatic ecosystems from ANZG (2018) – 95% ecosystem protection and Darwin Harbour Water Quality Objectives (DHWQO) for inshore marine systems. The auditor notes the DHWQO for marine waters defer back to ANZECC (2000), which has now been superseded by ANZG (2018).
	sediments	--	Toxicant **DGVs** for sediment quality from ANZG (2018)
Aesthetics and Structures	visual observation		Qualitative criteria for general aesthetic impacts. **MLs** from ASC NEPM for petroleum hydrocarbons.

Notes:
ASS = Acid Sulphate Soil
EIL = Ecological Investigation Level
ESL = Ecological Screening Level
DGV = Default Guideline Value
HSL = Health-based Screening Level
HIL = Health Investigation Level
ML = Management Limit

5.1 Soil Assessment Criteria

5.1.1 Protection of Ecosystems

The ASC NEPM provides two types of soil criteria which are based upon protection of the environment, namely Ecological Investigation Levels (EILs) and Ecological Screening Levels (ESLs). Both the EILs and ESLs are to be applied to assess risks to terrestrial ecosystems and apply to the upper 2 m of the soil profile. The EILs and ESLs differ with respect to the contaminants considered and the methodologies used when applying the screening levels.

The EILs cover zinc, arsenic, naphthalene, DDT, chromium (III), copper, lead and nickel. An EIL calculator has been provided as part of the '*ASC NEPM Toolbox*' which allows for the derivation of EILs, based on site-specific parameters including age of contamination, traffic volume, soil parameters (iron content, pH, organic carbon content and cation exchange capacity (CEC)) and the ambient background concentration (ABC) of the analyte. Depending on site conditions, such as different soil layers having significantly different properties, more than one set of EILs may need to be derived.

For petroleum hydrocarbons and related chemicals, the ESLs are based upon two documents prepared by Dr Michael Warne[4,5], which in broad terms provide a review of guidance provided by the Canadian Council of the Ministers of the Environment (CCME).

For this site, JBS&G used the ASC NEPM toolbox using site-specific CEC and organic carbon parameters and provided their methodology in Appendix R of the ESA (JBS&G 2026a). Unfortunately, naturally occurring background concentrations (ABCs) were not measured or estimated by JBS&G, meaning the resultant assessment criteria are likely to be overly conservative. The auditor has identified that natural mineralisation of the Burrell Creek Formation can include commodity-quality mineralised deposits of base metals including copper, gold, lead, nickel, tin and zinc[6]. Whilst mineable concentrations of metals are not known to occur in

[4] Warne, M (2010) Review of the appropriateness of the Canadian petroleum hydrocarbon country-wide standards in soil, for incorporation into the Australian National Environment Protection (Assessment of Site Contamination) Measure, National Environment Protection Council, Australia.

[5] Warne, M (2010) Review of the appropriateness of selected Canadian Soil Quality Guidelines (benzene, benzo(a)pyrene, ethylbenzene, toluene and xylenes), for incorporation into the Australian National Environment Protection (Assessment of Site Contamination) Measure, and recommended ecological investigation levels, National Environment Protection Council, Australia.

[6] Northern Territory Government (2010a) Chapter 5: Pine Creek Orogen in *Geology and Mineral Resources of the Northern Territory, Northern Territory Geological Survey Special Publication 5*.

the Darwin township area, the auditor considers it likely that naturally occurring metals concentrations at least at the higher end of typical Australian background ranges may be present in the vicinity of the audit site. This would include copper up to 100 mg/kg, nickel up to 500 mg/kg and zinc up to 300 mg/kg[7]. The auditor has considered potential naturally occurring metals in assessing the ESA findings.

The ASC NEPM toolbox does not include NT-specific parameters, and as such the calculator was set to Queensland. The EILs for areas of ecological significance, urban residential/public open space and commercial and industrial were conservatively adopted for a first pass to meet the Section 48 notice requirements and to account for small portions of the site with residual mangroves, off-site areas and potential future site uses.

The auditor considered the EIL methodology used was appropriate for initial screening purposes, noting the conservative derivation assumptions with respect to ABCs. The auditor noted that EILs and ESLs have not been specifically derived to assess potential leaching of contaminants into underlying groundwater. However, that pathway was assessed directly in this audit via groundwater investigation.

JBS&G also applied the ESLs for commercial/industrial and urban residential and public open space land use for coarse soils, which the auditor considered appropriate to meet the notice requirements.

The PFAS NEMP (HEPA 2026) includes ecological guideline values for soil for both direct and indirect exposure.

5.1.2 Protection of Human Health – Direct Contact Pathways

The ASC NEPM provides Health Investigation Levels (HILs) for four different generic land use settings, as per **Table 3**. The ASC NEPM states the HILs generally apply to the top 3 m of soil for residential use, and site-specific conditions should determine the depth to which other HILs apply.

Schedule B1 of the ASC NEPM states that when comparing results to screening levels, consideration should be given to:

- Maximum concentrations detected in relation to the screening levels;
- 95% Upper Confidence Limit (UCL) of the arithmetic mean concentrations in relation to the screening levels;
- Implications of localised hotspots;
- Standard deviation of the data (i.e. should be <50% of screening level); and
- Magnitude of any screening level exceedances (i.e. should be <250% of screening level).

The PFAS NEMP (HEPA 2026) includes soil HILs for PFOS, PFOA and PFOA under four land use settings.

In consideration of the current and potential future land uses, JBS&G has adopted HIL B, HIL C and HIL D. The auditor considers this acceptable to meet the Section 48 notice requirements.

5.1.3 Protection of Human Health – Vapour Intrusion Pathways

The ASC NEPM provides Health-based Screening Levels (HSLs) for vapour intrusion (i.e. migration of contaminants in subsurface indoor air in the vapour phase) based directly upon Friebel & Nadebaum (2011). HSLs are provided for petroleum hydrocarbons in soil, groundwater and soil vapour and generally for the same four land use settings as the HILs. For this site, JBS&G adopted HSL A/B and HSL D based on the likely proposed development and future building types.

For some soil types and depths, the HSL is higher than the theoretical vapour phase saturation limit. In these instances, no HSL is provided, and it is assumed to be not limiting (NL). Before the HSLs for vapour intrusion can be used, they must be shown to be applicable using the applicability checklist provided in Friebel &

[7] Maximum of reported background ranges from the *Field Geologist's Manual*, compiled by D. A. Berkman, Third Edition, 1989. The Australasian Institute of Mining & Metallurgy.

Nadebaum (2011). This was not documented by the consultant, and the auditor considers that use of HSLs may not be appropriate in all areas of the site, given the shallow depth to groundwater close to Frances Bay. This aspect will be considered further if light fraction petroleum hydrocarbons are found to be present on-site.

The ASC NEPM also includes interim vapour intrusion HILs for trichloroethene (TCE), 1,1,1-trichloroethane (1,1,1-TCA), tetrachloroethene (PCE), cis-1,2-dichloroethene (cis-1,2-DCE) and vinyl chloride (VC). In the absence of more applicable criteria these HILs are considered to be applicable for screening purposes.

Where criteria are not provided in Friebel & Nadebaum (2011) or the ASC NEPM, reference is made to other reputable guidance sources on a case-by-case basis. Alternative vapour intrusion criteria from other sources were not considered necessary for the site.

5.1.4 Asbestos in Soil

The ASC NEPM provides HSLs for asbestos in soil, including bonded asbestos containing material (ACM), friable asbestos (inclusive of asbestos fines less than 7 mm in diameter and fibrous asbestos) and 'all forms of asbestos'. The criteria are both quantitative (i.e. % w/w) and qualitative (i.e. no visible asbestos).

At this site, visual inspection of the site surface and during soil sampling by JBS&G did not identify any potential asbestos and quantification of asbestos was therefore not warranted. The auditor considers this approach to be appropriate for the purposes of satisfying the Section 48 notice requirements.

5.1.5 Aesthetics, Odours and Potential Effects on Underground Structures

The aesthetic condition of soil is assessed with respect to the guidance provided in Schedule B1 of the ASC NEPM (Section 3.6). In general terms, consideration is given to the presence of non-hazardous foreign materials, discoloration and odorous soils. The consultant included aesthetic considerations in their documentation of site observations.

For petroleum hydrocarbons, the ASC NEPM provides management limits (MLs) which are relevant for '*operating sites where significant sub-surface leakage of petroleum compounds has occurred and when decommissioning industrial and commercial sites'*. The ASC NEPM states that the intent of the MLs is to minimise the potential for petroleum hydrocarbons to cause the formation of light non-aqueous phase liquid (LNAPL), fire/explosive hazards and effects on buried infrastructure. The consultant included screening against MLs.

Other chemical compounds (such as acids) may be potentially detrimental to underground structures. Australian Standard AS 2159 (2009) *Piling – Design and Installation* provides exposure classification values for concrete and steel piles in soil (non-aggressive to severely aggressive) based upon chlorides, sulphates and pH. If present in high concentrations, other chemicals would be considered on a case-by-case basis for potential impact on underground structures.

Overall, the auditor was satisfied that the consultant took into consideration potential aesthetic impacts and effects on underground structures from the fill material. There exists potential for acid sulphate soils to be present underlying the recent filling, as discussed in **Section 4.4**.

5.2 Groundwater and Surface Water Assessment Criteria

The NT Government Gazette No. G27 (2010b) specifies that the beneficial uses which apply to saline surface waters within the Darwin Harbour region are aquaculture, environment and cultural (aesthetic, recreational and cultural). The ASC NEPM refers to both human health and ecosystem criteria for groundwater as Groundwater Investigation Levels (GILs). However, it should be noted that the ecosystem GILs in the ASC NEPM and the ANZECC (2000) *Guidelines for Fresh and Marine Water Quality* have been superseded by ANZG (2018).

Due to the proximity of Frances Bay, surface water from the bay was sampled and where feasible, seepage water was also collected during low tide.

5.2.1 Protection of Aquatic Ecosystems

Protection of aquatic ecosystems is relevant to the applicable environment and aquaculture beneficial uses. For screening purposes, the relevant ecosystem criteria are initially applied to assess the condition of groundwater underlying the site and the receiving surface water body (Frances Bay). Due to the tidal influence near the shoreline, significant mixing of groundwater and sea water is likely to occur, and if analyte concentrations exceed the adopted criteria in groundwater, this should be taken into consideration in assessing whether the receiving water body has been impacted by groundwater underlying the audit site.

The environmental quality objectives for ecosystem protection are those values specified in:

- ANZG (2018), *Guidelines for Fresh and Marine Water Quality*, Toxicant Default Guideline Values (DGVs) for aquatic ecosystems, marine water – 95% level of protection;
- HEPA (2026) *PFAS National Environmental Management Plan*, Version 3.1, Ecological water quality guideline values, interim marine - 99% level of protection accounting for PFAS bioaccumulation; and
- NT Government (2010c) *Water Quality Objectives for the Darwin Harbour Region – Background Document*.

JBS&G has generally adopted the same criteria as the auditor, except for their inclusion of the 99% level of protection for non-bioaccumulative analytes, which is overly conservative and not warranted based on Frances Bay being located in an urbanised area with long term historical and current commercial and industrial activities. The Darwin Harbour water quality objectives (NT Government 2010) recommend assuming a slightly to moderately disturbed system (95 % level of protection) for all areas outside of high conservation value systems such as Ramsar wetlands. The auditor has not adopted the 99% level of protection unless the analyte is bioaccumulative, consistent with NT Government recommendations.

5.2.2 Protection of Human Health – Direct Contact Pathways

In the first instance, groundwater in the NT should be considered to be potentially in use for drinking water purposes. However, in this case, given groundwater discharges to Frances Bay immediately down-gradient of the audit site and groundwater underlying the site is highly saline during high tide periods, the auditor did not consider it feasible for groundwater to be extracted for potable use at the site or down-gradient. Therefore, surface water and groundwater were assessed against recreational water guidelines which are based on modified drinking water guidelines. Recreational guidelines have been developed to assess primary contact recreation (such as swimming) and secondary contact recreation (such as boating or fishing) which are relevant to the applicable aquaculture and cultural beneficial uses.

For assessment of potential recreational water use, the ASC NEPM refers to the *Guidelines for Managing Risks in Recreational Water* (NHMRC 2008). These guidelines, in turn, refer to the *Australian Drinking Water Guidelines* (NHMRC 2011), with some modifications. These guidelines are on rolling revision, and the most recent version (version 4.0, 2025) has been referred to for the purpose of the site audit.

Where inhalation of vapours is not a concern or where exposure does not include skin absorption, the relevant health-based drinking water criteria are multiplied by ten to represent incidental ingestion. Where inhalation of vapours and/or dermal contact are a concern, the relevant health-based drinking water criteria are adopted without modification. In some instances, it is important to consider the foundation of the drinking water criteria value and determine whether it is logical to multiply the criteria by 10 (e.g. nitrate drinking water criteria is based upon protecting bottle fed infants, which is not relevant for primary contact recreation exposure).

The consultant adopted the same approach as the auditor.

5.2.3 Protection of Human Health – Vapour Intrusion Pathways for Groundwater

Refer to discussion in **Section 5.1.3**.

5.2.4 Potential for Separate Phase Contaminants

The potential for LNAPL or dense non-aqueous phase liquid (DNAPL) to be present in the subsurface has been assessed based on field observations and where necessary, consideration of theoretical solubility limits for petroleum hydrocarbon mixtures.

For this site, direct comparison with the solubility limits was not undertaken by JBS&G, but this was not considered critical by the auditor as NAPL-forming contaminants were generally detected below the laboratory limit of reporting (LOR) or only at trace concentrations.

No visual or olfactory evidence of sheens, chemical odours or NAPL was observed during site investigations.

5.3 Sediment Assessment Criteria

Sediment assessment criteria are provided as Toxicant Default Guideline Values (DGVs) and upper guideline values (GV-high) in ANZG (2018). For hydrophobic organic contaminants, the DGVs are normalised to 1% organic carbon content, and reported sediment concentrations should also be normalised by organic carbon content to allow a direct comparison. Where dieldrin or endrin are the major contaminants of potential concern, the ANZG (2018) website recommends Equilibrium Sediment Benchmark (ESB) approaches are applied, as described in Appendix A4 of Simpson et al (2013)[8].

In relation to PFAS, reference was made to the PFAS NEMP (HEPA 2026) HIL A soil criteria as a proxy, in the absence of sediment-specific PFAS criteria.

5.4 Hazardous Ground Gas Assessment Criteria

Hazardous ground gases may include both bulk gases and vapours, and are assessed on a site-specific basis, if warranted by the CSM. Based on the preliminary CSM (**Section 4.5**) and the results of the field investigations, no bulk ground gas or soil vapour sampling was considered necessary, in part due to the absence of any existing on-site enclosed above-ground or below-ground structures which could be entered by a human and noting the purpose of the site audit did not include assessing site suitability for future development. In addition, volatile soil and groundwater contamination was not encountered on-site.

Should the site be redeveloped, ground gas assessment should be considered, due to the known presence of deep filling and some pockets of waste inclusions having been observed.

5.5 Waste Classification Criteria

During the course of the site audit, no waste soil was removed from the site, and therefore no waste classification was required.

5.6 Imported Fill Criteria and Classification

During the course of the site audit, no soil was imported to the site, and therefore no fill classification was required.

[8] Simpson, SL, Batley, GE & Chariton, AA (2013), Revision of the ANZECC/ARMCANZ Sediment Quality Guidelines, CSIRO Land and Water Report 8/07, CSIRO Land and Water.

6 Summary of Detailed Site Investigation Process and Findings

The following section provides a summary of the detailed site investigations undertaken at the site, split into separate environmental media. A summary of the preliminary site investigation (site history) is provided in **Section 3.2**.

6.1 Soil Investigations

A summary of the soil investigations and soil sampling undertaken at the site for characterisation purposes is provided in the following table.

Table 4: Summary of Soil Investigations at the Site

Date (Consultant)	Sample Locations	Sampling Methodology and Depth
Pre-auditor engagement:		
14 July 2016 (HiQA)	TP1 to TP7	7 soil samples were collected from shallow hand-excavated test pits advanced to a depth of 0.2 mbgl. Samples were analysed for asbestos, TPHs and acid sulphate soil indicators (ASS).
24 to 25 January 2019 (Coffey)	1B, 8B, 13B to 17B	7 soil samples were collected from a depth of 0.5 mbgl. The collection method is unknown. Samples were analysed for heavy metals (As, Cd, Cu, Cr VI, Pb, Hg, Ni, Zn, Mn), ASS, TRHs, BTEX, PAHs, pH, phenols, PCBs, OCPs, OPPs, asbestos, PFAS.
3 April 2019 (SLR)	TP01 to TP04	11 soil samples were collected at various depths from four test pits excavated to 2.4 mbgl. 7 samples were analysed for heavy metals (As, Be, B, Cd, Co, Cu, Pb, Mn, Hg, Ni, Se, Zn), TRHs, BTEX, PAHs, PFAS, phenols, OCPs, OPPs, PCBs.
Post-auditor engagement:		
2 to 3 March 2026 (JBS&G)	BH01 to BH09	27 soil samples were collected from 9 soil bore locations that were advanced by solid flight auger. Soil samples were collected from a variety of depths between 0.2 and 8.0 mbgl, based on observed changes in soil profile. Soil samples were analysed for heavy metals (As, Cd, total Cr, Cu, Pb, Hg, Mo, Ni, Se, Ag, Sn, Zn), TRHs, BTEX, PAHs, OCP, PCBs, PFAS. Selected samples were analysed for a broader suite including OPPs, phenols, asbestos and EIL parameters.

6.1.1 Historical Soil Investigations

A review of historical soil investigations undertaken by HiQA, Coffey and SLR identified several systematic limitations. In particular:

- Sampling undertaken by HiQA and Coffey was generally shallow and did not adequately characterise the underlying imported fill;
- Laboratory reports, field sheets and/or bore logs were not provided for review in all cases or were poorly reproduced and difficult to read accurately; and
- Sampling methodologies and sample preservation procedures were not fully documented.

Consequently, the auditor was unable to place reliance on the quantitative analytical data generated by these investigations. Nevertheless, the historical information provided the following relevant observations which assisted in scoping JBS&G's detailed site investigation:

- ***Subsurface waste materials and aesthetic issues***: photographs of the test pits advanced by SLR indicate significant quantities of anthropogenic material within the imported fill:

- The waste material comprised concrete and bitumen rubble, plastic, steel reinforcing bar, broken glass, plastic cups, sheets of black plastic, small electrical cables, corroded metal poles, layers of bricks, concrete slabs, an old metal tank/engine, a mattress at TP01, some household waste in TP04, and suspected ACM fragments in TP02 and TP04. It is not known if these wastes were removed from the site following excavation.
- From some of the test pit photographs, the auditor estimates that the proportion of anthropogenic waste present in discrete layers within the subsurface in some areas could be as high as 30% by volume.
- Selected photographs[9] of the most visually impacted test pit spoils are reproduced as **Plate 1** and **Plate 2**.

- ***Asbestos***: SLR reported ACM fragments in one location (TP04) at 1.3 mbgl. HiQA reported the presence of asbestos at one location (TP1, **Figure 10**). Whilst the asbestos presence was reported under laboratory testing, it is unclear if any ACM was observed on the site surface or in HiQA test pits, as no logs or site observations were documented. Asbestos was not identified in the seven soil samples submitted by Coffey to the laboratory.
- ***Hydrocarbons***: HiQA reported TRH >C_{10}–C_{40} concentrations of 3,240 mg/kg at TP7 and 760 mg/kg at TP2. Low levels of heavy fraction TRHs (>C_{16}-C_{34}, maximum 193 mg/kg, two locations) were reported by SLR.
- ***Pesticides***: Low levels of OCPs were reported by SLR, below the adopted screening criteria.
- ***Zinc***: SLR reported zinc levels ranging between 58 and 530 mg/kg, the highest of which would exceed the EILs adopted by JBS&G (110 mg/kg for areas of ecological significance, 220 mg/kg for urban residential and 310 mg/kg for commercial/industrial uses). Coffey reported similar zinc concentrations, ranging from 37 to 153 mg/kg.
- ***Copper***: SLR reported copper levels ranging between 17 and 36 mg/kg. Coffey also reported copper concentrations ranging to 87 mg/kg, which would exceed the JBS&G-adopted EILs (30 mg/kg for areas of ecological significance, 60 mg/kg for urban residential and 85 mg/kg for commercial/industrial uses).
- ***Nickel***: SLR and Coffey both reported nickel concentrations ranging to 18 mg/kg, which would exceed the JBS&G-adopted EILs for areas of ecological significance (6 mg/kg) and for urban residential (15 mg/kg) but were below the commercial/industrial EIL (20 mg/kg).
- ***Alkaline soils***: pH levels reported by Coffey ranged from 8.7 to 11.7 pH units, and results by SLR ranged from 9.2 to 12 pH units, indicating the presence of alkaline soils.
- ***Acid sulphate soils***: Potential ASS was present at TP7 (pH 5.6), according to HiQA. pH results reported by HiQA at all other test pits was alkaline, ranging from 8.9 to 9.5 pH units.
- No other elevated concentrations were reported for the analytes analysed by these consultants.

Whilst the quantitative laboratory results from previous investigations were not relied on by the auditor due to previously discussed QA/QC issues, it is noted that the overall types of contamination and concentration ranges are consistent with the results of the JBS&G investigation.

Overall, it was evident that poor quality fill had been imported to reclaim the land. Its chemical nature was poorly characterised by historical investigations (in part due to incomplete documentation being provided to JBS&G and the auditor) and additional investigation were therefore required.

[9] No records were available to link the photographs taken by SLR to the specific test pit locations, as SLR were not retained by the client to complete reporting.



Plate 1: SLR Test Pitting Photograph 1
(Source: NT EPA)



Plate 2: SLR Test Pitting Photograph 2
(Source: NT EPA)

6.1.2 Soil Investigations During the Site Audit

The soil sampling locations are shown in **Figure 11**. The full tabulated results are provided in **Appendix B**, and a summary of the exceedances is provided in **Table 9** and on **Figure 14**.

Fill material was encountered across the whole site to a maximum depth of 6.8 mbgl, comprising highly variable and heterogeneous materials described as orange/brown/grey/reddish gravelly clayey sand, gravelly sandy clay, clayey sand, or sandy clay. There was no identifiable fill layering sequence. The physical characteristics of the imported fill were not consistent with typical ASS indicators (i.e. sulfuric odours or waterlogged/unripe muds) (WQA 2018)[10].

No specific ASS assessment was undertaken by JBS&G, but based on physical and organoleptic properties of the imported fill and the lack of heavy metal leaching as well as groundwater and surface water acidification discussed in **Sections 6.2** and **6.3**, the risk of the imported fill being ASS is considered low for the majority of the site. The auditor notes that the presence of potential ASS can't be ruled out completely, based on the previous HiQA result indicating potential ASS at one of seven locations.

JBS&G reported anthropogenic inclusions of around 5 to 10% by volume, which included concrete, tiles, metal, plastic, asphalt, bricks, rubber, and fabric, whereas the test pit photographs from SLR indicated quite significant quantities of anthropogenic waste in some locations. No staining or potential ACM was observed on the site surface or within soil extracted by auger. A mild organic odour was noted in locations BH07/MW02 and BH08/MW03 in the fill layer immediately overlying the natural siltstone bedrock and is most likely attributed to residual organic-rich marine muds. No sulfuric odours were noted. JBS&G reported that the natural soils comprised brown, grey and yellow weathered siltstone.

The auditor considers the slight discrepancy in subsurface observations reported by JBS&G in comparison with the SLR photographs is likely associated with JBS&G's soil investigation technique, which utilised small diameter solid augering. Soil bores provide limited opportunity to observe the soil subsurface conditions compared to test pits, as they expose a much smaller subsurface area.

JBS&G estimated that 4,130 m³ and 8,700 m³ of fill were imported during the on-site filling works between 2015 and 2018, which is the subject of this risk of harm audit. The lack of extensive test pitting makes it challenging to provide an accurately estimated quantity of Construction and Demolition (C&D) waste in the fill, but based on SLR's test pit photographs and JBS&G's bore logs, the auditor conservatively estimates that approximately 1,000 to 2,000 m^3 of C&D may be present in the subsurface.

Free-standing water was observed between 2 and 3 mbgl, within the fill layer. The auditor notes the depth to groundwater would be variable depending on the tidal phase and season when drilling occurred.

No visible asbestos was observed on the surface, and no asbestos was identified in the samples collected by JBS&G. However, the auditor notes that JBS&G did not undertake a comprehensive asbestos in soil assessment, including an asbestos sieve of 10 L of soil. Taking into account previous occasional asbestos finds by SLR and HiQA, the auditor considers it likely that asbestos may remain in the subsurface including in the fill material imported by DWD.

No exceedances of the adopted human health criteria were identified for any analytes.

Elevated copper, nickel and zinc concentrations were reported above the JBS&G-derived ecological criteria in the shallow and deep fill material across the site for all land use scenarios. The exceedances were not attributed to a specific fill layer and were generally consistent with previous findings.

TRHs (>C_{34}-C_{40} fraction) were reported at low levels below all relevant criteria in four primary samples. An isolated triplicate shallow soil sample at BH03 reported a TRH (>C_{16}-C_{34} fraction) concentration of 660 mg/kg, which was below the adopted ecological criteria for fine soils, relevant to the observed soil type for that sample. The corresponding primary and duplicate sample concentrations were below 300 mg/kg.

[10] Water Quality Australia (WQA 2018) *National Acid Sulphate Soils Guidance,* June 2018

PFOS concentrations were reported in two samples (0.0073 mg/kg at BH01 at 6.4 to 6.5 mbgl, recovered from just below the water table, and 0.0045 mg/kg at BH06 recovered from near ground surface) that were above the adopted interim ecological criteria for indirect exposure (0.003 mg/kg) which is relevant to all land use scenarios with soil access. The auditor notes that a higher ecological indirect exposure criteria of 0.14 mg/kg is applicable for intensively developed sites, however this does not reflect the current site setting.

Minor concentrations of o-xylene, PAHs, dieldrin, chlordane and various PFAS compounds were detected but below all relevant screening criteria. No phenols, PCBs, or OPPs were detected above the limits of reporting.

6.2 Groundwater Investigations

A summary of the groundwater investigations undertaken by JBS&G at the site is provided in the following table.

Table 5: Summary of Groundwater Investigations at the Site

Date (Field Work)	Sample Locations	Sampling Methodology and Depth
GME 1 (Wet Season) 5 March 2026	MW01 – MW03 (on-site) MW116 & MW118 (off-site)	Groundwater gauging of all groundwater wells during high tide and sampling using low-flow sampling techniques. Analysis for heavy metals (As, Cd, total Cr, Cu, Pb, Hg, Mo, Ni, Se, Ag, Sn and Zn), TRHs, BTEXN, PAHs, OCPs and PFAS.
GME 2 (Dry Season) 2 June 2026	MW01 – MW03 (on-site) MW116 & MW118 (off-site)	Groundwater gauging of all groundwater wells during high tide and sampling using low-flow sampling techniques. Deployment of groundwater data loggers in MW01 and MW116 for 36 hours to assess tidal influence. Analysis for heavy metals (As, Cd, total Cr, Cu, Pb, Hg, Mo, Ni, Se, Ag, Sn and Zn), TRHs, BTEXN, PAHs, OCPs, OPPs, PFAS, PCBs and phenols.

On-site wells MW01 to MW03 were installed with a longer than standard screened interval, between 0.5 and 9.3 mbgl. This was necessary to accommodate the anticipated large seasonal change in water levels and potential tidal influence. The screened intervals are predominantly within the fill lithology, with a few metres installed into the natural weathered siltstone. Considering that water strike occurred within the imported fill, the well construction is appropriate.

Existing off-site wells MW116 and MW118 were installed by others and registered on the NT Know Your Bore website. MW116 was screened between 0.5 and 7.0 mbgl in suspected fill, while MW118 was screened between 3 and 10 mbgl in weathered siltstone.

The groundwater well locations are shown on **Figure 11**, and a snapshot of groundwater contours (during high tide and the dry season) is shown in **Figure 12**. A hydrogeological cross section is shown in **Figure 16**.

The findings of the groundwater investigations are summarised as follows:

- All groundwater wells were observed to be tidally influenced to some extent. Data loggers were deployed in MW01 and MW116, which were the wells closest to and furthest from the shoreline, respectively, to collect continuous groundwater standing water levels (SWLs) for comparison with the tidal levels. The SWL in MW01 showed a strong correlation with the tide height and up to 1.7 metres diurnal fluctuation, but the tidal influence in MW116 was only very slight (approximately 0.3 m, refer to **Figure 13**).
- Depth to groundwater at high tide was 1.2 to 2.66 mBTOC on-site (0.24 to 3.93 mAHD) and 5.2 to 6.76 mBTOC (1.02 to 2.48 mAHD) off-site. Groundwater elevations fluctuated by around 0.2 m between the dry and wet seasons, except for MW116, which had approximately 1.1 m drop during the dry season. MW116, being an 'inland' groundwater well and screened across fill, appears to be more susceptible to seasonal variability.

- Whilst JBS&G assumed for the purposes of the CSM that net groundwater flow direction underlying the site was to the east towards Frances Bay, observed groundwater levels during high tides for both GME 1 and GME 2 instead indicated a flow reversal towards the west (inland).
- Groundwater dissolved oxygen (DO) and temperature parameters did not exhibit any notable trends between wells and GMEs. DO ranged widely between 0.4 and 5.8, which indicates anoxic to oxygenated conditions. Temperature was generally consistent between 28 and 32°C.
- Groundwater pH was generally neutral to alkaline (6.9 to 8.4 pH units) in all wells except for MW118 (off-site), which exhibited consistently acidic pH readings (5.3 to 6.6 pH units). The groundwater acidity in this well is likely associated with it being screened in the siltstone aquifer only.
- The field electrical conductivity (EC) and redox potential (ORP) of groundwater changed significantly between the two GMEs:
    - During the wet season (GME 1), EC ranged between 43 and 110 µS/cm, indicating fresh water even in the wells which were sampled during high tide. The low salinity was evidence that the shallower freshwater lens was effectively targeted in the wet season GME.
    - During the dry season (GME 2), EC ranged between 39,000 and 54,000 µS/cm in the majority of wells, indicating saline water even in the wells which were sampled during low tide. This is consistent with the inferred inland (westwards) flow in the dry season, with less dilution from rainfall infiltration and the absence of a freshwater lens. The exception was off-site well MW118, where the salinity remained low (672 µS/cm). This may indicate MW118 is on the other side of the groundwater divide and outside of tidal influence and the intertidal mixing zone.
    - Field ORP was reductive during the wet season and ranged between -179 and -124 mV. During the dry season, the groundwater was oxidative, with a field ORP of 80 to 167 mV. The higher redox potential in the dry season is consistent with sea water influx.
- No measurable separate-phase hydrocarbons (NAPL) or observable sheens were reported in groundwater from on-site or off-site wells.
- PFAS was detected in all wells during both GMEs, with the highest concentrations (3.8 µg/L total PFAS) reported in up-gradient off-site well MW116 during the wet season. This well also had the highest concentration during the dry season, significantly higher than concentrations reported in all other wells. The former SHNFI is known to have stored firefighting foams, was operational for many decades, and is a known source of PFAS impacts in groundwater (refer to **Section 3.2.1.2**). This is consistent with the observed spatial distribution of PFAS, with the lowest concentrations being reported at W03 furthest from the SHNFI and higher concentrations at MW01 (down-gradient of MW116) and MW118 (off-site near the SHNFI). PFAS concentrations were also higher in the wet season than the dry season, likely because dry season samples were from the mixing zone. The auditor considers the PFAS concentrations observed in groundwater to be sourced from the SHNFI and not the audit site.
- PFOS concentrations were reported consistently above the marine ecological criteria (0.02 µg/L for 99% species protection) in all wells except MW03 during both GMEs, with concentrations at MW116 also exceeding the 95% species protection criteria (0.9 µg/L).
- The recreational water criteria of 2 µg/L is applicable to the sum of PFHxS and PFOS. This criteria was exceeded in up-gradient well MW116 only during the wet season, with no exceedances in down-gradient wells closer to the point of discharge.
- PFOA was also detected in all wells except MW03, at concentrations below the ecosystem and recreational criteria.
- Concentrations of copper and zinc in groundwater exceeded the adopted marine ecological criteria in numerous wells. As for PFAS, the highest concentrations were consistently reported in up-gradient well MW116 during the wet season, indicating a likely off-site source. However concentrations in the three on-site wells were consistently higher during the dry season, which may indicate these metals are present in the sea water or may indicate metals are leaching from the fill on-site during high tide

events. These metals are also present in groundwater at similar concentrations around the former Stokes Hill Power Station to the south (refer to **Section 3.2.1.1**). The auditor considers copper and zinc to be either naturally occurring or regional contamination due to regional land reclamation, with the site filling likely making a very minor contribution to this impact.

- Other metals including arsenic, cadmium, chromium, molybdenum, nickel and selenium were detected at low levels in some wells, at concentrations below the adopted criteria for ecosystem protection and recreational use.
- Low levels of TRH >C_{16} to C_{34} were detected in up-gradient well MW118 during the wet season, but not in any of the on-site wells.
- Phenols, PCBs, OCPs, OPPs, BTEXN and PAHs were all reported below the limit of reporting.

6.3 Surface Water Investigation

A summary of the surface water investigations undertaken at the site is provided in the following table.

Table 6: Summary of Surface Water Investigations at the Site

Date (Field Work)	Sample Locations	Sampling Methodology and Depth
SWME 1 (Wet Season) 4 March 2026	SW01 – SW03 (on-site) SW-B01 - SW-B03 (off-site)	On-site surface water grab samples were retrieved during the falling tide from seepage water near the eastern site boundary. Off-site surface water grab samples were collected from around Frances Bay to the north and south of the site. Analysis of all samples for heavy metals (As, Cd, total Cr, Cu, Pb, Hg, Mo, Ni, Se, Ag, Sn and Zn), TRHs, PAHs, OCPs, PCBs and PFAS.
SWME 2 (Dry Season) 3 June 2026	SW01 – SW03 (on-site) SW-B01 - SW-B03 (off-site)	An on-site surface water grab sample was retrieved during the falling tide from seepage water at SW01. Insufficient seepage water was present at SW02 and SW03, so surface water was instead collected directly from the receiving water body (Frances Bay). Off-site surface water grab samples were collected from around Frances Bay to the north and south of the site. Analysis of all samples for heavy metals (As, Cd, total Cr, Cu, Pb, Hg, Mo, Ni, Se, Ag, Sn and Zn), TRHs, BTEXN, PAHs, OCPs, OPPs, PFAS, and PCBs.

The surface water sampling locations are shown in **Figure 11**. The full tabulated results are provided in **Appendix B**, and a summary of the exceedances is provided in **Table 11**.

The findings of the surface water investigations are summarised as follows:

- Dissolved oxygen, EC and ORP concentrations were generally consistent between sampling locations and were higher during the dry season. Surface water pH was also slightly more alkaline in the background samples during the dry season. Temperature was relatively consistent between both SWMEs. A summary of these results is provided in **Table 7** below.
- PFOS was detected at low levels in all surface water samples, with the concentration in one wet season seepage sample (SW02, 0.023 µg/L) marginally exceeding the ecosystem criteria for 99% ecosystem protection (0.02 µg/L). The seepage water concentration was lower than that reported in the nearest groundwater well, MW02, in the same sampling period. Other PFAS were detected at low levels in seepage water and some of the surface water samples. All PFAS concentrations were below the recreational criteria. The spatial distribution of PFAS is consistent with the site being down-gradient of the SHNFI, as discussed in **Section 6.2**.
- Copper and zinc concentrations were reported above the adopted marine water criteria in the majority of seepage water samples and some surface water samples, with slightly higher concentrations reported from on-site during the dry season. However, some surface water samples

from Frances Bay background locations also reported elevated copper and zinc. All reported metals concentrations were below the recreational criteria. The seepage water concentrations were similar to those reported in on-site groundwater, and are likely influenced by regional pollution with a contribution from on-site land reclamation.

- Other heavy metals (arsenic, total chromium, lead, molybdenum, nickel and selenium) were detected in some samples, all at concentrations below the adopted criteria.
- Dieldrin was detected in one seepage sample (SW03) during the wet season, at a concentration below both ecosystem and recreational criteria. Other OCPs, phenols, PCBs, OPPs, BTEXN and PAHs were all reported below the LOR.

Table 7: Summary of Seepage and Surface Water Field Parameters

Sample ID	Dissolved Oxygen (ppm)		Temperature (°C)		pH		EC (µS/cm)		ORP (mV)		Tide[37]	
	W	D	W	D	W	D	W	D	W	D	W	D
SW01	3.49	4.88	29.7	27.8	7.74	7.88	46944	51811	-237	59.7	Low (1.8m)	Low (2.9m)
SW02	3.80	5.80	29.7	28.1	7.81	7.72	43390	52374	-257	63.3	Low (1.4m)	Low (2.9m)
SW03	3.47	5.61	29.8	28.0	7.80	7.79	46547	52140	-273	67.2	Low (1.3m)	Low (3.2m)
SW-B01	2.63	5.90	30.8	27.1	7.61	8.10	48168	52156	-250	78.2	Mid (3.3m)	High (6.5m)
SW-B02	3.54	6.52	27.2	29.9	7.88	8.17	38913	54988	-554	113.9	High (7.2m)	High (5.5m)
SW-B03	2.91	6.06	30.4	27.7	7.76	8.09	47890	52530	-204	158.8	Low (1.8m)	High (4.8m)

(Source: JBS&G 2026a)

6.4 Sediment Investigations

A summary of the sediment investigations and sampling undertaken at the site for characterisation purposes is provided in the following table.

Table 8: Summary of Sediment Investigations at the Site

Date (Field Work)	Sample Locations	Sampling Methodology and Depth
4 March 2026 (Wet Season)	**Eastern boundary/Frances Bay** SDT01 to SDT03 **Background Samples** SDT-BH01 to SDT-BH03	3 sediment samples were collected from the eastern boundary of the site and Francis Bay, and another 3 off-site sediment samples from background locations around Francis Bay during low tide. Sediment samples were grab samples using a hand trowel or gloved hands. Samples were analysed for heavy metals (As, Cd, total Cr, Cu, Pb, Hg, Mo, Ni, Se, Ag, Sn, Zn), TRHs, PAHs, OCPs, PCBs & PFAS.
1 to 3 June 2026 (Dry Season)	**Eastern boundary/Frances Bay** SDT01-DS to SDT03-DS **Background Samples** SDT-BH01-DS to SDT-BH03 -DS	Sampling methodology was generally as per above. Boundary samples at SDT02-DS and SDT03-DS were collected beneath the water surface with a swing sampler, due to the lack of tidal recession. Samples were analysed for heavy metals (As, Cd, total Cr, Cu, Pb, Hg, Mo, Ni, Se, Ag, Sn, Zn), TRHs, BTEX, PAHs, OCPs, PCBs, PFAS & phenols.

The sediment sampling locations are shown in **Figure 11**. The full tabulated results are provided in **Appendix B**, and a summary of the exceedances is provided in **Table 12**.

Arsenic and total chromium were reported in sediment samples from adjacent to the site and background locations, above the adopted default guideline values (DGV) but not the upper guideline value (GV-high) sediment criteria. The maximum arsenic and chromium concentrations were reported in background sample

SDT-B03-DS, which was collected to the south of the site. The concentrations were also generally higher during the dry season as compared to the wet season. As the heavy metal concentrations were higher in background samples than those recovered adjacent to the audit site, they are attributed to regional pollution and/or naturally occurring mineralisation.

Copper, lead, nickel and zinc were reported in sediment samples from background locations only above the adopted default guideline values (DGV) and in some cases the upper guideline value (GV-high) sediment criteria. These heavy metal exceedances are attributed to regional pollution in the bay as they were not spatially associated with the audit site.

Dieldrin concentrations were reported in all three locations along the eastern boundary of the site, above the DGV (0.0028 mg/kg) and in two samples also above the GV-high (0.007 mg/kg), during the dry season. Similar exceedances were not identified in the background samples, which reported only low levels of dieldrin. The maximum concentration of dieldrin (0.045 mg/kg) in sediment samples collected along the site eastern boundary is lower than the dieldrin concentrations found in on-site soils, in which detectable concentrations were reported in eight out of 27 primary samples, with reported concentrations ranging from <0.05 to 2.6 mg/kg from soil samples collected between 0.2 and 2.0 mbgl.

The auditor considers that it is possible that the dieldrin identified in sediments during the dry season is associated with on-site soil erosion and migration into the bay. It is noted that the concentrations of dieldrin were highest in sediment samples collected beneath the water surface (SDT02-DS and SDT03-DS) compared to the sediments collected by hand during low tide. Whether this observation has any link to the reported results is unknown.

Aldrin was detected (maximum 0.003 mg/kg) at SDT02-DS and SDT03-DS during the dry season, in the same samples with elevated dieldrin concentrations. There are no sediment criteria available for aldrin, but the auditor notes that these concentrations are well below the adopted soil criteria.

Dieldrin and aldrin were not detected in either site boundary or background samples during the wet season. However, the auditor notes that the limit of reporting achieved by the laboratory during this sampling round (0.05 mg/kg) was higher than the DGV criteria and higher than any of the sediment concentrations reported during the dry season. The wet season results don't confirm either the presence or absence of low levels of OCPs in sediments, which nonetheless may exceed the default sediment screening criteria.

In accordance with the ANZG (2018) guidelines, the auditor has normalised the dieldrin results to account for measured organic carbon (OC) content. Higher organic carbon favours partitioning of hydrophobic organic contaminants, such as dieldrin, to sediment particles and makes them less bioavailable to aquatic receptors. As recommended in the ANZG (2018) guidelines, the normalised dieldrin concentrations were compared with the ESB-based marine sediment quality guidelines from Appendix A4 of Simpson et al (2013) and were found to be below both the SQGV and the SQG-high (refer to **Table 12**). Based on this further assessment, the auditor considers the dieldrin in sediment to be a low risk of harm to aquatic ecosystems.

Minor concentrations of molybdenum and various PFAS were detected at levels below the adopted criteria. All other analytes were reported below the LOR.

6.5 Potential for Soil Vapour Contamination

Soil vapour intrusion risk relates to volatile compounds, typically petroleum hydrocarbons (typically measured as TRHs, PAHs or BTEXN) and/or CHCs which have volatilised from soil or groundwater and can migrate via diffusion (concentration gradient) laterally and vertically in the soil vadose zone.

Trace concentrations of heavy fraction TRHs (>C_{16} to C_{34}) were reported in several soil and groundwater samples, however TRH >C_{16} to C_{34} is insufficiently volatile to cause a vapour risk. Other potential indicators of petroleum or chlorinated hydrocarbons were not detected on-site and field screening of samples with a photoionisation detector did not indicate the presence of volatiles.

The risk of soil vapour contamination is considered very low, and soil vapour investigations were not warranted.

6.6 Potential for Hazardous Ground Gases

Hazardous ground gas (HGG) relates to bulk gases present in the subsurface such as methane and carbon dioxide[11]. Anthropogenic sources of HGG include landfilling of putrescible waste, such as potential timber intermixed with the observed C&D inclusions on-site. Natural sources of HGG include the presence of subsurface organic layers such as mangrove wetlands and disturbance of carbonate strata (shelly sands, siltstone and sandstones) such as those commonly found in marine environments.

Both natural and anthropogenic sources are present on-site and thus, the potential for elevated HGG is considered medium. No HGG assessment was undertaken by JBS&G (or by previous consultants) on the basis that this was of limited relevance to the specific scope of the risk of harm audit, which focussed on potential harm to the surrounding environment. Whilst the auditor agreed that a HGG assessment was not warranted in this case, there was limited rationale to explain this decision presented in JBS&G's reports.

The auditor does not consider a HGG assessment to be necessary for the following reasons:

- Naturally occurring potential sources of HGG (mangrove wetlands and carbonate strata) are outside of the scope of the audit, which focused on landfilling as a potential source of contamination and risk of harm.
- Whilst the filling on-site did include some waste materials and C&D wastes, large quantities of putrescible wastes were not observed, and the majority of waste inclusions comprised inert materials such as bricks, rubble, plastic and metal.
- There are currently no enclosed under- or above-ground structures present on-site, so there is no potential for HGG to accumulate and present a risk of harm (explosive or asphyxiation risk).
- The soil vadose zone comprises predominantly sandy material with minimal compaction. In the absence of any low permeability capping layers, the HGG is more likely to migrate vertically into the atmosphere (rather than laterally) where the risk of harm is minimal.

The risk of harm due to potential HGG originating from the uncontrolled filling is currently considered to be low. However, should the site be redeveloped for any use, including construction of buildings or extensive paving, a HGG assessment is recommended.

6.7 Auditor's Opinion on Investigations and Data Quality

When preparing this section of the SAR, the auditor has given particular attention to Section 4.1.3 of the NSW EPA *Guidelines for the NSW Site Auditor Scheme* which states: *'In the course of a site audit, an auditor must ensure the data from the site assessment is reliable and representative of the condition of the site. To achieve this objective, site auditors must check the reliability and fitness for purpose of both field sampling procedures and laboratory programs.'*

The current soil investigations were undertaken by JBS&G following consultation with the auditor. However, the auditor notes that JBS&G did not undertake any test pitting on-site and analysis of the underlying natural soil for metals, as per the auditor's request. Whilst this was an oversight by JBS&G, the auditor notes that test pitting was undertaken by other consultants during earlier investigations, and photographs, limited field notes and laboratory identification for asbestos were made available to the auditor from these works. The auditor has therefore considered this earlier data in assessing the final site condition with respect to potential asbestos, waste inclusions and aesthetic considerations.

The auditor considers that as a whole, the data collected is within acceptable error margins as determined through the assessor's Quality Assurance and Quality Control (refer to Section 7.1.6 of JBS&G 2026a). As

[11] Soil vapour can also be considered as hazardous ground gas, but these volatiles are present at much lower concentrations, and their assessment methods differ from methane and carbon dioxide.

such, the auditor considers that the data collected is sufficient to adequately characterise the site for audit purposes, given:

- The lack of significant systematic errors with the data collection process.
- Absence of major gaps in understanding of the site use over time.
- The soil investigation undertaken by JBS&G included 9 grid-based locations, which meets the NSW EPA (2022a) recommended number of sampling locations for an approximate 0.3 ha site (9 locations).
- The groundwater investigations undertaken across the site, including a total of 3 on-site groundwater wells and 2 off-site wells, and two GMEs to assess seasonable variation, during wet and dry seasons. In addition, continuous groundwater gauging was undertaken over a 36-hour period to assess tidal influence. Although it was not possible to recover samples over the entire tidal range, the salinity data indicated that the wet season samples were representative of the freshwater lens and the dry season samples were representative of the intertidal mixing zone.
- Surface water and sediment samples were collected from three locations adjacent to the site boundary with Frances Bay and from three background locations within Frances Bay further from the site, each during a wet and dry season.
- The large number of samples collected across the site and the comprehensive suite of analyses undertaken, which addresses inherent data gaps in site histories.
- The laboratory analysis was undertaken by NATA accredited laboratories.
- The site-specific geology and hydrogeology are consistent with anticipated regional conditions.
- The analytical results are consistent with expectations based on the site history and field observations during the auditor's site inspection.

The auditor considers the quantity and quality of the site investigations undertaken to be adequate to characterise the nature and extent of contamination at the site associated with the 2016 to 2018 land reclamation activity. More details of the auditor's assessment of data quality is provided in **Appendix F**. The auditor considers the data collected is sufficient for this site audit.

7 Updated Conceptual Site Model

7.1 Soil Condition

The condition of soil at the site is characterised by the soil samples collected by JBS&G. The soil analytical results are provided in **Appendix B**.

There were some exceedances of ecological screening criteria, as summarised in **Table 9** below. There were no exceedances of human health-based criteria. The ecological exceedances are discussed with relevance to the environmental values in the following sections. The location of these exceedances are shown on **Figure 14**.

Table 9: Soil Analytes Comparison with Ecological/Human Health Direct Contact Criteria (mg/kg)

Analyte	No. Samples Analysed	Maximum Concentration	Number of Samples > Criteria					
			EIL Ecosystems	EIL Resid/PoS	EIL Ind/Com	HIL B Residential	HIL C Open space	HIL D Com/Ind
Copper	27	200	11 > 30	4 > 60	1 > 85	0 > 30,000	0 > 17,000	0 > 240,000
Nickel	27	61	19 > 6	6 > 15	3 > 30	0 > 1,200	0 > 1,200	0 > 6,000
Zinc	27	460	9 > 110	1 > 220	1 > 310	0 > 60,000	0 > 30,000	0 > 400,000
PFOS	20	0.0073	2 > 0.003			0 > 2	0 > 1	0 > 20

Notes:

Table includes primary samples only, unless duplicate results were higher.
Shading denotes exceedance of criteria.
EILs = Ecological investigation level; HIL = Health Investigation Level.
Ecosystems = National Parks and areas of high conservation value, Resid/PoS = urban residential and public open space; Ind/com = Industrial and commercial.
EILs were calculated on the basis of site-specific soil parameters provided by JBS&G, assuming aged soils and low traffic.

7.1.1 Protection of Terrestrial Ecosystems

Concentrations of copper, nickel, zinc and PFOS exceeded the adopted ecological criteria in at least one sample for all land use scenarios considered. For PFOS, the interim indirect exposure criteria is only relevant in assessing potential impacts on animals such as predator birds which are higher up the food chain and may therefore bioaccumulate PFAS.

The PFOS exceedances were from two sampling locations. The first exceedance at BH01 in the southern part of the site was recovered from a depth of 6.4 to 6.5 mbgl, corresponding to just below the water table at this location. JBS&G noted that this bore was later converted into well MW01 and PFOS was also elevated in groundwater, and this was the likely source of the PFOS. As discussed in **Section 6.2**, the former SHNFI is a known local source of PFAS impacts in groundwater.

The second PFOS exceedance at BH06 in the western part of the site was recovered from the site surface. JBS&G considered it likely that this contamination had migrated from the SHNFI via overland surface water flow. The auditor agrees with JBS&G's hypothesis that PFOS has likely migrated via surface water and groundwater and on this basis, the on-site fill is not the source of the PFOS, but rather the SHNFI site up-gradient.

Reported copper, nickel and zinc concentrations were within the range of values the auditor considered may be naturally occurring in a siltstone lithology and specifically within the Burrell Creek Formation, as discussed in **Section 5.1.1**. However, JBS&G did not collect any natural soil samples for comparison to conclude whether the imported fill and natural soils are chemically similar. The auditor considered it likely that the elevated metals concentrations were associated with mineralisation of the fill material rather than with waste materials within the fill. If local ecological receptors are adapted to naturally occurring elevated metals, they would not be expected to be at risk from similarly elevated metals in imported fill.

There were a significant number of metals exceedances under the ecological scenario defined by ASC NEPM as *National Parks and Areas of High Conservation Value.* This scenario is not relevant to the current on-site industrial site use and highly disturbed ecological setting, but was included to evaluate whether there would be a potential risk of harm to nearby ecosystems if fill from the site was found to have migrated. As discussed in **Section 6.4**, copper, nickel and zinc were not found to be elevated in sediment samples recovered from close to the site, and this potential exposure pathway is therefore incomplete.

Under the land uses of *Urban Residential and Public Open Space* as well as *Industrial and Commercial,* there were a more limited number of exceedances and many were only reported marginally above the adopted criteria. Zinc was only reported in one sample (at a depth of 1.9-2.0 mbgl) above the urban residential and commercial/industrial criteria. The result was less than 250% of both criteria and is not statistically significant for the site as a whole.

For copper, only one exceedance of the industrial/commercial criteria which applies to the current land use was reported, and the concentration was less than 250% of the criteria and not statistically significant for the site as a whole.

Nickel concentrations were reported in three samples at levels exceeding the adopted industrial/commercial criteria. The highest concentration of 61 mg/kg was reported in BH09 at a depth of 2.9-3.0 mbgl. However, this sample is at a depth where the ASC NEPM ecological criteria do not apply, as these criteria are only applicable for the upper 2 m of soil in non-arid regions, corresponding with the typical root zone of flora. The remaining two nickel exceedances were both less than 250% of the criteria and not statistically significant for the site as a whole.

Overall, the auditor considers that these metals concentrations present a low risk of harm to on-site ecosystems under the current industrial site use. If the site was proposed to be redeveloped for a more sensitive site use or rehabilitated to restore the natural mangrove wetlands, it is recommended that further consideration be given to whether soil remediation or management was required. At a minimum, this should include quantitative investigation of the naturally occurring background concentrations of metals in natural soils at the site.

7.1.2 Protection of Human Health – Direct Contact Pathways

There were no exceedances of the adopted human health criteria for direct contact pathways. These environmental values are considered protected.

7.1.3 Protection of Human Health – Vapour and Gas Intrusion Pathways

There were no exceedances of the human health criteria via vapour intrusion pathways and no volatile contaminants were detected in soil or groundwater on-site. The auditor concluded that the soil and groundwater contamination did not present a vapour risk.

The auditor considered there was a medium potential for historical landfilling to generate hazardous ground gas, given significant waste inclusions were observed in some areas and there was potential for small quantities of putrescible wastes (such as timber or vegetation) to be present. The risk associated with potential HGG at the site is currently low based on the current site configuration, which does not have any enclosed underground or aboveground structures.

Should the site be redeveloped with any aboveground or subsurface structures or extensive paving, then a HGG assessment is recommended.

7.1.4 Asbestos in Soil

Historical investigations by others have identified minor quantities of ACM and asbestos fibre bundles in historical fill on-site, and a significant quantity of C&D waste is present in the imported fill. Detailed surface

inspections by JBS&G did not identify any surface ACM. JBS&G did not complete a detailed subsurface asbestos assessment, as the soil bores only provided limited opportunity to inspect the underlying soil profile.

Based on the combined results of the previous assessments, the auditor considers it likely that ACM is present at depth. Whilst only minor quantities of asbestos were found during previous investigations, it is possible that more significant quantities of ACM are present in portions of the subsurface, and it is recommended that caution is exercised during future site excavations to ensure that any such material is identified and adequately managed.

Based on the current site conditions, the potential presence of ACM within the subsurface presents a low risk to human health, provided that adequate stormwater management and erosion control are implemented to ensure the site surface remains relatively undisturbed and that any deeper fill is not exposed. Should any earth disturbance be proposed (i.e. site redevelopment, maintenance works, landscaping, etc), then an asbestos management plan (AMP) is recommended to ensure that the risk of harm remains low and is appropriately managed.

7.1.5 Aesthetics, Odours and Potential Effects on Underground Structures

Significant anthropogenic waste including concrete, bitumen pieces, plastic, metal, broken glass, bricks and minor household waste was present in the subsurface. This subsurface waste presents a low aesthetic risk provided that the current site surface is maintained and stormwater on-site is managed to prevent erosion.

Mild organic odours were noted at the interface of the imported fill and the underlying natural soil, attributed to residual organic-rich marine muds and are thus not a contamination issue. There were no sulfuric odours from the subsurface soils.

Overall, the physical and organoleptic properties of the imported soil do not suggest that it is potential ASS, noting that only one soil sample recovered by HiQA indicated potential ASS and none of the samples recovered by JBS&G did. The lack of surface water and groundwater acidification or heavy metal leaching supports this. However, the site is located in an area with a high potential for naturally occurring ASS. Whether the underlying natural soils are ASS is a data gap that will require resolution before site development, as site suitability is not the objective of this risk of harm audit.

No exceedances of petroleum hydrocarbon management limits were identified.

The auditor concluded that the residual soil contamination did not present a significant aesthetic impact. The residual soil is unlikely to present a significant risk to on-site structures given the lack of any significant structure on-site, but any proposed buildings should only be constructed following a geotechnical investigation (including for acid sulphate soils).

7.2 Groundwater Condition

GMEs were undertaken in March and June 2026 to capture seasonal variability during a wet and dry season.

Concentrations present in groundwater exceeding the adopted assessment criteria for protection of human health and aquatic ecosystems are summarised in the following table. Tabulated groundwater results for all sampling events are provided in **Appendix B**. The location of these exceedances are shown on **Figure 14**.

Table 10: Summary of Groundwater Exceedances at the Site (µg/L)

Analyte	Off-site (MW116, MW118)	On-site (MW01–MW03)	Environmental Values		Auditor's Inferred Source
			Marine ecosystems	Recreational use	
Copper	<1 – 28	<1 – 7	0.6	20,000	Regional & minor site co-source
Zinc	8 – 90	<5 - 13	8	3,000 (aesthetic)	Regional & minor site co-source
PFOS	0.2 – 2.0	0.011 – 0.56	0.9 (95%) 0.02 (99%)	--	Up-gradient
PFOS + PFHxS	0.68 – 2.89	0.015 -0.88	--	2	Up-gradient

Note:
Shading denotes exceedance of criteria

7.2.1 Comparison of Site and Regional Groundwater Quality

The concentrations of copper, zinc, PFOS and PFOS + PFHxS were above at least one of the assessment criteria during either GMEs.

The auditor considered that the copper and zinc concentrations are likely elevated due to regional land reclamation, with the site being a potential minor co-source on the basis that:

- On-site fill material reported elevated concentrations of copper and zinc, with the imported fill deposited in part beneath the groundwater level.
- The regional area has been extensively altered due to historical land reclamation activities, with much of the imported fill being of unknown quality.
- Higher concentrations of copper and zinc were identified up-hydraulic gradient than on-site during the wet season, when groundwater samples were recovered from the freshwater lens and flow was inferred towards the bay.
- During the dry season, higher concentrations were identified on-site, which may indicate leaching from on-site fill during high tide events.
- Similar groundwater concentrations were also identified by AECOM in 2017 (**Section 3.2.1.1**) at the former Stokes Hill Power Station, which is located cross-gradient from the site.
- Copper and zinc were also identified in the surface water samples from Frances Bay, but at slightly lower concentrations than in groundwater and seepage water from the site.

Copper and zinc concentrations could be naturally elevated, as these heavy metals are commonly present at low levels in siltstone aquifers and have been reported in the background seawater samples from elsewhere in Frances Bay. However, in the absence of any natural soil samples, the auditor is unable to definitively conclude this. Nevertheless, the actual contribution of these metals from the site is likely low considering the reported concentrations in soil and groundwater.

PFOS and PFHxS concentrations are likely elevated due to an off-site source located up-hydraulic gradient due to the following:

- PFAS were reported at higher concentrations in up-gradient groundwater wells than in on-site wells.
- The former SHNFI is located topographically and hydraulically upgradient. This facility operated as a long-term military bulk fuel storage terminal with on-site firefighting foam storage and associated suppression systems during a period where PFAS firefighting foams were in use. The SHNFI is a known source of PFAS impacts in groundwater.
- Although there were minor PFAS exceedances reported in on-site soils, as per **Section 7.1.1** these were considered to be secondary contamination associated with PFAS migration in groundwater and

surface water from the SHNFI site, rather than the reverse process in which the primary source was PFAS-impacted fill.

7.2.2 Protection of Aquatic Ecosystems

Concentrations of copper, zinc and PFOS exceeded the ecosystem criteria on-site and immediately up-gradient of the site during the most recent sampling event. These concentrations are considered to be regional pollution, with the site being a minor co-source of the heavy metal exceedances.

The site and specifically the imported fill material is not the source of the PFOS contamination, and further consideration of the risk of harm from this contamination is therefore outside of the scope of this audit.

Copper and zinc are considered to be partially naturally occurring, with a contribution from regional contamination and potentially a minor contribution from the site. The concentrations are similar in concentration to the seepage water discharging to Frances Bay (**Table 11**). Any historical and ongoing contributions of copper and zinc would have been minor, given the relatively low-level exceedances identified in the imported fill, the higher concentrations in up-gradient off-site groundwater wells and the presence of background levels in seawater samples recovered away from the audit site. The risk of harm posed to aquatic ecosystems from site-co-sourced, regional groundwater contamination are therefore considered low.

7.2.3 Protection of Human Health – Direct Contact Pathways

Concentrations of PFOS + PFHxS exceeded the recreational use criteria in one off-site groundwater sample. The site is not the source of this groundwater contamination and concentrations in groundwater underlying the site, as well as in the surface water samples, did not exceed recreational criteria. The risk of harm to human health from groundwater is considered low.

It is also noted that extractive use on-site in the future is considered unlikely, based on the natural aquifer characteristics (high salinity and highly variable depth to groundwater) and urban site location.

7.2.4 Consideration of Potential Vapour Risks from Groundwater

There were no exceedances of the adopted HSLs, and no volatile contaminants were identified in groundwater. The risk of vapour intrusion from groundwater is considered very low.

7.2.5 Consideration of Potential Separate Phase Contaminants (NAPL)

No measurable NAPL or sheen has been reported for groundwater from on-site or down-gradient wells. Dissolved hydrocarbon concentrations are insufficient to be indicative of NAPL. The auditor therefore considers it unlikely that NAPL would be present underlying the site.

7.3 Surface Water Condition

SWMEs were undertaken in March and June 2026 to capture seasonal variability during the wet and dry seasons.

Concentrations present in surface water exceeding the adopted assessment criteria for protection of aquatic ecosystems are summarised in the following table. There were no exceedances of the criteria for recreational water use. Tabulated surface water results for all sampling events are provided in **Appendix B**. The location of these exceedances is shown on **Figure 15**.

Table 11: Summary of Surface Water Exceedances at the Site (µg/L)

Analyte	On-site (SW01 – SW03)	Off-site		Environmental Values		Auditor's Inferred Source
		Northern Bay (SW-B01, SW-B02)	Southern Bay (SW-B03)	Marine ecosystems	Recreational use	
Copper	<1 – 8	<1 – 4	<1 – 1	0.6	20,000	Natural plus regional & minor site co-source
Zinc	8 - 20	5 – 11	<5 - 5	8	3,000 (A)	Natural plus regional & minor site co-source
PFOS	0.008 – 0.023	0.0003 – 0.0016	0.0003 – 0.0006	0.9 (95%) 0.02 (99%)	2	Up- gradient

Note:
Shading denotes exceedance of criteria

7.3.1 Comparison of Site and Regional Surface Water Quality

The concentrations of copper, zinc and PFOS were above the adopted criteria for the protection of aquatic ecosystems.

PFOS is not considered site-sourced contamination, with the SHNFI being a known up-gradient source. Low levels of PFOS were also detected in background surface water samples.

The auditor considers the copper and zinc concentrations to be a combination of natural mineralisation, regional pollution and a minor site contribution, based on the following:

- Concentrations from seepage water discharged from the site and in the surface water directly adjacent to the site were only slightly above those in background samples collected from Frances Bay.
- Frances Bay receives urban stormwater runoff and is located in an industrial precinct, which is a likely source of these contaminants.
- During the wet season, groundwater migration from further up-gradient likely contributes to the copper and zinc load which discharges to the bay.
- During the dry season, fill may be leaching copper and zinc into groundwater underlying the site which then discharges into the bay.

7.3.2 Protection of Aquatic Ecosystems

The site is not considered the source of PFOS contamination in seepage water, and this impact has not been considered further.

Concentrations of copper and zinc exceeded the marine ecosystem criteria in both seepage water, surface water and background surface water samples. As these elevated metals may be partially naturally occurring, local aquatic ecosystems would be expected to have adapted. There is likely to be a further contribution from regional pollution, with the site being a minor co-source of the copper and zinc exceedances.

The imported fill has been in place on-site for at least eight years. Any leachable concentration of copper and zinc would likely have long since discharged into Frances Bay. The concentrations of these analytes in Frances Bay along the eastern site boundary and from background locations around the bay were comparable in magnitude. The risk posed to Frances Bay by copper and zinc from the site is considered to be minor, if not negligible.

7.3.3 Protection of Human Health – Direct Contact Pathways

Based on the likely future proposed development in the area, the natural surface water body characteristics (marine waters) and urban site location, the only likely human health direct contact pathways are associated with recreational water use.

There were no exceedances of the recreational water criteria and thus, the risk of harm from any site impacts to these environmental values is considered very low, as there are no complete exposure pathways.

7.4 Sediment Condition

Two rounds of sediment sampling were undertaken during the wet and dry season, with the concentrations during the dry season and from background locations generally being higher.

Concentrations present in sediments exceeding the adopted assessment criteria for protection of aquatic ecosystems are summarised in the following table. The table includes two comparisons for dieldrin – the first row includes the results as reported by JBS&G and compared with default guidelines, and the second includes the auditor's comparison as per the ESB-based method recommended in ANZG (2018) and using organic carbon normalised dieldrin concentrations. Tabulated sediment results for all sampling events are provided in **Appendix B**. The location of these exceedances is shown on **Figure 15**.

Table 12: Summary of Sediment Exceedances Against Ecological Criteria (mg/kg)

Analyte	Site boundary (SDT01 to SDT03, SDT01-DS to SDT03-DS)	Northern Background (SW-B01, SW-B02, SW-B01-DS, SW-B02-DS)	Southern Background (SW-B03, SW-B03-DS)	Environmental Values		Auditor's Inferred Source
				DGV	GV-High	
Arsenic	9.7 – 26	14 – 27	12 – 39	20	70	Natural/Regional
Total Chromium	55 – 140	53 – 64	31 - 200	80	370	Natural/Regional
Copper	7.4 – 20	34 – 1,500	19 – 77	65	270	Regional
Lead	8.3 – 40	26 – 72	25 – 180	50	220	Regional
Nickel	<5 – 9.8	13 – 24	<5 – 45	21	52	Regional
Zinc	37 - 45	570 – 2,900	49 – 110	200	410	Regional
Dieldrin	0.006 – 0.045	<0.001 - 0.002	0.002	0.0028	0.007	Site sourced
Dieldrin (1% OC normalised)[a]	0.0021 – 0.016	<0.0007 – 0.0013	0.0017	0.28[b]	0.62[c]	

Notes:
Default guideline values (DGV) and upper guideline values (GV-high)
Shading denotes exceedance of criteria
a Reported dieldrin concentrations were normalised by the auditor by the sample-specific organic carbon content, to allow direct comparison with the guideline values according to published ANZG (2018) methodology.
b ESB-based sediment quality guideline value (SQGV) for saltwater (marine) sediment, from Appendix A4 of Simpson et all (2013).
c ESB-based sediment quality upper guideline value (SQG-high) for saltwater (marine) sediment, from Appendix A4 of Simpson et all (2013).

7.4.1 Comparison of Site and Regional Sediment Quality

The concentrations of various heavy metals and dieldrin exceeded the sediment DGV criteria with dieldrin, copper and zinc exceeding the GV-high sediment criteria.

Of these exceedances, only arsenic, chromium and dieldrin were above the default criteria in sediment samples collected between the eastern boundary of the site and Frances Bay. Exceedances of copper, lead, nickel and zinc are therefore considered to be regional pollution and not sourced from the audit site. This

result also confirms that the elevated copper, nickel and zinc concentrations in on-site soils (refer to **Table 9**) have not migrated into off-site sediments to any significant degree.

Arsenic and chromium concentrations in sediment samples collected from the site boundary are consistent with the background samples collected. These analytes are considered to be naturally elevated or regional pollution given the consistent chemical distribution, and not sourced from the site to any significant degree.

The OC normalised dieldrin concentrations in sediment samples collected adjacent to the site boundary did not exceed the ESB-based marine guidelines. Fill imported to the site reported detectable dieldrin concentrations (maximum 2.6 mg/kg). The on-site soil concentrations were higher than those reported in sediments, and the soil detection limit was also higher than the sediment screening criteria.

Soil erosion is likely to have occurred during the historical land reclamation activities. Additionally, at the time of writing, the site has limited vegetation or hardstand coverage to minimise overland or windblown erosion. The eastern site boundary is also only supported by a formal retaining wall along Lot 5280.

Based on the above, the auditor considered it likely that the low levels of dieldrin in sediments are associated with on-site fill with detectable concentrations of dieldrin that has eroded into Frances Bay and intermixed with the local sediments. The maximum concentration detected in sediments was consistent with generally reported background ranges of dieldrin of up to 0.05 mg/kg in Australian soils, and it is possible that other sources of dieldrin are also contributing[12]. The reported concentrations don't exceed the ESB-based marine sediment quality guidelines and the auditor therefore considers the dieldrin in sediment to be a low risk of harm to aquatic ecosystems.

7.4.2 Protection of Aquatic Ecosystems

The elevated concentration of copper, lead, nickel and zinc in sediments from background samples have not been considered further, as they were not site-sourced.

Concentrations of arsenic and chromium exceeded the sediment criteria both adjacent to the site and in background samples collected from Frances Bay. However, concentrations were considered naturally occurring or regional pollution without a significant site contribution, therefore they have not been considered further in this audit.

Low levels of dieldrin in sediments were reported below the ESB-based marine guidelines and are likely sourced from the site. The risk of harm to aquatic ecosystems is considered low, but to ensure this remains the case, stormwater management and erosion controls are recommended at the site to reduce the volume of soil with detectable dieldrin from eroding into Frances Bay.

7.5 Summary of Post-Investigation CSM

The following table summarises the auditor's assessment of the remaining contaminants and exposure pathways which require further consideration following site investigation, and which are no longer of concern.

Section 7.6 of this report provides a qualitative risk assessment for the residual contaminants/pathways and **Section 8** outlines the recommended management measures for this audit site.

[12] ANZECC/Agriculture and Resource Management Council of Australia and New Zealand (1992) *Australian and New Zealand Guidelines for the Assessment and Management of Contaminated Sites*, Table 2, Environmental Soil Quality Guidelines (Background and Environmental Investigation Levels).

Table 13: Post-Investigation Conceptual Site Model

Source	Contaminants Identified	Pathway/s	Receptor/s	Post-Investigation Assessment of Complete Linkage
On-site fill (primary source)	Copper, nickel, zinc PFOS (not site sourced)	Dermal contact and incidental ingestion	• On-site commercial workers in boat yard • Visitors & recreational users in Crown land area • Future construction & intrusive maintenance workers • Future users following development (residents & commercial workers) • Terrestrial flora & fauna	• All human receptors: incomplete linkage. • Terrestrial ecosystems: Low risk for metals under current industrial site use. Medium risk for metals under future more sensitive use (residential redevelopment or restoration of mangrove wetlands). PFOS not site sourced.
	ACM	Inhalation of dust and potential asbestos fibres	• Current receptors: on-site commercial workers in boat yard, visitors & recreational users in Crown land area • Future construction & intrusive maintenance workers • Future users following development (residents & commercial workers)	• Current receptors: Incomplete pathway as no surface ACM • Potential complete linkage if excavation is undertaken in future which exposes ACM
	Potential HGG	Inhalation of vapours and hazardous ground gases (HGG)	• Current receptors: on-site commercial workers in boat yard, visitors & recreational users in Crown land area • Future receptors following development: construction workers, commercial workers, residents & intrusive maintenance workers	• Current receptors: incomplete pathway as no buildings or enclosed structures are present. • Possible linkage for future receptors - HGG has not been investigated. Risk should be investigated before redevelopment.
	Arsenic, chromium (not site sourced) Dieldrin	Migration of fill into off-site sediment via surface water run-off	• Aquatic ecosystems in Frances Bay, including species which may be harvested for human consumption • Recreational users of Frances Bay during low tide (dermal contact & incidental ingestion during walking, boating or fishing)	• Incomplete pathway for metals – not site sourced. • Low levels of site-sourced dieldrin identified in sediments adjacent to the site – low risk as concentrations are below ESB-based ecological criteria. • Incomplete pathway for recreational receptors.
Groundwater underlying the site (secondary source)	Copper, zinc PFOS, PFHxS (not site sourced)	Discharge into surface water	• Aquatic ecosystems in Frances Bay, including species which may be harvested for human consumption • Recreational use - people swimming or boating in Frances Bay (incidental water ingestion)	• Copper & zinc: complete pathway. PFAS not site sourced. • Incomplete pathway for recreational receptors
	None	Inhalation of vapours	• Current receptors: on-site commercial workers in boat yard, visitors & recreational users in Crown land area • Future receptors following development: construction workers, commercial workers, residents & intrusive maintenance workers	Incomplete pathway - no volatiles present

Source	Contaminants Identified	Pathway/s	Receptor/s	Post-Investigation Assessment of Complete Linkage
	Not applicable	Dermal contact and ingestion by humans	Persons extracting groundwater for use in domestic supply (drinking & cooking water, washing etc.), irrigation or for filling swimming pools	Incomplete pathway on-site - No existing extractive uses, & considered unlikely in future due to saline groundwater quality. Incomplete pathway down-gradient, as bay is immediately adjacent.
	Not applicable	Extraction for use (e.g. stock watering or irrigation)	• Ingestion by stock in down-gradient locations • Plants (gardens and crops)	Incomplete pathway as bay is immediately down-gradient
	Potential naturally occurring ASS	Underground or retaining wall structures intersecting groundwater	• Existing concrete retaining wall along the eastern site boundary • Concrete or steel piles if the site is redeveloped in future	Potential ASS not identified in imported fill, but may occur naturally on-site

7.6 Qualitative Risk Assessment for Site Sourced Contaminants

This section discusses the auditor's assessment of potential risks from site-sourced contamination, including consideration of the potential for identified contamination to migrate off-site or into other media in the future. Only contaminants which are associated with the imported fill on-site are discussed below. The results of this risk assessment process have been used to determine if any ongoing environmental management is required, which is discussed in **Section 8**.

As per **Table 13**:

- C&D waste likely including ACM is present in the subsurface and associated with the imported fill.
- Copper, nickel and zinc are present in on-site fill and at lower levels in background sediment samples. These metals were also detected in sediment adjacent to the site, but at concentrations below screening criteria.
- Elevated copper and zinc concentrations are present in groundwater and surface water but were predominantly sourced from up-gradient sites, with a potential minor contribution associated with the on-site imported fill. Copper and zinc were also present in regional background surface water samples at slightly lower levels and likely sourced from a combination of regional pollution and natural mineralization.
- Dieldrin is present at low levels in on-site fill and at lower levels (elevated with respect to sediment criteria) in adjacent sediment. The sediment concentrations were all below ESB-based marine guidelines.
- Arsenic and chromium were elevated in sediment samples adjacent to the site, but at similar concentrations to the background samples. The site is not considered to be a significant source of these metals.
- Potential ASS on-site is considered naturally occurring and not associated with the imported fill.
- PFAS is elevated in groundwater, surface water and soil but is not site-sourced and did not originate from the imported fill material on-site.

For copper, nickel and zinc, the auditor considers that these metals concentrations present a low risk of harm to on-site ecosystems under the current industrial site use. If the site was proposed to be redeveloped for a more sensitive site use or rehabilitated to restore the natural mangrove wetlands, further consideration should be given as to whether soil remediation or management was required.

Based on the investigations undertaken to date, the site fill is considered to be a minor co-source of copper and zinc pollution in groundwater and surface water. It is likely that some leaching of these metals from the fill is occurring during high tide events and the dissolved concentrations then discharge into the bay. However, copper and zinc are also considered to be naturally occurring in soils, groundwater and seawater in the local area. In addition, groundwater and seawater in the surrounding area is already polluted at similar or higher levels due to regional sources on top of naturally occurring concentrations. Overall, whilst copper and zinc are ubiquitous in the area, there was no evidence that the on-site imported fill material was significantly contributing to off-site contamination beyond what was already present from other sources.

Low levels of dieldrin contamination were identified in sediments adjacent to the site which may have migrated from on-site fill via surface water run-off during heavy rainfall events. It is possible that other sources of low level dieldrin contamination are present in the area, as the sediment criteria is lower than the limit of reporting which is typically achieved for analysis of soils. The maximum reported normalised dieldrin concentration (0.016 mg/kg) was less than ESB-based SQGV criteria (0.28 mg/kg) and the potential risk to aquatic ecosystems is therefore considered low. Despite this, erosion management is recommended to ensure that further contaminant migration from the site to the bay is minimised.

There were no identified significant risks to humans originating from contamination in the imported fill materials for the current site use and layout. Due to the likely presence of asbestos in the subsurface, the fill should be managed to prevent erosion and excavation should be controlled. Potential HGG should be investigated prior to constructing any buildings or enclosed structures on-site.

8 Auditor Recommendations for Ongoing Management

The condition of the site presents a low risk of harm to human health and the environment based on its current land use and conditions. However, the conclusion that the risk of harm is low is contingent on the current site use, and the condition of the site not deteriorating.

The auditor recommends that management measures are put in place at the site to reduce the risks of imported fill migrating off the site via erosion and of ACM being exposed at the site surface if extensive erosion occurs. Management measures should include:

- Regular inspections of the site surface for any signs of erosion.
- Regular inspections of the site surface to ensure no asbestos has become exposed.
- Management of any asbestos or potential ACM by a competent person (if bonded ACM is encountered) or a licenced asbestos assessor (if friable asbestos is encountered).
- Controls covering minor excavation works including:
  - identification of visible asbestos or potential ACM;
  - careful observation during subsurface works for any additional hazards, such as chemical containers or drums;
  - engagement of a suitably qualified environmental consultant for advice if any additional hazards are encountered;
  - stockpile management to minimise dust and erosion and prevent off-site migration; and
  - waste soil management including classification, transport and lawful disposal of any listed wastes.
- Notification to NT EPA if any pollution incidents occur.
- Any major excavation works or site redevelopment would require further assessment, such as under a site suitability audit, or as directed or approved by NT EPA.

Whilst the above management measures all fall under the GED as described in **Section 2.2**, the auditor considered it appropriate to formalise, clarify and consolidate specific requirements which apply to Lot 5280 by recommending the development of an *Operational Environmental Management Plan* (OEMP), with the aim of providing a succinct and accessible summary of the management requirements. With regard to management measures which apply to the Crown land (Lots 10881 and 10882), it is recommended they are incorporated into any existing EMPs for those lots or implemented via the GED.

As such, the auditor recommended that an OEMP was prepared for portion of the site within Lot 5280. JBS&G have developed an OEMP for the Lot 5280 portion (attached to the SAS included in Appendix G) that has been reviewed by the auditor and is considered appropriate to manage the residual risks. The OEMP should commence by 1 December 2026 and should remain in place until the site is redeveloped or an auditor states that it is no longer required.

The OEMP is not intended to cover a future site development scenario which would likely require significant earthworks. If the site is proposed to be redeveloped in future for any purpose, it is recommended that a site suitability audit is completed by a person registered under Section 68 of the Waste Management and Pollution Control Act 1998. A site suitability audit should include, but not be limited to, consideration of potential hazardous ground gases, naturally occurring potential acid sulphate soils, asbestos, waste materials and chemical contamination.

In addition, it is reiterated that as part of the GED, any fill material proposed to be imported to the audit site after the completion of this site audit must be tested and classified as per relevant NT EPA guidance.

9 Site Audit Conclusions

9.1 Audit Requirement and Objective

This statutory audit was completed to meet requirements of a Section 48 notice issued by NT EPA to Mr Michael Anthony and DWD Project Pty Ltd on 22 August 2025 (**Appendix D**).

Requirement 1 of the notice states that an environmental audit program should be undertaken to evaluate:

> *The types, amount, distribution and mobility of contaminants present in the environment resulting from or in any way connected with historical land filling/reclamation activities the subject of the Supreme Court prosecution of Mr Michael Anthony and DWD Project Pty Ltd by the NT EPA on Indictment dated 22 March 2024.*

The investigations undertaken to support this audit have identified that copper, nickel, zinc, asbestos and low levels of dieldrin contamination are associated with the historical land filling activities on the site. Of these contaminants, copper and zinc are also elevated in groundwater and nearby surface water, however the site fill is only considered to be a minor source of this pollution, with other known nearby sources and naturally occurring background levels also contributing. Dieldrin was found to be present in sediments adjacent to the site and may have migrated from on-site fill, however the concentrations are below the marine sediment quality guidelines and therefore considered to be a low risk of harm to aquatic ecosystems.

Requirement 10 (iii) and (iv) of the notice stipulates that:

> *(iii) where a risk of possible harm to the environment at the premises has been identified recommend the measures necessary to reduce the risk to an acceptable level; and*
>
> *(iv) propose a reasonable timetable for implementation of recommended measures.*

The auditor's recommendations to implement an OEMP have been included in **Section 8**. The OEMP should commence by 1 December 2026 and should remain in place until the site is redeveloped or an auditor states that it is no longer required.

This risk of harm audit does not constitute a land use suitability audit and is limited to the activity stipulated in the notice as described above.

9.2 Summary of Investigation Findings

The site comprised reclaimed land that was progressively infilled since 1977. The most recent filling event was unlicensed and undertaken by DWD Project Pty Ltd between 2015 and 2018. This resulted in an NT EPA Section 48 notice requiring an environmental audit evaluating the risk of harm from this activity.

Site investigations identified variable quantities of non-putrescible anthropogenic waste, including some asbestos, within the imported fill in the subsurface only. Asbestos was not observed on the site surface. The risk of harm to human health is considered low, provided that the current site fill layer is maintained or improved. An exact waste quantity could not be estimated, but is likely to be approximately 1,000 to 2,000 m^3.

Site investigations also identified elevated levels of arsenic, chromium, copper, nickel, zinc and PFAS at or adjacent to the site in at least one media. However, the arsenic, chromium and PFAS impacts were not considered to have originated from the on-site imported fill to any significant extent, and these contaminants were therefore not relevant to the audit objective. The risk of harm to human health was considered low for all contaminants, as there were no exceedances of human health criteria at the point of exposure.

Elevated concentrations of copper, nickel and zinc were associated with the fill material but concluded to present a low risk of harm to the environment for the continued use of the site for commercial and industrial purposes. If the site was proposed to be redeveloped or the mangrove wetlands restored (i.e. change of use), further consideration of potential risk of harm may be required.

The imported fill at the site may be making a minor contribution to elevated copper and zinc levels in groundwater and surface water at and near the site. However, regional pollution and naturally occurring background concentrations of these metals are considered to be the major contributors and the additional risk of harm from the site-sourced impact is therefore considered low to negligible.

Low levels of dieldrin were reported in sediment samples recovered from Frances Bay directly adjacent to the site and are considered likely to be site-sourced contamination from on-site soil erosion. The reported concentrations don't exceed the ESB-based marine sediment quality guidelines. Whilst the risk of harm to the environment is considered to be low, it is recommended that measures are put in place to minimise any further erosion from the site.

To address the presence of asbestos, subsurface anthropogenic waste and potential for metals and dieldrin-impacted soil to erode into Frances Bay, an OEMP is recommended to minimise the risk of these contaminants from being exposed and migrating off-site.

9.3 Auditor's Conclusions

Imported fill including some elevated metals, asbestos and waste materials are present on the site, and have been assessed using site investigation data and a conceptual site model to evaluate source-pathway-receptor linkages and potential risk of harm to human health and the environment. The auditor considers that the condition of the site with respect to historical filling activities does not represent a significant risk of harm to human health or the environment under the current site use, provided the audit recommendations are implemented. Recommendations for management of the site under the current use have been included in an OEMP which was approved by the auditor, and is attached to the SAS.

An SAS has been issued with the auditor's recommendations and is provided in **Appendix G**. This risk of harm audit does not constitute a land use suitability audit and was limited to evaluation of the historical land filling activities as per the Section 48 notice (**Appendix D**).

10 References

NT and NSW Legislation and Regulations

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Northern Territory Waste Management and Pollution Control (Administration) Regulations 1998,

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AECOM (2017) *Mavie Street Development Area Detailed Site Investigation*, 11 July 2017.

Coffey (2019) *Soil Sampling - 4 Mavie Street, Darwin NT*, 12 February 2019.

Senversa (2021) *Addendum Detailed Site Investigation Report Summary - Former Stokes Hill Naval Fuel Installation-site*, 10 December 2021.

JBS&G (2025) *Preliminary Site Investigation with a Sampling Analysis and Quality Plan – Parts of 4 Mavie Street, and Lots 10881 and 10882, Darwin NT*, 18 November 2025.

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Figures

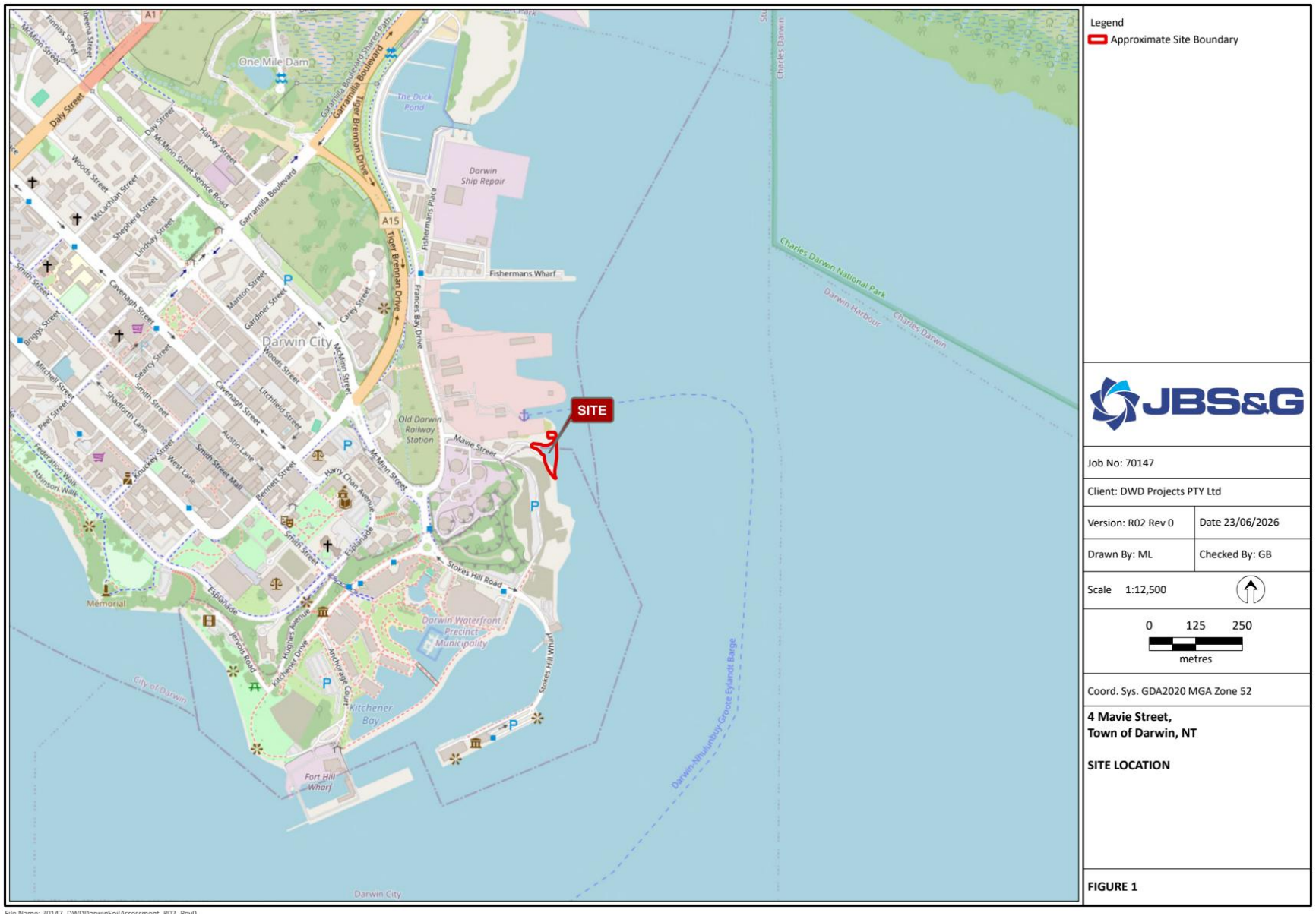


Figure 1: Site Locality Map
(Source: JBS&G 2026a)

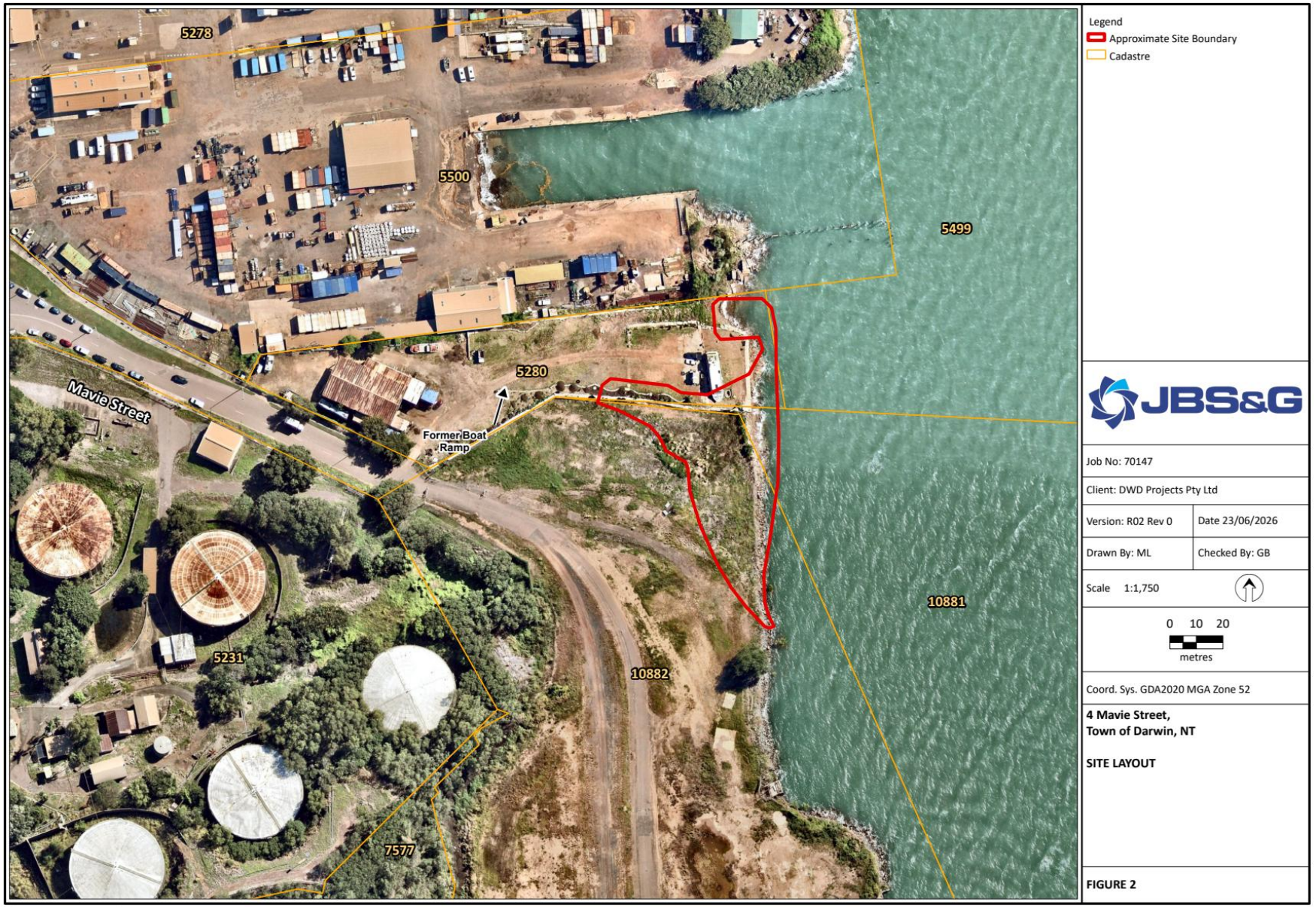


Figure 2: Site Location and Boundaries
(Source: JBS&G 2026a)

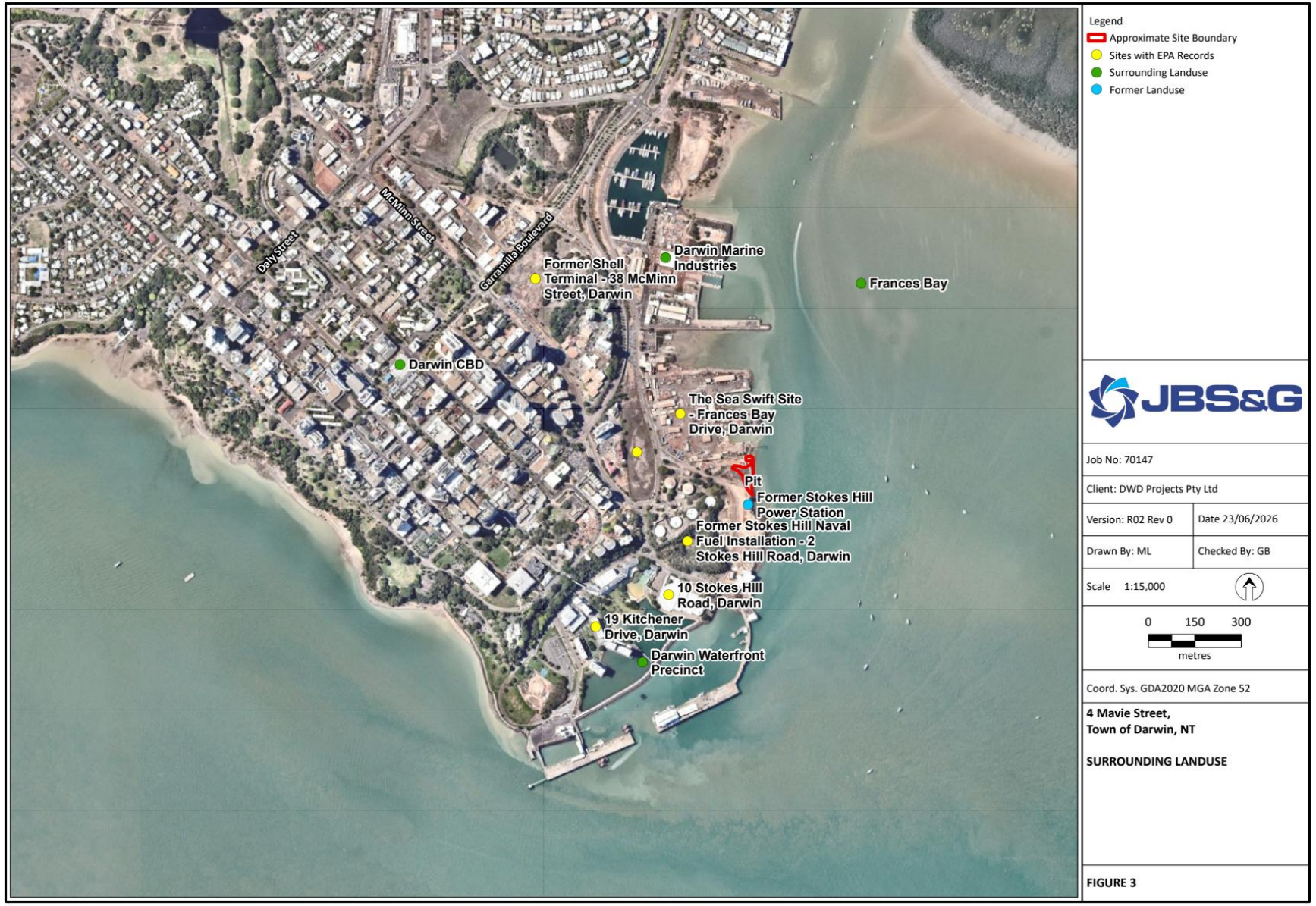


Figure 3: Surrounding Land Use
(Source: JBS&G 2026a)

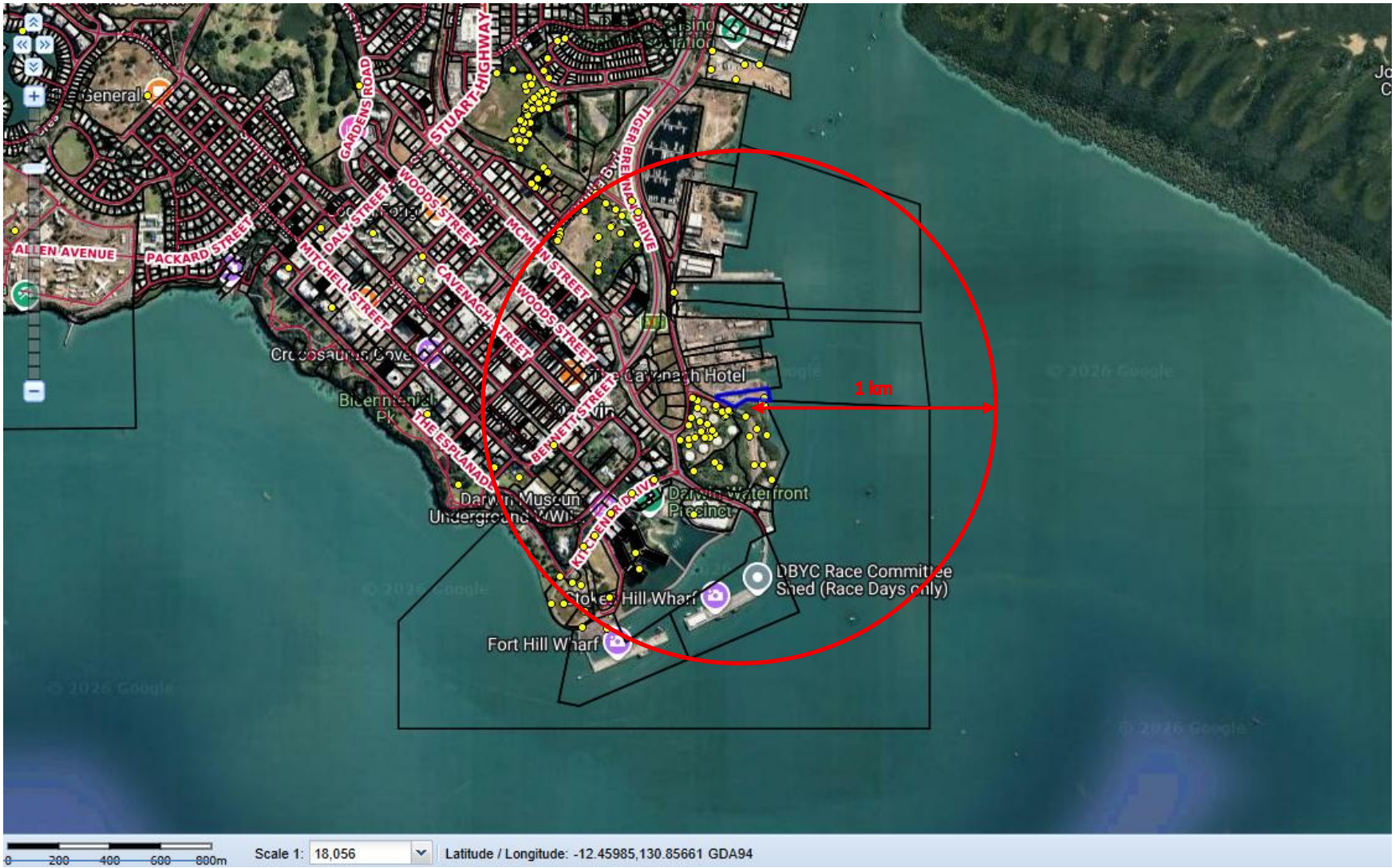


Figure 4: Registered groundwater bores within a 1 km radius of the site
(Source: NT EPA, Know your bore, September 2026)

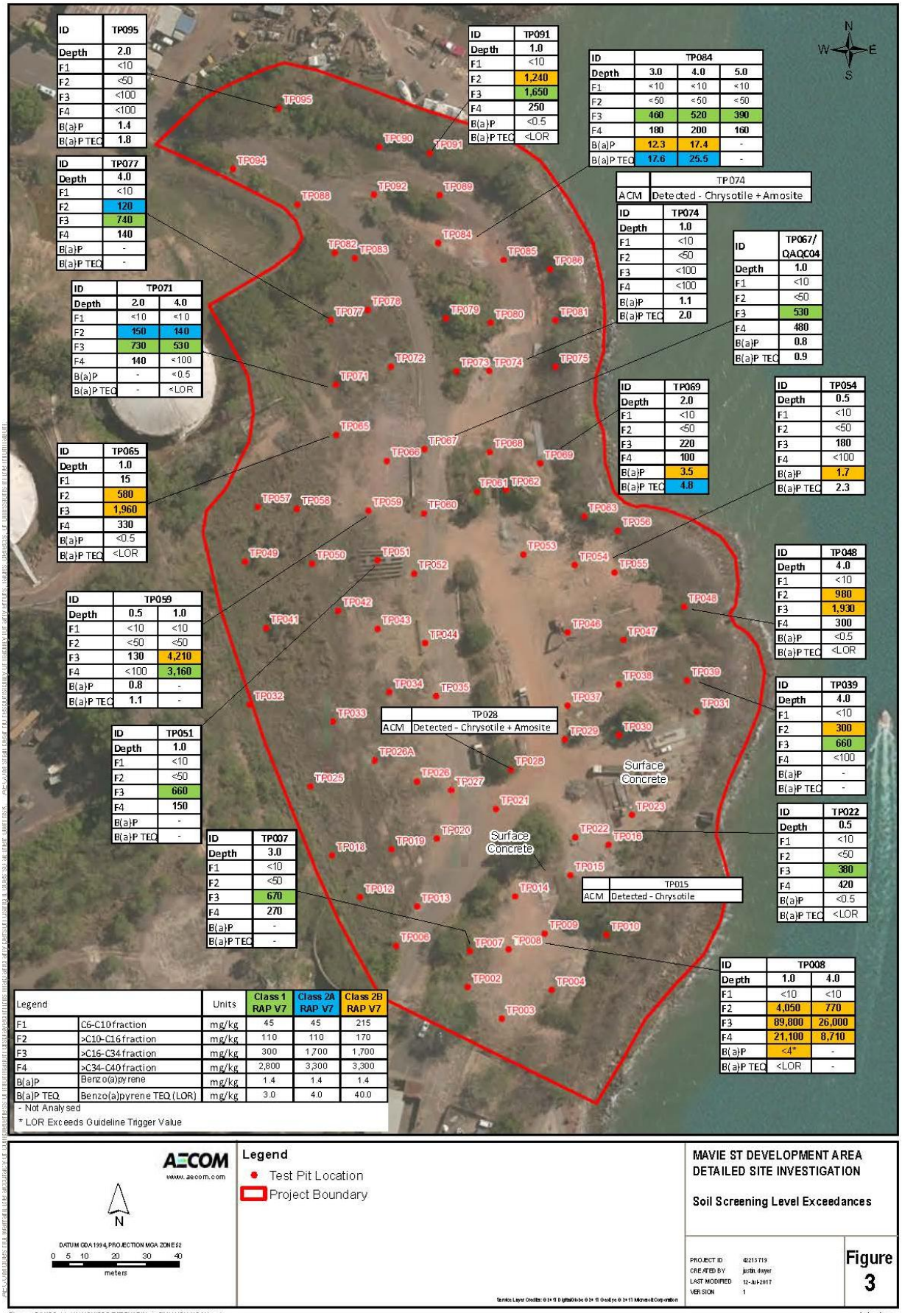


Figure 5: Former Stokes Hill Power Station Soil Exceedances - 2017
(Source: AECOM 2017)

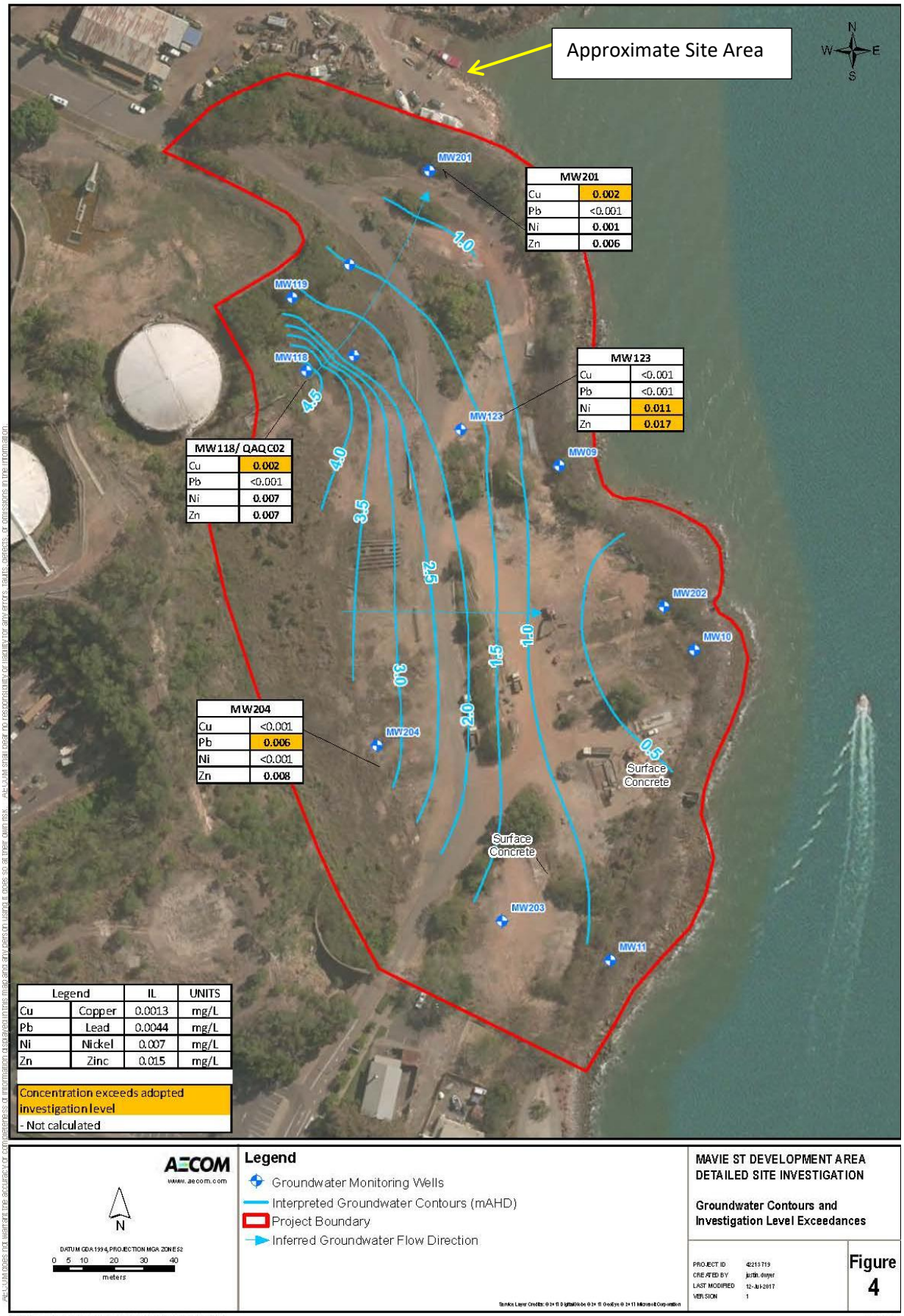


Figure 6: Former Stokes Hill Power Station Groundwater Metals Exceedances - 2017
(Source: AECOM 2017)

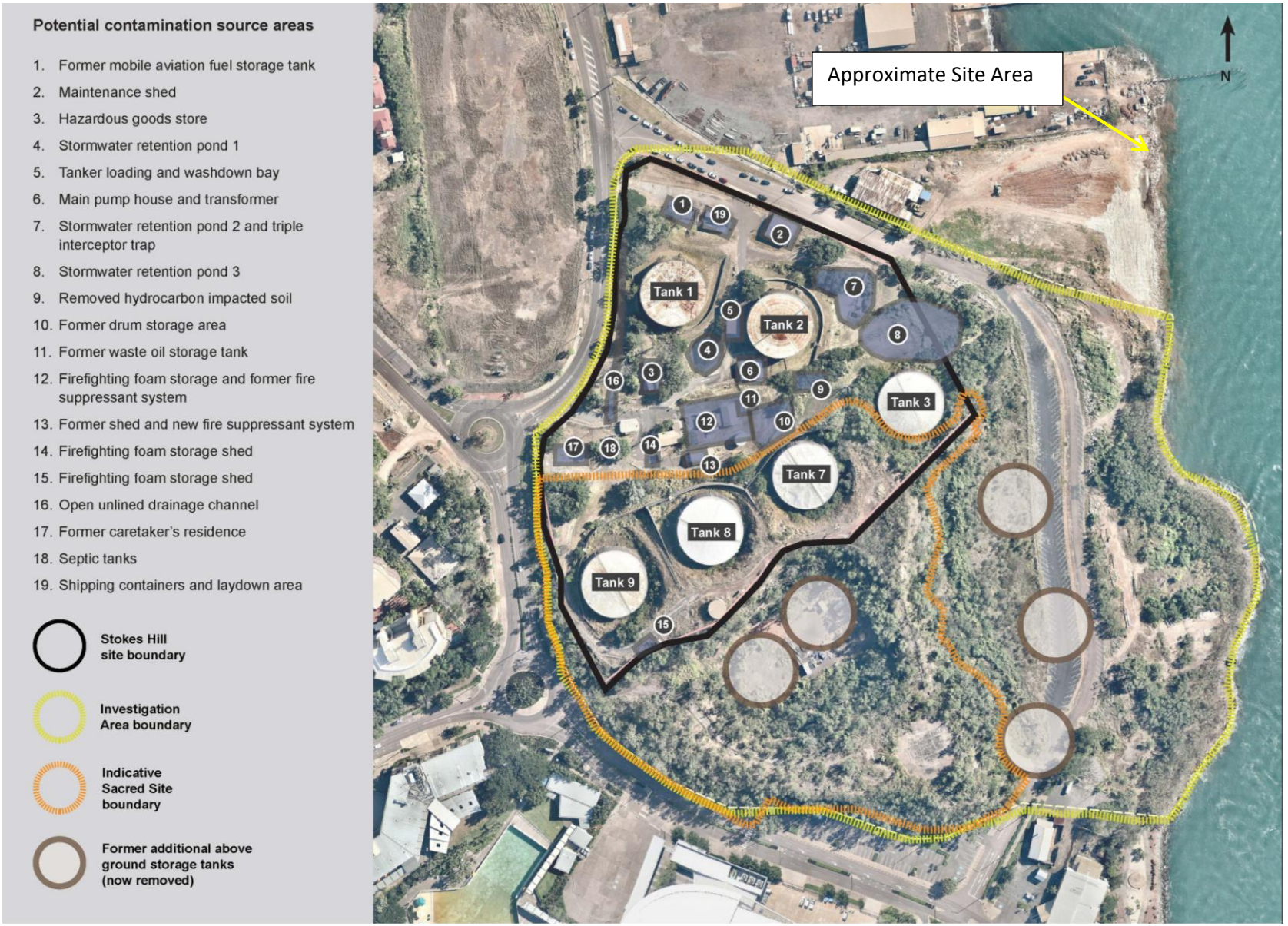


Figure 7: Former SHNFI Areas of Concern
(Source: Senversa 2021)

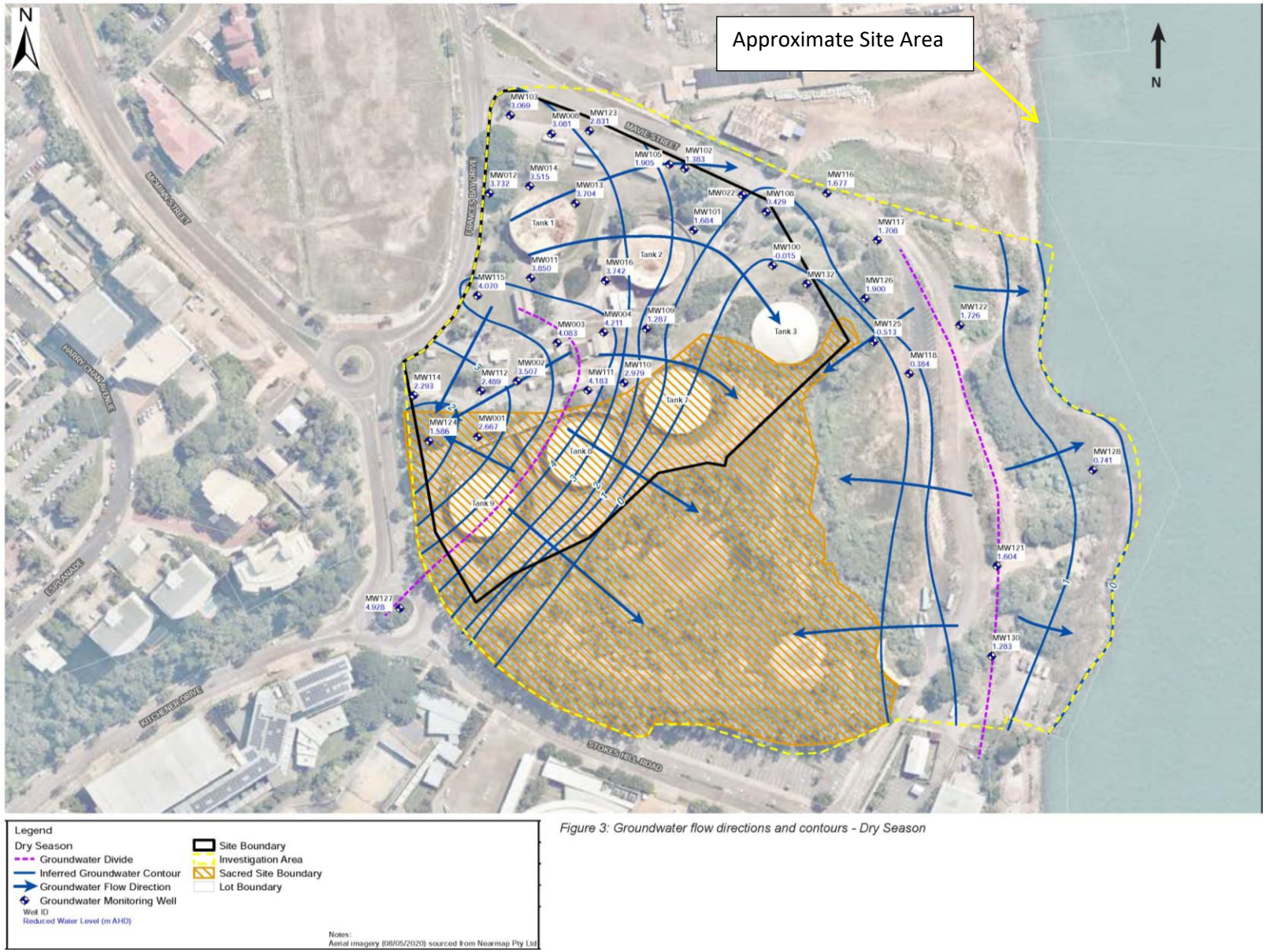


Figure 3: Groundwater flow directions and contours - Dry Season

Figure 8: Former SHNFI Dry Season Groundwater Level Contours
(Source: Senversa 2021)

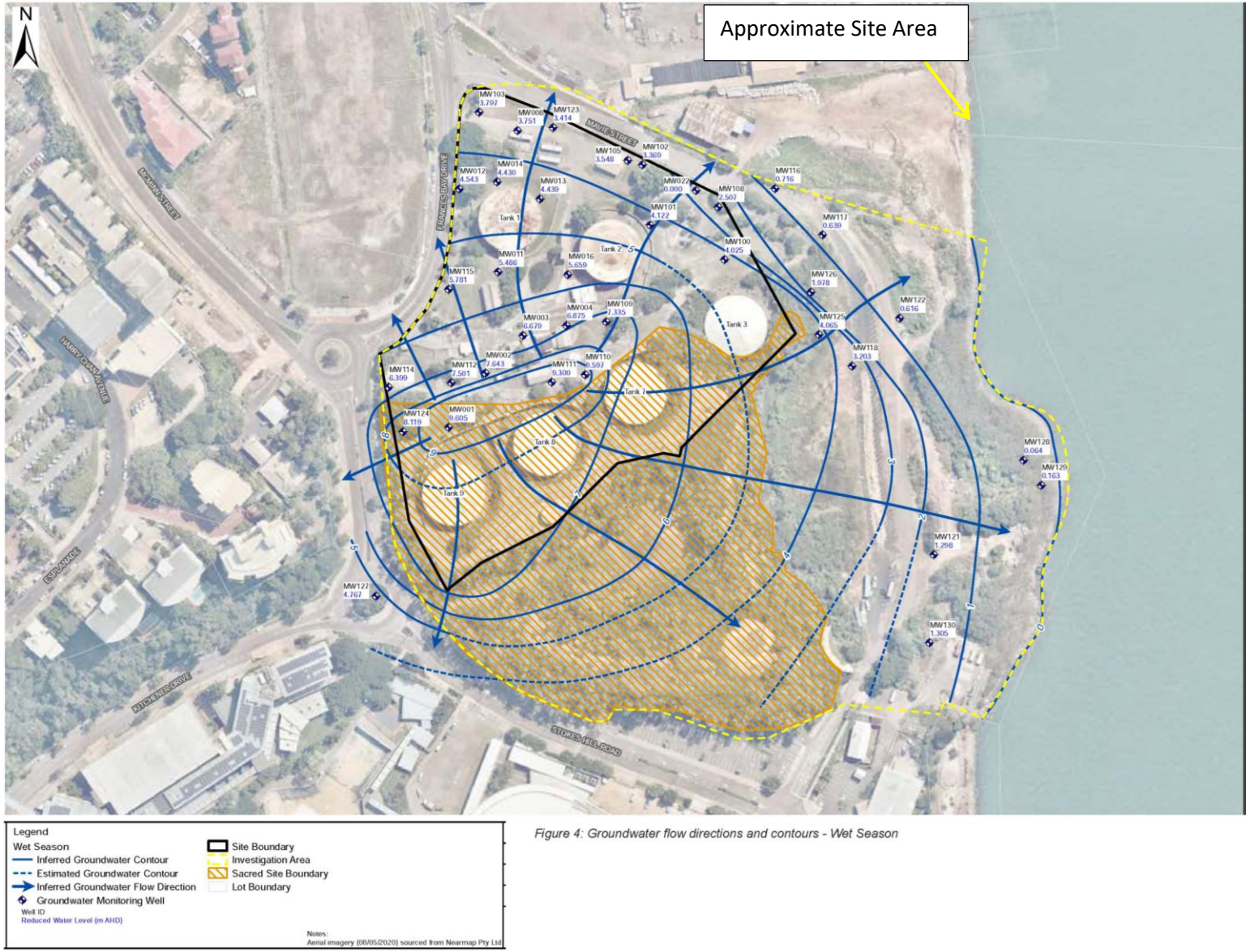


Figure 4: Groundwater flow directions and contours - Wet Season

Figure 9: Former SHNFI Wet Season Groundwater Level Contours
(Source: Senversa 2021)

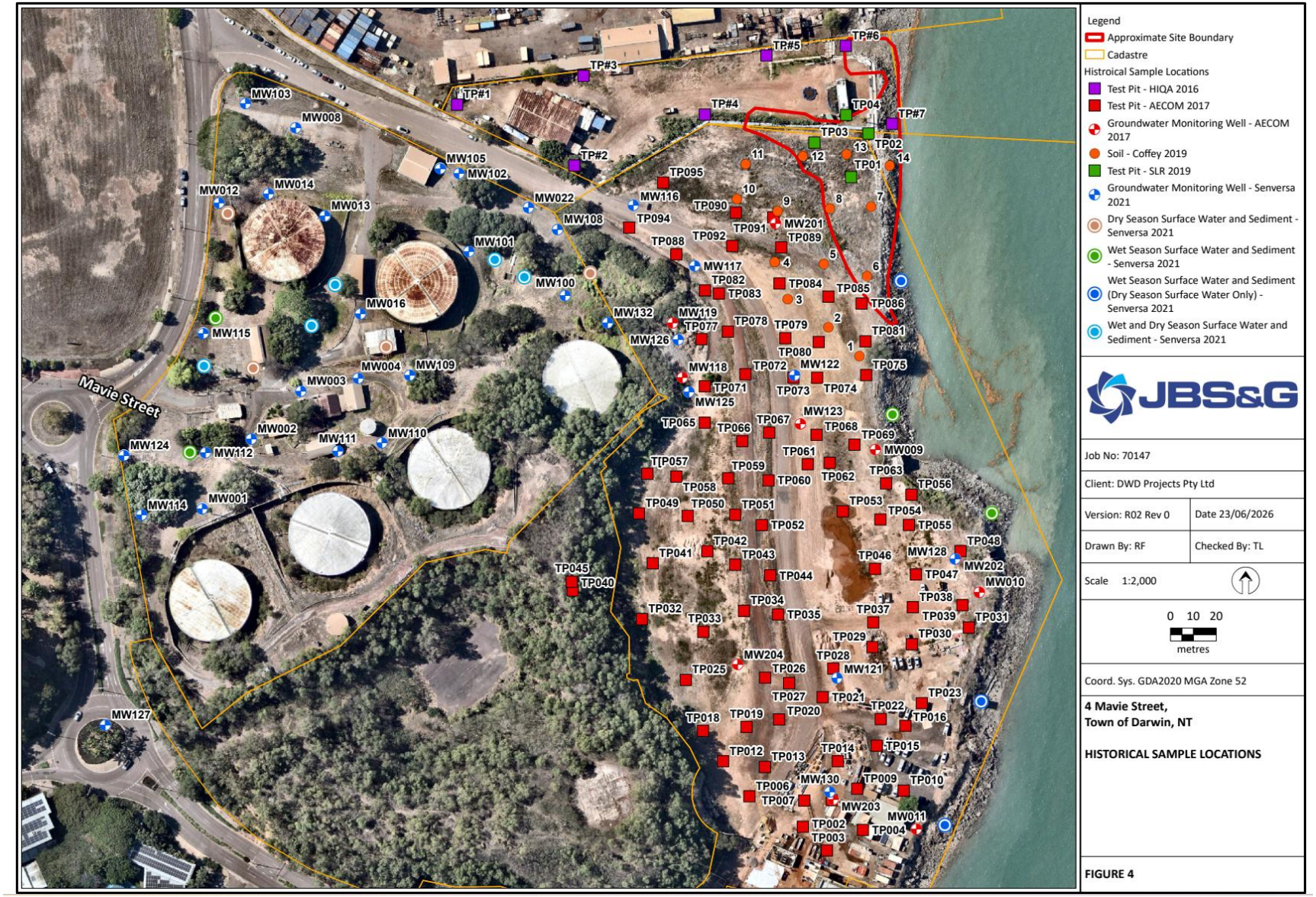


Figure 10: Historical Investigation Locations
(Source: JBS&G 2026a)

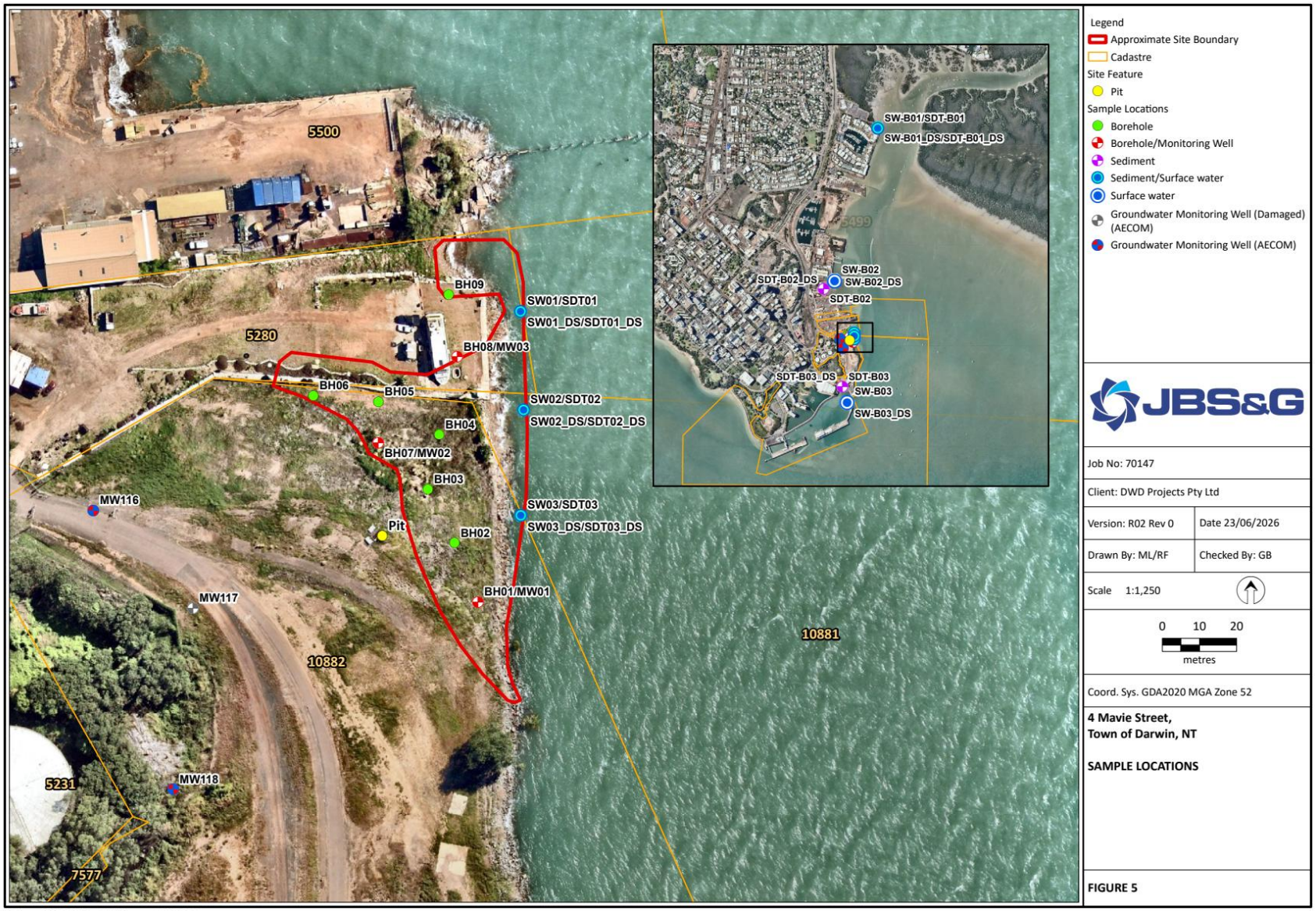


Figure 11: JBS&G Investigation Locations
(Source: JBS&G 2026a)



Figure 12: Groundwater Flow Direction – GME 2 (Snapshot during dry season at high tide)
(Source: JBS&G 2026a)

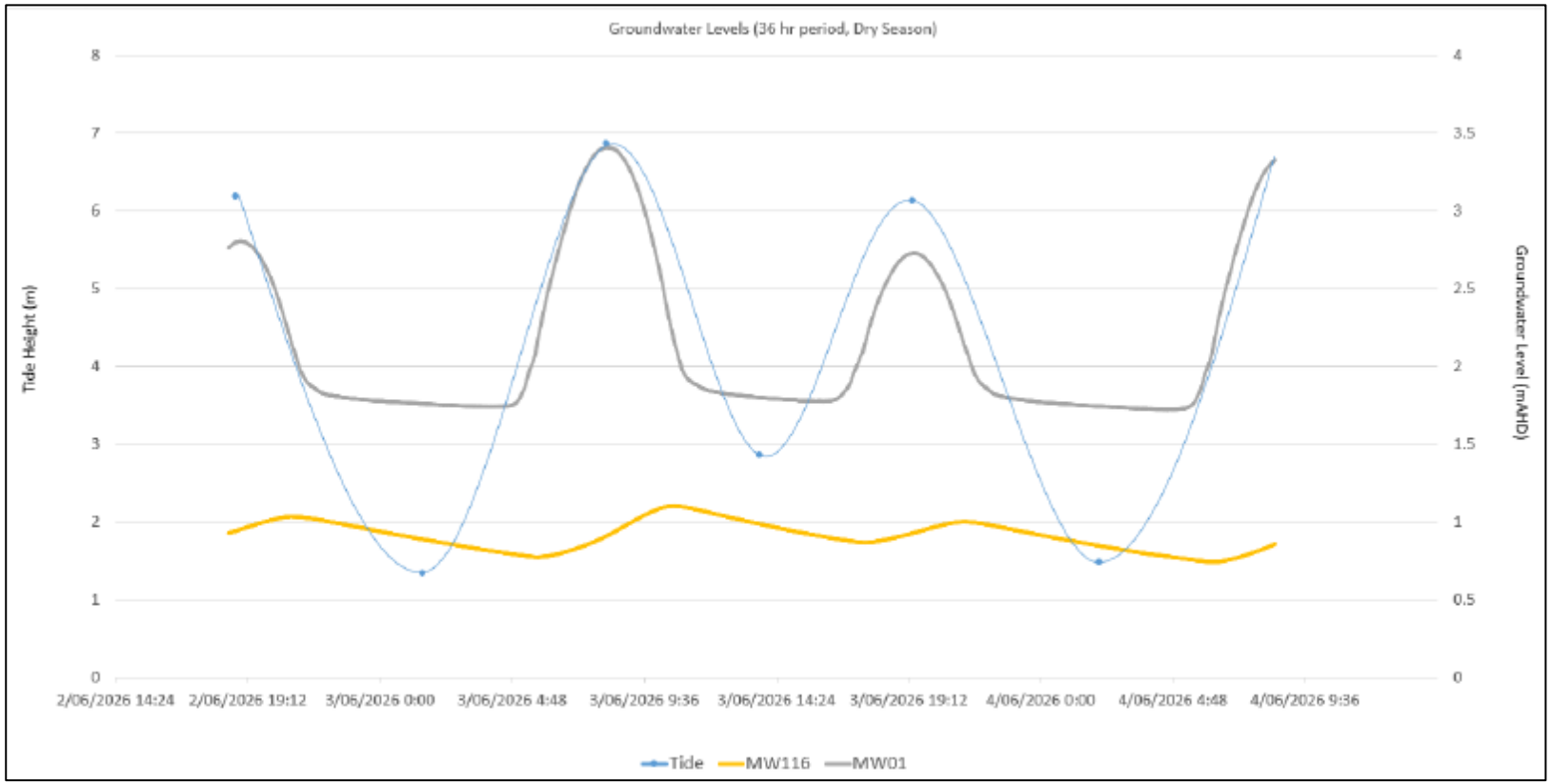


Figure 13: Continuous Groundwater Standing Water Level and Tidal Level Comparison, Dry Season
(Source: JBS&G 2026a)

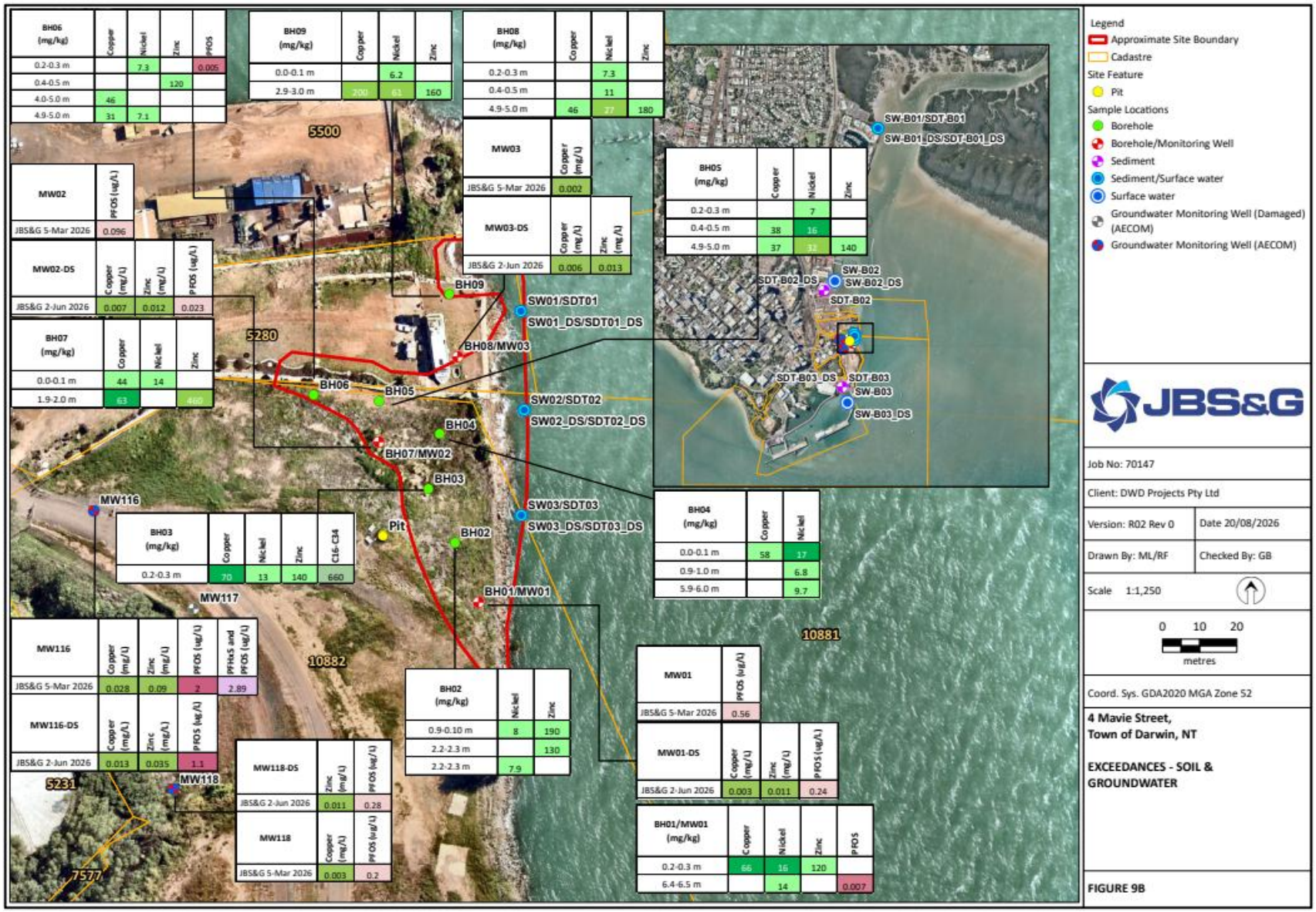


Figure 14: JBS&G Soil and Groundwater Exceedance Map
(Source: JBS&G 2026a)

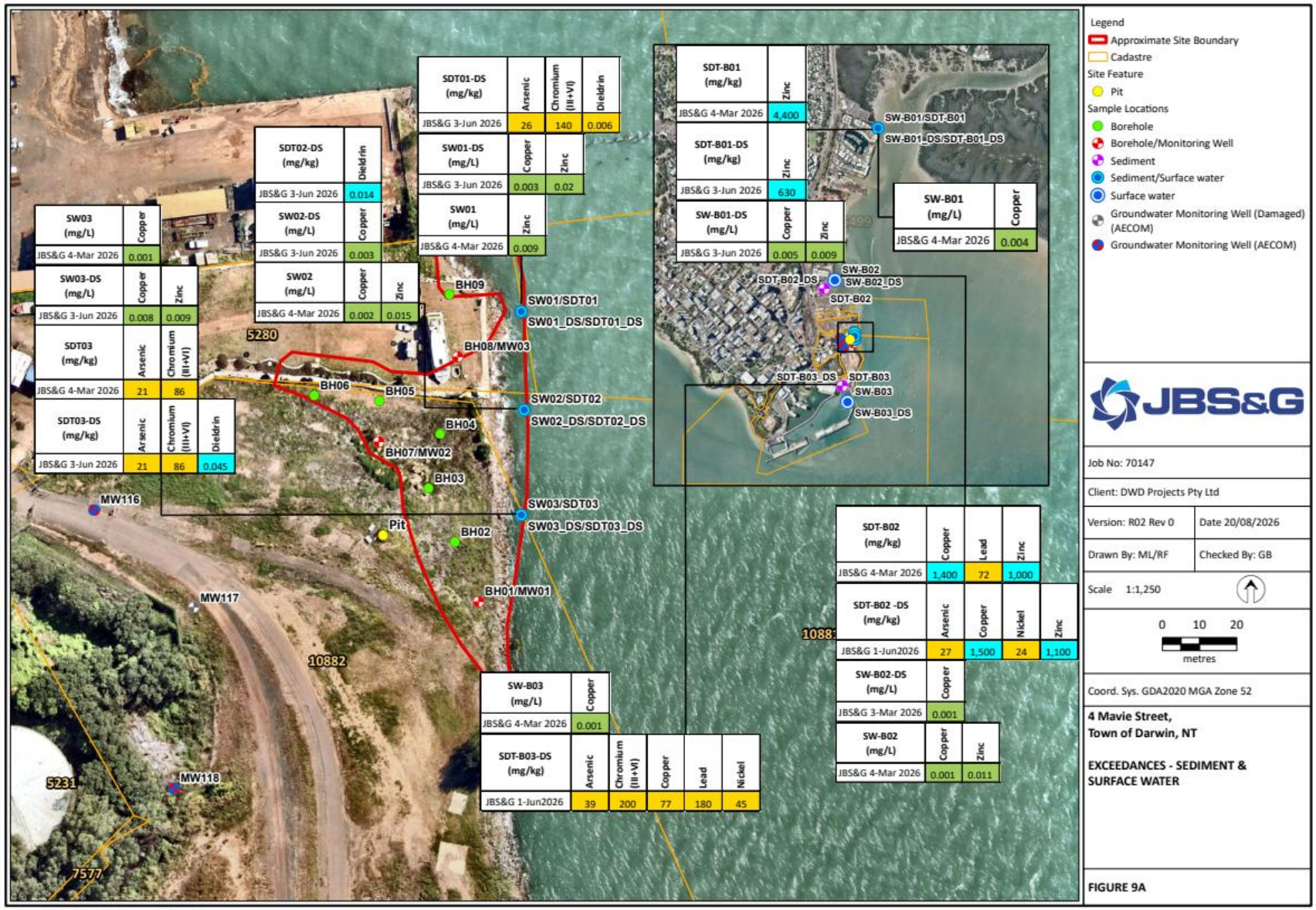


Figure 15: JBS&G Surface Water and Sediment Exceedance Map
(Source: JBS&G 2026a)

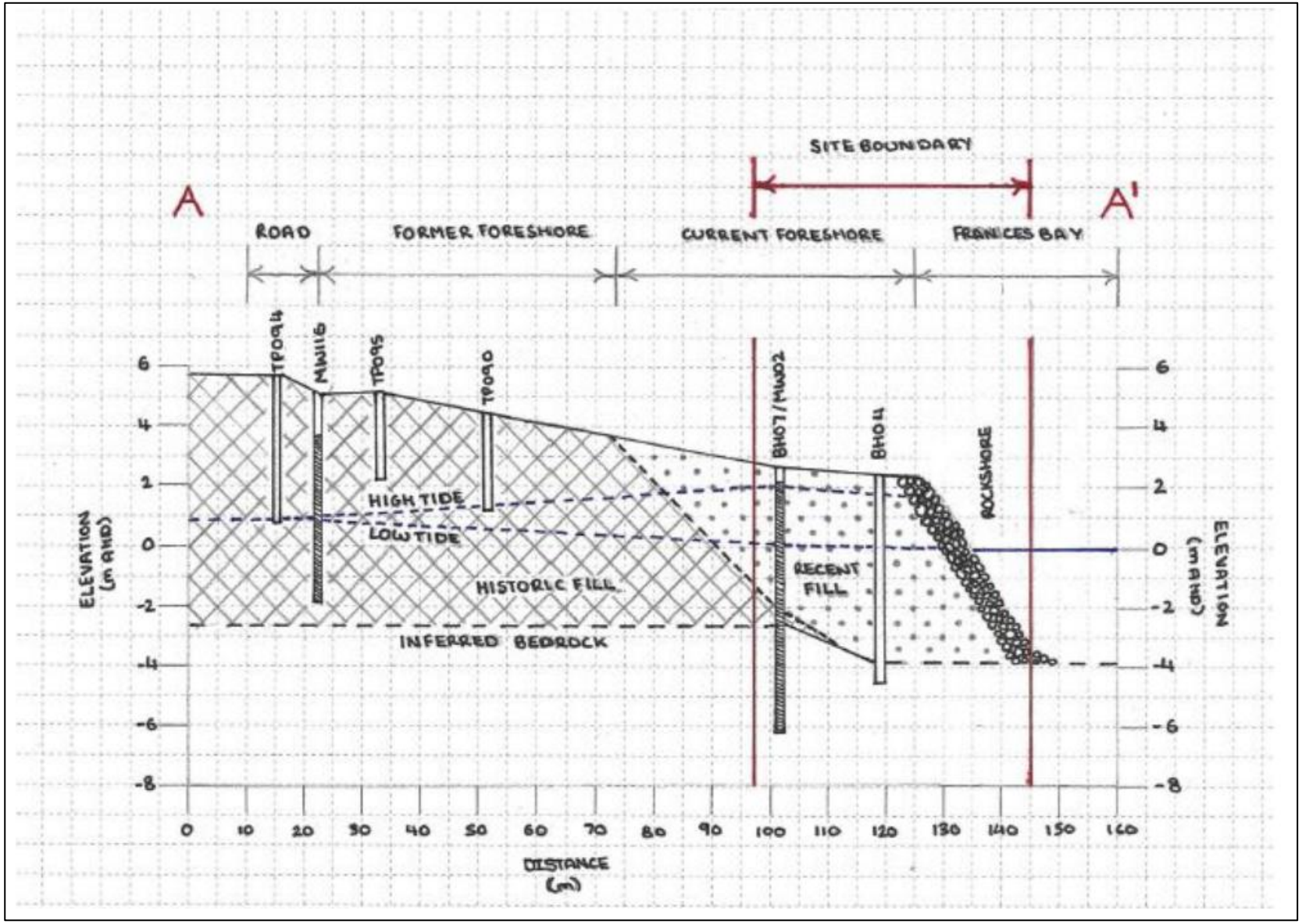


Figure 16: Conceptual Site Model Cross-section
(Source: JBS&G 2026a)

Appendices

Appendix A: Certificates of Title
Appendix B: Analytical Data Summary Tables
Appendix C: Auditor Correspondence
Appendix D: EPA Correspondence
Appendix E: Selected Site Photographs
Appendix F: Auditor's Review of Quality Assurance/Quality Control
Appendix G: Site Audit Statement and OEMP

Appendix A:
Certificates of Title

Date Registered: 12/05/2026 **Volume** 906 **Folio** 975

Duplicate Certificate as to Title issued? No

SEARCH CERTIFICATE

Lot 5280 Town of Darwin from plan(s) S 80/021B
Area under title is 7160 square metres

Owner:
DWD Project Pty Ltd (ACN 601 276 108) as Trustee for the DWD Trust (ABN 98 508 979 457)
of PO Box 192, Chirn Park QLD 4215

Registered Date	Dealing Number	Description
		Previous title is **Volume** 841 **Folio** 270
12/08/2019	921641	Caveat Lama Developments Pty Ltd as trustee for the Carey Street Trust
12/08/2019	921640	Mortgage Lama Developments Pty Ltd as trustee for the Carey Street Trust

End of Dealings

NORTHERN TERRITORY OF AUSTRALIA

Record of Administrative Interests and Information

Record of Administrative Interests and Information
The information contained in this record of Administrative Interests only relates to the below parcel reference.

Parcel Reference: Lot 05280 Town of Darwin plan(s) S 80/021B

(See section 38 of the Land Title Act)

Note: The Record of Administrative Interests and Information is not part of the Land Register and is not guaranteed by the Northern Territory of Australia, and the NT Government accepts no Liability for any omission, misstatement or inaccuracy contained in this statement.

Registrar General

Government Land Register
(none found)

Custodian - Registrar General (+61 8 8999 6252)

Current Title
CUFT 841 270 (order 1)

Tenure Type
ESTATE IN FEE SIMPLE

Tenure Status
Current

Area Under Title
7160 square metres

Owners
DWD Project Pty Ltd (ACN 601 276 108) as Trustee for the DWD Trust (ABN 98 508 979 457)
c/- De Silva Hebron, Barristers and Solicitors, GPO Box 488, Darwin NT 0801

Easements
(none found)

Scheme Name
(none found)

Scheme Body Corporate Name
(none found)

Reserved Name(s)
(none found)

Unit Entitlements
(none found)

Transfers
20/10/2015 for $6,500,000
06/09/1983 for $15,000

Tenure Comments
(none found)

Historic Titles
CUFT 805 604 (order 1)
CUFT 802 955 (order 1)
CUFT 754 699 (order 1)
CUFT 629 908 (order 1)
CUFT 187 056 (order 1)
CUCL 191 097 (order 2)
CUCL 191 097 (order 1)
Visit the website http://www.nt.gov.au/justice/bdm/land_title_office/

Custodian - Surveyor General (+61 8 8995 5346)

Address
4 MAVIE ST, DARWIN CITY

Survey Plan
S 80/021B

Survey Status
Approved

Parcel Status
CURRENT

Parcel Area
7160 square metres

Map Reference
Code 200 Scale 2500 Sheet 30.21

Parent Parcels
(none found)

Parcel Comments
COMPRISES PT FORMER LOT 4862. CLP FOR WATERFRONT OR MARITIME INDUSTRIAL DEVELOPMENT NTG G13 3/4/1981. NOT AUTOMATICALLY F/H AS AT 1/1/1981.

Survey Comments
(none found)

Proposed Easements
(none found)

Local Government Area
DARWIN MUNICIPALITY

Region
DARWIN

Custodian - Valuer General (+61 8 8995 5375)

Owner's Last Known Address

DWD Project Pty Ltd (ACN 601 276 108) as Trustee for the DWD Trust (ABN 98 508 979 457), C/- DE SILVA HEBRON, BARRISTERS AND SOLICITORS, GPO BOX 488, DARWIN NT 0801

Parcels in Valuation

Lot 05280 Town of Darwin

Unimproved Capital Value

$4,175,000 on 01/07/2023
$3,800,000 on 01/07/2020
$5,000,000 on 01/07/2017
$2,760,000 on 01/07/2014
$2,505,000 on 01/07/2011
$1,820,000 on 01/07/2008
$1,400,000 on 01/07/2005
$700,000 on 01/07/2002
$575,000 on 01/07/1999
$500,000 on 01/07/1996
$400,000 on 01/07/1993
$400,000 on 01/01/1991
$344,000 on 01/01/1988
$185,000 on 01/01/1985
$75,000 on 01/01/1982
$61,000 on 01/05/1979

Custodian - Property Purchasing (+61 8 8999 6886)

Acquisitions

(none found)

Custodian - Building Advisory Service (+61 8 8999 8965)

Building Control Areas

BBDAR001 - Building Control Area DARWIN BUILDING AREA

Building Permits

(none found)

Visit the website http://www.nt.gov.au/building/

Custodian - Town Planning and Development Assessment Services (+61 8 8999 6046)

Planning Scheme Zone

SD9 (Specific Use)

Overlays: The following overlays may apply to your land

- CR - Coastal Reclamation
- DHD - Darwin Harbour Dredging
- LSSS - Land Subject to Storm Surge

Refer to the NT Planning Scheme 2020 for more information.

Strategic Frameworks: The following strategic frameworks may apply to your land

Regional Plans:
- Darwin Regional Land Use Plan

Sub Regional Plans:
- None

Area Plans:
- Central Darwin Area Plan

Interim Development Control Orders

(none found)

Planning Notes

(none found)

Planning Applications

(none found)

Custodian - Pastoral Estate - Vegetation Assessment Unit (+61 8 8999 4454)

(none found)

Visit the website for information on Pastoral land permits.

Custodian - Power and Water Corporation (1800 245 092)

Meters on Parcel

Power Water - Electricity	3
Power Water - Water	(none found)

For Account balances, contact the Power and Water Corporation.

Custodian - Pool Fencing Unit (+61 8 8924 3641)

Swimming Pool/Spa Status

(none found)

For more information, contact the Pool Fencing Unit (+61 8 8924 3641).

Custodian - Department of Mining and Energy (+61 8 8999 5263)

Mineral Titles

Title ID	Status	Title Type	Expiry Date	Legislation
RL390	Granted	Reserve Land		Mineral Titles Act 2010
RL26296	Granted	Reserve Land		Mineral Titles Act 2010

For additional information contact the Mineral Titles Team on +61 8 8999 5322

Energy Titles

Title ID	Status	Title Type	Expiry Date	Legislation
GRO1	Granted	Geothermal Reserved from Occupation		Geothermal Energy Act 2009
RB51	Granted	Reservation of Blocks		Petroleum Act 1984
RB56	Granted	Reservation of Blocks		Petroleum Act 1984

Title ID	Status	Title Type	Expiry Date	Legislation
RB225	Granted	Reservation of Blocks		Petroleum Act 1984

For additional information contact the Petroleum Tenure Team on +61 8 8999 5263

Land Access Agreements
(none found)

For additional information contact the Land Access Team on +61 8 8999 5240

For further information contact as above or visit the website https://strike.nt.gov.au

Custodian - NT Environment Protection Authority (+61 8 8924 4218)

Results of site contamination assessment
(none found)

For further information contact Environment Protection Authority or visit the website https://ntepa.nt.gov.au/your-business/public-registers/contaminated-land-audits

Custodian - Heritage Branch (+61 8 8999 5039)

Heritage Listing:
(none found)

For further information on heritage places contact Heritage Branch or visit the website https://nt.gov.au/property/land/heritage-register-search-for-places-or-objects

Other Interests

For Account balances, contact Darwin City Council

Storm Surge: This lot is within a primary surge zone. For more information contact Lands Planning on 8999 8963.

Storm Surge: This lot is within a secondary surge zone. For more information contact Lands Planning on 8999 8963.

Locality Diagram



Date Registered: 31/03/2025 **Volume** 892 **Folio** 133

Duplicate Certificate as to Title issued? No

SEARCH CERTIFICATE

Lot 10881 Town of Darwin from plan(s) LTO2016/043
Area under title is 1 square kilometres 29 hectares 4000 square metres

Owner:
Northern Territory of Australia
of c/- Department of Lands, Planning and the Environment, GPO Box 1680, Darwin NT 0801

Easements:
Electricity supply easement to Power and Water Corporation
Sewerage easement to Power and Water Corporation
Water supply easement to Power and Water Corporation
Water supply easement to Power and Water Corporation
Right of Way easement granted to the proprietor(s) of Lot(s) 10187
Right of Way easement granted to the proprietor(s) of Lot(s) 11122

Registered Date	Dealing Number	Description
		Previous title is **Volume** 891 **Folio** 024
31/03/2025	1034116	Lease to Darwin Film Society Incorporated - Lot 6450(A) - expiring 30/03/2035
21/02/2025	1031662	Lease to Origin Energy Retail Limited - Lot 7328(A) - expiring 31/10/2031
06/03/2006	605469	Right of Way Easement granted to the proprietor(s) of lot(s) 10187

End of Dealings

NORTHERN TERRITORY OF AUSTRALIA

Record of Administrative Interests and Information

Record of Administrative Interests and Information
The information contained in this record of Administrative Interests only relates to the below parcel reference.

Parcel Reference: Lot 10881 Town of Darwin plan(s) LTO2016/043

(See section 38 of the Land Title Act)

Note: The Record of Administrative Interests and Information is not part of the Land Register and is not guaranteed by the Northern Territory of Australia, and the NT Government accepts no Liability for any omission, misstatement or inaccuracy contained in this statement.

Registrar General

Government Land Register

Controlling Agency	Darwin Waterfront Corporation (MOG 2020)

Custodian - Registrar General (+61 8 8999 6252)

Current Title
CUFT 892 133 (order 1)

Tenure Type
ESTATE IN FEE SIMPLE

Tenure Status
Current

Area Under Title
1 square kilometres 29 hectares 4000 square metres

Owners
Northern Territory of Australia
c/- Department of Lands, Planning and the Environment, GPO Box 1680, Darwin NT 0801

Easements
Electricity supply easement to Power and Water Corporation
Sewerage easement to Power and Water Corporation
Water supply easement to Power and Water Corporation
Water supply easement to Power and Water Corporation
Right of Way easement granted to the proprietor(s) of Lot(s) 10187
Right of Way easement granted to the proprietor(s) of Lot(s) 11122

Scheme Name
(none found)

Scheme Body Corporate Name
(none found)

Reserved Name(s)
(none found)

Unit Entitlements
(none found)

Transfers
(none found)

Tenure Comments
(none found)

Historic Titles
CUFT 891 024 (order 1)
CUFT 834 744 (order 1)
CUFT 832 470 (order 1)
Visit the website http://www.nt.gov.au/justice/bdm/land_title_office/

Custodian - Surveyor General (+61 8 8995 5346)

Address
DARWIN CITY

Survey Plan
LTO2016/043

Survey Status
Approved

Parcel Status
CURRENT

Parcel Area
1 square kilometres, 29 hectares, 4000 square metres

Map Reference
(none found)

Parent Parcels
Lot 10176 Town of Darwin plan(s) LTO2015/061
Lot 10177 Town of Darwin plan(s) LTO2015/061
Lot 10178 Town of Darwin plan(s) LTO2015/061

Parcel Comments
SUBSEA TELEGRAPH CABLES LANDING SITE, DARWIN DECLARATION OF HERITAGE PLACE - NTG G26 01/07/2020 - LI2020/0008~0015. PART OF LOT 11272(A) FOR PROPOSED HERITAGE SITE BOUNDARY - S2022/099. PROVISIONAL DECLARATION OVER PART PARCEL - NTG S24 - 21/04/2023 = LI2023/0008-0002~0024. LOT 6450(A) OVER PART FOR DECKCHAIR CINIMA.

Survey Comments
LOTS 10877 TO 10882 AND LOT 11122, SUBDIVISION OF LOTS 10176 TO 10178, TOWN OF DARWIN

Proposed Easements
(none found)

Local Government Area
DARWIN WATERFRONT PRECINCT

Region
DARWIN

Custodian - Valuer General (+61 8 8995 5375)

Owner's Last Known Address
Northern Territory of Australia, C/- DEPARTMENT OF LANDS, PLANNING AND THE ENVIRONMENT, GPO BOX 1680, DARWIN NT 0801

Parcels in Valuation
Lot 10881 Town of Darwin

Unimproved Capital Value
$9,700,000 on 01/07/2023
$9,700,000 on 01/07/2023
$9,700,000 on 01/07/2020
$12,950,000 on 01/07/2017

Custodian - Property Purchasing (+61 8 8999 6886)

Acquisitions
(none found)

Custodian - Building Advisory Service (+61 8 8999 8965)

Building Control Areas

BBDAR001 - Building Control Area	DARWIN BUILDING AREA

Building Permits

Application Number:	1 of 1
Description:	Interpretive Signage; Subsea Telegraph Cable Landing Site (Jervois Park)
Number of Residential Units:	
Australian Bureau of Statistics Type:	(none found)
Building Class:	Structure (Fence, Mast)
Area:	20 square metres
Certification:	Structure (Fence, Mast) - Occupancy Permit - *issued on* 2021-11-30 00:00:00.0

Visit the website http://www.nt.gov.au/building/

Custodian - Town Planning and Development Assessment Services (+61 8 8999 6046)

Planning Scheme Zone
MZ (Multi Zone)

Overlays: The following overlays may apply to your land
- CR - Coastal Reclamation
- LSSS - Land Subject to Storm Surge
- DHD - Darwin Harbour Dredging

Refer to the NT Planning Scheme 2020 for more information.

Strategic Frameworks: The following strategic frameworks may apply to your land

Regional Plans:

- Darwin Regional Land Use Plan

Sub Regional Plans:

- None

Area Plans:

- Central Darwin Area Plan

Interim Development Control Orders

(none found)

Planning Notes

(none found)

Planning Applications

File Number

PA2019/0302

Type

Development

Date Received

08/08/2019

Application Purpose

Changes to stages 3 and 4 of DP18/0239 resulting in 201 motel suites and restaurant in a 9 storey building with one basement level of car parking and skywalk

Application Status

Approved

Other Affected Parcels

Lot 10877 Town of Darwin
Lot 05220 Town of Darwin

Instrument Signed

21/10/2019

Instrument Number

DP19/0263

Instrument Issued

Signed

Instrument Status

Current

Custodian - Pastoral Estate - Vegetation Assessment Unit (+61 8 8999 4454)

(none found)

Visit the website for information on Pastoral land permits.

Custodian - Power and Water Corporation (1800 245 092)

Meters on Parcel

Power Water - Electricity	(none found)
Power Water - Water	(none found)

For Account balances, contact the Power and Water Corporation.

Custodian - Pool Fencing Unit (+61 8 8924 3641)

Swimming Pool/Spa Status

(none found)

For more information, contact the Pool Fencing Unit (+61 8 8924 3641).

Custodian - Department of Mining and Energy (+61 8 8999 5263)

Mineral Titles

Title ID	Status	Title Type	Expiry Date	Legislation
RL390	Granted	Reserve Land		Mineral Titles Act 2010
RL26296	Granted	Reserve Land		Mineral Titles Act 2010

For additional information contact the Mineral Titles Team on +61 8 8999 5322

Energy Titles

Title ID	Status	Title Type	Expiry Date	Legislation
GRO1	Granted	Geothermal Reserved from Occupation		Geothermal Energy Act 2009
RB51	Granted	Reservation of Blocks		Petroleum Act 1984
RB56	Granted	Reservation of Blocks		Petroleum Act 1984
RB225	Granted	Reservation of Blocks		Petroleum Act 1984

For additional information contact the Petroleum Tenure Team on +61 8 8999 5263

Land Access Agreements

(none found)

For additional information contact the Land Access Team on +61 8 8999 5240

For further information contact as above or visit the website https://strike.nt.gov.au

Custodian - NT Environment Protection Authority (+61 8 8924 4218)

Results of site contamination assessment

(none found)

For further information contact Environment Protection Authority or visit the website https://ntepa.nt.gov.au/your-business/public-registers/contaminated-land-audits

Custodian - Heritage Branch (+61 8 8999 5039)

Heritage Listing:

Declared Heritage Place. Contact the Heritage Branch, Department of Territory Families, Housing and Communities on 8999 5051.

For further information on heritage places contact Heritage Branch or visit the website https://nt.gov.au/property/land/heritage-register-search-for-places-or-objects

Other Interests

For Account balances, contact Darwin Waterfront Corporation

Storm Surge: This lot is within a primary surge zone. For more information contact Lands Planning on 8999 8963.

Storm Surge: This lot is within a secondary surge zone. For more information contact Lands Planning on 8999 8963.

Locality Diagram



Date Registered: 03/04/2019 **Volume** 832 **Folio** 471
Duplicate Certificate as to Title issued? No

SEARCH CERTIFICATE

Lot 10882 Town of Darwin from plan(s) LTO2016/043
Area under title is 20 hectares 8300 square metres

Owner:
Northern Territory of Australia
of c/- Department of Lands, Planning and the Environment, GPO Box 1680, Darwin NT 0801

Easements:
Electricity supply easement to Power and Water Corporation
Electricity supply easement to Power and Water Corporation
Electricity supply easement to Power and Water Corporation
Electricity supply easement to Power and Water Corporation
Water supply easement to Power and Water Corporation

Registered Date	Dealing Number	Description
05/10/2022	981806	Lease to Larrakia Development Corporation Pty Ltd - the whole of Lots 7558 & 7493 Town of Darwin and part of Lots 5251 & 10882 Town of Darwin - expiring 08/09/2026
14/01/2019	913527	Lease to Darwin Waterfront Corporation - Part - expiring 01/01/2031
06/11/2017	895426	Lease to Darwin Waterfront Corporation - part - expiring 30/10/2029
22/12/2014	839851	Access Easement granted over lot(s) 10063
28/11/2014	837759	Sewerage Easement granted to the proprietor(s) of lot(s) 9935
28/11/2014	837750	Easement granted to the proprietor(s) of lot(s) 9935
28/11/2014	837749	Easement granted to the proprietor(s) of lot(s) 9935
28/11/2014	837741	Electricity supply Easement granted to the proprietor(s) of lot(s) 9935
28/11/2014	837733	Easement granted over lot(s) 9987 & 10060
28/11/2014	837729	Easement granted to the proprietor(s) of lot(s) 9935
28/11/2014	837723	Easement granted over lot(s) 7852
11/07/2014	827015	Access Easement granted over lot(s) 9213 & 9234 & 9215
29/07/2010	731609	Sewerage Easement to Power and Water Corporation
29/07/2010	731608	Water supply Easement to Power and Water Corporation
03/09/2009	708925	Easement granted to the proprietor(s) of unit(s) 7852
03/09/2009	708923	Easement granted to the proprietor(s) of unit(s) 7852
03/09/2009	708922	Easement granted to the proprietor(s) of unit(s) 7852
03/09/2009	708921	Easement granted to the proprietor(s) of unit(s) 7852
03/09/2009	708920	Easement granted to the proprietor(s) of unit(s) 7852
03/09/2009	708894	Easement granted to the proprietor(s) of unit(s) 7852
26/06/2009	703000	Water supply Easement to Power and Water Corporation
25/06/2009	702999	Water supply Easement to Power and Water Corporation
27/04/2009	698454	Right of Way Easement to Power and Water Corporation
27/04/2009	698452	Electricity supply Easement to Power and Water Corporation
20/03/2009	695749	Easement granted to the proprietor(s) of lot(s) 7840
20/03/2009	695748	Easement granted to the proprietor(s) of lot(s) 7840
20/03/2009	695640	Easement granted over lot(s) 7840, 7841 & 7842
20/03/2009	695563	Easement granted over lot(s) 7840, 7841
06/02/2009	692198	Sewerage Easement to Power and Water Corporation
15/04/2004	546473	Sewerage Easement granted over lot(s) 7495

End of Dealings

NORTHERN TERRITORY OF AUSTRALIA

Record of Administrative Interests and Information

Record of Administrative Interests and Information
The information contained in this record of Administrative Interests only relates to the below parcel reference.

Parcel Reference: Lot 10882 Town of Darwin plan(s) LTO2016/043

(See section 38 of the Land Title Act)

Note: The Record of Administrative Interests and Information is not part of the Land Register and is not guaranteed by the Northern Territory of Australia, and the NT Government accepts no Liability for any omission, misstatement or inaccuracy contained in this statement.

Registrar General

Government Land Register

Controlling Agency	Darwin Waterfront Corporation (MOG 2020)

Custodian - Registrar General (+61 8 8999 6252)

Current Title
CUFT 832 471 (order 1)

Tenure Type
ESTATE IN FEE SIMPLE

Tenure Status
Current

Area Under Title
20 hectares 8300 square metres

Owners
Northern Territory of Australia
c/- Department of Lands, Planning and the Environment, GPO Box 1680, Darwin NT 0801

Easements
Electricity supply easement to Power and Water Corporation
Electricity supply easement to Power and Water Corporation
Electricity supply easement to Power and Water Corporation
Electricity supply easement to Power and Water Corporation
Water supply easement to Power and Water Corporation
Sewerage Easement to Power and Water Corporation
Water supply Easement to Power and Water Corporation
Water supply Easement to Power and Water Corporation
Water supply Easement to Power and Water Corporation
Right of Way Easement to Power and Water Corporation
Electricity supply Easement to Power and Water Corporation
Sewerage Easement to Power and Water Corporation

Scheme Name
(none found)

Scheme Body Corporate Name
(none found)

Reserved Name(s)
(none found)

Unit Entitlements
(none found)

Transfers
(none found)

Tenure Comments
(none found)

Historic Titles
(none found)
Visit the website http://www.nt.gov.au/justice/bdm/land_title_office/

Custodian - Surveyor General (+61 8 8995 5346)

Address
DARWIN CITY

Survey Plan
LTO2016/043

Survey Status
Approved

Parcel Status
CURRENT

Parcel Area
20 hectares, 8300 square metres

Map Reference
(none found)

Parent Parcels
Lot 10176 Town of Darwin plan(s) LTO2015/061
Lot 10177 Town of Darwin plan(s) LTO2015/061
Lot 10178 Town of Darwin plan(s) LTO2015/061

Parcel Comments
PROPOSED OCCUPATION LICENCE (LOT 11229(A)) FOR BHAGWAN MARINE P/L - LI2021/0001-0116. PROPOSED LOT 11257(A) OVER PART - S2022/044. CLL23/20 (LOT 11229(A)) HELD BY BHAGWAN MARINE PTY LTD EXPIRES 13/02/2034 - LI2024/0001~0081. TO BE SUBDIVIDED INTO LOTS 11275 AND 11276 - LTO2023/009.

Survey Comments
LOTS 10877 TO 10882 AND LOT 11122, SUBDIVISION OF LOTS 10176 TO 10178, TOWN OF DARWIN

Proposed Easements
(none found)

Local Government Area
DARWIN WATERFRONT PRECINCT

Region
DARWIN

Custodian - Valuer General (+61 8 8995 5375)

Owner's Last Known Address
Northern Territory of Australia, C/- DEPARTMENT OF LANDS, PLANNING AND THE ENVIRONMENT, GPO BOX 1680, DARWIN NT 0801

Parcels in Valuation
Lot 10882 Town of Darwin

Unimproved Capital Value
$16,875,000 on 01/07/2023
$16,875,000 on 01/07/2023
$16,875,000 on 01/07/2020
$22,500,000 on 01/07/2017

Custodian - Property Purchasing (+61 8 8999 6886)

Acquisitions
(none found)

Custodian - Building Advisory Service (+61 8 8999 8965)

Building Control Areas

BBDAR001 - Building Control Area	DARWIN BUILDING AREA

Building Permits

Application Number:	8 of 9
Description:	Wave Kiosk - Darwin Waterfront
Number of Residential Units:	
Australian Bureau of Statistics Type:	(none found)
Building Class:	Shop
Area:	34 square metres
Certification:	Shop - Occupancy Permit - *issued on* 2024-06-21 00:00:00.0

Application Number:	6 of 9
Description:	Design and construction of a multiuse amenities facility, including female and male amenities, unisex ambulant toilet and an adult accessible change facility
Number of Residential Units:	
Australian Bureau of Statistics Type:	(none found)
Building Class:	Non-habitable building
Area:	190 square metres
Certification:	Non-habitable building - Occupancy Permit - *issued on* 2024-03-10 00:00:00.0

Application Number:	5 of 9
Description:	Walkway Awning - Post Construction
Number of Residential Units:	
Australian Bureau of Statistics Type:	(none found)
Building Class:	Non-habitable building
Area:	0 square metres
Certification:	Non-habitable building - Occupancy Permit - *issued on* 2022-11-02 00:00:00.0

Application Number:	4 of 9
Description:	Steps and landing to existing Boardwalk
Number of Residential Units:	
Australian Bureau of Statistics Type:	(none found)
Building Class:	Non-habitable building
Area:	17 square metres
Certification:	Non-habitable building - Occupancy Permit - *issued on* 2020-11-24 00:00:00.0

Application Number:	3 of 9
Description:	PV Solar Panels
Number of Residential Units:	
Australian Bureau of Statistics Type:	(none found)
Building Class:	Structure (Fence, Mast)
Area:	0 square metres

Certification:	Structure (Fence, Mast) - Occupancy Permit - *issued on* 2020-10-15 00:00:00.0

Application Number:	2 of 9
Description:	Installation of exhibition signage x 4
Number of Residential Units:	
Australian Bureau of Statistics Type:	(none found)
Building Class:	Structure (Fence, Mast)
Area:	0 square metres
Certification:	Structure (Fence, Mast) - Occupancy Permit - *issued on* 2020-02-06 00:00:00.0

Application Number:	1 of 9
Description:	30 x water towers along pedestrian boardwalk
Number of Residential Units:	
Australian Bureau of Statistics Type:	(none found)
Building Class:	Structure (Fence, Mast)
Area:	0 square metres
Certification:	Structure (Fence, Mast) - Occupancy Permit - *issued on* 2020-02-06 00:00:00.0

Visit the website http://www.nt.gov.au/building/

Custodian - Town Planning and Development Assessment Services (+61 8 8999 6046)

Planning Scheme Zone
CB (Central Business)

Overlays: The following overlays may apply to your land
- CR - Coastal Reclamation
- LSSS - Land Subject to Storm Surge
- DHD - Darwin Harbour Dredging

Refer to the NT Planning Scheme 2020 for more information.

Strategic Frameworks: The following strategic frameworks may apply to your land
Regional Plans:
- Darwin Regional Land Use Plan

Sub Regional Plans:
- None

Area Plans:
- Central Darwin Area Plan

Interim Development Control Orders
(none found)

Planning Notes
(none found)

Planning Applications

File Number
PA2025/0368

Type
Development

Date Received
20/10/2025

Application Purpose
Alterations and additions for the purpose of an office and a community centre (community room) in two single storey buildings

Application Status
Current

Other Affected Parcels
(none found)

Instrument Signed

Instrument Number

Instrument Issued
Not Complete

Instrument Status

File Number
PA2021/0369

Type
Extension of Time

Date Received
10/07/2024

Application Purpose
Extension of time DP22/0015 - two years

Application Status
Approved

Other Affected Parcels
Lot 07493 Town of Darwin
Lot 07558 Town of Darwin
Lot 05251 Town of Darwin

Instrument Signed
21/08/2024

Instrument Number
DP22/00015A

Instrument Issued
Signed

Instrument Status
Completed

File Number
PA2004/0799

Type
Variation of Development Permit

Date Received
29/04/2024

Application Purpose
Alterations and additions (kiosk) to an existing leisure and recreation use (wate pool)

Application Status
Approved

Other Affected Parcels
(none found)

Instrument Signed
15/05/2024

Instrument Number
DP05/0037K

Instrument Issued
Signed

Instrument Status
Completed

File Number
PA2021/0412

Type
Extension of Time

Date Received
26/02/2024

Application Purpose
Extension of Time to DP22/0056 for a further period of 2 years

Application Status
Approved

Other Affected Parcels
Lot 07493 Town of Darwin
Lot 07558 Town of Darwin
Lot 05251 Town of Darwin

Instrument Signed
03/04/2024

Instrument Number
DP22/0056A

Instrument Issued
Signed

Instrument Status
Current

File Number
PA2021/0412

Type
Variation of Development Permit

Date Received
23/01/2024

Application Purpose
Variation to conditions 1 and 2 of DP22/0056 for the purpose of replacing heritage condition precedent with general condition, changes to net floor area and car parking

Application Status
Approved

Other Affected Parcels
Lot 07493 Town of Darwin
Lot 07558 Town of Darwin
Lot 05251 Town of Darwin

Instrument Signed
29/04/2024

Instrument Number
DP22/0056B

Instrument Issued
Signed

Instrument Status
Current

File Number
PA2021/0369

Type
Subdivision

Date Received
22/11/2021

Application Purpose
Subdivision and consolidation to create two lots

Application Status
Approved

Other Affected Parcels
Lot 07493 Town of Darwin
Lot 07558 Town of Darwin
Lot 05251 Town of Darwin

Instrument Signed
21/07/2022

Instrument Number
DP22/0015

Instrument Issued
Signed

Instrument Status
Current

File Number
PA2021/0412

Type
Development

Date Received
22/11/2021

Application Purpose
Mixed use development comprising exhibition centre, place of assembly, offices and food premises-restaurant in a three storey building with undercroft car parking and an amphitheatre

Application Status
Approved

Other Affected Parcels
Lot 07493 Town of Darwin
Lot 07558 Town of Darwin
Lot 05251 Town of Darwin

Instrument Signed
10/03/2022

Instrument Number
DP22/0056

Instrument Issued
Signed

Instrument Status
Current

Custodian - Pastoral Estate - Vegetation Assessment Unit (+61 8 8999 4454)
(none found)

Visit the website for information on Pastoral land permits.

Custodian - Power and Water Corporation (1800 245 092)

Meters on Parcel

Power Water - Electricity	(none found)
Power Water - Water	(none found)

For Account balances, contact the Power and Water Corporation.

Custodian - Pool Fencing Unit (+61 8 8924 3641)

Swimming Pool/Spa Status
(none found)

For more information, contact the Pool Fencing Unit (+61 8 8924 3641).

Custodian - Department of Mining and Energy (+61 8 8999 5263)

Mineral Titles

Title ID	Status	Title Type	Expiry Date	Legislation
RL390	Granted	Reserve Land		Mineral Titles Act 2010
RL26296	Granted	Reserve Land		Mineral Titles Act 2010

For additional information contact the Mineral Titles Team on +61 8 8999 5322

Energy Titles

Title ID	Status	Title Type	Expiry Date	Legislation
GRO1	Granted	Geothermal Reserved from Occupation		Geothermal Energy Act 2009
RB51	Granted	Reservation of Blocks		Petroleum Act 1984
RB56	Granted	Reservation of Blocks		Petroleum Act 1984
RB225	Granted	Reservation of Blocks		Petroleum Act 1984

For additional information contact the Petroleum Tenure Team on +61 8 8999 5263

Land Access Agreements

(none found)

For additional information contact the Land Access Team on +61 8 8999 5240

For further information contact as above or visit the website https://strike.nt.gov.au

Custodian - NT Environment Protection Authority (+61 8 8924 4218)

Results of site contamination assessment

(none found)

For further information contact Environment Protection Authority or visit the website https://ntepa.nt.gov.au/your-business/public-registers/contaminated-land-audits

Custodian - Heritage Branch (+61 8 8999 5039)

Heritage Listing:

(none found)

For further information on heritage places contact Heritage Branch or visit the website https://nt.gov.au/property/land/heritage-register-search-for-places-or-objects

Other Interests

For Account balances, contact Darwin Waterfront Corporation

Storm Surge: This lot is within a primary surge zone. For more information contact Lands Planning on 8999 8963.

Storm Surge: This lot is within a secondary surge zone. For more information contact Lands Planning on 8999 8963.

Locality Diagram



Appendix B:
Analytical Data Summary Tables

TABLE A - SOIL ANALYTICAL SUMMARY TABLE
Project Number: 70147
Project Name: ESA, 4 Mavie Street , DWD Projects Pty Ltd

JBS&G
A Geosyntec Company

	Metals & Metalloids												TPHs (NEPC 1999)					TRHs (NEPC 2013)						
	Arsenic	Cadmium	Chromium (III+VI)	Copper	Lead	Mercury	Molybdenum	Nickel	Selenium	Silver	Tin	Zinc	C6-C9 Fraction	C10-C14 Fraction	C15-C28 Fraction	C29-C36 Fraction	C10-C36 Fraction (Sum of total)	C6-C10	C10-C16	C16-C34	C34-C40	C10-C40 (Sum of total)	F1 (C6-C10 minus BTEX)	F2 (C10-C16 less Naphthalene)
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL	2	0.4	2	5	5	0.1	5	2	2	2	10	5	10	20	50	50	50	10	50	100	100	50	10	50
CRC Care 2011 Table A4 Direct Contact HSL-B Residential (High Density)																		5,600	4,200	5,800	8,100			
CRC Care 2011 Table A4 Direct Contact HSL-D Commercial / Industrial																		26,000	20,000	27,000	38,000			
NEPM (2013) Table 1A(1) HILs Comm/Ind D Soil	3,000	900	3,600	240,000	1,500	730		6,000	10,000			400,000												
NEPM 2013 Table 1A(1) HILs Res B Soil	500	150	500	30,000	1,200	120		1,200	1,400			60,000												
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Clay																							310 | 480 | NL | NL	NL | NL | NL | NL
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand																							260 | 370 | 630 | NL	NL | NL | NL | NL
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Clay																							50 | 90 | 150 | 290	280 | NL | NL | NL
Site Specific - EIL - Areas of Ecological Significance			180	30	470			6				110												
Site Specific - EIL - Urban Residential and Public Open Space			530	60	1,100			15				220												
Site Specific - EIL - Comm/Ind			880	85	1,800			20				310												
NEPM 2013 Table 1B(6) ESLs for Areas of Ecological Significance, Coarse Soil																							125	25
NEPM 2013 Table 1B(6) ESLs for Areas of Ecological Significance, Fine Soil																							125	25
NEPM 2013 Table 1B(6) ESLs for Comm/Ind, Coarse Soil																				1,700	3,300		215	170
NEPM 2013 Table 1B(6) ESLs for Comm/Ind, Fine Soil																				2,500	6,600		215	170
NEPM 2013 Table 1B(6) ESLs for Urban Res, Coarse Soil																				300	2,800		180	120
NEPM 2013 Table 1B(6) ESLs for Urban Res, Fine Soil																				1,300	5,600		180	120
NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Fine Soil																		800	1,000	5,000	10,000			
NEPM 2013 Table 1B(7) Management Limits in Res / Parkland, Fine Soil																		800	1,000	3,500	10,000			
NEPM 2013 Table 7 Comm/Ind D Soil HSL for Asbestos in Soil																								
NEPM 2013 Table 7 Res B Soil HSL for Asbestos in Soil																								
PFAS NEMP 3.1 (2026) Ecological Direct Exposure - all land uses																								
PFAS NEMP 3.1 (2026) HIL B - Residential with Minimal Soil Access																								
PFAS NEMP 3.1 (2026) HIL D - Commercial/Industrial																								
PFAS NEMP 3.1 (2026) Interim Ecological Direct Exposure (Reptiles)																								
PFAS NEMP 3.1 (2026) Interim Ecological Indirect Exposure - all land uses																								
Field ID	**Date/Parent**	**Lab Report Number**																						
BH01/MW01_0.2-0.3	02 Mar 2026	1330281	12	0.6	29	66	15	<0.1	<5	16	<2	<2	14	120	<20	<20	<50	<50	<50	<20	<50	<100	<100	<100	<20	<50
BH01/MW01_3.9-4.0	02 Mar 2026	1330281	5.4	<0.4	13	<5	8.4	<0.1	<5	<5	<2	<2	<10	18	<20	<20	<50	<50	<50	<20	<50	<100	<100	<100	<20	<50
BH01/MW01_6.4-6.5 (Historical Fill)	02 Mar 2026	1330281	7.7	<0.4	42	19	13	<0.1	<5	14	<2	<2	<10	36	<20	<20	<50	<50	<50	<20	<50	<100	<100	<100	<20	<50
BH01/MW01_7.9-8.0 (Natural)	02 Mar 2026	1330281	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH02_0.9-1.0	02 Mar 2026	1330281	20	<0.4	81	25	28	<0.1	<5	8.0	<2	<2	<10	190	<20	<20	<50	<50	<50	<20	<50	<100	<100	<100	<20	<50
BH02_0.9-1.0	02 Mar 2026	1335779	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QC01_20260302	BH02_0.9-1.0	1330281	23	<0.4	55	16	23	<0.1	<5	<5	<2	<2	<10	110	<20	<20	<50	180	180	<20	<50	<100	290	290	<20	<50
QC01_20260302	BH02_0.9-1.0	1335779	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QA01_20260302	BH02_0.9-1.0	ES2606757	13	<1	72	15	24	<0.1	-	6	-	-	-	83	<10	<50	<100	<100	<50	<10	<50	<100	<100	<50	<10	<50
BH02_1.0-2.0	02 Mar 2026	1330281	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QC01_20260302AQ	BH02_1.0-2.0	1330281	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QA01_20260302AQ	BH02_1.0-2.0	ES2606757	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH02_2.2-2.3	02 Mar 2026	1330281	13	<0.4	30	18	16	<0.1	<5	<5	<2	<2	<10	130	<20	<20	<50	<50	<50	<20	<50	<100	<100	<100	<20	<50
BH02_2.9-3.0	02 Mar 2026	1330281	11	<0.4	26	14	35	<0.1	<5	7.9	<2	<2	<10	89	<20	23	<50	<50	<50	<20	<50	<100	<100	<100	<20	<50
BH03_0.1-1.0	02 Mar 2026	1330281	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QC02_20260302AQ	BH03_0.1-1.0	1330281	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QA02_20260302AQ	BH03_0.1-1.0	ES2606757	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH03_0.2-0.3	02 Mar 2026	1330281	7.9	0.5	28	62	32	<0.1	13	12	<2	<2	11	96	<20	<20	200	110	310	<20	<50	270	<100	270	<20	<50
QC02_20260302	BH03_0.2-0.3	1335779	8.7	0.6	35	70	20	<0.1	7.9	15	<2	<2	12	140	<20	<20	150	<50	150	<20	<50	150	<100	150	<20	<50
QA02_20260302	BH03_0.2-0.3	ES2606757	10	<1	31	65	17	<0.1	-	13	-	-	-	101	<10	<50	490	250	740	<10	<50	660	160	820	<10	<50
BH03_0.2-0.3	02 Mar 2026	1335779	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH03_3.9-4.0	02 Mar 2026	1330281	<2	<0.4	8.8	<5	5.1	<0.1	<5	5.2	<2	<2	<10	12	<20	<20	<50	<50	<50	<20	<50	<100	<100	<100	<20	<50
BH04_0.0-0.1	02 Mar 2026	1330281	7.8	0.5	37	58	24	<0.1	<5	17	<2	<2	<10	95	<20	<20	<50	<50	<50	<20	<50	<100	<100	<100	<20	<50
BH04_0.9-1.0	02 Mar 2026	1330281	16	<0.4	68	17	33	<0.1	<5	6.8	<2	<2	<10	91	<20	30	<50	57	87	<20	<50	<100	130	130	<20	<50
BH04_4.0-5.0	02 Mar 2026	1330281	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH04_5.9-6.0	02 Mar 2026	1330281	31	<0.4	62	14	25	<0.1	6.0	9.7	<2	<2	<10	110	<20	<20	<50	<50	<50	<20	<50	<100	<100	<100	<20	<50
BH05_0.0-0.1	02 Mar 2026	1330281	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH05_0.2-0.3	02 Mar 2026	1330281	19	<0.4	86	17	27	<0.1	<5	7.0	<2	<2	<10	45	<20	<20	<50	130	130	<20	<50	<100	220	220	<20	<50
BH05_0.4-0.5	02 Mar 2026	1330281	21	<0.4	100	38	42	<0.1	<5	16	<2	<2	<10	89	<20	<20	<50	<50	<50	<20	<50	<100	<100	<100	<20	<50
BH05_2.0-3.0	02 Mar 2026	1330281	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH05_4.9-5.0	02 Mar 2026	1330281	25	<0.4	99	37	35	<0.1	<5	32	<2	<2	<10	140	<20	<20	<50	<50	<50	<20	<50	<100	<100	<100	<20	<50
BH06_0.0-0.1	02 Mar 2026	1330281	19	<0.4	38	15	26	0.2	<5	7.3	<2	<2	<10	100	<20	<20	<50	<50	<50	<20	<50	<100	<100	<100	<20	<50
BH06_2.0-3.0	02 Mar 2026	1330281	6.5	<0.4	49	13	28	<0.1	<5	5.5	<2	<2	<10	76	<20	<20	<50	<50	<50	<20	<50	<100	<100	<100	<20	<50
BH06_2.9-3.0	02 Mar 2026	1330281	31	<0.4	140	23	91	<0.1	-	<5	-	-	-	120	<20	<20	<50	70	70	<20	<50	<100	<100	<100	<20	<50
BH06_4.0-5.0	02 Mar 2026	1330281	25	<0.4	85	46	88	<0.1	<5	<5	<2	<2	<10	96	<20	<20	<50	<50	<50	<20	<50	<100	<100	<100	<20	<50
BH06_4.0-5.0	02 Mar 2026	1330281	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH06_4.9-5.0	02 Mar 2026	1330281	20	<0.4	86	31	73	<0.1	-	7.1	-	-	-	110	<20	<20	<50	<50	<50	<20	<50	<100	<100	<100	<20	<50
BH07/MW02_0.0-0.1	03 Mar 2026	1330456	17	0.6	34	44	43	0.1	<5	14	<2	<2	<10	110	<20	<20	<50	<50	<50	<20	<50	<100	<100	<100	<20	<50
BH07/MW02_0.1_1.0	03 Mar 2026	1330456	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH07/MW02_1.9-2.0	03 Mar 2026	1330456	13	<0.4	50	63	37	<0.1	<5	<5	<2	<2	<10	460	<20	40	<50	91	131	<20	<50	<100	110	110	<20	<50
BH07/MW02_3.9-4.0	03 Mar 2026	1330456	3.6	<0.4	5.5	<5	<5	<0.1	<5	<5	<2	<2	<10	7.5	<20	<20	<50	<50	<50	<20	<50	<100	<100	<100	<20	<50
BH08/MW03_0.2_0.3	03 Mar 2026	1330456	17	<0.4	87	11	16	<0.1	<5	7.3	<2	<2	<10	30	<20	<20	<50	<50	<50	<20	<50	<100	<100	<100	<20	<50
BH08/MW03_0.9_1.9	03 Mar 2026	1330456	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH08/MW03_3.9_4.0	03 Mar 2026	1330456	4.0	<0.4	29	15	12	<0.1	<5	11	<2	<2	<10	41	<20	<20	<50	<50	<50	<20	<50	<100	<100	<100	<20	<50
BH08/MW03_4.9_5.0	03 Mar 2026	1330456	18	0.4	37	46	73	<0.1	<5	27	<2	<2	<10	180	<20	<20	<50	<50	<50	<20	<50	<100	<100	<100	<20	<50
BH08/MW03_6.9_7.0 (Natural)	03 Mar 2026	1330456	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH09_0.0_0.1	03 Mar 2026	1330456	15	<0.4	110	8.8	16	<0.1	<5	6.2	<2	<2	<10	22	<20	<20	<50	<50	<50	<20	<50	<100	<100	<100	<20	<50
BH09_1.1_2.1	03 Mar 2026	1330456	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH09_2.9_3.0	03 Mar 2026	1330456	31	<0.4	81	200	10	<0.1	14	61	<2	<2	29	160	<20	<20	<50	<50	<50	<20	<50	<100	<100	<100	<20	<50

TABLE A - SOIL ANALYTICAL SUMMARY TABLE
Project Number: 70147
Project Name: ESA, 4 Mavie Street , DWD Projects Pty Ltd

JBS&G
A Geosyntec Company

	BTEXN								PAH																			
	Benzene	Toluene	Ethylbenzene	Xylene (o)	Xylene (m & p)	Xylene Total	Total BTEX	Naphthalene_VOC	Acenaphthene	Acenaphthylene	Anthracene	Benz[a]anthracene	Benzo(a)pyrene	Benzo(a)pyrene TEQ (LOR)	Benzo(a)pyrene TEQ calc (Half)	Benzo(a)pyrene TEQ calc (Zero)	Benzo(b+j)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-c,d)pyrene	Naphthalene	Phenanthrene	Pyrene	PAHs (Sum of total)
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL	0.1	0.1	0.1	0.1	0.2	0.3	0.2	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
CRC Care 2011 Table A4 Direct Contact HSL-B Residential (High Density)	140	21,000	5,900			17,000		2,200																	2,200			
CRC Care 2011 Table A4 Direct Contact HSL-D Commercial / Industrial	430	99,000	27,000			81,000		11,000																	11,000			
NEPM (2013) Table 1A(1) HILs Comm/Ind D Soil														40	40	40												4,000
NEPM 2013 Table 1A(1) HILs Res B Soil														4	4	4												400
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Clay	4 | 6 | 9 | 20	NL | NL | NL | NL	NL | NL | NL | NL			NL | NL | NL | NL		NL | NL | NL | NL															NL | NL | NL | NL			
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand	3 | 3 | 3 | 3	NL | NL | NL | NL	NL | NL | NL | NL			230 | NL | NL | NL		NL | NL | NL | NL															NL | NL | NL | NL			
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Clay	0.7 | 1 | 2 | 3	480 | NL | NL | NL	NL | NL | NL | NL			110 | 310 | NL | NL		5 | NL | NL | NL															5 | NL | NL | NL			
Site Specific - EIL - Areas of Ecological Significance																												
Site Specific - EIL - Urban Residential and Public Open Space																												
Site Specific - EIL - Comm/Ind																												
NEPM 2013 Table 1B(6) ESLs for Areas of Ecological Significance, Coarse Soil	8	10	1.5			10							0.7															
NEPM 2013 Table 1B(6) ESLs for Areas of Ecological Significance, Fine Soil	10	65	40			1.6							0.7															
NEPM 2013 Table 1B(6) ESLs for Comm/Ind, Coarse Soil	75	135	165			180							1.4															
NEPM 2013 Table 1B(6) ESLs for Comm/Ind, Fine Soil	95	135	185			95							1.4															
NEPM 2013 Table 1B(6) ESLs for Urban Res, Coarse Soil	50	85	70			105							0.7															
NEPM 2013 Table 1B(6) ESLs for Urban Res, Fine Soil	65	105	125			45							0.7															
NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Fine Soil																												
NEPM 2013 Table 1B(7) Management Limits in Res / Parkland, Fine Soil																												
NEPM 2013 Table 7 Comm/Ind D Soil HSL for Asbestos in Soil																												
NEPM 2013 Table 7 Res B Soil HSL for Asbestos in Soil																												
PFAS NEMP 3.1 (2026) Ecological Direct Exposure - all land uses																												
PFAS NEMP 3.1 (2026) HIL B - Residential with Minimal Soil Access																												
PFAS NEMP 3.1 (2026) HIL D - Commercial/Industrial																												
PFAS NEMP 3.1 (2026) Interim Ecological Direct Exposure (Reptiles)																												
PFAS NEMP 3.1 (2026) Interim Ecological Indirect Exposure - all land uses																												
Field ID	**Date/Parent**	**Lab Report Number**																										
BH01/MW01_0.2-0.3	02 Mar 2026	1330281	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
BH01/MW01_3.9-4.0	02 Mar 2026	1330281	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
BH01/MW01_6.4-6.5 (Historical Fill)	02 Mar 2026	1330281	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
BH01/MW01_7.9-8.0 (Natural)	02 Mar 2026	1330281	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH02_0.9-1.0	02 Mar 2026	1330281	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
BH02_0.9-1.0	02 Mar 2026	1335779	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QC01_20260302	BH02_0.9-1.0	1330281	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
QC01_20260302	BH02_0.9-1.0	1335779	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QA01_20260302	BH02_0.9-1.0	ES2606757	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<1	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
BH02_1.0-2.0	02 Mar 2026	1330281	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QC01_20260302AQ	BH02_1.0-2.0	1330281	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QA01_20260302AQ	BH02_1.0-2.0	ES2606757	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH02_2.2-2.3	02 Mar 2026	1330281	<0.1	<0.1	<0.1	0.1	<0.2	<0.3	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
BH02_2.9-3.0	02 Mar 2026	1330281	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
BH03_0.1-1.0	02 Mar 2026	1330281	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QC02_20260302AQ	BH03_0.1-1.0	1330281	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QA02_20260302AQ	BH03_0.1-1.0	ES2606757	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH03_0.2-0.3	02 Mar 2026	1330281	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
QC02_20260302	BH03_0.2-0.3	1335779	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
QA02_20260302	BH03_0.2-0.3	ES2606757	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<1	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
BH03_0.2-0.3	02 Mar 2026	1335779	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH03_3.9-4.0	02 Mar 2026	1330281	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
BH04_0.0-0.1	02 Mar 2026	1330281	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
BH04_0.9-1.0	02 Mar 2026	1330281	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
BH04_4.0-5.0	02 Mar 2026	1330281	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH04_5.9-6.0	02 Mar 2026	1330281	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
BH05_0.0-0.1	02 Mar 2026	1330281	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH05_0.2-0.3	02 Mar 2026	1330281	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
BH05_0.4-0.5	02 Mar 2026	1330281	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
BH05_2.0-3.0	02 Mar 2026	1330281	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH05_4.9-5.0	02 Mar 2026	1330281	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
BH06_0.0-0.1	02 Mar 2026	1330281	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
BH06_2.0-3.0	02 Mar 2026	1330281	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
BH06_2.9-3.0	02 Mar 2026	1330281	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
BH06_4.0-5.0	02 Mar 2026	1330281	<0.1	<0.1	<0.1	0.1	<0.2	<0.3	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
BH06_4.0-5.0	02 Mar 2026	1330281	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH06_4.9-5.0	02 Mar 2026	1330281	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
BH07/MW02_0.0-0.1	03 Mar 2026	1330456	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
BH07/MW02_0.1_1.0	03 Mar 2026	1330456	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH07/MW02_1.9-2.0	03 Mar 2026	1330456	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
BH07/MW02_3.9-4.0	03 Mar 2026	1330456	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
BH08/MW03_0.2_0.3	03 Mar 2026	1330456	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
BH08/MW03_0.9_1.9	03 Mar 2026	1330456	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH08/MW03_3.9_4.0	03 Mar 2026	1330456	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
BH08/MW03_4.9_5.0	03 Mar 2026	1330456	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
BH08/MW03_6.9_7.0 (Natural)	03 Mar 2026	1330456	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH09_0.0_0.1	03 Mar 2026	1330456	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
BH09_1.1_2.1	03 Mar 2026	1330456	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH09_2.9_3.0	03 Mar 2026	1330456	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	-	<0.5	<0.5	<0.5	0.7	<0.5	<0.5	1.3	0.7	<0.5	0.7	<0.5	0.7	<0.5	<0.5	0.9	<0.5	<0.5	<0.5	0.5	0.7	4.2

TABLE A - SOIL ANALYTICAL SUMMARY TABLE
Project Number: 70147
Project Name: ESA, 4 Mavie Street , DWD Projects Pty Ltd

JBS&G
A Geosyntec Company

	Organochlorine Pesticides																												
	Pentachlorophenol	4,4-DDE	a-BHC	b-BHC	d-BHC	g-BHC (Lindane)	Aldrin	Dieldrin	Aldrin + Dieldrin	Chlordane	Chlordane (cis)	Chlordane (trans)	DDT	DDD	DDT+DDE+DDD	Endosulfan	Endosulfan I	Endosulfan II	Endosulfan sulphate	Endrin	Endrin aldehyde	Endrin ketone	Heptachlor	Heptachlor Epoxide	Hexachlorobenzene	Methoxychlor	Toxaphene
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL	1	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.5
CRC Care 2011 Table A4 Direct Contact HSL-B Residential (High Density)																											
CRC Care 2011 Table A4 Direct Contact HSL-D Commercial / Industrial																											
NEPM (2013) Table 1A(1) HILs Comm/Ind D Soil	660								45	530					3,600	2,000				100			50		80	2,500	160
NEPM 2013 Table 1A(1) HILs Res B Soil	130								10	90					600	400				20			10		15	500	30
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Clay																											
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand																											
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Clay																											
Site Specific - EIL - Areas of Ecological Significance																											
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NEPM 2013 Table 1B(6) ESLs for Areas of Ecological Significance, Coarse Soil																											
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NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Fine Soil																											
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NEPM 2013 Table 7 Comm/Ind D Soil HSL for Asbestos in Soil																											
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PFAS NEMP 3.1 (2026) Ecological Direct Exposure - all land uses																											
PFAS NEMP 3.1 (2026) HIL B - Residential with Minimal Soil Access																											
PFAS NEMP 3.1 (2026) HIL D - Commercial/Industrial																											
PFAS NEMP 3.1 (2026) Interim Ecological Direct Exposure (Reptiles)																											
PFAS NEMP 3.1 (2026) Interim Ecological Indirect Exposure - all land uses																											
Field ID	**Date/Parent**	**Lab Report Number**																											
BH01/MW01_0.2-0.3	02 Mar 2026	1330281	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	-	-	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
BH01/MW01_3.9-4.0	02 Mar 2026	1330281	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	-	-	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
BH01/MW01_6.4-6.5 (Historical Fill)	02 Mar 2026	1330281	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	-	-	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
BH01/MW01_7.9-8.0 (Natural)	02 Mar 2026	1330281	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH02_0.9-1.0	02 Mar 2026	1330281	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.29	0.29	0.3	-	-	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
BH02_0.9-1.0	02 Mar 2026	1335779	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QC01_20260302	BH02_0.9-1.0	1330281	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.53	0.53	0.5	-	-	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
QC01_20260302	BH02_0.9-1.0	1335779	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QA01_20260302	BH02_0.9-1.0	ES2606757	<2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.14	0.14	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	-
BH02_1.0-2.0	02 Mar 2026	1330281	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QC01_20260302AQ	BH02_1.0-2.0	1330281	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QA01_20260302AQ	BH02_1.0-2.0	ES2606757	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH02_2.2-2.3	02 Mar 2026	1330281	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.06	0.06	0.2	-	-	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
BH02_2.9-3.0	02 Mar 2026	1330281	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	-	-	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
BH03_0.1-1.0	02 Mar 2026	1330281	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QC02_20260302AQ	BH03_0.1-1.0	1330281	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QA02_20260302AQ	BH03_0.1-1.0	ES2606757	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH03_0.2-0.3	02 Mar 2026	1330281	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	-	-	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
QC02_20260302	BH03_0.2-0.3	1335779	<1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	-	-	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
QA02_20260302	BH03_0.2-0.3	ES2606757	<2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	-
BH03_0.2-0.3	02 Mar 2026	1335779	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH03_3.9-4.0	02 Mar 2026	1330281	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	-	-	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
BH04_0.0-0.1	02 Mar 2026	1330281	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	-	-	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
BH04_0.9-1.0	02 Mar 2026	1330281	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.15	0.15	0.2	-	-	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
BH04_4.0-5.0	02 Mar 2026	1330281	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH04_5.9-6.0	02 Mar 2026	1330281	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	-	-	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
BH05_0.0-0.1	02 Mar 2026	1330281	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH05_0.2-0.3	02 Mar 2026	1330281	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.29	0.29	<0.1	-	-	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
BH05_0.4-0.5	02 Mar 2026	1330281	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.07	0.07	<0.1	-	-	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
BH05_2.0-3.0	02 Mar 2026	1330281	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH05_4.9-5.0	02 Mar 2026	1330281	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.07	0.07	<0.1	-	-	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
BH06_0.0-0.1	02 Mar 2026	1330281	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	-	-	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
BH06_2.0-3.0	02 Mar 2026	1330281	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.13	0.13	<0.1	-	-	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
BH06_2.9-3.0	02 Mar 2026	1330281	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	-	-	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
BH06_4.0-5.0	02 Mar 2026	1330281	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	-	-	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
BH06_4.0-5.0	02 Mar 2026	1330281	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH06_4.9-5.0	02 Mar 2026	1330281	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	-	-	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
BH07/MW02_0.0-0.1	03 Mar 2026	1330456	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	-	-	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
BH07/MW02_0.1_1.0	03 Mar 2026	1330456	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH07/MW02_1.9-2.0	03 Mar 2026	1330456	-	<0.05	<0.05	<0.05	<0.05	<0.05	0.18	2.6	2.78	<0.1	-	-	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
BH07/MW02_3.9-4.0	03 Mar 2026	1330456	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	-	-	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
BH08/MW03_0.2_0.3	03 Mar 2026	1330456	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	-	-	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
BH08/MW03_0.9_1.9	03 Mar 2026	1330456	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH08/MW03_3.9_4.0	03 Mar 2026	1330456	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	-	-	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
BH08/MW03_4.9_5.0	03 Mar 2026	1330456	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	-	-	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
BH08/MW03_6.9_7.0 (Natural)	03 Mar 2026	1330456	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH09_0.0_0.1	03 Mar 2026	1330456	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	-	-	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
BH09_1.1_2.1	03 Mar 2026	1330456	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH09_2.9_3.0	03 Mar 2026	1330456	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	-	-	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5

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Project Number: 70147
Project Name: ESA, 4 Mavie Street , DWD Projects Pty Ltd

JBS&G
A Geosyntec Company

	Organophosphorus Pesticides																																				
	Azinophos methyl	Bolstar (Sulprofos)	Bromophos-ethyl	Chlorfenvinphos	Chlorpyrifos	Chlorpyrifos-methyl	Coumaphos	Demeton-O	Demeton-S	Diazinon	Dichlorvos	Dimethoate	Disulfoton	EPN	Ethion	Ethoprop	Fenitrothion	Fensulfothion	Fenthion	Malathion	Merphos	Methyl parathion	Mevinphos (Phosdrin)	Monocrotophos	Naled (Dibrom)	Omethoate	Phorate	Pirimiphos-methyl	Prothiofos	Pyrazophos	Ronnel	Terbufos	Tetrachlorvinphos	Tokuthion	Trichloronate	Demeton-S-methyl	Fenamiphos	Parathion	Pirimiphos-ethyl
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL	0.05	0.2	0.05	0.05	0.05	0.05	2	0.2	0.2	0.05	0.05	0.05	0.2	0.2	0.05	0.2	0.2	0.2	0.05	0.05	0.2	0.2	0.2	0.2	2	0.2	0.2	0.05	0.2	0.2	0.2	0.2	0.2	0.2	0.05	0.05	0.2	0.05
CRC Care 2011 Table A4 Direct Contact HSL-B Residential (High Density)																																						
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NEPM 2013 Table 7 Res B Soil HSL for Asbestos in Soil																																						
PFAS NEMP 3.1 (2026) Ecological Direct Exposure - all land uses																																						
PFAS NEMP 3.1 (2026) HIL B - Residential with Minimal Soil Access																																						
PFAS NEMP 3.1 (2026) HIL D - Commercial/Industrial																																						
PFAS NEMP 3.1 (2026) Interim Ecological Direct Exposure (Reptiles)																																						
PFAS NEMP 3.1 (2026) Interim Ecological Indirect Exposure - all land uses																																						
Field ID	**Date/Parent**	**Lab Report Number**																																				
BH01/MW01_0.2-0.3	02 Mar 2026	1330281	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH01/MW01_3.9-4.0			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH01/MW01_6.4-6.5 (Historical Fill)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH01/MW01_7.9-8.0 (Natural)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH02_0.9-1.0	02 Mar 2026	1330281	<0.2	<0.2	-	<0.2	<0.2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<2	<0.2	<2	<0.2	<0.2	-	<0.2	<0.2	<0.2	<0.2	<0.2	-	<0.2	-
BH02_0.9-1.0	02 Mar 2026	1335779	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QC01_20260302	BH02_0.9-1.0	1330281	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QC01_20260302	BH02_0.9-1.0	1335779	<0.2	<0.2	-	<0.2	<0.2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<2	<0.2	<2	<0.2	<0.2	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	<0.2	-
QA01_20260302	BH02_0.9-1.0	ES2606757	<0.05	-	<0.05	<0.05	<0.05	<0.05	-	-	-	<0.05	<0.05	<0.05	-	-	<0.05	-	-	-	<0.05	<0.05	-	<0.2	-	<0.2	-	-	-	-	<0.05	-	-	-	-	-	<0.05	<0.05	<0.2	<0.05
BH02_1.0-2.0	02 Mar 2026	1330281	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QC01_20260302AQ	BH02_1.0-2.0	1330281	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QA01_20260302AQ	BH02_1.0-2.0	ES2606757	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH02_2.2-2.3	02 Mar 2026	1330281	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH02_2.9-3.0	02 Mar 2026	1330281	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH03_0.1-1.0	02 Mar 2026	1330281	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QC02_20260302AQ	BH03_0.1-1.0	1330281	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QA02_20260302AQ	BH03_0.1-1.0	ES2606757	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH03_0.2-0.3	02 Mar 2026	1330281	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QC02_20260302	BH03_0.2-0.3	1335779	<0.2	<0.2	-	<0.2	<0.2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<2	<0.2	<2	<0.2	<0.2	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	<0.2	-
QA02_20260302	BH03_0.2-0.3	ES2606757	<0.05	-	<0.05	<0.05	<0.05	<0.05	-	-	-	<0.05	<0.05	<0.05	-	-	<0.05	-	-	-	<0.05	<0.05	-	<0.2	-	<0.2	-	-	-	-	<0.05	-	-	-	-	-	<0.05	<0.05	<0.2	<0.05
BH03_0.2-0.3	02 Mar 2026	1335779	<0.2	<0.2	-	<0.2	<0.2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<2	<0.2	<2	<0.2	<0.2	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	<0.2	-
BH03_3.9-4.0	02 Mar 2026	1330281	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH04_0.0-0.1	02 Mar 2026	1330281	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH04_0.9-1.0	02 Mar 2026	1330281	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH04_4.0-5.0	02 Mar 2026	1330281	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH04_5.9-6.0	02 Mar 2026	1330281	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH05_0.0-0.1	02 Mar 2026	1330281	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH05_0.2-0.3	02 Mar 2026	1330281	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH05_0.4-0.5	02 Mar 2026	1330281	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH05_2.0-3.0	02 Mar 2026	1330281	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH05_4.9-5.0	02 Mar 2026	1330281	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH06_0.0-0.1	02 Mar 2026	1330281	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH06_2.0-3.0	02 Mar 2026	1330281	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH06_2.9-3.0	02 Mar 2026	1330281	<0.2	<0.2	-	<0.2	<0.2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<2	<0.2	<2	<0.2	<0.2	-	<0.2	<0.2	<0.2	<0.2	<0.2	-	<0.2	-
BH06_4.0-5.0	02 Mar 2026	1330281	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH06_4.0-5.0	02 Mar 2026	1330281	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH06_4.9-5.0	02 Mar 2026	1330281	<0.2	<0.2	-	<0.2	<0.2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<2	<0.2	<2	<0.2	<0.2	-	<0.2	<0.2	<0.2	<0.2	<0.2	-	<0.2	-
BH07/MW02_0.0-0.1	03 Mar 2026	1330456	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH07/MW02_0.1_1.0	03 Mar 2026	1330456	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH07/MW02_1.9-2.0	03 Mar 2026	1330456	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH07/MW02_3.9-4.0	03 Mar 2026	1330456	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH08/MW03_0.2_0.3	03 Mar 2026	1330456	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH08/MW03_0.9_1.9	03 Mar 2026	1330456	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH08/MW03_3.9_4.0	03 Mar 2026	1330456	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH08/MW03_4.9_5.0	03 Mar 2026	1330456	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH08/MW03_6.9_7.0 (Natural)	03 Mar 2026	1330456	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH09_0.0_0.1	03 Mar 2026	1330456	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH09_1.1_2.1	03 Mar 2026	1330456	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH09_2.9_3.0	03 Mar 2026	1330456	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

TABLE A - SOIL ANALYTICAL SUMMARY TABLE
Project Number: 70147
Project Name: ESA, 4 Mavie Street , DWD Projects Pty Ltd

JBS&G
A Geosyntec Company

	Polychlorinated Biphenyls								Phenols																		
	Arochlor 1016	Arochlor 1221	Arochlor 1232	Arochlor 1242	Arochlor 1248	Arochlor 1254	Arochlor 1260	PCBs (Sum of total)	2,4,5-trichlorophenol	2,4,6-trichlorophenol	2,4-dichlorophenol	2,4-dimethylphenol	2,4-dinitrophenol	2,6-dichlorophenol	2-chlorophenol	2-Methylphenol	2-nitrophenol	3&4-Methylphenol (m&p-cresol)	4,6-Dinitro-2-methylphenol	4,6-Dinitro-o-cyclohexyl phenol	4-Chloro-3-Methylphenol	4-nitrophenol	Cresol Total	Phenol	Tetrachlorophenols	Phenols (Total Halogenated)	Phenols (Total Non Halogenated)
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.5	0.5	0.5	0.5	5	0.5	0.5	0.2	0.5	0.4	5	20	0.5	5	0.5	0.5	10	1	20
CRC Care 2011 Table A4 Direct Contact HSL-B Residential (High Density)																											
CRC Care 2011 Table A4 Direct Contact HSL-D Commercial / Industrial																											
NEPM (2013) Table 1A(1) HILs Comm/Ind D Soil								7															25,000	240,000			
NEPM 2013 Table 1A(1) HILs Res B Soil								1															4,700	45,000			
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Clay																											
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand																											
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Clay																											
Site Specific - EIL - Areas of Ecological Significance																											
Site Specific - EIL - Urban Residential and Public Open Space																											
Site Specific - EIL - Comm/Ind																											
NEPM 2013 Table 1B(6) ESLs for Areas of Ecological Significance, Coarse Soil																											
NEPM 2013 Table 1B(6) ESLs for Areas of Ecological Significance, Fine Soil																											
NEPM 2013 Table 1B(6) ESLs for Comm/Ind, Coarse Soil																											
NEPM 2013 Table 1B(6) ESLs for Comm/Ind, Fine Soil																											
NEPM 2013 Table 1B(6) ESLs for Urban Res, Coarse Soil																											
NEPM 2013 Table 1B(6) ESLs for Urban Res, Fine Soil																											
NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Fine Soil																											
NEPM 2013 Table 1B(7) Management Limits in Res / Parkland, Fine Soil																											
NEPM 2013 Table 7 Comm/Ind D Soil HSL for Asbestos in Soil																											
NEPM 2013 Table 7 Res B Soil HSL for Asbestos in Soil																											
PFAS NEMP 3.1 (2026) Ecological Direct Exposure - all land uses																											
PFAS NEMP 3.1 (2026) HIL B - Residential with Minimal Soil Access																											
PFAS NEMP 3.1 (2026) HIL D - Commercial/Industrial																											
PFAS NEMP 3.1 (2026) Interim Ecological Direct Exposure (Reptiles)																											
PFAS NEMP 3.1 (2026) Interim Ecological Indirect Exposure - all land uses																											
Field ID	**Date/Parent**	**Lab Report Number**																									
BH01/MW01_0.2-0.3	02 Mar 2026	1330281	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH01/MW01_3.9-4.0	02 Mar 2026	1330281	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH01/MW01_6.4-6.5 (Historical Fill)	02 Mar 2026	1330281	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH01/MW01_7.9-8.0 (Natural)	02 Mar 2026	1330281	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH02_0.9-1.0	02 Mar 2026	1330281	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH02_0.9-1.0	02 Mar 2026	1335779	-	-	-	-	-	-	-	-	<1	<1	<0.5	<0.5	<5	<0.5	<0.5	<0.2	<1	<0.4	<5	<20	<1	<5	<0.5	<0.5	<10	<1	<20
QC01_20260302	BH02_0.9-1.0	1330281	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QC01_20260302	BH02_0.9-1.0	1335779	-	-	-	-	-	-	-	-	<1	<1	<0.5	<0.5	<5	<0.5	<0.5	<0.2	<1	<0.4	<5	<20	<1	<5	<0.5	<0.5	<10	<1	<20
QA01_20260302	BH02_0.9-1.0	ES2606757	-	-	-	-	-	-	-	<0.1	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<1	-	-	<0.5	-	-	<0.5	-	-	-
BH02_1.0-2.0	02 Mar 2026	1330281	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QC01_20260302AQ	BH02_1.0-2.0	1330281	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QA01_20260302AQ	BH02_1.0-2.0	ES2606757	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH02_2.2-2.3	02 Mar 2026	1330281	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH02_2.9-3.0	02 Mar 2026	1330281	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH03_0.1-1.0	02 Mar 2026	1330281	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QC02_20260302AQ	BH03_0.1-1.0	1330281	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QA02_20260302AQ	BH03_0.1-1.0	ES2606757	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH03_0.2-0.3	02 Mar 2026	1330281	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QC02_20260302	BH03_0.2-0.3	1335779	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	<1	<0.5	<0.5	<5	<0.5	<0.5	<0.2	<1	<0.4	<5	<20	<1	<5	<0.5	<0.5	<10	<1	<20
QA02_20260302	BH03_0.2-0.3	ES2606757	-	-	-	-	-	-	-	<0.1	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<1	-	-	<0.5	-	-	<0.5	-	-	-
BH03_0.2-0.3	02 Mar 2026	1335779	-	-	-	-	-	-	-	-	<1	<1	<0.5	<0.5	<5	<0.5	<0.5	<0.2	<1	<0.4	<5	<20	<1	<5	<0.5	<0.5	<10	<1	<20
BH03_3.9-4.0	02 Mar 2026	1330281	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH04_0.0-0.1	02 Mar 2026	1330281	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH04_0.9-1.0	02 Mar 2026	1330281	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH04_4.0-5.0	02 Mar 2026	1330281	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH04_5.9-6.0	02 Mar 2026	1330281	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH05_0.0-0.1	02 Mar 2026	1330281	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH05_0.2-0.3	02 Mar 2026	1330281	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH05_0.4-0.5	02 Mar 2026	1330281	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH05_2.0-3.0	02 Mar 2026	1330281	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH05_4.9-5.0	02 Mar 2026	1330281	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH06_0.0-0.1	02 Mar 2026	1330281	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH06_2.0-3.0	02 Mar 2026	1330281	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH06_2.9-3.0	02 Mar 2026	1330281	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH06_4.0-5.0	02 Mar 2026	1330281	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH06_4.0-5.0	02 Mar 2026	1330281	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH06_4.9-5.0	02 Mar 2026	1330281	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH07/MW02_0.0-0.1	03 Mar 2026	1330456	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH07/MW02_0.1_1.0	03 Mar 2026	1330456	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH07/MW02_1.9-2.0	03 Mar 2026	1330456	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH07/MW02_3.9-4.0	03 Mar 2026	1330456	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH08/MW03_0.2_0.3	03 Mar 2026	1330456	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH08/MW03_0.9_1.9	03 Mar 2026	1330456	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH08/MW03_3.9_4.0	03 Mar 2026	1330456	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH08/MW03_4.9_5.0	03 Mar 2026	1330456	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH08/MW03_6.9_7.0 (Natural)	03 Mar 2026	1330456	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH09_0.0_0.1	03 Mar 2026	1330456	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH09_1.1_2.1	03 Mar 2026	1330456	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH09_2.9_3.0	03 Mar 2026	1330456	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

TABLE A - SOIL ANALYTICAL SUMMARY TABLE
Project Number: 70147
Project Name: ESA, 4 Mavie Street , DWD Projects Pty Ltd

JBS&G
A Geosyntec Company

					PFAS																														
					Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorooctanoic acid (PFOA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (NMeFOSA)	N-Ethyl perfluorooctane sulfonamide (NEtFOSA)	N-Methylperfluorooctanesulfonamidoethanol (N-MeFOSE)	N-ethylperfluorooctanesulfonamidoethanol (NEtFOSE)	N-methylperfluorooctane sulfonamidoacetic acid (NMeFOSAA)	N-ethyl-perfluorooctanesulfonamidoacetic acid (NEtFOSAA)	Perfluoropropanesulfonic acid (PFPrS)	Perfluorobutanesulfonic acid (PFBS)	Perfluoropentanesulfonic acid (PFPeS)	Perfluorohexanesulfonic acid (PFHxS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorooctanesulfonic acid (PFOS)	Perfluorodecanesulfonic acid (PFDS)	1H,1H,2H,2H-perfluorohexanesulfonic acid (4:2 FTSA)	1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2 FTSA)	1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2 FTSA)	1H,1H,2H,2H-perfluorododecanesulfonic acid (10:2 FTSA)	Sum of PFHxS and PFOS	Sum of PFAS	Perfluorononanesulfonic acid ion
					mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL					0.0005	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0002	0.0005	0.0005	0.0005	0.0005	0.0002	0.0002	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0005	0.0001	0.0001	0.0001	0.0002	0.0001
CRC Care 2011 Table A4 Direct Contact HSL-B Residential (High Density)																																				
CRC Care 2011 Table A4 Direct Contact HSL-D Commercial / Industrial																																				
NEPM (2013) Table 1A(1) HILs Comm/Ind D Soil																																				
NEPM 2013 Table 1A(1) HILs Res B Soil																																				
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Clay																																				
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand																																				
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Clay																																				
Site Specific - EIL - Areas of Ecological Significance																																				
Site Specific - EIL - Urban Residential and Public Open Space																																				
Site Specific - EIL - Comm/Ind																																				
NEPM 2013 Table 1B(6) ESLs for Areas of Ecological Significance, Coarse Soil																																				
NEPM 2013 Table 1B(6) ESLs for Areas of Ecological Significance, Fine Soil																																				
NEPM 2013 Table 1B(6) ESLs for Comm/Ind, Coarse Soil																																				
NEPM 2013 Table 1B(6) ESLs for Comm/Ind, Fine Soil																																				
NEPM 2013 Table 1B(6) ESLs for Urban Res, Coarse Soil																																				
NEPM 2013 Table 1B(6) ESLs for Urban Res, Fine Soil																																				
NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Fine Soil																																				
NEPM 2013 Table 1B(7) Management Limits in Res / Parkland, Fine Soil																																				
NEPM 2013 Table 7 Comm/Ind D Soil HSL for Asbestos in Soil																																				
NEPM 2013 Table 7 Res B Soil HSL for Asbestos in Soil																																				
PFAS NEMP 3.1 (2026) Ecological Direct Exposure - all land uses					10																							1							
PFAS NEMP 3.1 (2026) HIL B - Residential with Minimal Soil Access					20																			2		2						2		
PFAS NEMP 3.1 (2026) HIL D - Commercial/Industrial					50																			20		20						20		
PFAS NEMP 3.1 (2026) Interim Ecological Direct Exposure (Reptiles)					0.005																														
PFAS NEMP 3.1 (2026) Interim Ecological Indirect Exposure - all land uses					0.003																							0.003							
Field ID	**Date/Parent**	**Lab Report Number**																																		
BH01/MW01_0.2-0.3	02 Mar 2026	1330281	<0.0005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0005	<0.0001	<0.0001	<0.0001	<0.0005	<0.0001
BH01/MW01_3.9-4.0	02 Mar 2026	1330281	<0.0005	<0.0001	<0.0001	0.0002	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	0.0002	<0.0001	<0.0001	<0.0005	<0.0001	<0.0001	0.0002	<0.0005	<0.0001
BH01/MW01_6.4-6.5 (Historical Fill)	02 Mar 2026	1330281	<0.0005	<0.0001	<0.0001	0.0002	<0.0001	0.0018	0.0002	0.0045	<0.0001	<0.0001	<0.0001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	0.0002	<0.0001	<0.0001	0.0002	<0.0001	0.0073	<0.0001	<0.0001	<0.0005	<0.0001	<0.0001	0.0075	0.014	<0.0001
BH01/MW01_7.9-8.0 (Natural)	02 Mar 2026	1330281	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH02_0.9-1.0	02 Mar 2026	1330281	<0.0005	0.0001	0.0001	0.0004	0.0004	0.0004	0.0005	0.0003	0.0001	0.0002	<0.0001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0001	0.0002	<0.0001	0.0021	<0.0001	<0.0001	<0.0005	<0.0001	<0.0001	0.0023	0.0048	<0.0001
BH02_0.9-1.0	02 Mar 2026	1335779	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QC01_20260302	BH02_0.9-1.0	1330281	<0.0005	<0.0001	<0.0001	<0.0001	0.0001	<0.0001	0.0001	0.0001	<0.0001	<0.0001	<0.0001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	0.0016	<0.0001	<0.0001	<0.0005	<0.0001	<0.0001	0.0016	0.0019	<0.0001
QC01_20260302	BH02_0.9-1.0	1335779	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QA01_20260302	BH02_0.9-1.0	ES2606757	<0.001	<0.0002	0.0002	<0.0002	0.0004	<0.0002	0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0002	<0.0005	<0.0002	<0.0002	0.0005	<0.0002	0.0021	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	0.0026	0.0034	<0.0002
BH02_1.0-2.0	02 Mar 2026	1330281	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QC01_20260302AQ	BH02_1.0-2.0	1330281	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QA01_20260302AQ	BH02_1.0-2.0	ES2606757	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH02_2.2-2.3	02 Mar 2026	1330281	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH02_2.9-3.0	02 Mar 2026	1330281	<0.0005	0.0002	0.0002	0.0002	0.0002	0.0001	<0.0001	0.0003	<0.0001	0.0002	<0.0001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	0.0008	<0.0001	<0.0001	<0.0005	<0.0001	<0.0001	0.0008	0.0022	<0.0001
BH03_0.1-1.0	02 Mar 2026	1330281	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QC02_20260302AQ	BH03_0.1-1.0	1330281	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QA02_20260302AQ	BH03_0.1-1.0	ES2606757	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH03_0.2-0.3	02 Mar 2026	1330281	<0.0005	<0.0001	<0.0001	0.0002	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	0.0002	<0.0001	<0.0001	<0.0005	<0.0001	<0.0001	0.0002	<0.0005	<0.0001
QC02_20260302	BH03_0.2-0.3	1335779	<0.0005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0001	<0.0001	<0.0001	<0.0001	0.0003	<0.0001	<0.0001	<0.001	<0.0001	<0.0001	0.0003	<0.001	<0.0001
QA02_20260302	BH03_0.2-0.3	ES2606757	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0002	<0.0005	<0.0002	<0.0002	0.0003	<0.0002	0.0005	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	0.0008	0.0008	<0.0002
BH03_0.2-0.3	02 Mar 2026	1335779	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH03_3.9-4.0	02 Mar 2026	1330281	<0.0005	<0.0001	<0.0001	0.0001	<0.0001	<0.0001	<0.0001	0.0001	<0.0001	0.0005	<0.0001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0005	<0.0001	<0.0001	<0.0001	0.0007	<0.0001
BH04_0.0-0.1	02 Mar 2026	1330281	<0.0005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	0.0001	<0.0001	<0.0001	<0.0001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0005	<0.0001	<0.0001	<0.0001	<0.0005	<0.0001
BH04_0.9-1.0	02 Mar 2026	1330281	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH04_4.0-5.0	02 Mar 2026	1330281	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH04_5.9-6.0	02 Mar 2026	1330281	<0.0005	<0.0001	<0.0001	0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0001	<0.0001	<0.0001	<0.0001	0.0004	<0.0001	<0.0001	<0.0005	<0.0001	<0.0001	0.0004	0.0005	<0.0001
BH05_0.0-0.1	02 Mar 2026	1330281	<0.0005	<0.0001	<0.0001	0.0001	0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0001	<0.0001	<0.0001	<0.0001	0.0007	<0.0001	<0.0001	<0.0005	<0.0001	<0.0001	0.0007	0.0009	<0.0001
BH05_0.2-0.3	02 Mar 2026	1330281	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH05_0.4-0.5	02 Mar 2026	1330281	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH05_2.0-3.0	02 Mar 2026	1330281	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH05_4.9-5.0	02 Mar 2026	1330281	<0.0005	<0.0001	<0.0001	0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	0.0008	<0.0001	<0.0005	<0.0005	<0.0001	<0.0001	0.0008	0.0009	<0.0001
BH06_0.0-0.1	02 Mar 2026	1330281	<0.0005	<0.0001	<0.0001	0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0001	<0.0001	<0.0001	<0.0001	0.0003	<0.0001	0.0045	<0.0001	<0.0001	<0.0005	<0.0001	<0.0001	0.0048	0.0049	<0.0001
BH06_2.0-3.0	02 Mar 2026	1330281	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH06_2.9-3.0	02 Mar 2026	1330281	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH06_4.0-5.0	02 Mar 2026	1330281	<0.0005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0005	<0.0001	<0.0001	<0.0001	<0.0005	<0.0001
BH06_4.0-5.0	02 Mar 2026	1330281	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH06_4.9-5.0	02 Mar 2026	1330281	<0.0005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0005	<0.0001	<0.0001	<0.0001	<0.0005	<0.0001
BH07/MW02_0.0-0.1	03 Mar 2026	1330456	<0.0005	<0.0001	<0.0001	0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	0.0002	<0.0001	<0.0001	<0.0005	<0.0001	<0.0001	0.0002	<0.0005	<0.0001
BH07/MW02_0.1_1.0	03 Mar 2026	1330456	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH07/MW02_1.9-2.0	03 Mar 2026	1330456	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH07/MW02_3.9-4.0	03 Mar 2026	1330456	<0.0005	<0.0001	<0.0001	0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	0.0004	<0.0001	<0.0001	<0.0005	<0.0001	<0.0001	0.0004	0.0005	<0.0001
BH08/MW03_0.2_0.3	03 Mar 2026	1330456	<0.0005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0005	<0.0001	<0.0001	<0.0001	<0.0005	<0.0001
BH08/MW03_0.9_1.9	03 Mar 2026	1330456	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH08/MW03_3.9_4.0	03 Mar 2026	1330456	<0.0005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0005	<0.0001	<0.0001	<0.0001	<0.0005	<0.0001
BH08/MW03_4.9_5.0	03 Mar 2026	1330456	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH08/MW03_6.9_7.0 (Natural)	03 Mar 2026	1330456	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH09_0.0_0.1	03 Mar 2026	1330456	<0.0005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0005	<0.0001	<0.0001	<0.0001	<0.0005	<0.0001
BH09_1.1_2.1	03 Mar 2026	1330456	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH09_2.9_3.0	03 Mar 2026	1330456	<0.0005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	0.0002	<0.0001	<0.0001	<0.0005	<0.0001	<0.0001	0.0002	<0.0005	<0.0001

TABLE A - SOIL ANALYTICAL SUMMARY TABLE
Project Number: 70147
Project Name: ESA, 4 Mavie Street , DWD Projects Pty Ltd

JBS&G
A Geosyntec Company

				Asbestos - Eurofins															Asbestos - ALS			Ionic Balance		Other			
	Approximate Sample Mass	Mass ACM	Mass Asbestos in ACM	Asbestos from ACM in Soil	Mass FA	Mass Asbestos in FA	Mass AF	Mass asbestos in AF	Mass Asbestos in FA & AF	ACM - Comment	FA- Comment	AF - Comment	Organic Fibres - Comment	Respirable Fibres - Comment	Synthetic Fibres - Comment	Asbestos Reported Result	Asbestos FA & AF in Soil	weight of sample	Asbestos ID in Soil	Asbestos (ACM >7mm) Estimation	CEC	Electrical Conductivity (Lab)	% Clay	Moisture Content (dried @ 103°C)	TOC	Iron (%)
	g	g	g	% (w/w)	g	g	g	g	g	Comment	Comment	Comment	Comment	Comment	Comment	Comment	% (w/w)	g	g/kg	g	MEQ/100G	dS/m	%	%	%	%
EQL				0.01													0.001	0.01	0.1	0.0004	0.5	0.01	2.5	1	0.1	0.01
CRC Care 2011 Table A4 Direct Contact HSL-B Residential (High Density)																										
CRC Care 2011 Table A4 Direct Contact HSL-D Commercial / Industrial																										
NEPM (2013) Table 1A(1) HILs Comm/Ind D Soil																										
NEPM 2013 Table 1A(1) HILs Res B Soil																										
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Clay																										
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand																										
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Clay																										
Site Specific - EIL - Areas of Ecological Significance																										
Site Specific - EIL - Urban Residential and Public Open Space																										
Site Specific - EIL - Comm/Ind																										
NEPM 2013 Table 1B(6) ESLs for Areas of Ecological Significance, Coarse Soil																										
NEPM 2013 Table 1B(6) ESLs for Areas of Ecological Significance, Fine Soil																										
NEPM 2013 Table 1B(6) ESLs for Comm/Ind, Coarse Soil																										
NEPM 2013 Table 1B(6) ESLs for Comm/Ind, Fine Soil																										
NEPM 2013 Table 1B(6) ESLs for Urban Res, Coarse Soil																										
NEPM 2013 Table 1B(6) ESLs for Urban Res, Fine Soil																										
NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Fine Soil																										
NEPM 2013 Table 1B(7) Management Limits in Res / Parkland, Fine Soil																										
NEPM 2013 Table 7 Comm/Ind D Soil HSL for Asbestos in Soil				0.05													0.001									
NEPM 2013 Table 7 Res B Soil HSL for Asbestos in Soil				0.04													0.001									
PFAS NEMP 3.1 (2026) Ecological Direct Exposure - all land uses																										
PFAS NEMP 3.1 (2026) HIL B - Residential with Minimal Soil Access																										
PFAS NEMP 3.1 (2026) HIL D - Commercial/Industrial																										
PFAS NEMP 3.1 (2026) Interim Ecological Direct Exposure (Reptiles)																										
PFAS NEMP 3.1 (2026) Interim Ecological Indirect Exposure - all land uses																										
Field ID	**Date/Parent**	**Lab Report Number**																									
BH01/MW01_0.2-0.3	02 Mar 2026	1330281	301	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1	1	1	1	1	1	1	0.0000	-	-	-	-	-	-	24	-	-
BH01/MW01_3.9-4.0	02 Mar 2026	1330281	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7.1	-	-
BH01/MW01_6.4-6.5 (Historical Fill)	02 Mar 2026	1330281	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	19	-	-
BH01/MW01_7.9-8.0 (Natural)	02 Mar 2026	1330281	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.5	0.68	15	11	0.4	-
BH02_0.9-1.0	02 Mar 2026	1330281	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11	-	-
BH02_0.9-1.0	02 Mar 2026	1335779	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10.0	-	-
QC01_20260302	BH02_0.9-1.0	1330281	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9.7	-	-
QC01_20260302	BH02_0.9-1.0	1335779	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10	-	-
QA01_20260302	BH02_0.9-1.0	ES2606757	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH02_1.0-2.0	02 Mar 2026	1330281	702	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1	1	1	1	1	1	1	0.0000	-	-	-	-	-	-	-	-	-
QC01_20260302AQ	BH02_1.0-2.0	1330281	599	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1	1	1	1	1	1	1	0.0000	-	-	-	-	-	-	-	-	-
QA01_20260302AQ	BH02_1.0-2.0	ES2606757	-	-	-	<0.01	-	-	-	-	-	-	-	-	-	-	-	-	<0.001	571	0	<0.0004	-	-	-	-	-	-
BH02_2.2-2.3	02 Mar 2026	1330281	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6.1	-	-
BH02_2.9-3.0	02 Mar 2026	1330281	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	19	-	-
BH03_0.1-1.0	02 Mar 2026	1330281	706	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1	1	1	1	1	1	1	0.0000	-	-	-	-	-	-	-	-	-
QC02_20260302AQ	BH03_0.1-1.0	1330281	754	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1	1	1	1	1	1	1	0.0000	-	-	-	-	-	-	-	-	-
QA02_20260302AQ	BH03_0.1-1.0	ES2606757	-	-	-	<0.01	-	-	-	-	-	-	-	-	-	-	-	-	<0.001	787	0	<0.0004	-	-	-	-	-	-
BH03_0.2-0.3	02 Mar 2026	1330281	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	20	+	-
QC02_20260302	BH03_0.2-0.3	1335779	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	33	-	-
QA02_20260302	BH03_0.2-0.3	ES2606757	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH03_0.2-0.3	02 Mar 2026	1335779	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	29	-	-
BH03_3.9-4.0	02 Mar 2026	1330281	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	18	-	-
BH04_0.0-0.1	02 Mar 2026	1330281	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	26	-	-
BH04_0.9-1.0	02 Mar 2026	1330281	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11	-	-
BH04_4.0-5.0	02 Mar 2026	1330281	690	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1	1	1	1	1	1	1	0.0000	-	-	-	-	-	-	-	-	-
BH04_5.9-6.0	02 Mar 2026	1330281	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	18	-	-
BH05_0.0-0.1	02 Mar 2026	1330281	154	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1	1	1	1	1	1	1	0.0000	-	-	-	-	-	-	24	-	-
BH05_0.2-0.3	02 Mar 2026	1330281	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12	-	-
BH05_0.4-0.5	02 Mar 2026	1330281	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	14	-	-
BH05_2.0-3.0	02 Mar 2026	1330281	791	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1	1	1	1	1	1	1	0.0000	-	-	-	-	-	-	-	-	-
BH05_4.9-5.0	02 Mar 2026	1330281	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12	-	-
BH06_0.0-0.1	02 Mar 2026	1330281	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	18	-	-
BH06_2.0-3.0	02 Mar 2026	1330281	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10	-	-
BH06_2.9-3.0	02 Mar 2026	1330281	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11	-	-
BH06_4.0-5.0	02 Mar 2026	1330281	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11	-	-
BH06_4.0-5.0	02 Mar 2026	1330281	467	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1	1	1	1	1	1	1	0.0000	-	-	-	-	-	-	-	-	-
BH06_4.9-5.0	02 Mar 2026	1330281	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11	-	-
BH07/MW02_0.0-0.1	03 Mar 2026	1330456	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	21	-	-
BH07/MW02_0.1_1.0	03 Mar 2026	1330456	446	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1	1	1	1	1	1	1	0.0000	-	-	-	-	-	-	-	-	-
BH07/MW02_1.9-2.0	03 Mar 2026	1330456	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8.4	-	-
BH07/MW02_3.9-4.0	03 Mar 2026	1330456	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11	-	-
BH08/MW03_0.2_0.3	03 Mar 2026	1330456	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12	-	-
BH08/MW03_0.9_1.9	03 Mar 2026	1330456	497	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1	1	1	1	1	1	1	0.0000	-	-	-	-	-	-	-	-	-
BH08/MW03_3.9_4.0	03 Mar 2026	1330456	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10	-	-
BH08/MW03_4.9_5.0	03 Mar 2026	1330456	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	30	-	-
BH08/MW03_6.9_7.0 (Natural)	03 Mar 2026	1330456	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.0	0.77	30	13	0.7	3.4
BH09_0.0_0.1	03 Mar 2026	1330456	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8.3	-	-
BH09_1.1_2.1	03 Mar 2026	1330456	777	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1	1	1	1	1	1	1	0.0000	-	-	-	-	-	-	-	-	-
BH09_2.9_3.0	03 Mar 2026	1330456	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6.5	-	-

TABLE B - SEDIMENT ANALYTICAL SUMMARY TABLE
Project Number: 70147
Project Name: ESA, 4 Mavie Street , DWD Projects Pty Ltd

JBS&G
A Geosyntec Company

	Metals & Metalloids												TPHs (NEPC 1999)					TRHs (NEPC 2013)							BTEXN							
	Arsenic	Cadmium	Chromium (III+VI)	Copper	Lead	Mercury	Molybdenum	Nickel	Selenium	Silver	Tin	Zinc	C6-C9 Fraction	C10-C14 Fraction	C15-C28 Fraction	C29-C36 Fraction	C10-C36 Fraction (Sum of Total)	C6-C10	C10-C16	C16-C34	C34-C40	C10-C40 (Sum of total)	F1 (C6-C10 minus BTEX)	F2 (C10-C16 less Naphthalene)	Benzene	Toluene	Ethylbenzene	Xylene (o)	Xylene (m & p)	Xylene Total	Total BTEX	Naphthalene_VOC
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL	2	0.4	2	5	5	0.1	2	2	2	2	5	5	10	20	50	50	50	10	50	100	100	50	10	50	0.1	0.1	0.1	0.1	0.2	0.3	0.2	0.5
ANZG (2018) - Sediment Quality DGV	20	1.5	80	65	50	0.15		21		1		200	280				280	280				280										
ANZG (2018) - Sediment Quality GV-high	70	10	370	270	220	1		52		4		410	550				550	550				550										
PFAS NEMP 3.1 (2026) Ecological Direct Exposure - all land uses																																
PFAS NEMP 3.1 (2026) Interim Ecological Direct Exposure (Reptiles)																																
PFAS NEMP 3.1 (2026) Interim Ecological Indirect Exposure - all land uses																																

Field ID	Date/Parent	Wet/Dry	Lab Report Number																													
SDT01	04 Mar 2026	Wet	1331080	14	<0.4	62	20	9.4	<0.1	<5	9.8	<2	<2	<10	37	<20	<20	<50	<50	<50	<20	<50	<100	<100	<100	<20	<50	-	-	-	-	-	-	-	<0.5
SDT02	04 Mar 2026	Wet	1331080	9.7	<0.4	55	7.4	8.3	<0.1	<5	<5	<2	<2	<10	39	<20	<20	<50	<50	<50	<20	<50	<100	<100	<100	<20	<50	-	-	-	-	-	-	-	<0.5
SDT03	04 Mar 2026	Wet	1331080	21	<0.4	86	7.6	13	<0.1	5.7	6.0	<2	<2	<10	38	<20	<20	<50	<50	<50	<20	<50	<100	<100	<100	<20	<50	-	-	-	-	-	-	-	<0.5
SDT-B01	04 Mar 2026	Wet	1331080	14	<0.4	53	56	30	<0.1	<5	17	<2	<2	<10	2,900	<20	<20	<50	<50	<50	<20	<50	<100	<100	<100	<20	<50	-	-	-	-	-	-	-	<0.5
QC08_20260304	SDT-B01	Wet	1331080	16	<0.4	52	34	23	<0.1	<5	18	<2	<2	<10	4,400	<20	<20	<50	<50	<50	<20	<50	<100	<100	<100	<20	<50	-	-	-	-	-	-	-	<0.5
QA08_20260304	SDT-B01	Wet	ES2606940	11	<1	35	44	19	<0.1	-	12	-	-	-	2,420	<10	<50	<100	<100	<50	<10	<50	<100	<100	<50	<10	<50	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<1
SDT-B02	04 Mar 2026	Wet	1331080	20	<0.4	54	1,400	72	<0.1	5.3	13	<2	<2	27	1,000	<20	<20	<50	<50	<50	<20	<50	<100	<100	<100	<20	<50	-	-	-	-	-	-	-	<0.5
SDT-B03	04 Mar 2026	Wet	1331080	12	<0.4	31	19	25	<0.1	<5	<5	<2	<2	<10	49	<20	<20	<50	<50	<50	<20	<50	<100	<100	<100	<20	<50	-	-	-	-	-	-	-	<0.5
SDT01-DS	03 Jun 2026	Dry	1368242	26	<0.4	140	12	40	<0.1	<5	5.5	<2	<2	<10	39	<20	<20	<50	<50	<50	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	-	<0.5
SDT02-DS	03 Jun 2026	Dry	1368242	15	<0.4	76	8.2	18	<0.1	<5	<5	<2	<2	<10	45	<20	<20	<50	<50	<50	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	-	<0.5
SDT03-DS	03 Jun 2026	Dry	1368242	21	<0.4	86	14	18	<0.1	6.6	9.1	<2	<2	<10	37	<20	<20	<50	<50	<50	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	-	<0.5
SDT-B01-DS	03 Jun 2026	Dry	1368242	16	<0.4	62	34	26	<0.1	<5	15	<2	<2	<10	570	<20	<20	<50	<50	<50	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	-	<0.5
QC01_20260603SDT	SDT-B01-DS	Dry	1368242	11	<0.4	41	20	24	<0.1	<5	11	<2	<2	<10	630	<20	<20	<50	<50	<50	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	-	<0.5
QA01_20260603SDT	SDT-B01-DS	Dry	ES2617909	11	<1	37	31	40	<0.1	<2	11	<5	<2	<5	591	<10	<50	<100	<100	<50	<10	<50	<100	<100	<50	<10	<50	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<1
SDT-B02-DS	01 Jun 2026	Dry	1368242	27	<0.4	64	1,500	46	<0.1	<5	24	<2	<2	<10	1,100	<20	<20	<50	<50	<50	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	-	<0.5
SDT-B03-DS	03 Jun 2026	Dry	1368242	39	<0.4	200	77	180	<0.1	23	45	<2	<2	<10	110	<20	<20	<50	<50	<50	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	-	<0.5

Comments
#1 Adopted from Sum of PFOS + PFHxS

TABLE B - SEDIMENT ANALYTICAL SUMMARY TABLE
Project Number: 70147
Project Name: ESA, 4 Mavie Street , DWD Projects Pty Ltd

	PAH																			
	Acenaphthene	Acenaphthylene	Anthracene	Benz[a]anthracene	Benzo(a)pyrene	Benzo(a)pyrene TEQ (LOR)	Benzo(a)pyrene TEQ calc (Half)	Benzo(a)pyrene TEQ calc (Zero)	Benzo(b+j)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-c,d)pyrene	Naphthalene	Phenanthrene	Pyrene	PAHs (Sum of total)
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
ANZG (2018) - Sediment Quality DGV																				10
ANZG (2018) - Sediment Quality GV-high																				50
PFAS NEMP 3.1 (2026) Ecological Direct Exposure - all land uses																				
PFAS NEMP 3.1 (2026) Interim Ecological Direct Exposure (Reptiles)																				
PFAS NEMP 3.1 (2026) Interim Ecological Indirect Exposure - all land uses																				
Field ID	**Date/Parent**	**Wet/Dry**	**Lab Report Number**																	
SDT01	04 Mar 2026	Wet	1331080	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
SDT02	04 Mar 2026	Wet	1331080	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
SDT03	04 Mar 2026	Wet	1331080	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
SDT-B01	04 Mar 2026	Wet	1331080	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
QC08_20260304	SDT-B01	Wet	1331080	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
QA08_20260304	SDT-B01	Wet	ES2606940	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
SDT-B02	04 Mar 2026	Wet	1331080	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
SDT-B03	04 Mar 2026	Wet	1331080	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
SDT01-DS	03 Jun 2026	Dry	1368242	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
SDT02-DS	03 Jun 2026	Dry	1368242	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
SDT03-DS	03 Jun 2026	Dry	1368242	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
SDT-B01-DS	03 Jun 2026	Dry	1368242	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
QC01_20260603SDT	SDT-B01-DS	Dry	1368242	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
QA01_20260603SDT	SDT-B01-DS	Dry	ES2617909	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
SDT-B02-DS	01 Jun 2026	Dry	1368242	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
SDT-B03-DS	03 Jun 2026	Dry	1368242	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

Comments
#1 Adopted from Sum of PFOS + PFHxS

TABLE B - SEDIMENT ANALYTICAL SUMMARY TABLE
Project Number: 70147
Project Name: ESA, 4 Mavie Street , DWD Projects Pty Ltd

	Organochlorine Pesticides																											
	Pentachlorophenol	4,4-DDE	a-BHC	b-BHC	d-BHC	g-BHC (Lindane)	Aldrin	Dieldrin	Aldrin + Dieldrin	Chlordane	Chlordane (cis)	Chlordane (trans)	DDT	DDD	DDT+DDE+DDD	Endosulfan	Endosulfan I	Endosulfan II	Endosulfan sulphate	Endrin	Endrin aldehyde	Endrin ketone	Heptachlor	Heptachlor Epoxide	Hexachlorobenzene	Methoxychlor	Toxaphene
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL	1	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.05	0.05	0.001	0.001	0.001	0.05	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
ANZG (2018) - Sediment Quality DGV		0.0014				0.0009		0.0028		0.0045			0.0012							0.0027								
ANZG (2018) - Sediment Quality GV-high		0.007				0.0014		0.007		0.009			0.005							0.06								
PFAS NEMP 3.1 (2026) Ecological Direct Exposure - all land uses																												
PFAS NEMP 3.1 (2026) Interim Ecological Direct Exposure (Reptiles)																												
PFAS NEMP 3.1 (2026) Interim Ecological Indirect Exposure - all land uses																												

Field ID	Date/Parent	Wet/Dry	Lab Report Number																									
SDT01	04 Mar 2026	Wet	1331080	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	-	-	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
SDT02	04 Mar 2026	Wet	1331080	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	-	-	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
SDT03	04 Mar 2026	Wet	1331080	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	-	-	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
SDT-B01	04 Mar 2026	Wet	1331080	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	-	-	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
QC08_20260304	SDT-B01	Wet	1331080	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	-	-	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
QA08_20260304	SDT-B01	Wet	ES2606940	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	-
SDT-B02	04 Mar 2026	Wet	1331080	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	-	-	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
SDT-B03	04 Mar 2026	Wet	1331080	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	-	-	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
SDT01-DS	03 Jun 2026	Dry	1368242	<1	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.006	<0.001	-	-	<0.001	<0.001	<0.001	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SDT02-DS	03 Jun 2026	Dry	1368242	<1	<0.001	<0.001	<0.001	<0.001	<0.001	0.003	0.014	0.017	<0.001	-	-	<0.001	<0.001	<0.001	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SDT03-DS	03 Jun 2026	Dry	1368242	<1	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	0.045	0.046	<0.001	-	-	<0.001	<0.001	<0.001	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SDT-B01-DS	03 Jun 2026	Dry	1368242	<1	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	-	-	<0.001	<0.001	<0.001	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
QC01_20260603SDT	SDT-B01-DS	Dry	1368242	<1	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	-	-	<0.001	<0.001	<0.001	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
QA01_20260603SDT	SDT-B01-DS	Dry	ES2617909	<2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	-
SDT-B02-DS	01 Jun 2026	Dry	1368242	<1	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.002	0.002	<0.001	-	-	<0.001	<0.001	<0.001	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SDT-B03-DS	03 Jun 2026	Dry	1368242	<1	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.002	0.002	<0.001	-	-	<0.001	<0.001	<0.001	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001

Comments
#1 Adopted from Sum of PFOS + PFHxS

TABLE B - SEDIMENT ANALYTICAL SUMMARY TABLE
Project Number: 70147
Project Name: ESA, 4 Mavie Street , DWD Projects Pty Ltd

	Polychlorinated Biphenyls								Phenols																		
	Arochlor 1016	Arochlor 1221	Arochlor 1232	Arochlor 1242	Arochlor 1248	Arochlor 1254	Arochlor 1260	PCBs (Sum of total)	2,4,5-trichlorophenol	2,4,6-trichlorophenol	2,4-dichlorophenol	2,4-dimethylphenol	2,4-dinitrophenol	2,6-dichlorophenol	2-chlorophenol	2-Methylphenol	2-nitrophenol	3&4-Methylphenol (m&p-cresol)	4,6-Dinitro-2-methylphenol	4,6-Dinitro-o-cyclohexyl phenol	4-Chloro-3-Methylphenol	4-nitrophenol	Cresol Total	Phenol	Tetrachlorophenols	Phenols (Total Halogenated)	Phenols (Total Non Halogenated)
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.5	0.5	0.5	0.5	5	0.5	0.5	0.2	0.5	0.4	5	20	0.5	5	0.5	0.5	10	1	20
ANZG (2018) - Sediment Quality DGV								0.034																			
ANZG (2018) - Sediment Quality GV-high								0.28																			
PFAS NEMP 3.1 (2026) Ecological Direct Exposure - all land uses																											
PFAS NEMP 3.1 (2026) Interim Ecological Direct Exposure (Reptiles)																											
PFAS NEMP 3.1 (2026) Interim Ecological Indirect Exposure - all land uses																											

Field ID	Date/Parent	Wet/Dry	Lab Report Number																									
SDT01	04 Mar 2026	Wet	1331080	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SDT02	04 Mar 2026	Wet	1331080	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SDT03	04 Mar 2026	Wet	1331080	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SDT-B01	04 Mar 2026	Wet	1331080	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QC08_20260304	SDT-B01	Wet	1331080	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QA08_20260304	SDT-B01	Wet	ES2606940	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SDT-B02	04 Mar 2026	Wet	1331080	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SDT-B03	04 Mar 2026	Wet	1331080	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SDT01-DS	03 Jun 2026	Dry	1368242	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	<1	<0.5	<0.5	<5	<0.5	<0.5	<0.2	<1	<0.4	<5	<20	<1	<5	<0.5	<0.5	<10	<1	<20
SDT02-DS	03 Jun 2026	Dry	1368242	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	<1	<0.5	<0.5	<5	<0.5	<0.5	<0.2	<1	<0.4	<5	<20	<1	<5	<0.5	<0.5	<10	<1	<20
SDT03-DS	03 Jun 2026	Dry	1368242	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	<1	<0.5	<0.5	<5	<0.5	<0.5	<0.2	<1	<0.4	<5	<20	<1	<5	<0.5	<0.5	<10	<1	<20
SDT-B01-DS	03 Jun 2026	Dry	1368242	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	<1	<0.5	<0.5	<5	<0.5	<0.5	<0.2	<1	<0.4	<5	<20	<1	<5	<0.5	<0.5	<10	<1	<20
QC01_20260603SDT	SDT-B01-DS	Dry	1368242	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	<1	<0.5	<0.5	<5	<0.5	<0.5	<0.2	<1	<0.4	<5	<20	<1	<5	<0.5	<0.5	<10	<1	<20
QA01_20260603SDT	SDT-B01-DS	Dry	ES2617909	-	-	-	-	-	-	-	<0.1	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<1	-	-	<0.5	-	-	<0.5	-	-	-
SDT-B02-DS	01 Jun 2026	Dry	1368242	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	<1	<0.5	<0.5	<5	<0.5	<0.5	<0.2	<1	<0.4	<5	<20	<1	<5	<0.5	<0.5	<10	<1	<20
SDT-B03-DS	03 Jun 2026	Dry	1368242	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	<1	<0.5	<0.5	<5	<0.5	<0.5	<0.2	<1	<0.4	<5	<20	<1	<5	<0.5	<0.5	<10	<1	<20

Comments
#1 Adopted from Sum of PFOS + PFHxS

TABLE B - SEDIMENT ANALYTICAL SUMMARY TABLE
Project Number: 70147
Project Name: ESA, 4 Mavie Street , DWD Projects Pty Ltd

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	PFAS															
	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorooctanoic acid (PFOA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (NMeFOSA)	N-Ethyl perfluorooctane sulfonamide (NEtFOSA)	N-Methylperfluorooctanesulfonamidoethanol (N-MeFOSE)	N-ethylperfluorooctanesulfonamidoethanol (NEtFOSE)
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL	0.0005	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0002	0.0005	0.0005	0.0005	0.0005
ANZG (2018) - Sediment Quality DGV																
ANZG (2018) - Sediment Quality GV-high																
PFAS NEMP 3.1 (2026) Ecological Direct Exposure - all land uses					10											
PFAS NEMP 3.1 (2026) Interim Ecological Direct Exposure (Reptiles)					0.005											
PFAS NEMP 3.1 (2026) Interim Ecological Indirect Exposure - all land uses					0.003											

Field ID	Date/Parent	Wet/Dry	Lab Report Number															
SDT01	04 Mar 2026	Wet	1331080	<0.0005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SDT02	04 Mar 2026	Wet	1331080	<0.0005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SDT03	04 Mar 2026	Wet	1331080	<0.0005	<0.0001	<0.0001	0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SDT-B01	04 Mar 2026	Wet	1331080	<0.0005	<0.0001	<0.0001	0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
QC08_20260304	SDT-B01	Wet	1331080	<0.0005	<0.0001	<0.0001	0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
QA08_20260304	SDT-B01	Wet	ES2606940	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005
SDT-B02	04 Mar 2026	Wet	1331080	<0.0005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SDT-B03	04 Mar 2026	Wet	1331080	<0.0005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SDT01-DS	03 Jun 2026	Dry	1368242	<0.0005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SDT02-DS	03 Jun 2026	Dry	1368242	<0.0005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SDT03-DS	03 Jun 2026	Dry	1368242	<0.0005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SDT-B01-DS	03 Jun 2026	Dry	1368242	<0.0005	<0.0001	<0.0001	<0.0001	0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
QC01_20260603SDT	SDT-B01-DS	Dry	1368242	<0.0005	<0.0001	<0.0001	<0.0001	<0.0001	0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
QA01_20260603SDT	SDT-B01-DS	Dry	ES2617909	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005
SDT-B02-DS	01 Jun 2026	Dry	1368242	<0.0005	<0.0001	0.0001	0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SDT-B03-DS	03 Jun 2026	Dry	1368242	<0.0005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005

Comments
#1 Adopted from Sum of PFOS + PFHxS

TABLE B - SEDIMENT ANALYTICAL SUMMARY TABLE
Project Number: 70147
Project Name: ESA, 4 Mavie Street , DWD Projects Pty Ltd

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	PFAS															
	N-methylperfluorooctane sulfonamidoacetic acid (NMeFOSAA)	N-ethyl-perfluorooctanesulfonamidoacetic acid (NEtFOSAA)	Perfluoropropanesulfonic acid (PFPrS)	Perfluorobutanesulfonic acid (PFBS)	Perfluoropentanesulfonic acid (PFPeS)	Perfluorohexanesulfonic acid (PFHxS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorooctanesulfonic acid (PFOS)	Perfluorodecanesulfonic acid (PFDS)	1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)	1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	Sum of PFHxS and PFOS	Sum of PFAS	Perfluorononanesulfonic acid ion
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL	0.0002	0.0002	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0005	0.0001	0.0001	0.0001	0.0002	0.0001
ANZG (2018) - Sediment Quality DGV																
ANZG (2018) - Sediment Quality GV-high																
PFAS NEMP 3.1 (2026) Ecological Direct Exposure - all land uses								1								
PFAS NEMP 3.1 (2026) Interim Ecological Direct Exposure (Reptiles)																
PFAS NEMP 3.1 (2026) Interim Ecological Indirect Exposure - all land uses								0.003								
Field ID	**Date/Parent**	**Wet/Dry**	**Lab Report Number**														
SDT01	04 Mar 2026	Wet	1331080	<0.0005	<0.0005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	0.0006	<0.0001	<0.0001	<0.0005	<0.0001	<0.0001	0.0006	0.0006	<0.0001
SDT02	04 Mar 2026	Wet	1331080	<0.0005	<0.0005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	0.0003	<0.0001	<0.0001	<0.0005	<0.0001	<0.0001	0.0003	<0.0005	<0.0001
SDT03	04 Mar 2026	Wet	1331080	<0.0005	<0.0005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	0.0001	<0.0001	<0.0001	<0.0005	<0.0001	<0.0001	0.0001	<0.0005	<0.0001
SDT-B01	04 Mar 2026	Wet	1331080	<0.0005	<0.0005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	0.0005	<0.0001	<0.0001	<0.0005	<0.0001	<0.0001	0.0005	0.0006	<0.0001
QC08_20260304	SDT-B01	Wet	1331080	<0.0005	<0.0005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	0.0004	<0.0001	<0.0001	<0.0005	<0.0001	<0.0001	0.0004	0.0005	<0.0001
QA08_20260304	SDT-B01	Wet	ES2606940	<0.0002	<0.0002	<0.0005	<0.0002	<0.0002	<0.0002	<0.0002	0.0003	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	0.0003	0.0003	<0.0002
SDT-B02	04 Mar 2026	Wet	1331080	<0.0005	<0.0005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	0.0006	<0.0001	<0.0001	<0.0005	<0.0001	<0.0001	0.0006	0.0006	<0.0001
SDT-B03	04 Mar 2026	Wet	1331080	<0.0005	<0.0005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0005	<0.0001	<0.0001	<0.0001	<0.0005	<0.0001
SDT01-DS	03 Jun 2026	Dry	1368242	<0.0005	<0.0005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0005	<0.0001	<0.0001	<0.0001	<0.0005	<0.0001
SDT02-DS	03 Jun 2026	Dry	1368242	<0.0005	<0.0005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	0.0002	<0.0001	<0.0001	<0.0005	<0.0001	<0.0001	0.0002	<0.0005	<0.0001
SDT03-DS	03 Jun 2026	Dry	1368242	<0.0005	<0.0005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0005	<0.0001	<0.0001	<0.0001	<0.0005	<0.0001
SDT-B01-DS	03 Jun 2026	Dry	1368242	<0.0005	<0.0005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	0.0006	<0.0001	<0.0001	<0.0005	<0.0001	<0.0001	0.0006	0.0007	<0.0001
QC01_20260603SDT	SDT-B01-DS	Dry	1368242	<0.0005	<0.0005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0005	<0.0001	<0.0001	<0.0001	<0.0005	<0.0001
QA01_20260603SDT	SDT-B01-DS	Dry	ES2617909	<0.0002	<0.0002	<0.0005	<0.0002	<0.0002	<0.0002	<0.0002	0.0003	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	0.0003	0.0003	<0.0002
SDT-B02-DS	01 Jun 2026	Dry	1368242	<0.0005	<0.0005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	0.0007	<0.0001	<0.0001	<0.0005	<0.0001	<0.0001	0.0007	0.0009	<0.0001
SDT-B03-DS	03 Jun 2026	Dry	1368242	<0.0005	<0.0005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0005	<0.0001	<0.0001	<0.0001	<0.0005	<0.0001

Comments
#1 Adopted from Sum of PFOS + PFHxS

TABLE B - SEDIMENT ANALYTICAL SUMMARY TABLE
Project Number: 70147
Project Name: ESA, 4 Mavie Street , DWD Projects Pty Ltd

	Herbicides & Fungicides	Moisture Content	Organic Matter	Other	
	Dinoseb	Moisture Content	Organic Matter	Moisture Content (dried @ 103°C)	TOC
	mg/kg	%	%	%	%
EQL	20	1	0.01	1	0.1
ANZG (2018) - Sediment Quality DGV					
ANZG (2018) - Sediment Quality GV-high					
PFAS NEMP 3.1 (2026) Ecological Direct Exposure - all land uses					
PFAS NEMP 3.1 (2026) Interim Ecological Direct Exposure (Reptiles)					
PFAS NEMP 3.1 (2026) Interim Ecological Indirect Exposure - all land uses					

Field ID	Date/Parent	Wet/Dry	Lab Report Number					
SDT01	04 Mar 2026	Wet	1331080	-	-	-	15	2.9
SDT02	04 Mar 2026	Wet	1331080	-	-	-	21	1.1
SDT03	04 Mar 2026	Wet	1331080	-	-	-	21	<0.1
SDT-B01	04 Mar 2026	Wet	1331080	-	-	-	31	2.7
QC08_20260304	SDT-B01	Wet	1331080	-	-	-	30	4.4
QA08_20260304	SDT-B01	Wet	ES2606940	-	22.8	-	-	1.0
SDT-B02	04 Mar 2026	Wet	1331080	-	-	-	43	14
SDT-B03	04 Mar 2026	Wet	1331080	-	-	-	23	2.9
SDT01-DS	03 Jun 2026	Dry	1368242	<20	-	2.5	11	2.8
SDT02-DS	03 Jun 2026	Dry	1368242	<20	-	2.5	9.3	1.3
SDT03-DS	03 Jun 2026	Dry	1368242	<20	-	2.9	9.4	2.9
SDT-B01-DS	03 Jun 2026	Dry	1368242	<20	-	8.5	38	1.4
QC01_20260603SDT	SDT-B01-DS	Dry	1368242	<20	-	5.4	29	5.9
QA01_20260603SDT	SDT-B01-DS	Dry	ES2617909	-	30.6	2.8	-	-
SDT-B02-DS	01 Jun 2026	Dry	1368242	<20	-	6.7	46	1.6
SDT-B03-DS	03 Jun 2026	Dry	1368242	<20	-	1.8	10	1.2

Comments
#1 Adopted from Sum of PFOS + PFHxS

TABLE C - GROUNDWATER ANALYTICAL SUMMARY TABLE
Project Number: 70147
Project Name: ESA, 4 Mavie Street , DWD Projects Pty Ltd

	Metals & Metalloids											TPHs (NEPC 1999)					TRHs (NEPC 2013)							BTEXN							
	Arsenic	Cadmium	Chromium (III+VI)	Copper	Lead	Mercury	Molybdenum	Nickel	Selenium	Silver	Tin	Zinc	C6-C9 Fraction	C10-C14 Fraction	C15-C28 Fraction	C29-C36 Fraction	C10-C36 Fraction (Sum of Total)	C6-C10	C10-C16	C16-C34	C34-C40	C10-C40 (Sum of total)	F1 (C6-C10 minus BTEX)	F2 (C10-C16 less Naphthalene)	Benzene	Toluene	Ethylbenzene	Xylene (o)	Xylene (m & p)	Xylene Total	Total BTEX	Naphthalene_VOC
	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
EQL	0.001	0.0001	0.001	0.001	0.001	0.0001	0.001	0.001	0.001	0.001	0.001	0.005	0.02	0.05	0.1	0.05	0.05	0.02	0.05	0.1	0.1	0.1	0.02	0.05	0.001	0.001	0.001	0.001	0.002	0.002	0.001	0.005
ADWG (2025) Recreation (10x Health)	0.1	0.02	0.5 [#1]	20	0.05	0.01	0.5	0.2	0.04	1															0.01	8	3	6 [#2]	6 [#2]	6		
ANZG (2018) Marine 95% toxicant DGVs - Revised 2026		0.0055	0.0044 [#7]	0.0006 [#8]	0.0044	0.0004		0.0059		0.0014		0.008 [#9]													0.7	0.18	0.08		0.075 [#10]			0.07
ANZG (2018) Marine 99% toxicant DGVs - Revised 2026																																
NEPM 2013 Table 1A(4) Comm/Ind HSL D GW for Vapour Intrusion, Clay																							Ns | Ns | Ns [#11]	Ns | Ns | Ns [#11]	30 | 30 | 35	NL | NL | NL	NL | NL | NL	NL | NL | NL			NL | NL | NL		NL | NL | NL
NEPM 2013 Table 1A(4) Comm/Ind HSL D GW for Vapour Intrusion, Sand																							6 | 6 | 7 [#11]	Ns | Ns | Ns [#11]	5 | 5 | 5	NL | NL | NL	NL | NL | NL	NL | NL | NL			NL | NL | NL		NL | NL | NL
NEPM 2013 Table 1A(4) Rec HSL C GW for Vapour Intrusion, Clay																							Ns | Ns | Ns [#11]	Ns | Ns | Ns [#11]	NL | NL | NL	NL | NL | NL	NL | NL | NL	NL | NL | NL			NL | NL | NL		NL | NL | NL
NEPM 2013 Table 1A(4) Rec HSL C GW for Vapour Intrusion, Sand																							Ns | Ns | Ns [#11]	Ns | Ns | Ns [#11]	NL | NL | NL	NL | NL | NL	NL | NL | NL	NL | NL | NL			NL | NL | NL		NL | NL | NL
NEPM 2013 Table 1A(4) Res HSL A/B GW for Vapour Intrusion, Clay																							Ns | Ns | Ns [#11]	Ns | Ns | Ns [#11]	5 | 5 | 5	NL | NL | NL	NL | NL | NL	NL | NL | NL			NL | NL | NL		NL | NL | NL
NEPM 2013 Table 1A(4) Res HSL A/B GW for Vapour Intrusion, Sand																							1 | 1 | 1 [#11]	1 | 1 | 1 [#11]	0.8 | 0.8 | 0.9	NL | NL | NL	NL | NL | NL	NL | NL | NL			NL | NL | NL		NL | NL | NL
PFAS NEMP 3.1 (2026) Freshwater 95% species protection																																
PFAS NEMP 3.1 (2026) Freshwater 99% species protection																																
PFAS NEMP 3.1 (2026) Recreational Water																																

Field ID	Date	Season	Lab Report Number																													
MW01	05 Mar 2026	Wet	1331432	0.001	0.0002	<0.001	<0.001	<0.001	<0.0001	0.006	0.001	<0.001	<0.005	<0.005	0.007	<0.02	<0.05	<0.1	<0.1	<0.1	<0.02	<0.05	<0.1	<0.1	<0.1	<0.02	<0.05	<0.001	<0.001	<0.001	<0.001	<0.002	<0.003	-	<0.01
MW02	05 Mar 2026	Wet	1331432	0.002	<0.0002	<0.001	<0.001	<0.001	<0.0001	0.008	0.001	<0.001	<0.005	<0.005	0.006	<0.02	<0.05	<0.1	<0.1	<0.1	<0.02	<0.05	<0.1	<0.1	<0.1	<0.02	<0.05	<0.001	<0.001	<0.001	<0.001	<0.002	<0.003	-	<0.01
MW03	05 Mar 2026	Wet	1331432	0.002	<0.0002	<0.001	0.002	<0.001	<0.0001	0.007	0.001	<0.001	<0.005	<0.005	<0.005	<0.02	<0.05	<0.1	<0.1	<0.1	<0.02	<0.05	<0.1	<0.1	<0.1	<0.02	<0.05	<0.001	<0.001	<0.001	<0.001	<0.002	<0.003	-	<0.01
QC01_20260305	MW03	Wet	1331432	0.002	<0.0002	<0.001	0.001	<0.010	<0.0001	0.007	<0.001	<0.001	<0.005	<0.005	<0.005	<0.02	<0.05	<0.1	<0.1	<0.1	<0.02	<0.05	<0.1	<0.1	<0.1	<0.02	<0.05	<0.001	<0.001	<0.001	<0.001	<0.002	<0.003	-	<0.01
QA01_20260305	MW03	Wet	ES2607116	<0.010	<0.0002	<0.001	<0.010	<0.010	<0.0001	-	<0.010	-	-	-	<0.050	<0.02	<0.05	<0.1	<0.05	<0.05	<0.02	<0.1	<0.1	<0.1	<0.1	<0.02	<0.1	<0.001	<0.002	<0.002	<0.002	<0.002	<0.002	<0.001	<0.005
MW116	05 Mar 2026	Wet	1331432	<0.001	<0.0002	<0.001	0.028	<0.001	<0.0001	<0.005	0.002	0.003	<0.005	<0.005	0.090	<0.02	<0.05	<0.1	<0.1	<0.1	<0.02	<0.05	<0.1	<0.1	<0.1	<0.02	<0.05	<0.001	<0.001	<0.001	<0.001	<0.002	<0.003	-	<0.01
MW118	05 Mar 2026	Wet	1331432	<0.001	<0.0002	<0.001	0.003	<0.001	<0.0001	<0.005	0.004	<0.001	<0.005	<0.005	0.008	<0.02	<0.05	0.2	<0.1	0.2	<0.02	<0.05	0.2	<0.1	0.2	<0.02	<0.05	<0.001	<0.001	<0.001	<0.001	<0.002	<0.003	-	<0.01
MW01-DS	02 Jun 2026	Dry	1368258	0.010	<0.0002	0.001	0.003	<0.001	<0.0001	0.011	0.001	0.003	<0.005	<0.005	0.011	<0.02	<0.05	<0.1	<0.1	<0.1	<0.02	<0.05	<0.1	<0.1	<0.1	<0.02	<0.05	<0.001	<0.001	<0.001	<0.001	<0.002	<0.003	-	<0.01
MW02-DS	02 Jun 2026	Dry	1368258	0.012	<0.0002	0.002	0.007	<0.001	<0.0001	0.014	<0.001	0.006	<0.005	<0.005	0.012	<0.02	<0.05	<0.1	<0.1	<0.1	<0.02	<0.05	<0.1	<0.1	<0.1	<0.02	<0.05	<0.001	<0.001	<0.001	<0.001	<0.002	<0.003	-	<0.01
MW03-DS	02 Jun 2026	Dry	1368258	0.012	<0.0002	0.002	0.006	<0.001	<0.0001	0.013	0.001	0.005	<0.005	<0.005	0.013	<0.02	<0.05	<0.1	<0.1	<0.1	<0.02	<0.05	<0.1	<0.1	<0.1	<0.02	<0.05	<0.001	<0.001	<0.001	<0.001	<0.002	<0.003	-	<0.01
QC01_20260602GW	MW03-DS	Dry	1368258	0.011	<0.0002	0.002	<0.001	<0.001	<0.0001	0.013	<0.001	<0.001	<0.005	<0.005	0.011	<0.02	<0.05	<0.1	<0.1	<0.1	<0.02	<0.05	<0.1	<0.1	<0.1	<0.02	<0.05	<0.001	<0.001	<0.001	<0.001	<0.002	<0.003	-	<0.01
QA01_20260602GW	MW03-DS	Dry	ES2617707	<0.010	<0.0002	<0.001	<0.010	<0.010	<0.0001	<0.010	<0.010	<0.040	<0.010	<0.010	<0.050	<0.02	<0.05	<0.1	<0.05	<0.05	<0.02	<0.1	<0.1	<0.1	<0.1	<0.02	<0.1	<0.001	<0.002	<0.002	<0.002	<0.002	<0.002	<0.001	<0.005
MW116-DS	02 Jun 2026	Dry	1368258	0.006	<0.0002	0.001	0.013	<0.001	<0.0001	0.007	0.001	0.005	<0.005	<0.005	0.035	<0.02	<0.05	<0.1	<0.1	<0.1	<0.02	<0.05	<0.1	<0.1	<0.1	<0.02	<0.05	<0.001	<0.001	<0.001	<0.001	<0.002	<0.003	-	<0.01
MW118-DS	02 Jun 2026	Dry	1368258	<0.001	<0.0002	<0.001	<0.001	<0.001	<0.0001	<0.005	0.002	<0.001	<0.005	<0.005	0.011	<0.02	<0.05	<0.1	<0.1	<0.1	<0.02	<0.05	<0.1	<0.1	<0.1	<0.02	<0.05	<0.001	<0.001	<0.001	<0.001	<0.002	<0.003	-	<0.01

Comments
#1 Adopted from Chromium (as CrVI)
#2 Adopted from Total Xylene
#3 Notated in Table 10.6 as Polycyclic Aromatic Aydrocarbons (PAHs) Benzo-(a)-pyrene
#4 see Aldrin & Dieldrin
#5 No corresponding fact sheet for these pesticides. Retained in Table 10.6 for information purposes only.
#6 The concentration of all chlorination byproducts can be minimised by removing naturally occurring organic matter. See Table 10.6 for full notation.
#7 Adopted from Chromium (CrVI)
#8 Value can be adjusted using dissolved organic carbon concentrations, see technical guidance
#9 The DGVs apply to water with salinity 25–36 ppt and pH 6.5–8.0.
#10 Adopted from m-Xylene
#11 Sourced from NHMRC (2019) Recreational Water

TABLE C - GROUNDWATER ANALYTICAL SUMMARY TABLE
Project Number: 70147
Project Name: ESA, 4 Mavie Street , DWD Projects Pty Ltd

				PAH																								
				2-Methylnaphthalene	3-Methylcholanthrene	7,12-Dimethylbenz(a)anthracene	Acenaphthene	Acenaphthylene	Anthracene	Benz[a]anthracene	Benzo(a)pyrene	Benzo(a)pyrene TEQ calc (Zero)	Benzo(b+j)fluoranthene	Benzo(e)pyrene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Coronene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-c,d)pyrene	Naphthalene	Perylene	Phenanthrene	Pyrene	PAHs (Sum of total)
				mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
EQL				0.0001	0.0001	0.0001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00005	0.00001	0.0001	0.00001	0.00001	0.00001	0.0001	0.00001	0.00001	0.00001	0.00001	0.00001	0.0001	0.00001	0.00001	0.00001	0.00001
ADWG (2025) Recreation (10x Health)											0.0001 [#2]																	
ANZG (2018) Marine 95% toxicant DGVs - Revised 2026									0.0004		0.0002									0.0014			0.07		0.002			
ANZG (2018) Marine 99% toxicant DGVs - Revised 2026																												
NEPM 2013 Table 1A(4) Comm/Ind HSL D GW for Vapour Intrusion, Clay																							NL | NL | NL					
NEPM 2013 Table 1A(4) Comm/Ind HSL D GW for Vapour Intrusion, Sand																							NL | NL | NL					
NEPM 2013 Table 1A(4) Rec HSL C GW for Vapour Intrusion, Clay																							NL | NL | NL					
NEPM 2013 Table 1A(4) Rec HSL C GW for Vapour Intrusion, Sand																							NL | NL | NL					
NEPM 2013 Table 1A(4) Res HSL A/B GW for Vapour Intrusion, Clay																							NL | NL | NL					
NEPM 2013 Table 1A(4) Res HSL A/B GW for Vapour Intrusion, Sand																							NL | NL | NL					
PFAS NEMP 3.1 (2026) Freshwater 95% species protection																												
PFAS NEMP 3.1 (2026) Freshwater 99% species protection																												
PFAS NEMP 3.1 (2026) Recreational Water																												
Field ID	**Date**	**Season**	**Lab Report Number**																									
MW01	05 Mar 2026	Wet	1331432	-	-	-	<0.001	<0.001	<0.001	<0.001	<0.001	-	<0.001	-	<0.001	<0.001	<0.001	-	<0.001	<0.001	<0.001	<0.001	<0.001	-	<0.001	<0.001	<0.001
MW02	05 Mar 2026	Wet	1331432	-	-	-	<0.001	<0.001	<0.001	<0.001	<0.001	-	<0.001	-	<0.001	<0.001	<0.001	-	<0.001	<0.001	<0.001	<0.001	<0.001	-	<0.001	<0.001	<0.001
MW03	05 Mar 2026	Wet	1331432	-	-	-	<0.001	<0.001	<0.001	<0.001	<0.001	-	<0.001	-	<0.001	<0.001	<0.001	-	<0.001	<0.001	<0.001	<0.001	<0.001	-	<0.001	<0.001	<0.001
QC01_20260305	MW03	Wet	1331432	-	-	-	<0.001	<0.001	<0.001	<0.001	<0.001	-	<0.001	-	<0.001	<0.001	<0.001	-	<0.001	<0.001	<0.001	<0.001	<0.001	-	<0.001	<0.001	<0.001
QA01_20260305	MW03	Wet	ES2607116	-	-	-	<0.0010	<0.0010	<0.0010	<0.0010	<0.0005	<0.0005	<0.0010	-	<0.0010	<0.0010	<0.0010	-	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	-	<0.0010	<0.0010	<0.0005
MW116	05 Mar 2026	Wet	1331432	-	-	-	<0.001	<0.001	<0.001	<0.001	<0.001	-	<0.001	-	<0.001	<0.001	<0.001	-	<0.001	<0.001	<0.001	<0.001	<0.001	-	<0.001	<0.001	<0.001
MW118	05 Mar 2026	Wet	1331432	-	-	-	<0.001	<0.001	<0.001	<0.001	<0.001	-	<0.001	-	<0.001	<0.001	<0.001	-	<0.001	<0.001	<0.001	<0.001	<0.001	-	<0.001	<0.001	<0.001
MW01-DS	02 Jun 2026	Dry	1368258	-	-	-	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	-	<0.00001	-	<0.00001	<0.00001	<0.00001	-	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	-	<0.00001	<0.00001	<0.00001
MW02-DS	02 Jun 2026	Dry	1368258	-	-	-	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	-	<0.00001	-	<0.00001	<0.00001	<0.00001	-	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	-	<0.00001	<0.00001	<0.00001
MW03-DS	02 Jun 2026	Dry	1368258	-	-	-	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	-	<0.00001	-	<0.00001	<0.00001	<0.00001	-	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	-	<0.00001	<0.00001	<0.00001
QC01_20260602GW	MW03-DS	Dry	1368258	-	-	-	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	-	<0.00001	-	<0.00001	<0.00001	<0.00001	-	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	-	<0.00001	<0.00001	<0.00001
QA01_20260602GW	MW03-DS	Dry	ES2617707	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.00005	<0.00005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.00005
MW116-DS	02 Jun 2026	Dry	1368258	-	-	-	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	-	<0.00001	-	<0.00001	<0.00001	<0.00001	-	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	-	<0.00001	<0.00001	<0.00001
MW118-DS	02 Jun 2026	Dry	1368258	-	-	-	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	-	<0.00001	-	<0.00001	<0.00001	<0.00001	-	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	-	<0.00001	<0.00001	<0.00001

Comments
#1 Adopted from Chromium (as CrVI)
#2 Adopted from Total Xylene
#3 Notated in Table 10.6 as Polycyclic Aromatic Aydrocarbons (PAHs) Benzo-(a)-pyrene
#4 see Aldrin & Dieldrin
#5 No corresponding fact sheet for these pesticides. Retained in Table 10.6 for information purposes only.
#6 The concentration of all chlorination byproducts can be minimised by removing naturally occurring organic matter. See Table 10.6 for full notation.
#7 Adopted from Chromium (CrVI)
#8 Value can be adjusted using dissolved organic carbon concentrations, see technical guidance
#9 The DGVs apply to water with salinity 25–36 ppt and pH 6.5–8.0.
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TABLE C - GROUNDWATER ANALYTICAL SUMMARY TABLE
Project Number: 70147
Project Name: ESA, 4 Mavie Street , DWD Projects Pty Ltd

JBS&G
A Geosyntec Company

	Organochlorine Pesticides																												
	Pentachlorophenol	4,4-DDE	a-BHC	b-BHC	d-BHC	g-BHC (Lindane)	Aldrin	Dieldrin	Aldrin + Dieldrin	Chlordane	Chlordane (cis)	Chlordane (trans)	DDT	DDD	DDT+DDE+DDD	Endosulfan I	Endosulfan II	Endosulfan sulphate	Endrin	Endrin aldehyde	Endrin ketone	Heptachlor	Heptachlor Epoxide	Hexachlorobenzene	Methoxychlor	Trichlorfon	Trosphene
	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
EQL	0.00005	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0005	0.0005	0.0005	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.00002	0.005
ADWG (2025) Recreation (10x Health)	0.1					0.1	0.003 #4	0.003 #4	0.003	0.02			0.09									0.003			3 #5	0.07	
ANZG (2018) Marine 95% toxicant DGVs - Revised 2026	0.022																		0.000008					0.0001			
ANZG (2018) Marine 99% toxicant DGVs - Revised 2026																											
NEPM 2013 Table 1A(4) Comm/Ind HSL D GW for Vapour Intrusion, Clay																											
NEPM 2013 Table 1A(4) Comm/Ind HSL D GW for Vapour Intrusion, Sand																											
NEPM 2013 Table 1A(4) Rec HSL C GW for Vapour Intrusion, Clay																											
NEPM 2013 Table 1A(4) Rec HSL C GW for Vapour Intrusion, Sand																											
NEPM 2013 Table 1A(4) Res HSL A/B GW for Vapour Intrusion, Clay																											
NEPM 2013 Table 1A(4) Res HSL A/B GW for Vapour Intrusion, Sand																											
PFAS NEMP 3.1 (2026) Freshwater 95% species protection																											
PFAS NEMP 3.1 (2026) Freshwater 99% species protection																											
PFAS NEMP 3.1 (2026) Recreational Water																											

Field ID	Date	Season	Lab Report Number																										
MW01	05 Mar 2026	Wet	1331432	-	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.002	-	-	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	-	<0.005
MW02	05 Mar 2026	Wet	1331432	-	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.002	-	-	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	-	<0.005
MW03	05 Mar 2026	Wet	1331432	-	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.002	-	-	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	-	<0.005
QC01_20260305	MW03	Wet	1331432	-	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.002	-	-	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	-	<0.005
QA01_20260305	MW03	Wet	ES2607116	<0.00005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0020	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0020	<0.00002	-
MW116	05 Mar 2026	Wet	1331432	-	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.002	-	-	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	-	<0.005
MW118	05 Mar 2026	Wet	1331432	-	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.002	-	-	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	-	<0.005
MW01-DS	02 Jun 2026	Dry	1368258	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.002	-	-	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	-	<0.005
MW02-DS	02 Jun 2026	Dry	1368258	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.002	-	-	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	-	<0.005
MW03-DS	02 Jun 2026	Dry	1368258	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.002	-	-	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	-	<0.005
QC01_20260602GW	MW03-DS	Dry	1368258	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.002	-	-	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	-	<0.005
QA01_20260602GW	MW03-DS	Dry	ES2617707	<0.00005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0020	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0020	<0.00002	-
MW116-DS	02 Jun 2026	Dry	1368258	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.002	-	-	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	-	<0.005
MW118-DS	02 Jun 2026	Dry	1368258	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.002	-	-	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	-	<0.005

Comments
#1 Adopted from Chromium (as CrVI)
#2 Adopted from Total Xylene
#3 Notated in Table 10.6 as Polycyclic Aromatic Aydrocarbons (PAHs) Benzo-(a)-pyrene
#4 see Aldrin & Dieldrin
#5 No corresponding fact sheet for these pesticides. Retained in Table 10.6 for information purposes only.
#6 The concentration of all chlorination byproducts can be minimised by removing naturally occurring organic matter. See Table 10.6 for full notation.
#7 Adopted from Chromium (CrVI)
#8 Value can be adjusted using dissolved organic carbon concentrations, see technical guidance
#9 The DGVs apply to water with salinity 25–36 ppt and pH 6.5–8.0.
#10 Adopted from m-Xylene
#11 Sourced from NHMRC (2019) Recreational Water

TABLE C - GROUNDWATER ANALYTICAL SUMMARY TABLE
Project Number: 70147
Project Name: ESA, 4 Mavie Street , DWD Projects Pty Ltd

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	Organophosphorus Pesticides																								
	Acephate	Azinophos methyl	Azinphos Ethyl	Bensulide	Bolstar (Sulprofos)	Bromophos-ethyl	Chlorfenvinphos	Chlorpyrifos	Chlorpyrifos-methyl	Coumaphos	Demeton-O	Demeton-O & Demeton-S	Demeton-S	Diazinon	Dichlorvos	Dimethoate	Disulfoton	EPN	Ethion	Ethoprop	Fenitrothion	Fensulfothion	Fenthion	Malathion
	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
EQL	0.0005	0.00002	0.00002	0.0001	0.00005	0.0001	0.00002	0.00002	0.0002	0.00001	0.00002	0.00002	0.00002	0.00001	0.0002	0.00002	0.00005	0.00005	0.00002	0.00001	0.001	0.00001	0.00005	0.00002
ADWG (2025) Recreation (10x Health)	0.08	0.3			0.1	0.1 #5	0.02	0.1						0.04	0.05	0.07	0.04		0.04	0.01	0.07	0.1 #5	0.07	0.7
ANZG (2018) Marine 95% toxicant DGVs - Revised 2026								0.000009																
ANZG (2018) Marine 99% toxicant DGVs - Revised 2026																								
NEPM 2013 Table 1A(4) Comm/Ind HSL D GW for Vapour Intrusion, Clay																								
NEPM 2013 Table 1A(4) Comm/Ind HSL D GW for Vapour Intrusion, Sand																								
NEPM 2013 Table 1A(4) Rec HSL C GW for Vapour Intrusion, Clay																								
NEPM 2013 Table 1A(4) Rec HSL C GW for Vapour Intrusion, Sand																								
NEPM 2013 Table 1A(4) Res HSL A/B GW for Vapour Intrusion, Clay																								
NEPM 2013 Table 1A(4) Res HSL A/B GW for Vapour Intrusion, Sand																								
PFAS NEMP 3.1 (2026) Freshwater 95% species protection																								
PFAS NEMP 3.1 (2026) Freshwater 99% species protection																								
PFAS NEMP 3.1 (2026) Recreational Water																								

Field ID	Date	Season	Lab Report Number																						
MW01	05 Mar 2026	Wet	1331432	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW02	05 Mar 2026	Wet	1331432	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW03	05 Mar 2026	Wet	1331432	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QC01_20260305	MW03	Wet	1331432	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QA01_20260305	MW03	Wet	ES2607116	<0.0005	<0.00002	<0.00002	<0.0001	<0.00005	<0.00010	<0.00002	<0.00002	<0.0002	<0.00001	<0.00002	<0.00002	<0.00002	<0.00001	<0.00020	<0.00002	<0.00005	<0.00005	<0.00002	<0.00001	<0.002	<0.00001	<0.00005	<0.00002
MW116	05 Mar 2026	Wet	1331432	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW118	05 Mar 2026	Wet	1331432	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW01-DS	02 Jun 2026	Dry	1368258	-	<0.001	-	-	<0.001	-	<0.001	<0.01	<0.001	<0.01	<0.001	-	<0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
MW02-DS	02 Jun 2026	Dry	1368258	-	<0.001	-	-	<0.001	-	<0.001	<0.01	<0.001	<0.01	<0.001	-	<0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
MW03-DS	02 Jun 2026	Dry	1368258	-	<0.001	-	-	<0.001	-	<0.001	<0.01	<0.001	<0.01	<0.001	-	<0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
QC01_20260602GW	MW03-DS	Dry	1368258	-	<0.001	-	-	<0.001	-	<0.001	<0.01	<0.001	<0.01	<0.001	-	<0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
QA01_20260602GW	MW03-DS	Dry	ES2617707	<0.0005	<0.00002	<0.00002	<0.0001	<0.00005	<0.00010	<0.00002	<0.00002	<0.0002	<0.00001	<0.00002	<0.00002	<0.00002	<0.00001	<0.00020	<0.00002	<0.00005	<0.00005	<0.00002	<0.00001	<0.002	<0.00001	<0.00005	<0.00002
MW116-DS	02 Jun 2026	Dry	1368258	-	<0.001	-	-	<0.001	-	<0.001	<0.01	<0.001	<0.01	<0.001	-	<0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
MW118-DS	02 Jun 2026	Dry	1368258	-	<0.001	-	-	<0.001	-	<0.001	<0.01	<0.001	<0.01	<0.001	-	<0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001

Comments
#1 Adopted from Chromium (as CrVI)
#2 Adopted from Total Xylene
#3 Notated in Table 10.6 as Polycyclic Aromatic Aydrocarbons (PAHs) Benzo-(a)-pyrene
#4 see Aldrin & Dieldrin
#5 No corresponding fact sheet for these pesticides. Retained in Table 10.6 for information purposes only.
#6 The concentration of all chlorination byproducts can be minimised by removing naturally occurring organic matter. See Table 10.6 for full notation.
#7 Adopted from Chromium (CrVI)
#8 Value can be adjusted using dissolved organic carbon concentrations, see technical guidance
#9 The DGVs apply to water with salinity 25–36 ppt and pH 6.5–8.0.
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#11 Sourced from NHMRC (2019) Recreational Water

TABLE C - GROUNDWATER ANALYTICAL SUMMARY TABLE
Project Number: 70147
Project Name: ESA, 4 Mavie Street , DWD Projects Pty Ltd

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	Organophosphorus Pesticides																								Polychlorinated Biphenyls							
	Merphos	Methidathion	Methyl parathion	Mevinphos (Phosdrin)	Monocrotophos	Naled (Dibrom)	Omethoate	Phorate	Pirimiphos-methyl	Prothiofos	Pyrazophos	Ronnel	Terbufos	Tetrachlorvinphos	Thionazin	Trichloronate	Demeton-S-methyl	Fenamiphos	Formothion	Parathion	Pirimphos-ethyl	Profenofos	Temephos	Arochlor 1016	Arochlor 1221	Arochlor 1232	Arochlor 1242	Arochlor 1248	Arochlor 1254	Arochlor 1260	PCBs (Sum of total)
	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
EQL	0.001	0.0001	0.0005	0.00002	0.00002	0.001	0.00001	0.0001	0.00001	0.0001	0.0001	0.001	0.00001	0.00001	0.0005	0.001	0.0005	0.00002	0.00001	0.02	0.0002	0.00001	0.00001	0.00002	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.001
ADWG (2025) Recreation (10x Health)		0.06	0.007	0.05	0.02 #5		0.01		0.9		0.2		0.009	1 #5	0.04 #5			0.005	0.5 #5	0.2	0.005 #5	0.003	4									
ANZG (2018) Marine 95% toxicant DGVs - Revised 2026																							0.00005									
ANZG (2018) Marine 99% toxicant DGVs - Revised 2026																																
NEPM 2013 Table 1A(4) Comm/Ind HSL D GW for Vapour Intrusion, Clay																																
NEPM 2013 Table 1A(4) Comm/Ind HSL D GW for Vapour Intrusion, Sand																																
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PFAS NEMP 3.1 (2026) Freshwater 95% species protection																																
PFAS NEMP 3.1 (2026) Freshwater 99% species protection																																
PFAS NEMP 3.1 (2026) Recreational Water																																
Field ID	**Date**	**Season**	**Lab Report Number**																														
MW01	05 Mar 2026	Wet	1331432	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW02	05 Mar 2026	Wet	1331432	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW03	05 Mar 2026	Wet	1331432	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QC01_20260305	MW03	Wet	1331432	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QA01_20260305	MW03	Wet	ES2607116	-	<0.0001	<0.0005	<0.00002	<0.00002	-	<0.00001	<0.0001	<0.00001	<0.0001	<0.0001	<0.01	<0.00001	<0.00001	<0.0005	-	<0.0005	<0.00002	<0.00001	<0.02	<0.0002	<0.00001	<0.00001	<0.00002	-	-	-	-	-	-	<0.001
MW116	05 Mar 2026	Wet	1331432	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW118	05 Mar 2026	Wet	1331432	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW01-DS	02 Jun 2026	Dry	1368258	<0.001	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.01	-	<0.001	<0.001	<0.001	<0.001	-	<0.001	<0.001	-	-	-	<0.001	-	-	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
MW02-DS	02 Jun 2026	Dry	1368258	<0.001	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.01	-	<0.001	<0.001	<0.001	<0.001	-	<0.001	<0.001	-	-	-	<0.001	-	-	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
MW03-DS	02 Jun 2026	Dry	1368258	<0.001	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.01	-	<0.001	<0.001	<0.001	<0.001	-	<0.001	<0.001	-	-	-	<0.001	-	-	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
QC01_20260602GW	MW03-DS	Dry	1368258	<0.001	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.01	-	<0.001	<0.001	<0.001	<0.001	-	<0.001	<0.001	-	-	-	<0.001	-	-	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
QA01_20260602GW	MW03-DS	Dry	ES2617707	-	<0.0001	<0.0005	<0.00002	<0.00002	-	<0.00001	<0.0001	<0.00001	<0.0001	<0.0001	<0.01	<0.00001	<0.00001	<0.0005	-	<0.0005	<0.00002	<0.00001	<0.02	<0.0002	<0.00001	<0.00001	<0.00002	-	-	-	-	-	-	-	<0.001
MW116-DS	02 Jun 2026	Dry	1368258	<0.001	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.01	-	<0.001	<0.001	<0.001	<0.001	-	<0.001	<0.001	-	-	-	<0.001	-	-	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
MW118-DS	02 Jun 2026	Dry	1368258	<0.001	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.01	-	<0.001	<0.001	<0.001	<0.001	-	<0.001	<0.001	-	-	-	<0.001	-	-	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005

Comments
#1 Adopted from Chromium (as CrVI)
#2 Adopted from Total Xylene
#3 Notated in Table 10.6 as Polycyclic Aromatic Aydrocarbons (PAHs) Benzo-(a)-pyrene
#4 see Aldrin & Dieldrin
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TABLE C - GROUNDWATER ANALYTICAL SUMMARY TABLE
Project Number: 70147
Project Name: ESA, 4 Mavie Street , DWD Projects Pty Ltd

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	Phenols																				
	2,3,4,6-tetrachlorophenol	2,4,5-trichlorophenol	2,4,6-trichlorophenol	2,4-dichlorophenol	2,4-dimethylphenol	2,4-dinitrophenol	2,6-dichlorophenol	2-chlorophenol	2-Methylphenol	2-nitrophenol	3&4-Methylphenol (m&p-cresol)	3-Methylphenol	4,6-Dinitro-2-methylphenol	4,6-Dinitro-o-cyclohexylphenol	4-Chloro-3-Methylphenol	4-methylphenol	4-nitrophenol	Phenol	Tetrachlorophenols	Phenols (Total Halogenated)	Phenols (Total Non Halogenated)
	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
EQL	0.0001	0.0001	0.0001	0.00005	0.00005	0.0005	0.00005	0.00005	0.00005	0.0001	0.0001	0.0001	0.0005	0.01	0.00005	0.0001	0.0001	0.00005	0.0005	0.001	0.01
ADWG (2025) Recreation (10x Health)			0.2	2				3 [#6]													
ANZG (2018) Marine 95% toxicant DGVs - Revised 2026																		0.4			
ANZG (2018) Marine 99% toxicant DGVs - Revised 2026																					
NEPM 2013 Table 1A(4) Comm/Ind HSL D GW for Vapour Intrusion, Clay																					
NEPM 2013 Table 1A(4) Comm/Ind HSL D GW for Vapour Intrusion, Sand																					
NEPM 2013 Table 1A(4) Rec HSL C GW for Vapour Intrusion, Clay																					
NEPM 2013 Table 1A(4) Rec HSL C GW for Vapour Intrusion, Sand																					
NEPM 2013 Table 1A(4) Res HSL A/B GW for Vapour Intrusion, Clay																					
NEPM 2013 Table 1A(4) Res HSL A/B GW for Vapour Intrusion, Sand																					
PFAS NEMP 3.1 (2026) Freshwater 95% species protection																					
PFAS NEMP 3.1 (2026) Freshwater 99% species protection																					
PFAS NEMP 3.1 (2026) Recreational Water																					

Field ID	Date	Season	Lab Report Number																			
MW01	05 Mar 2026	Wet	1331432	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW02	05 Mar 2026	Wet	1331432	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW03	05 Mar 2026	Wet	1331432	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QC01_20260305	MW03	Wet	1331432	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QA01_20260305	MW03	Wet	ES2607116	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	-	<0.0001	<0.00005	<0.0001	<0.0001	-	<0.0001	-	-	<0.00005	<0.0001	<0.0001	<0.0001	-	-	-
MW116	05 Mar 2026	Wet	1331432	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW118	05 Mar 2026	Wet	1331432	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW01-DS	02 Jun 2026	Dry	1368258	-	<0.0001	<0.0001	<0.00005	<0.00005	<0.0005	<0.00005	<0.00005	<0.00005	<0.0001	<0.0001	-	<0.0005	<0.01	<0.0001	-	<0.0005	<0.00005	<0.0005	<0.001	<0.01
MW02-DS	02 Jun 2026	Dry	1368258	-	<0.0001	<0.0001	<0.00005	<0.00005	<0.0005	<0.00005	<0.00005	<0.00005	<0.0001	<0.0001	-	<0.0005	<0.01	<0.0001	-	<0.0005	<0.00005	<0.0005	<0.001	<0.01
MW03-DS	02 Jun 2026	Dry	1368258	-	<0.0001	<0.0001	<0.00005	<0.00005	<0.0005	<0.00005	<0.00005	<0.00005	<0.0001	<0.0001	-	<0.0005	<0.01	<0.0001	-	<0.0005	<0.00005	<0.0005	<0.001	<0.01
QC01_20260602GW	MW03-DS	Dry	1368258	-	<0.0001	<0.0001	<0.00005	<0.00005	<0.0005	<0.00005	<0.00005	<0.00005	<0.0001	<0.0001	-	<0.0005	<0.01	<0.0001	-	<0.0005	<0.00005	<0.0005	<0.001	<0.01
QA01_20260602GW	MW03-DS	Dry	ES2617707	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	-	<0.0001	<0.00005	<0.0001	<0.0001	-	<0.0001	-	-	<0.00005	<0.0001	<0.0001	<0.0001	-	-	-
MW116-DS	02 Jun 2026	Dry	1368258	-	<0.0001	<0.0001	<0.00005	<0.00005	<0.0005	<0.00005	<0.00005	<0.00005	<0.0001	<0.0001	-	<0.0005	<0.01	<0.0001	-	<0.0005	<0.00005	<0.0005	<0.001	<0.01
MW118-DS	02 Jun 2026	Dry	1368258	-	<0.0001	<0.0001	<0.00005	<0.00005	<0.0005	<0.00005	<0.00005	<0.00005	<0.0001	<0.0001	-	<0.0005	<0.01	<0.0001	-	<0.0005	<0.00005	<0.0005	<0.001	<0.01

Comments
#1 Adopted from Chromium (as CrVI)
#2 Adopted from Total Xylene
#3 Notated in Table 10.6 as Polycyclic Aromatic Aydrocarbons (PAHs) Benzo-(a)-pyrene
#4 see Aldrin & Dieldrin
#5 No corresponding fact sheet for these pesticides. Retained in Table 10.6 for information purposes only.
#6 The concentration of all chlorination byproducts can be minimised by removing naturally occurring organic matter. See Table 10.6 for full notation.
#7 Adopted from Chromium (CrVI)
#8 Value can be adjusted using dissolved organic carbon concentrations, see technical guidance
#9 The DGVs apply to water with salinity 25–36 ppt and pH 6.5–8.0.
#10 Adopted from m-Xylene
#11 Sourced from NHMRC (2019) Recreational Water

TABLE C - GROUNDWATER ANALYTICAL SUMMARY TABLE
Project Number: 70147
Project Name: ESA, 4 Mavie Street , DWD Projects Pty Ltd

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	PFAS																														
	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorooctanoic acid (PFOA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	Perfluorohexadecanoic acid (PFHxDA)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (NMeFOSA)	N-Ethyl perfluorooctane sulfonamide (NEtFOSA)	N-Methylperfluorooctanesulfonamidoethanol (N-MeFOSE)	N-ethylperfluorooctanesulfonamidoethanol (NEtFOSE)	N-methylperfluorooctane sulfonamidoacetic acid (NMeFOSAA)	N-ethyl-perfluorooctanesulfonamidoacetic acid (NEtFOSAA)	Perfluoropropanesulfonic acid (PFPrS)	Perfluorobutanesulfonic acid (PFBS)	Perfluoropentanesulfonic acid (PFPeS)	Perfluorohexanesulfonic acid (PFHxS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorooctanesulfonic acid (PFOS)	Perfluorodecanesulfonic acid (PFDS)	1H,1H,2H,2H-perfluorohexanesulfonic acid (4:2 FTSA)	1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2 FTSA)	1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2 FTSA)	1H,1H,2H,2H-perfluorododecanesulfonic acid (10:2 FTSA)	Sum of PFHxS and PFOS	Sum of PFAS	Perfluorononanesulfonic acid ion
	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL	0.002	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.005	0.0005	0.001	0.001	0.001	0.001	0.0005	0.0005	0.001	0.0005	0.0005	0.0005	0.0005	0.0001	0.0005	0.001	0.001	0.001	0.001	0.0002	0.0002	0.0005
ADWG (2025) Recreation (10x Health)																																	
ANZG (2018) Marine 95% toxicant DGVs - Revised 2026																									0.9								
ANZG (2018) Marine 99% toxicant DGVs - Revised 2026																									0.02								
NEPM 2013 Table 1A(4) Comm/Ind HSL D GW for Vapour Intrusion, Clay																																	
NEPM 2013 Table 1A(4) Comm/Ind HSL D GW for Vapour Intrusion, Sand																																	
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NEPM 2013 Table 1A(4) Res HSL A/B GW for Vapour Intrusion, Clay																																	
NEPM 2013 Table 1A(4) Res HSL A/B GW for Vapour Intrusion, Sand																																	
PFAS NEMP 3.1 (2026) Freshwater 95% species protection					220																				0.9								
PFAS NEMP 3.1 (2026) Freshwater 99% species protection					19																				0.02								
PFAS NEMP 3.1 (2026) Recreational Water					10 [#11]																										2 [#11]		
Field ID	**Date**	**Season**	**Lab Report Number**																														
MW01	05 Mar 2026	Wet	1331432	0.016	0.021	0.076	0.014	0.025	0.075	0.002	0.026	<0.001	<0.001	<0.001	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.009	0.033	0.035	0.32	0.013	0.56	<0.001	<0.001	<0.005	<0.001	<0.001	0.88	1.2	<0.001
MW02	05 Mar 2026	Wet	1331432	<0.005	0.003	0.008	0.002	0.004	0.005	<0.001	<0.001	<0.001	<0.001	<0.001	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.001	0.004	0.006	0.050	0.002	0.096	<0.001	<0.001	<0.005	<0.001	<0.001	0.146	0.18	<0.001
MW03	05 Mar 2026	Wet	1331432	<0.005	0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	0.004	<0.001	0.011	<0.001	<0.001	<0.005	<0.001	<0.001	0.015	0.017	<0.001
QC01_20260305	MW03	Wet	1331432	<0.005	0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	0.004	<0.001	0.011	<0.001	<0.001	<0.005	<0.001	<0.001	0.015	0.017	<0.001
QA01_20260305	MW03	Wet	ES2607116	<0.01	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.005	<0.005	<0.002	<0.005	<0.005	<0.005	<0.005	<0.005	<0.002	<0.01	<0.002	<0.002	0.004	<0.002	0.011	<0.002	<0.005	<0.005	<0.005	<0.005	0.015	0.015	<0.002
MW116	05 Mar 2026	Wet	1331432	0.047	0.065	0.20	0.027	0.055	0.20	0.009	0.16	<0.001	<0.001	<0.001	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.015	0.045	0.099	0.89	0.032	2.0	<0.001	<0.001	<0.005	0.001	<0.001	2.89	3.8	<0.005
MW118	05 Mar 2026	Wet	1331432	0.014	<0.005	0.10	0.012	0.076	0.026	<0.001	<0.001	<0.001	<0.001	<0.001	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.009	0.044	0.073	0.48	0.010	0.20	<0.001	<0.001	<0.005	<0.001	<0.001	0.68	1.0	<0.001
MW01-DS	02 Jun 2026	Dry	1368258	0.014	0.014	0.024	0.005	0.010	0.042	0.001	0.027	<0.001	<0.001	<0.001	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.007	0.014	0.020	0.13	0.012	0.24	<0.001	<0.001	<0.005	<0.001	<0.001	0.37	0.56	0.003
MW02-DS	02 Jun 2026	Dry	1368258	<0.005	<0.001	0.001	<0.001	0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	0.004	<0.001	0.023	<0.001	<0.001	<0.005	<0.001	<0.001	0.027	0.030	<0.001
MW03-DS	02 Jun 2026	Dry	1368258	<0.005	0.001	0.002	<0.001	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	0.003	<0.001	0.012	<0.001	<0.001	<0.005	<0.001	<0.001	0.015	0.019	<0.001
QC01_20260602GW	MW03-DS	Dry	1368258	<0.005	0.001	0.002	<0.001	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	0.004	<0.001	0.012	<0.001	<0.001	<0.005	<0.001	<0.001	0.016	0.020	<0.001
QA01_20260602GW	MW03-DS	Dry	ES2617707	<0.0020	0.0010	0.0012	<0.0005	0.0005	0.0007	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	-	<0.0005	<0.001	<0.001	<0.001	<0.001	<0.0005	<0.0005	<0.0020	<0.0005	<0.0005	0.0024	<0.0005	0.0105	<0.0005	<0.001	<0.001	<0.001	<0.001	0.0129	0.0163	<0.0005
MW116-DS	02 Jun 2026	Dry	1368258	0.039	0.050	0.078	0.014	0.036	0.17	0.004	0.042	<0.001	<0.001	<0.001	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.020	0.042	0.096	0.56	0.036	1.1	<0.001	<0.001	<0.005	<0.001	<0.001	1.66	2.3	0.005
MW118-DS	02 Jun 2026	Dry	1368258	0.022	0.026	0.16	0.020	0.15	0.039	<0.001	<0.001	<0.001	<0.001	<0.001	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.018	0.048	0.12	0.77	0.027	0.28	<0.001	<0.001	<0.005	<0.001	<0.001	1.05	1.7	<0.001

Comments
#1 Adopted from Chromium (as CrVI)
#2 Adopted from Total Xylene
#3 Notated in Table 10.6 as Polycyclic Aromatic Aydrocarbons (PAHs) Benzo-(a)-pyrene
#4 see Aldrin & Dieldrin
#5 No corresponding fact sheet for these pesticides. Retained in Table 10.6 for information purposes only.
#6 The concentration of all chlorination byproducts can be minimised by removing naturally occurring organic matter. See Table 10.6 for full notation.
#7 Adopted from Chromium (CrVI)
#8 Value can be adjusted using dissolved organic carbon concentrations, see technical guidance
#9 The DGVs apply to water with salinity 25–36 ppt and pH 6.5–8.0.
#10 Adopted from m-Xylene
#11 Sourced from NHMRC (2019) Recreational Water

TABLE C - GROUNDWATER ANALYTICAL SUMMARY TABLE
Project Number: 70147
Project Name: ESA, 4 Mavie Street , DWD Projects Pty Ltd

	Herbicides & Fungicides	Fungicides	Other		Pesticides	Semivolatile Organic Compounds	NA
	Dinoseb	Fosetyl-al	Naphthalophos	Triazophos	Sulfotepp	Hexachlorophene	Carbophenothion
	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
EQL	0.01	0.01	0.001	0.000005	0.000005	0.0001	0.00002
ADWG (2025) Recreation (10x Health)							0.005
ANZG (2018) Marine 95% toxicant DGVs - Revised 2026							
ANZG (2018) Marine 99% toxicant DGVs - Revised 2026							
NEPM 2013 Table 1A(4) Comm/Ind HSL D GW for Vapour Intrusion, Clay							
NEPM 2013 Table 1A(4) Comm/Ind HSL D GW for Vapour Intrusion, Sand							
NEPM 2013 Table 1A(4) Rec HSL C GW for Vapour Intrusion, Clay							
NEPM 2013 Table 1A(4) Rec HSL C GW for Vapour Intrusion, Sand							
NEPM 2013 Table 1A(4) Res HSL A/B GW for Vapour Intrusion, Clay							
NEPM 2013 Table 1A(4) Res HSL A/B GW for Vapour Intrusion, Sand							
PFAS NEMP 3.1 (2026) Freshwater 95% species protection							
PFAS NEMP 3.1 (2026) Freshwater 99% species protection							
PFAS NEMP 3.1 (2026) Recreational Water							

Field ID	Date	Season	Lab Report Number							
MW01	05 Mar 2026	Wet	1331432	-	-	-	-	-	-	-
MW02	05 Mar 2026	Wet	1331432	-	-	-	-	-	-	-
MW03	05 Mar 2026	Wet	1331432	-	-	-	-	-	-	-
QC01_20260305	MW03	Wet	1331432	-	-	-	-	-	-	-
QA01_20260305	MW03	Wet	ES2607116	-	<0.01	<0.0010	<0.000005	<0.000005	<0.0001	<0.00002
MW116	05 Mar 2026	Wet	1331432	-	-	-	-	-	-	-
MW118	05 Mar 2026	Wet	1331432	-	-	-	-	-	-	-
MW01-DS	02 Jun 2026	Dry	1368258	<0.01	-	-	-	-	-	-
MW02-DS	02 Jun 2026	Dry	1368258	<0.01	-	-	-	-	-	-
MW03-DS	02 Jun 2026	Dry	1368258	<0.01	-	-	-	-	-	-
QC01_20260602GW	MW03-DS	Dry	1368258	<0.01	-	-	-	-	-	-
QA01_20260602GW	MW03-DS	Dry	ES2617707	-	<0.01	<0.0010	<0.000005	<0.000005	<0.0001	<0.00002
MW116-DS	02 Jun 2026	Dry	1368258	<0.01	-	-	-	-	-	-
MW118-DS	02 Jun 2026	Dry	1368258	<0.01	-	-	-	-	-	-

Comments
#1 Adopted from Chromium (as CrVI)
#2 Adopted from Total Xylene
#3 Notated in Table 10.6 as Polycyclic Aromatic Aydrocarbons (PAHs) Benzo-(a)-pyrene
#4 see Aldrin & Dieldrin
#5 No corresponding fact sheet for these pesticides. Retained in Table 10.6 for information purposes only.
#6 The concentration of all chlorination byproducts can be minimised by removing naturally occurring organic matter. See Table 10.6 for full notation.
#7 Adopted from Chromium (CrVI)
#8 Value can be adjusted using dissolved organic carbon concentrations, see technical guidance
#9 The DGVs apply to water with salinity 25–36 ppt and pH 6.5–8.0.
#10 Adopted from m-Xylene
#11 Sourced from NHMRC (2019) Recreational Water

TABLE D - SURFACE WATER ANALYTICAL SUMMARY TABLE
Project Number: 70147
Project Name: ESA, 4 Mavie Street , DWD Projects Pty Ltd

JBS&G
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	Metals & Metalloids												TPHs (NEPC 1999)					TRHs (NEPC 2013)							BTEXN							
	Arsenic	Cadmium	Chromium (III+VI)	Copper	Lead	Mercury	Molybdenum	Nickel	Selenium	Silver	Tin	Zinc	C6-C9 Fraction	C10-C14 Fraction	C15-C28 Fraction	C29-C36 Fraction	C10-C36 Fraction (Sum of Total)	C6-C10	C10-C16	C16-C34	C34-C40	C10-C40 (Sum of total)	F1 (C6-C10 minus BTEX)	F2 (C10-C16 less Naphthalene)	Benzene	Toluene	Ethylbenzene	Xylene (o)	Xylene (m & p)	Xylene Total	Total BTEX	Naphthalene_VOC
	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
EQL	0.001	0.0001	0.001	0.001	0.001	0.0001	0.005	0.001	0.001	0.005	0.005	0.005	0.02	0.05	0.1	0.05	0.05	0.02	0.05	0.1	0.1	0.1	0.02	0.05	0.001	0.002	0.002	0.002	0.002	0.002	0.001	0.005
ADWG (2025) Recreation (10x Health)	0.1	0.02	0.5 [#1]	20	0.05	0.01	0.5	0.2	0.04	1															0.01	8	3	6 [#2]	6 [#2]	6		
ANZG (2018) Marine 95% toxicant DGVs - Revised 2026		0.0055	0.0044 [#8]	0.0006 [#9]	0.0044	0.0004		0.0059		0.0014		0.008 [#10]													0.7	0.18	0.08		0.075 [#11]			0.07
ANZG (2018) Marine 99% toxicant DGVs - Revised 2026																																
PFAS NEMP 3.1 (2026) Freshwater 95% species protection																																
PFAS NEMP 3.1 (2026) Freshwater 99% species protection																																
PFAS NEMP 3.1 (2026) Recreational Water																																
Darwin Harbour Water Quality Objectives (2010) - 'Upper Estuary'																																
Field ID	**Date/Parent**	**Season**	**Lab Report Number**																													
SW01	04 Mar 2026	Wet	1331080	0.002	<0.0002	<0.001	<0.001	<0.001	<0.0001	0.011	<0.001	<0.001	<0.005	<0.005	0.009	<0.02	<0.05	<0.1	<0.1	<0.1	<0.02	<0.05	<0.1	<0.1	<0.1	<0.02	<0.05	-	-	-	-	-	-	-	<0.01
SW02	04 Mar 2026	Wet	1331080	0.002	<0.0002	0.001	0.002	0.001	<0.0001	0.005	0.001	<0.001	<0.005	<0.005	0.015	<0.02	<0.05	<0.1	<0.1	<0.1	<0.02	<0.05	<0.1	<0.1	<0.1	<0.02	<0.05	-	-	-	-	-	-	-	<0.01
SW03	04 Mar 2026	Wet	1331080	0.002	<0.0002	0.002	0.001	<0.001	<0.0001	0.009	<0.001	<0.001	<0.005	<0.005	0.008	<0.02	<0.05	<0.1	<0.1	<0.1	<0.02	<0.05	<0.1	<0.1	<0.1	<0.02	<0.05	-	-	-	-	-	-	-	<0.01
SW-B01	04 Mar 2026	Wet	1331080	0.004	<0.0002	0.004	0.004	0.003	<0.0001	<0.005	0.002	<0.001	<0.005	<0.005	0.005	<0.02	<0.05	<0.1	<0.1	<0.1	<0.02	<0.05	<0.1	<0.1	<0.1	<0.02	<0.05	-	-	-	-	-	-	-	<0.01
QC01_20260304	SW-B01	Wet	1331080	0.002	<0.0002	<0.001	<0.001	<0.001	<0.0001	0.006	<0.001	<0.001	<0.005	<0.005	0.007	<0.02	<0.05	<0.1	<0.1	<0.1	<0.02	<0.05	<0.1	<0.1	<0.1	<0.02	<0.05	-	-	-	-	-	-	-	<0.01
QA01_20260304	SW-B01	Wet	ES2606941	<0.010	<0.0010	<0.010	<0.010	<0.010	<0.0001	-	<0.010	-	-	-	<0.050	<0.02	<0.05	<0.1	<0.05	<0.05	<0.02	<0.1	<0.1	<0.1	<0.1	<0.02	<0.1	<0.001	<0.002	<0.002	<0.002	<0.002	<0.002	<0.001	<0.005
SW-B02	06 Mar 2026	Wet	1331459	0.002	<0.0002	<0.001	0.001	<0.001	<0.0001	0.007	<0.001	<0.001	<0.005	<0.005	0.011	<0.02	<0.05	<0.1	<0.1	<0.1	<0.02	<0.05	<0.1	<0.1	<0.1	<0.02	<0.05	-	-	-	-	-	-	-	<0.01
SW-B03	04 Mar 2026	Wet	1335671	0.004	<0.0002	<0.001	0.001	<0.001	<0.0001	0.010	<0.001	<0.001	<0.005	<0.005	<0.005	<0.02	<0.05	<0.1	<0.1	<0.1	<0.02	<0.05	<0.1	<0.1	<0.1	<0.02	<0.05	-	-	-	-	-	-	-	<0.01
SW01-DS	03 Jun 2026	Dry	1368270	0.013	<0.0002	0.003	0.003	<0.001	<0.0001	0.011	0.001	0.002	<0.005	<0.005	0.020	<0.02	<0.05	<0.1	<0.1	<0.1	<0.02	<0.05	<0.1	<0.1	<0.1	<0.02	<0.05	<0.001	<0.001	<0.001	<0.001	<0.002	<0.003	-	<0.01
SW02-DS	03 Jun 2026	Dry	1368270	0.013	<0.0002	0.001	0.003	<0.001	<0.0001	0.013	<0.001	0.004	<0.005	<0.005	0.008	<0.02	<0.05	<0.1	<0.1	<0.1	<0.02	<0.05	<0.1	<0.1	<0.1	<0.02	<0.05	<0.001	<0.001	<0.001	<0.001	<0.002	<0.003	-	<0.01
SW03-DS	03 Jun 2026	Dry	1368270	0.012	<0.0002	0.002	0.008	<0.001	<0.0001	0.011	<0.001	0.009	<0.005	<0.005	0.009	<0.02	<0.05	<0.1	<0.1	<0.1	<0.02	<0.05	<0.1	<0.1	<0.1	<0.02	<0.05	<0.001	<0.001	<0.001	<0.001	<0.002	<0.003	-	<0.01
SW-B01-DS	03 Jun 2026	Dry	1368270	0.013	<0.0002	0.002	<0.001	<0.001	<0.0001	0.012	<0.001	0.001	<0.005	<0.005	0.008	<0.02	<0.05	<0.1	<0.1	<0.1	<0.02	<0.05	<0.1	<0.1	<0.1	<0.02	<0.05	<0.001	<0.001	<0.001	<0.001	<0.002	<0.003	-	<0.01
QC01_20260603SW	SW-B01-DS	Dry	1368270	0.012	<0.0002	0.002	0.005	<0.001	<0.0001	0.013	<0.001	0.005	<0.005	<0.005	0.009	<0.02	<0.05	<0.1	<0.1	<0.1	<0.02	<0.05	<0.1	<0.1	<0.1	<0.02	<0.05	<0.001	<0.001	<0.001	<0.001	<0.002	<0.003	-	<0.01
QA01_20260603SW	SW-B01-DS	Dry	ES2617908	<0.010	<0.0010	<0.010	<0.010	<0.010	<0.0001	0.013	<0.010	<0.040	<0.010	<0.010	<0.050	<0.02	<0.05	<0.1	<0.05	<0.05	<0.02	<0.1	<0.1	<0.1	<0.1	<0.02	<0.1	<0.001	<0.002	<0.002	<0.002	<0.002	<0.002	<0.001	<0.005
SW-B02-DS	01 Jun 2026	Dry	1368270	0.010	<0.0002	0.002	0.001	<0.001	<0.0001	0.012	<0.001	0.001	<0.005	<0.005	0.006	<0.02	<0.05	<0.1	<0.1	<0.1	<0.02	<0.05	<0.1	<0.1	<0.1	<0.02	<0.05	<0.001	<0.001	<0.001	<0.001	<0.002	<0.003	-	<0.01
SW-B03-DS	01 Jun 2026	Dry	1368270	0.011	<0.0002	0.002	<0.001	<0.001	<0.0001	0.012	<0.001	<0.001	<0.005	<0.005	0.005	<0.02	<0.05	<0.1	<0.1	<0.1	<0.02	<0.05	<0.1	<0.1	<0.1	<0.02	<0.05	<0.001	<0.001	<0.001	<0.001	<0.002	<0.003	-	<0.01

Comments
#1 Adopted from Chromium (as CrVI)
#2 Adopted from Total Xylene
#3 Notated in Table 10.6 as Polycyclic Aromatic Aydrocarbons (PAHs) Benzo-(a)-pyrene
#4 see Aldrin & Dieldrin
#5 No corresponding fact sheet for these pesticides. Retained in Table 10.6 for information purposes only.
#6 Calculated using ratio of molecular weight of N and O to NHMRC Guideline Value of 500mg/L for Nitrate as Nitrate
#7 Calculated using ratio of molecular weight of N and O to NHMRC Guideline Value of 3mg/L for Nitrate as nitrate
#8 Adopted from Chromium (CrVI)
#9 Value can be adjusted using dissolved organic carbon concentrations, see technical guidance
#10 The DGVs apply to water with salinity 25–36 ppt and pH 6.5–8.0.
#11 Adopted from m-Xylene
#12 pH and temperature dependant, see technical guidance for appropriate value
#13 Based on the "Grading" guideline values (NIWA 2013); Low Reliability
#14 Sourced from NHMRC (2019) Recreational Water

TABLE D - SURFACE WATER ANALYTICAL SUMMARY TABLE
Project Number: 70147
Project Name: ESA, 4 Mavie Street , DWD Projects Pty Ltd

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	PAH																								
	2-Methylnaphthalene	3-Methylcholanthrene	7,12-Dimethylbenz(a)anthracene	Acenaphthene	Acenaphthylene	Anthracene	Benz(a)anthracene	Benzo(a)pyrene	Benzo(a)pyrene TEQ calc (Zero)	Benzo(b+j)fluoranthene	Benzo(e)pyrene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Coronene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-c,d)pyrene	Naphthalene	Perylene	Phenanthrene	Pyrene	PAHs (Sum of total)
	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
EQL	0.0001	0.0001	0.0001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00005	0.00001	0.0001	0.00001	0.00001	0.00001	0.0001	0.00001	0.00001	0.00001	0.00001	0.00001	0.0001	0.00001	0.00001	0.00001
ADWG (2025) Recreation (10x Health)								0.0001 [#3]																
ANZG (2018) Marine 95% toxicant DGVs - Revised 2026						0.0004		0.0002									0.0014			0.07		0.002		
ANZG (2018) Marine 99% toxicant DGVs - Revised 2026																								
PFAS NEMP 3.1 (2026) Freshwater 95% species protection																								
PFAS NEMP 3.1 (2026) Freshwater 99% species protection																								
PFAS NEMP 3.1 (2026) Recreational Water																								
Darwin Harbour Water Quality Objectives (2010) - 'Upper Estuary'																								
Field ID	**Date/Parent**	**Season**	**Lab Report Number**																						
SW01	04 Mar 2026	Wet	1331080	-	-	-	<0.001	<0.001	<0.001	<0.001	<0.001	-	<0.001	-	<0.001	<0.001	<0.001	-	<0.001	<0.001	<0.001	<0.001	<0.001	-	<0.001	<0.001	<0.001
SW02	04 Mar 2026	Wet	1331080	-	-	-	<0.001	<0.001	<0.001	<0.001	<0.001	-	<0.001	-	<0.001	<0.001	<0.001	-	<0.001	<0.001	<0.001	<0.001	<0.001	-	<0.001	<0.001	<0.001
SW03	04 Mar 2026	Wet	1331080	-	-	-	<0.001	<0.001	<0.001	<0.001	<0.001	-	<0.001	-	<0.001	<0.001	<0.001	-	<0.001	<0.001	<0.001	<0.001	<0.001	-	<0.001	<0.001	<0.001
SW-B01	04 Mar 2026	Wet	1331080	-	-	-	<0.001	<0.001	<0.001	<0.001	<0.001	-	<0.001	-	<0.001	<0.001	<0.001	-	<0.001	<0.001	<0.001	<0.001	<0.001	-	<0.001	<0.001	<0.001
QC01_20260304	SW-B01	Wet	1331080	-	-	-	<0.001	<0.001	<0.001	<0.001	<0.001	-	<0.001	-	<0.001	<0.001	<0.001	-	<0.001	<0.001	<0.001	<0.001	<0.001	-	<0.001	<0.001	<0.001
QA01_20260304	SW-B01	Wet	ES2606941	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.00005	<0.00005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.00005
SW-B02	06 Mar 2026	Wet	1331459	-	-	-	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	-	<0.00001	-	<0.00001	<0.00001	<0.00001	-	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	-	<0.00001	<0.00001	<0.00001
SW-B03	04 Mar 2026	Wet	1335671	-	-	-	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	-	<0.00001	-	<0.00001	<0.00001	<0.00001	-	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	-	<0.00001	<0.00001	<0.00001
SW01-DS	03 Jun 2026	Dry	1368270	-	-	-	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	-	<0.00001	-	<0.00001	<0.00001	<0.00001	-	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	-	<0.00001	<0.00001	<0.00001
SW02-DS	03 Jun 2026	Dry	1368270	-	-	-	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	-	<0.00001	-	<0.00001	<0.00001	<0.00001	-	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	-	<0.00001	<0.00001	<0.00001
SW03-DS	03 Jun 2026	Dry	1368270	-	-	-	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	-	<0.00001	-	<0.00001	<0.00001	<0.00001	-	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	-	<0.00001	<0.00001	<0.00001
SW-B01-DS	03 Jun 2026	Dry	1368270	-	-	-	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	-	<0.00001	-	<0.00001	<0.00001	<0.00001	-	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	-	<0.00001	<0.00001	<0.00001
QC01_20260603SW	SW-B01-DS	Dry	1368270	-	-	-	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	-	<0.00001	-	<0.00001	<0.00001	<0.00001	-	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	-	<0.00001	<0.00001	<0.00001
QA01_20260603SW	SW-B01-DS	Dry	ES2617908	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.00005	<0.00005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.00005
SW-B02-DS	01 Jun 2026	Dry	1368270	-	-	-	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	-	<0.00001	-	<0.00001	<0.00001	<0.00001	-	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	-	<0.00001	<0.00001	<0.00001
SW-B03-DS	01 Jun 2026	Dry	1368270	-	-	-	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	-	<0.00001	-	<0.00001	<0.00001	<0.00001	-	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	-	<0.00001	<0.00001	<0.00001

Comments
#1 Adopted from Chromium (as CrVI)
#2 Adopted from Total Xylene
#3 Notated in Table 10.6 as Polycyclic Aromatic Aydrocarbons (PAHs) Benzo-(a)-pyrene
#4 see Aldrin & Dieldrin
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#8 Adopted from Chromium (CrVI)
#9 Value can be adjusted using dissolved organic carbon concentrations, see technical guidance
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TABLE D - SURFACE WATER ANALYTICAL SUMMARY TABLE
Project Number: 70147
Project Name: ESA, 4 Mavie Street , DWD Projects Pty Ltd

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	Organochlorine Pesticides																								Polychlorinated Biphenyls							
	4,4-DDE	a-BHC	b-BHC	d-BHC	g-BHC (Lindane)	Aldrin	Dieldrin	Aldrin + Dieldrin	Chlordane	Chlordane (cis)	Chlordane (trans)	DDT	DDD	DDT+DDE+DDD	Endosulfan I	Endosulfan II	Endosulfan sulphate	Endrin	Endrin aldehyde	Endrin ketone	Heptachlor	Heptachlor Epoxide	Hexachlorobenzene	Methoxychlor	Toxaphene	Arochlor 1016	Arochlor 1221	Arochlor 1232	Arochlor 1242	Arochlor 1248	Arochlor 1254	Arochlor 1260	PCBs (Sum of total)
	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
EQL	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0005	0.0005	0.0005	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.001
ADWG (2025) Recreation (10x Health)					0.1	0.003 [#4]	0.003 [#4]	0.003	0.02			0.09									0.003			3 [#5]									
ANZG (2018) Marine 95% toxicant DGVs - Revised 2026																		0.000008					0.0001										
ANZG (2018) Marine 99% toxicant DGVs - Revised 2026																																	
PFAS NEMP 3.1 (2026) Freshwater 95% species protection																																	
PFAS NEMP 3.1 (2026) Freshwater 99% species protection																																	
PFAS NEMP 3.1 (2026) Recreational Water																																	
Darwin Harbour Water Quality Objectives (2010) - 'Upper Estuary'																																	
Field ID	**Date/Parent**	**Season**	**Lab Report Number**																															
SW01	04 Mar 2026	Wet	1331080	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.002	-	-	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SW02	04 Mar 2026	Wet	1331080	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.002	-	-	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SW03	04 Mar 2026	Wet	1331080	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	0.0003	0.0003	<0.002	-	-	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SW-B01	04 Mar 2026	Wet	1331080	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.002	-	-	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
QC01_20260304	SW-B01	Wet	1331080	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.002	-	-	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
QA01_20260304	SW-B01	Wet	ES2606941	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0020	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0020	-	-	-	-	-	-	-	-	<0.001
SW-B02	06 Mar 2026	Wet	1331459	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.002	-	-	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SW-B03	04 Mar 2026	Wet	1335671	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.002	-	-	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SW01-DS	03 Jun 2026	Dry	1368270	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.002	-	-	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SW02-DS	03 Jun 2026	Dry	1368270	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.002	-	-	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SW03-DS	03 Jun 2026	Dry	1368270	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.002	-	-	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SW-B01-DS	03 Jun 2026	Dry	1368270	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.002	-	-	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
QC01_20260603SW	SW-B01-DS	Dry	1368270	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.002	-	-	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
QA01_20260603SW	SW-B01-DS	Dry	ES2617908	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0020	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0020	-	-	-	-	-	-	-	-	<0.001
SW-B02-DS	01 Jun 2026	Dry	1368270	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.002	-	-	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SW-B03-DS	01 Jun 2026	Dry	1368270	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.002	-	-	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005

Comments
#1 Adopted from Chromium (as CrVI)
#2 Adopted from Total Xylene
#3 Notated in Table 10.6 as Polycyclic Aromatic Aydrocarbons (PAHs) Benzo-(a)-pyrene
#4 see Aldrin & Dieldrin
#5 No corresponding fact sheet for these pesticides. Retained in Table 10.6 for information purposes only.
#6 Calculated using ratio of molecular weight of N and O to NHMRC Guideline Value of 500mg/L for Nitrate as Nitrate
#7 Calculated using ratio of molecular weight of N and O to NHMRC Guideline Value of 3mg/L for Nitrate as nitrate
#8 Adopted from Chromium (CrVI)
#9 Value can be adjusted using dissolved organic carbon concentrations, see technical guidance
#10 The DGVs apply to water with salinity 25–36 ppt and pH 6.5–8.0.
#11 Adopted from m-Xylene
#12 pH and temperature dependant, see technical guidance for appropriate value
#13 Based on the "Grading" guideline values (NIWA 2013); Low Reliability
#14 Sourced from NHMRC (2019) Recreational Water

TABLE D - SURFACE WATER ANALYTICAL SUMMARY TABLE
Project Number: 70147
Project Name: ESA, 4 Mavie Street , DWD Projects Pty Ltd

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	PFAS																														
	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorooctanoic acid (PFOA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	Perfluorohexadecanoic acid (PFHxDA)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (NMeFOSA)	N-Ethyl perfluorooctane sulfonamide (NEtFOSA)	N-Methylperfluorooctanesulfonamidoethanol (N-MeFOSE)	N-ethylperfluorooctanesulfonamidoethanol (NEtFOSE)	N-methylperfluorooctane sulfonamidoacetic acid (NMeFOSAA)	N-ethyl-perfluorooctanesulfonamidoacetic acid (NEtFOSAA)	Perfluoropropanesulfonic acid (PFPrS)	Perfluorobutanesulfonic acid (PFBS)	Perfluoropentanesulfonic acid (PFPeS)	Perfluorohexanesulfonic acid (PFHxS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorooctanesulfonic acid (PFOS)	Perfluorodecanesulfonic acid (PFDS)	1H,1H,2H,2H-perfluorohexanesulfonic acid (4:2 FTSA)	1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2 FTSA)	1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2 FTSA)	1H,1H,2H,2H-perfluorododecanesulfonic acid (10:2 FTSA)	Sum of PFHxS and PFOS	Sum of PFAS	Perfluorononanesulfonic acid ion
	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL	0.005	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.005	0.002	0.005	0.005	0.005	0.005	0.005	0.002	0.002	0.001	0.001	0.001	0.001	0.001	0.0001	0.001	0.001	0.005	0.001	0.001	0.001	0.002	0.001
ADWG (2025) Recreation (10x Health)					2																	10		0.3										
ANZG (2018) Marine 95% toxicant DGVs - Revised 2026																																		
ANZG (2018) Marine 99% toxicant DGVs - Revised 2026																																		
PFAS NEMP 3.1 (2026) Freshwater 95% species protection					220																					0.9								
PFAS NEMP 3.1 (2026) Freshwater 99% species protection					19																					0.02								
PFAS NEMP 3.1 (2026) Recreational Water					10 [#14]																											2 [#14]		
Darwin Harbour Water Quality Objectives (2010) - 'Upper Estuary'																																		

Field ID	Date/Parent	Season	Lab Report Number																															
SW01	04 Mar 2026	Wet	1331080	<0.005	0.001	0.002	<0.001	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	0.009	<0.001	0.018	<0.001	<0.001	<0.005	<0.001	<0.001	0.027	0.031	<0.001
SW02	04 Mar 2026	Wet	1331080	<0.005	0.001	0.002	<0.001	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	0.002	0.002	0.014	<0.001	0.023	<0.001	<0.001	<0.005	<0.001	<0.001	0.037	0.045	<0.001
SW03	04 Mar 2026	Wet	1331080	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	0.002	0.002	0.013	<0.001	0.016	<0.001	<0.001	<0.005	<0.001	<0.001	0.029	0.033	<0.001
SW-B01	04 Mar 2026	Wet	1331080	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	0.0015	<0.001	<0.001	<0.005	<0.001	<0.001	0.0015	<0.005	<0.001
QC01_20260304	SW-B01	Wet	1331080	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	0.0017	<0.001	<0.001	<0.005	<0.001	<0.001	0.0017	<0.005	<0.001
QA01_20260304	SW-B01	Wet	ES2606941	<0.01	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.005	<0.005	<0.002	<0.005	<0.005	<0.005	<0.005	<0.005	<0.002	<0.002	<0.01	<0.002	<0.002	<0.002	<0.002	0.003	<0.002	<0.005	<0.005	<0.005	<0.005	0.003	0.003	<0.002
SW-B02	06 Mar 2026	Wet	1331459	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	0.001	<0.001	0.0012	<0.001	<0.001	<0.005	<0.001	<0.001	0.0022	<0.005	<0.001
SW-B03	04 Mar 2026	Wet	1335671	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	0.0006	<0.001	<0.001	<0.005	<0.001	<0.001	<0.001	<0.005	<0.001
SW01-DS	03 Jun 2026	Dry	1368270	<0.005	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	0.003	<0.001	0.0080	<0.001	<0.001	0.008	<0.001	<0.001	0.011	0.020	<0.001
SW02-DS	03 Jun 2026	Dry	1368270	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	0.001	<0.001	0.0031	<0.001	<0.001	<0.005	<0.001	<0.001	0.0041	<0.005	<0.001
SW03-DS	03 Jun 2026	Dry	1368270	<0.005	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	0.002	<0.001	0.0045	<0.001	<0.001	0.006	<0.001	<0.001	0.0065	0.014	<0.001
SW-B01-DS	03 Jun 2026	Dry	1368270	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	0.0003	<0.001	<0.001	<0.005	<0.001	<0.001	<0.001	<0.005	<0.001
QC01_20260603SW	SW-B01-DS	Dry	1368270	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	0.0003	<0.001	<0.001	<0.005	<0.001	<0.001	<0.001	<0.005	<0.001
QA01_20260603SW	SW-B01-DS	Dry	ES2617908	<0.0020	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	-	<0.0005	<0.001	<0.001	<0.001	<0.001	<0.0005	<0.0005	<0.0020	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.001	<0.001	<0.001	<0.001	<0.0002	<0.0002	<0.0005
SW-B02-DS	01 Jun 2026	Dry	1368270	<0.005	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	0.003	<0.001	0.0016	<0.001	<0.001	<0.005	<0.001	<0.001	0.0046	0.006	<0.001
SW-B03-DS	01 Jun 2026	Dry	1368270	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	0.0003	<0.001	<0.001	<0.005	<0.001	<0.001	<0.001	<0.005	<0.001

Comments
#1 Adopted from Chromium (as CrVI)
#2 Adopted from Total Xylene
#3 Notated in Table 10.6 as Polycyclic Aromatic Aydrocarbons (PAHs) Benzo-(a)-pyrene
#4 see Aldrin & Dieldrin
#5 No corresponding fact sheet for these pesticides. Retained in Table 10.6 for information purposes only.
#6 Calculated using ratio of molecular weight of N and O to NHMRC Guideline Value of 500mg/L for Nitrate as Nitrate
#7 Calculated using ratio of molecular weight of N and O to NHMRC Guideline Value of 3mg/L for Nitrate as nitrate
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#9 Value can be adjusted using dissolved organic carbon concentrations, see technical guidance
#10 The DGVs apply to water with salinity 25–36 ppt and pH 6.5–8.0.
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#13 Based on the "Grading" guideline values (NIWA 2013); Low Reliability
#14 Sourced from NHMRC (2019) Recreational Water

TABLE D - SURFACE WATER ANALYTICAL SUMMARY TABLE
Project Number: 70147
Project Name: ESA, 4 Mavie Street , DWD Projects Pty Ltd

JBS&G
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	Non-Metallic Inorganics								Other		
	Phosphate total (as P)	Ammonia as N	Nitrate (as N)	Nitrite (as N)	Nitrite + Nitrate as N	Nitrogen (Organic)	Nitrogen (Total)	Kjeldahl Nitrogen Total	TSS	Dissolve oxygen	pH
	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	%	Units
EQL	0.01	0.01	0.01	0.01	0.01	0.2	0.1	0.1	5	Field	Field
ADWG (2025) Recreation (10x Health)			112.9 #6	9.1 #7							
ANZG (2018) Marine 95% toxicant DGVs - Revised 2026		0 #12	2.4 #13								
ANZG (2018) Marine 99% toxicant DGVs - Revised 2026											
PFAS NEMP 3.1 (2026) Freshwater 95% species protection											
PFAS NEMP 3.1 (2026) Freshwater 99% species protection											
PFAS NEMP 3.1 (2026) Recreational Water											
Darwin Harbour Water Quality Objectives (2010) - 'Upper Estuary'	0.03						0.3		10	80-100	6.0-8.5

Field ID	Date/Parent	Season	Lab Report Number											
SW01	04 Mar 2026	Wet	1331080	0.01	0.06	0.22	<0.02	0.22	0.84	1.1	0.9	45	53	7.74
SW02	04 Mar 2026	Wet	1331080	0.02	0.05	0.27	<0.02	0.27	0.75	1.1	0.8	100	58	7.81
SW03	04 Mar 2026	Wet	1331080	0.02	0.12	0.22	<0.02	0.23	0.38	0.7	0.5	160	53	7.80
SW-B01	04 Mar 2026	Wet	1331080	0.01	0.13	0.03	<0.02	<0.05	0.57	0.7	0.7	85	40	7.61
QC01_20260304	SW-B01	Wet	1331080	<0.01	0.10	0.03	<0.02	<0.05	0.7	0.8	0.8	-	-	-
QA01_20260304	SW-B01	Wet	ES2606941	0.03	0.13	0.03	<0.01	0.03	-	0.3	0.3	113	-	-
SW-B02	06 Mar 2026	Wet	1331459	0.03	0.03	0.03	<0.02	<0.05	0.37	0.4	0.4	120	55	7.88
SW-B03	04 Mar 2026	Wet	1335671	0.02	0.10	<0.02	<0.02	<0.05	0.3	0.4	0.4	86	44	7.76
SW01-DS	03 Jun 2026	Dry	1368270	0.01	-	0.08	<0.02	0.08	-	<0.02	<0.2	89	72	7.88
SW02-DS	03 Jun 2026	Dry	1368270	0.01	-	<0.02	<0.02	<0.05	-	2.1	2.1	73	85	7.72
SW03-DS	03 Jun 2026	Dry	1368270	0.01	-	<0.02	<0.02	<0.05	-	1.6	1.6	54	82	7.79
SW-B01-DS	03 Jun 2026	Dry	1368270	0.01	-	<0.02	<0.02	<0.05	-	0.5	0.5	52	86	8.1
QC01_20260603SW	SW-B01-DS	Dry	1368270	-	-	-	-	-	-	-	-	-	-	-
QA01_20260603SW	SW-B01-DS	Dry	ES2617908	-	-	-	-	-	-	-	-	-	-	-
SW-B02-DS	01 Jun 2026	Dry	1368270	0.02	-	<0.02	<0.02	<0.05	-	1.1	1.1	59	97	8.17
SW-B03-DS	01 Jun 2026	Dry	1368270	0.03	-	<0.02	<0.02	<0.05	-	<0.02	<0.2	110	89	8.09

Comments
#1 Adopted from Chromium (as CrVI)
#2 Adopted from Total Xylene
#3 Notated in Table 10.6 as Polycyclic Aromatic Aydrocarbons (PAHs) Benzo-(a)-pyrene
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#14 Sourced from NHMRC (2019) Recreational Water

Appendix C:
Auditor Correspondence

AEA Ref: EA1237-C01 27 November 2025

Ms Jasmine Brown
Rapid Form Systems
Email: jasmine@rapidformsystems.com

Interim Auditor Advice – Mavie Street, Darwin, NT Audit
Audit Progress Update

Dear Jasmine,

I have been engaged to complete a site audit for parts of Lots 5280, 10881 and 10882, Darwin, Northern Territory (the audit site). As part of this site audit, JBS&G have prepared the following documents:

- JBS&G (2025) *Preliminary Site Investigation with a Sampling Analysis and Quality Plan – Parts of 4 Mavie Street, and Lots 10881 and 10882, Darwin, NT*, Document 70147/107,073 (Rev 1), dated 15 September 2025.
- JBS&G (2025) *Preliminary Site Investigation with a Sampling Analysis and Quality Plan – Parts of 4 Mavie Street, and Lots 10881 and 10882, Darwin, NT*, Document 70147/107,073 (Rev 3), dated 18 November 2025 – note this is a revision to the above document following auditor feedback.

The PSI+SAQP (listed above) was prepared as one of the requirements of the Section 48(1) *Notice to Carry Out Environmental Audit Program* issued by NTEPA on 22 August 2025 (Section 48 Notice) - specifically Attachment B, Items 5, 8 and 9. As part of my review of the PSI+SAQP (Revision 1), I recommended an allowance for seasonal monitoring of groundwater and surface/seepage water, which has been included by JBS&G in Revision 3 of the PSI+SAQP. The proposed monitoring program will include one wet season monitoring event (to be completed prior to April 2026) and one dry season monitoring event (to be undertaken in May 2026).

As a result, the requirement to submit the Environmental Audit Report by 31 March 2026, as nominated in Attachment B Item 7 of the Section 48 Notice, is not considered feasible whilst still meeting the objectives of the monitoring program. It is recommended that the timeframe for submitting the Environmental Audit Report be extended to the end of August 2026 to allow for seasonal monitoring as described above, followed by preparation of the Detailed Site Investigation (DSI) report to be completed by the consultant and reviewed by the auditor, then completion of the audit report once the DSI has been finalised.

It is important to note that this letter does not represent a Site Audit Report (SAR) or a Site Audit Statement (SAS), but rather Interim Audit Advice, as the site audit remains in progress.

Should you have any questions regarding the above, please do not hesitate to contact me on 0427 746 015 or amacdonald@envaud.com.au.

Yours sincerely,



Alyson Macdonald
NSW Site Auditor *(accredited by NSW EPA under the Contaminated Land Management Act 1997)*

DOCUMENT CONTROL	
Draft By / Date	Reviewed By / Date
B Roder 25/11/2025	A Macdonald 27/11/2025

AEA Ref: EA1237-C02 27 November 2025

Ms Jasmine Brown
Rapid Form Systems
Email: jasmine@rapidformsystems.com
Cc: Mr Jack Braithwaite, JBS&G, JBraithwaite@jbsg.com.au

Interim Auditor Advice – Mavie Street, Darwin, NT Audit
Auditor Review of PSI and SAQP

Dear Jasmine,

As you are aware, I have been engaged to complete a site audit for parts of Lots 5280, 10881 and 10882, Darwin, Northern Territory (the audit site). As part of this site audit, JBS&G have prepared the following document:

- JBS&G (2025) *Preliminary Site Investigation with a Sampling Analysis and Quality Plan – Parts of 4 Mavie Street, and Lots 10881 and 10882, Darwin, NT*, Document 70147/107,073 (Rev 3), dated 18 November 2025.

I have already reviewed a draft version of the above document and provided comments via email on 17 October 2025. The majority of these comments have now been addressed, or JBS&G have stated they will be addressed as part of the upcoming Detailed Site Investigation (DSI). There are several outstanding comments, however I consider most of these may also be addressed during the DSI phase – please refer to the attached comments register for details. Based on this second review, the PSI+SAQP report can now be finalised and the DSI can be commenced.

It is important to note that this letter does not represent a Site Audit Report (SAR) or a Site Audit Statement (SAS), but rather Interim Audit Advice, as the site audit remains in progress.

Should you have any questions regarding the above, please do not hesitate to contact me on 0427 746 015 or amacdonald@envaud.com.au.

Yours sincerely,



Alyson Macdonald
NSW Site Auditor *(accredited by NSW EPA under the Contaminated Land Management Act 1997)*

DOCUMENT CONTROL	
Draft By / Date	Reviewed By / Date
B Roder 25/11/2025	A Macdonald 27/11/2025

AUSTRALIAN
ENVIRONMENTAL AUDITORS

AEA Ref: EA1237-C03 6 August 2026

Ms Jasmine Brown
Rapid Form Systems
Email: jasmine@rapidformsystems.com
Cc: Ryan Lill, JBS&G, RLill@jbsg.com.au

Interim Auditor Advice – Mavie Street, Darwin, NT Audit
Auditor Review of ESA

Dear Jasmine,

As you are aware, I have been engaged to complete a site audit for parts of Lots 5280, 10881 and 10882, Darwin, Northern Territory (the audit site). As part of this site audit, JBS&G have prepared the following document:

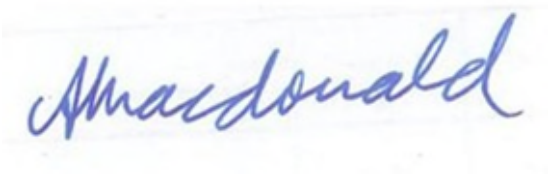
- JBS&G (2026) *Environmental Site Assessment– Parts of 4 Mavie Street, and Lots 10881 and 10882, Darwin, NT*, Document 70147 | 176,476 (Rev 0), dated 26 June 2026.

The ESA is well written and considered reliable. I have provided my detailed review comments separately as a workable Excel file for JBS&G to consider when updating the ESA. My primary comments at this time revolve around the anthropogenic waste in the imported fill, the unknown potential for asbestos-containing material at depth and how erosion control and capping of the material is proposed moving forward.

It is important to note that this letter does not represent a Site Audit Report (SAR) or a Site Audit Statement (SAS), but rather Interim Audit Advice, as the site audit remains in progress.

Should you have any questions regarding the above, please do not hesitate to contact me on 0427 746 015 or amacdonald@envaud.com.au.

Yours sincerely,



Alyson Macdonald
NSW Site Auditor *(accredited by NSW EPA under the Contaminated Land Management Act 1997)*

DOCUMENT CONTROL	
Draft By / Date	Reviewed and Updated By / Date
M. Chng 14 July 2026	A Macdonald 6/8/2026

AUSTRALIAN
ENVIRONMENTAL AUDITORS

AEA Ref: EA1237-C04 24 August 2026

Ms Kirsten Davison
Environmental Regulation Division / Waste
Department of Lands, Planning and Environment
Email: Kirsten.Davison@nt.gov.au
Cc: Jasmine Brown, DWD Projects, Kirsten.Davison@nt.gov.au

Update on Mavie Street, Darwin, NT Audit

Dear Kirsten,

As you are aware, I have been engaged to complete a site audit for parts of Lots 5280, 10881 and 10882, Darwin, Northern Territory (the audit site). The audit is required to be completed as part of the Section 48 notice issued to Mr Michael Anthony and DWD Project Pty Ltd on 22 August 2025, with due date 31 August 2026. I am writing to advise I will not be able to meet this deadline, due to the site investigation having been completed by JBS&G later than originally planned. The sampling program required both wet and dry season monitoring.

The field work for the detailed site investigation (DSI) was completed on 4 June 2026 and I was provided with a draft DSI report for review on 29 June 2026. I provided my detailed DSI report review comments to DWD Projects and JBS&G in a letter dated 6 August 2026. A revised DSI report was provided by JBS&G on 21 August 2026 and I am in the process of reviewing this report. Once the DSI report has been finalised, I will require a further six weeks to complete my audit report and statement, allowing for pre-existing commitments in September for myself and my audit support team.

Overall, the DSI findings indicate a low risk of harm to human health and the environment from the deposited fill and waste materials. My audit statement is likely to include some general recommendations to manage the material, however these will relate to erosion control and capping rather than a requirement to manage chemical contamination.

I request that the deadline for submission of the completed audit report to EPA be extended to 30 October 2026. I would also recommend an online meeting with EPA to discuss the audit findings prior to finalisation of my audit report and statement.

Should you have any questions regarding the above, please do not hesitate to contact me on 0427 746 015 or amacdonald@envaud.com.au.

Yours sincerely,



Alyson Macdonald
NSW Site Auditor *(accredited by NSW EPA under the Contaminated Land Management Act 1997)*

AEA Ref: EA1237-C05 17 September 2026

Ms Jasmine Brown
Rapid Form Systems
Email: jasmine@rapidformsystems.com
Cc: Ryan Lill, JBS&G, RLill@jbsg.com.au

Interim Auditor Advice – Mavie Street, Darwin, NT Audit
Auditor Review of Revised ESA

Dear Jasmine,

As you are aware, I have been engaged to complete a site audit for parts of Lots 5280, 10881 and 10882, Darwin, Northern Territory (the audit site). As part of this site audit, JBS&G have prepared the following document:

- JBS&G (2026) *Environmental Site Assessment– Parts of 4 Mavie Street, and Lots 10881 and 10882, Darwin, NT*, Document 70147 | 176,476 (Rev 1), dated 21 August 2026.

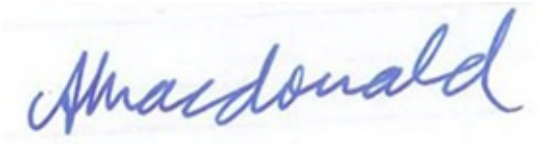
The report is an update to the draft version I have reviewed previously, and the majority of my previous comments have now been adequately addressed. I have provided my detailed review comments separately as a workable Excel file for JBS&G to consider when finalising the ESA. There is one new comment that needs to be addressed in the final report (incorrect number in Table 9.7), and groundwater flow direction figures should be provided in the final report, please.

I also met with NT EPA to discuss the investigation findings and whether an Environmental Management Plan is required prior to audit completion. A final decision on this is pending, and I will let you know once this has been determined.

It is important to note that this letter does not represent a Site Audit Report (SAR) or a Site Audit Statement (SAS), but rather Interim Audit Advice, as the site audit remains in progress.

Should you have any questions regarding the above, please do not hesitate to contact me on 0427 746 015 or amacdonald@envaud.com.au.

Yours sincerely,



Alyson Macdonald
NSW Site Auditor *(accredited by NSW EPA under the Contaminated Land Management Act 1997)*

DOCUMENT CONTROL
Prepared By / Date
A Macdonald 17/9/2026

AEA Ref: EA1237-C06 21 October 2026

Ms Jasmine Brown
Rapid Form Systems
Email: jasmine@rapidformsystems.com
Cc: Ryan Lill, JBS&G, RLill@jbsg.com.au

Interim Auditor Advice – Mavie Street, Darwin, NT Audit
Auditor Review of OEMP

Dear Jasmine,

As you are aware, I have been engaged to complete a site audit for parts of Lots 5280, 10881 and 10882, Darwin, Northern Territory (the audit site). As part of this site audit, JBS&G have prepared the following document:

- JBS&G (2026) *Operational Environmental Management Plan – 4 Mavie Street, Darwin, NT*, Document 70417 | 179196 (Rev B), dated 19 October 2026.

The OEMP is well written and overall considered appropriate. I have provided my detailed review comments separately as a workable Excel file for JBS&G to consider when updating the OEMP.

It is important to note that this letter does not represent a Site Audit Report (SAR) or a Site Audit Statement (SAS), but rather Interim Audit Advice, as the site audit remains in progress.

Should you have any questions regarding the above, please do not hesitate to contact me on 0427 746 015 or amacdonald@envaud.com.au.

Yours sincerely,

Alyson Macdonald
NSW Site Auditor *(accredited by NSW EPA under the Contaminated Land Management Act 1997)*

DWD Projects Pty Ltd ACN 601 276 108

jasmine@rapidformsystems.com Mobile: 0409 877 247

PO Box 4637
Darwin NT 0801

28 October 2026

Alyson Macdonald
Australian Environmental Auditors
amacdonald@envaud.com.au

NT EPA
Executive Director, Environmental Regulations Division, DLPE
environmentalregulation@nt.gov.au

RE: Operational Environmental Management Plan
4 Mavie Street, Darwin, NT 0801
REF 70417
Prepared by JBS&G
Dated 27 October 2026
"OEMP"

DWD Projects Pty Ltd confirms that the OEMP will be implemented.

Regards

Jasmine Brown
DWD Projects Pty Ltd

Appendix D:
EPA Correspondence

NSW Site Auditor Scheme

Site Audit Notification

Section 53C of the *Contaminated Land Management Act 1997* requires auditors to notify the NSW Environment Protection Authority (EPA) of statutory site audits within seven days of their being commissioned.

Proposed site audit details

Site audit no. EA1237

This proposed site audit is a:

☒ statutory audit

☐ non-statutory audit

within the meaning of the *Contaminated Land Management Act 1997* (s. 47).

Site auditor details

(As accredited under the *Contaminated Land Management Act 1997*)

Name Alyson Nance Macdonald

Company Australian Environmental Auditors Pty Ltd

Address Suite 21/1 Ricketts Road, Mount Waverley, VIC

Postcode 3149

Phone 03 8542 7500

Email amacdonald@envaud.com.au

Site details

Address 4 Mavie Street, Darwin, NT (and portions of adjacent properties)

Postcode 0801

Property description

(Attach a separate list if several properties are included in the site audit.)

1. Eastern portion of Lot 5280 Town of Darwin,
2. North-western portion of Lot 10881 Town of Darwin, and
3. Northern portion of Lot 10882 Town of Darwin.

(Note audit boundary is shown in red in Attachment C of the Section 48(1) Notice)

Local government area	City of Darwin
Area of site (include units, e.g. hectares)	0.716 ha
Current zoning	Specific Use (SD9 – Fisherman's Wharf)

Regulation and notification

To the best of my knowledge:

❑ **the site is** the subject of a declaration, order, agreement, proposal or notice under the *Contaminated Land Management Act 1997* or the *Environmentally Hazardous Chemicals Act 1985,* as follows: (provide the no. if applicable)

- ❑ Declaration no.
- ❑ Order no.
- ❑ Proposal no.
- ❑ Notice no.

☒ **the site is not** the subject of a declaration, order, proposal or notice under the *Contaminated Land Management Act 1997* or the *Environmentally Hazardous Chemicals Act 1985*.

To the best of my knowledge:

❑ the site **has** been notified to the EPA under section 60 of the *Contaminated Land Management Act 1997*

☒ the site **has not** been notified to the EPA under section 60 of the *Contaminated Land Management Act 1997*.

Site audit commissioned by

Name	Jasmine Brown
Company	DWD Project Pty Ltd as trustee for DWD Trust
Address	6 Carey Street, Darwin, NT
	Postcode 0801
Phone	0409 877 247
Email	jasmine@rapidformsystems.com

Purpose of site audit

❑ **A1** To determine land use suitability

Intended uses of the land:

OR

A2 To determine land use suitability subject to compliance with either an active or passive environmental management plan

Intended uses of the land:

OR

(Tick all that apply)

☒ **B1** To determine the nature and extent of contamination

❑ **B2** To determine the appropriateness of:

- ❑ an investigation plan
- ❑ a remediation plan
- ❑ a management plan

❑ **B3** To determine the appropriateness of a **site testing plan** to determine if groundwater is safe and suitable for its intended use as required by the *Temporary Water Restrictions Order for the Botany Sands Groundwater Resource 2017*

❑ **B4** To determine the compliance with an approved:

- ❑ **voluntary management proposal** or
- ❑ **management order** under the *Contaminated Land Management Act 1997*

❑ **B5** To determine if the land can be made suitable for a particular use (or uses) if the site is remediated or managed in accordance with a specified plan.

Intended uses of the land:

Nature of statutory requirements (not applicable for non-statutory audits)

❑ Requirements under the *Contaminated Land Management Act* 1997
(e.g. management order; please specify, including date of issue)

❑ Requirements imposed by an environmental planning instrument
(please specify, including date of issue)

❑ Development consent requirements under the *Environmental Planning and Assessment Act 1979* (please specify consent authority and date of issue)

☒ Requirements under other legislation (please specify, including date of issue)

A notice has been issued to carry out an Environmental Audit Program pursuant to Section 48(1) of the Northern Territory *Waste Management and Pollution Control Act 1998*, issued on 22 August 2025 to Mr Michael Anthony and DWD Projects Pty Ltd of Mavie Street, Darwin, NT. The relevant portion of land is shown in Attachment C of the notice, and includes parts of Lots 5280, 10881 and 10882, Town of Darwin and including adjacent seabeds.

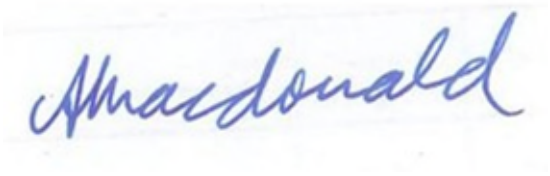
Overall comments:

1. The audit commenced on 10 June 2025 and the auditor was informed it had become statutory (due to Section 48(1) notice) on 8 September 2025.
2. The audit will be undertaken under the NSW EPA audit scheme and consider the National Environment Protection (Assessment of Site Contamination) Measure 1999 (amended 2013) and the Northern Territory Contaminated Land Guideline 2017 and other relevant guidance.
3. The specific purpose of the Type B1 audit is as per the Section 48(1) notice, to evaluate "the types, amount, distribution and mobility of contaminants present in the environment resulting from or in any way connected with historical land filling/reclamation activities the subject of the Supreme Court prosecution of Mr Michael Anthony and DWD Project Pty Ltd by the NT EPA on Indictment dated 22 March 2024."
4. The audit will assess the actual and potential risk of environmental harm from contaminants associated with the historical landfilling/reclamation activities identified in (3) above.
5. Where the audit identifies a risk of possible harm to the environment, the audit scope will be expanded to include a Type B2 audit to determine the appropriateness of a remediation and/or management plan for the contamination identified, including a reasonable timetable for implementation (i.e., the auditor will recommend the measures necessary to reduce the risk to an acceptable level).

Auditor's declaration

I certify that the information supplied in this form and any attached pages is, to the best of my knowledge, true, accurate and complete.

I am aware that there are penalties under the *Contaminated Land Management Act 1997* for wilfully making false or misleading statements.



Signed

Date 15 September 2025

Please send completed forms to:

NSW Environment Protection Authority
nswauditors@epa.nsw.gov.au or as specified by the EPA

NOTICE TO CARRY OUT ENVIRONMENTAL AUDIT PROGRAM

(Issued pursuant to Section 48(1) of the *Waste Management and Pollution Control Act 1998*)

ISSUED TO: Mr Michael Anthony and DWD Project Pty Ltd

OF: 4 Mavie Street, Darwin, Northern Territory

WHEREAS a delegate of the Northern Territory Environment Protection Authority (NT EPA) is satisfied for the reasons stated in **Attachment A** to this notice that you are a person required to carry out an Environmental Audit Program at a portion of land delineated in **Red** in **Attachment C** (within lots: 5280, 10881 and 10882, Town of Darwin, including the adjacent seabed as required), (the premises) to evaluate:

(i) the types, amount, distribution and mobility of contaminants present in the environment resulting from or in any way connected with the historical land filling/reclamation activities the subject of the Supreme Court prosecution of Mr Michael Anthony and DWD Project Pty Ltd by the NT EPA on Indictment dated 22 March 2024

NOW TAKE NOTICE that you are required to comply with each of the requirements specified in **Attachment B** to this notice on and from the date of issue of this notice.

ISSUE DATE: 22 August 2025

.....

EXECUTIVE DIRECTOR
ENVIRONMENTAL REGULATION

DELEGATE OF THE NT EPA

Important Notice

Failure to comply with this notice is an offence under Section 52 of the *Waste Management and Pollution Control Act 1998* and may incur significant penalties and/or other statutory action.

This notice takes effect on the date on which it is served upon you. Pursuant to Section 108 of the *Waste Management and Pollution Control Act 1998*, **you have the right to apply for a review of the decision to issue you with this Notice to carry out an Environmental Audit. If you intend to apply for a review, YOU MUST MAKE AN APPLICATION NOT LATER THAN 28 DAYS after the day on which this Notice of the decision was given.** For information on how to lodge an application for review, contact the Northern Territory Environment Protection Authority, telephone 8924 4041.

Pursuant to Section 112 of the *Waste Management and Pollution Control Act 1998* the person issued with this notice must fulfil certain obligations before selling, leasing, sub-leasing, giving or exchanging land, premises, a vehicle or business which is the subject of this Notice.

ATTACHMENT A

REASONS FOR ISSUING THIS NOTICE

As Delegate of the Northern Territory Environment Protection Authority (NT EPA) pursuant to Section 77 of the Waste Management and Pollution Control Act ("the Act"), I believe on reasonable grounds that:

1. The "premises" for the purposes of this notice and as depicted in **Red** in **Attachment C** (and the adjacent seabed as required) comprises portions of:
    (i) Lot 5280 Town of Darwin, also known as 4 Mavie St, Darwin City NT 0800; and
    (ii) North-western corner of Lot 10881 Town of Darwin, also known as 41 Stokes Hill Rd, Darwin City NT 0800; and
    (iii) Northern end of Lot 10882 Town of Darwin, also known as 2 Stokes Hill Rd, Darwin City NT 0800;
2. DWD Project Pty Ltd is the owner and occupier of Lot 5280 Town of Darwin, also known as 4 Mavie St, Darwin City NT 0800;
3. Michael Adrian Anthony (Mr Anthony) is the sole director of DWD Project Pty Ltd;
4. DWD Project Pty Ltd took ownership of Lot 5280 (also known as 4 Mavie St, Darwin City NT 0800) on 20 October 2015;
5. Lot 10881 Town of Darwin (also known as 41 Stokes Hill Rd, Darwin City NT 0800) is vacant Crown Land under the control of the Department of Land, Planning and Environment;
6. Lot 10882 Town of Darwin, also known as (2 Stokes Hill Rd, Darwin City NT 0800) is vacant Crown Land under the control of the Department of Land, Planning and Environment;
7. A chronology of aerial photographs taken of the premises between 13 April 2013 and 24 June 2018 confirms land reclamation was undertaken by DWD Project Pty Ltd and Mr Anthony;
8. There are no historic or current approvals, licences or authorisations issued under the WMPC Act for the disposal of waste material at the premises;
9. There are no historic or current permits or approvals issued under the *Planning Act 1999* for land filling or land reclamation at the premises;
10. There are no historic or current licenses, permits or approvals issued under the *Crown Lands Act 1992* for land occupation, land filling or land reclamation at the premises;
11. The types, amount, distribution and mobility of contaminants present in the environment resulting from or in any way connected with the historical land filling/reclamation activities the subject of the Supreme Court prosecution of Mr Michael Anthony and DWD Project Pty Ltd by the NT EPA on Indictment dated 22 March 2024 remains unknown;
12. Waste deposited and buried at the premises by Mr Michael Anthony and DWD Project Pty Ltd has the potential for environmental harm or risk of future environmental harm or adverse impact on the environment, including environmental harm and impacts to Darwin Harbour;
13. DWD Project Pty Ltd and Mr Anthony have failed to comply with Pollution Abatement Notices issued in relation to the premises on 12 October 2018, 10 January 2019 and 1 June 2020.

14. Accordingly, an audit is required to assess the types, amount, distribution and mobility of contaminants present in the environment resulting from or in any way connected with the historical land filling/reclamation activities in the area delineated in Attachment C and which is the subject of the Supreme Court prosecution of Mr Michael Anthony and DWD Project Pty Ltd by the NT EPA on Indictment dated 22 March 2024.

ATTACHMENT B

NOTICE REQUIREMENTS

1. Pursuant to section 48(1) of the *Waste Management and Pollution Control Act 1998* you are a person required to carry out an environmental audit program (the program) at the premises (as identified in **red** in **Attachment C**, including the adjacent seabed as required) to evaluate:

    (i) the types, amount, distribution and mobility of contaminants present in the environment resulting from or in any way connected with historical land filling/reclamation activities the subject of the Supreme Court prosecution of Mr Michael Anthony and DWD Project Pty Ltd by the NT EPA on Indictment dated 22 March 2024

2. The program must be performed by a person registered under section 68 of the *Waste Management and Pollution Control Act 1998* (the auditor)

3. By **25 August 2025**, you must engage the auditor, registered under section 68 of the *Waste Management and Pollution Control Act 1998*

4. You must provide the details of the auditor commissioned to conduct the program, via email to environmentalregulation@nt.gov.au within **10 business days** of engagement

5. By **25 August 2025**, you must submit via email to environmentalregulation@nt.gov.au the scope of works for the program endorsed by the auditor

6. By **1 December 2025**, you must submit, via email to environmentalregulation@nt.gov.au an update on the progress of the program.

7. By **31 March 2026**, you must submit, via email to environmentalregulation@nt.gov.au the results of the program in the form of an **Environmental Audit Report** prepared by the auditor

8. The **Environmental Audit Report** must include an assessment of actual environmental harm and potential risk of environmental harm from contaminants present in the environment at the premises resulting from or in any way connected with the historical land filling/reclamation activities the subject of the Supreme Court prosecution of Mr Michael Anthony and DWD Project Pty Ltd by the NT EPA on Indictment dated 22 March 2024.

9. The **Environmental Audit Report** must assess the actual and potential risk of environmental harm at the premises from historical land filling/reclamation activities the subject of the Supreme Court prosecution of Mr Michael Anthony and DWD Project Pty Ltd by the NT EPA on Indictment dated 22 March 2024, as determined by:
    (i) review of systems, plans, procedures, monitoring programs, data, records, reports or information that is relevant to the scope of the audit as the auditor sees fit;
    (ii) inspection of activities, processes, plant and equipment at the premises that is relevant to the scope of the audit as the auditor sees fit; and
    (iii) collection and/or modelling of data that is that relevant to the scope of the audit as the auditor sees fit

10. **The Environmental Audit Report** must:
    (i) consider all relevant guidance including, but not limited to, the National

Environment Protection (Assessment of Site Contamination) Measure (ASC NEPM) 1999 (amended 2013) and the Northern Territory Contaminated Land Guideline (CLG) 2017;

(ii) determine if contaminants present in the environment at the premises resulting from or in any way connected with the historical land filling/reclamation activities the subject of the Supreme Court prosecution of Mr Michael Anthony and DWD Project Pty Ltd by the NT EPA on Indictment dated 22 March 2024 cause a risk of any possible harm to the environment;

(iii) where a risk of possible harm to the environment at the premises has been identified recommend the measures necessary to reduce the risk to an acceptable level; and

(iv) propose a reasonable timetable for implementation of recommended measures.

ATTACHMENT C

THE PREMISES (AUDIT AREA EXTENT AS DELINEATED IN RED)



Appendix E:
Selected Site Photographs

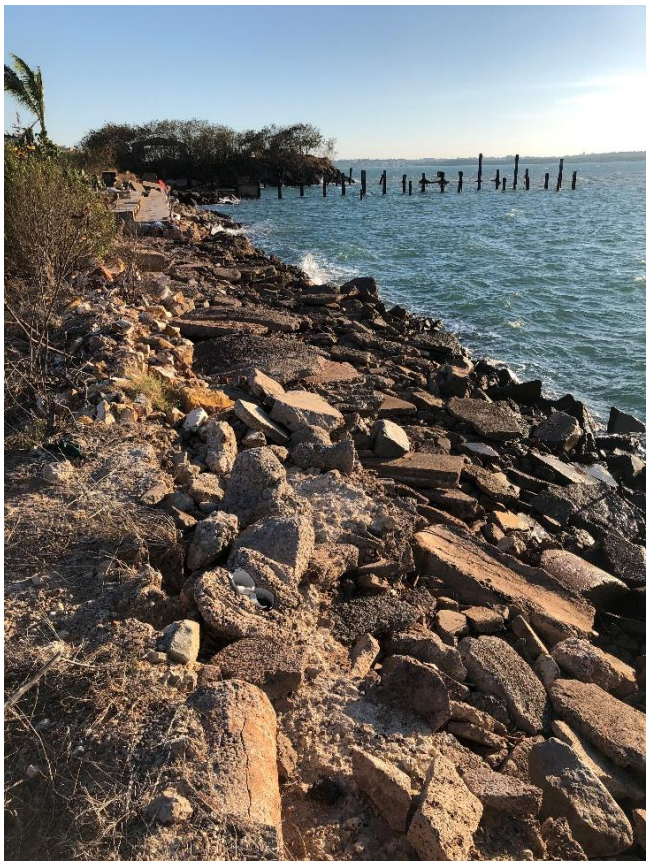


Plate E1: 2025 auditor's site inspection. Eastern embankment at high tide, looking north.



Plate E2: 2025 auditor's site inspection. Eastern embankment, looking south.



Plate E3: 2025 auditor's site inspection. View over Lot 10882, looking south towards Larrakia Cultural Centre development. Stokes Hill is on the right.



Plate E4: 2025 auditor's site inspection. View over Lot 10882, looking north-east. The concrete retaining wall on the left is the boundary with Lot 5280. In the distance is a boat under repair.



Plate E5: 2019 SLR test pit - Example 1



Plate E6: 2019 SLR test pit - Example 2



Plate E7: 2019 SLR test pit - Example 3



Plate E8: 2019 SLR test pit excavation spoil - Example 1



Plate E9: 2019 SLR test pit excavation spoil - Example 2

Appendix F:
Auditor's Review of Quality Assurance/Quality Control

Data Quality Evaluation

General

In accordance with the audit guidelines, this section provides an evaluation of the data quality objective (DQO) process and summary of data quality indicators used by the auditor. This evaluation has been undertaken in consideration of the following:

- NEPC, National Environment Protection (Assessment of Site Contamination) Measure 1999 (as amended 2013).
- EPA NSW (2022), *Sampling Design Part 1 – Applications, Contaminated Land Guidelines*, August 2022.

Data Quality Objectives

The DQOs are a seven-stepped process to assist with developing a sampling and analysis plan to ensure sufficient, reliable data is obtained in an efficient and defensible manner.

A summary of the DQOs established for the project by the auditor is provided below:

- **Step 1: State the problem.** The previous and current site uses may have resulted in contamination of soils, groundwater, soil vapour and landfill gas (LFG), which may present an unacceptable risk to the environment and off-site human receptors.
- **Step 2: Identify the decisions.** To assess the potential risks posed by potential site contamination and obtain sufficient data to indicate whether the site is likely to present a risk of harm to ecological and human receptors or to allow the development of strategies to remediate and/or manage identified contamination (if any).
- **Step 3: Identify inputs to decisions**. Historical information, site inspections, grid and targeted soil sampling across the site, groundwater investigation across the site, soil vapour and LFG investigations, laboratory analysis of samples for contaminants of concern, determination of background conditions and assessment of results against relevant assessment criteria.
- **Step 4: Define the study boundaries**. The lateral extent of the site and the top of the regional aquifer, extending off-site for any site derived groundwater contamination and into deeper aquifers should significant mass of denser than water contaminants be identified in groundwater.
- **Step 5: Develop a decision rule**. Site observations and analytical results assessed against the audit criteria and taking into consideration constitution and distribution heterogeneity. If the audit criteria are exceeded, then a site-specific assessment of risk may be undertaken. If unacceptable risks are identified, then remediation and/or management measures may be undertaken. Analytical data will be accepted if laboratories are accredited by NATA for the analysis undertaken, relative percentage difference in duplicate samples are within acceptable limits and laboratory quality assurance/quality control (QA/QC) protocols and results comply with the requirements specified in the above guidelines.
- **Step 6: Specify limits of decision errors**. Analyte selection based on identified contaminants of concern and site observations and measurements, risk-based probabilities incorporated in the audit criteria and acceptance limits for analytical data in accordance with the requirements specified in the above guidelines.
- **Step 7: Optimise the design for obtaining data**. Sampling program designed to satisfy the above DQOs in the most resource-effective manner. This includes a combined grid-based and targeted sampling of site soils, groundwater, soil vapour and LFG sampling as necessary.

Data Quality Indicators

The auditor has assessed the adequacy of the sampling and analytical data as part of the audit, including verification and validation of the data. The auditor has made this assessment with respect to the relevant requirements detailed in the above guidelines. This assessment of the adequacy of the sampling and analytical data is undertaken through the assessment of the data quality indicators which comprise:

- **Completeness**, which is a measure of the amount of useable data (expressed as a %) from a data collection activity. Field considerations include: all critical locations sampled, all samples collected (from the grid and at depth), all appropriate media assessed, appropriate sampling techniques, experienced sampling, and documented correctly. Laboratory considerations include: all critical samples analysed for the contaminants of concern, appropriate analytical methods meeting holding times, and required detection limits.
- **Comparability**, which is the confidence that the data may be considered to be equivalent for each sampling and analytical event and is expressed qualitatively. Field considerations include: consistent sampling techniques, field personnel, climatic conditions and sample type (i.e. filtered). Laboratory considerations include: consistent sample preparation, analytical techniques and laboratories.
- **Representativeness**, which is the confidence (expressed qualitatively) that data is representative of each medium present on the site. Field considerations are undertaken on a micro scale (i.e. sampling unit tested by the laboratory is representative of soil in the jar which is in turn representative of the borehole – also known as constitution heterogeneity) and macro scale (i.e. borehole is representative of the site – also known as distribution heterogeneity). Laboratory considerations include ensuring all samples are analysed according to the sampling analysis and quality plan (SAQP).
- **Precision**, which is a quantitative measure of the variability (or reproducibility) of date. Field considerations include appropriate sampling technique including duplicate sampling and field equipment rinsates. Laboratory considerations include intra- and inter-laboratory duplicate, equipment rinsates, trip and field blanks and trip spikes.
- **Accuracy** (or bias), which is a quantitative measure of the closeness of reported data to the true value. This includes appropriate sampling techniques (i.e. loss of volatiles or cross-contamination) and laboratory analysis of blanks, spikes and control samples.

The assessment of the data quality indicators of the sampling and analytical data comprised (but not limited to) the assessment of the following.

Field Quality Assurance:

- Site inspections by the auditor (and/or their assistant) to observe the critical stages of the assessment undertaken by the consultant;
- Soil sampling methodology appropriate with respect to sampling plan;
- Soil samples screened for contamination using visual/olfactory observations and/or field instruments (i.e. PID for volatiles);
- Soil sampling logs provided indicating subsurface conditions, sample collection depth and evidence of contamination (at a minimum);
- Cross-contamination avoided through the use of disposable gloves during soil sampling;
- Groundwater monitoring well, soil vapour bore and LFG bore construction appropriate (i.e. backfill, seal above screen etc.);
- Soil, groundwater, soil vapour and LFG sampling records provided;
- Calibration certificates provided for field instruments used;
- Cross-contamination avoided through appropriate decontamination of reused sampling equipment;

- Samples collected into laboratory supplied and appropriately preserved sampling containers;
- Samples placed in a chilled insulated container (ideally <4°C) during sample handling and transport to the laboratory;
- Samples transported to the laboratory under COC conditions (signed by a representative of consultant); and
- Ensure comparability through experienced sampler as well as consistent sampler, sampling methods and climatic conditions during the project.

Field Quality Control:

- Split duplicates collected/analysed at a rate of ≥5%;
- Blind duplicates collected/analysed at a rate of ≥5%;
- Rinsate blanks collected/analysed at a rate of 1 per reused piece of sampling equipment per batch;
- Trip blanks collected/analysed at a rate of 1 per batch (important where COC includes volatiles);
- Trip spikes (important where COC includes volatiles and holding time exceedances are anticipated);
- Field blanks collected/analysed at a rate of 1 per batch (important where COC includes volatiles);
- Split duplicate RPD% ≤50%;
- Blind duplicate RPD% ≤50%;
- COC <PQLs in rinsate blank;
- COC <PQLs in trip blank;
- Trip spike recoveries 70% to 130%; and
- COC <PQLs in field blank.

Laboratory Quality Assurance:

- Samples received by laboratory under COC conditions (signed by representative of laboratory);
- Laboratories NATA accredited and utilised NATA endorsed analytical methods;
- Comparability of data through consistency in laboratories/analytical methods throughout project;
- Samples extracted and analysed within recommended holding times; and
- Practical quantitation limits (PQL) for COC below respective Environmental Quality Criteria.

Laboratory Quality Control:

- Preparation and analysis of laboratory QC samples at rates in general accordance with NEPM (2013), including surrogate spikes, matrix spikes, matrix spike duplicates, laboratory duplicates, method blanks (as applicable);
- Laboratory surrogate spike recoveries 70% to 130% (exceptions for some contaminants);
- Laboratory matrix spike recoveries 70% to 130% (exceptions for some contaminants);
- Contaminants <PQLs in laboratory method blanks;
- Laboratory matrix duplicate/laboratory duplicate RPD% ≤50%; and
- 95% of laboratory QA results within data quality indicators (DQI).

Data Quality Evaluation

The auditor has undertaken an evaluation of the data quality using the above data quality indicators against the auditor's data quality objectives. This evaluation has been undertaken using all available data (all reports, auditor inspections, etc.) to determine if the data, in its totality, is sufficiently reliable and complete to allow the auditor to meet the objectives of the audit. The key factors considered in this evaluation are provided in the following table.

The following reports are not critically reviewed as part of this QA/QC review as the documentation in these reports are either significantly incomplete or the investigations were complete at a stage where the site was being altered substantially. There reports were reviewed for background purposes only and were not relied upon for the purposes of this audit's conclusions unless stated explicitly.

- HiQA (2016) *Rapid Form System Informative Report Lot 5280 Mavie Street, Darwin NT*, 14 February 2016,
- AECOM (2017) *Mavie Street Development Area Detailed Site Investigation,* 11 July 2017,
- Coffey (2019) *Soil Sampling - 4 Mavie Street, Darwin NT*, 12 February 2019, and
- Senversa (2021) *Addendum Detailed Site Investigation Report Summary - Former Stokes Hill Naval Fuel Installation-site*, 10 December 2021.

The reports below are considered reports with site investigation data relevant to the site and has been critically reviewed as documented in the tables below.

- JBS&G (2026a) *Environmental Site Assessment – Parts of 4 Mavie Street, and Lots 10881 and 10882, Darwin NT*, 22 September 2026 [ESA].

Table 1: Key factors considered

Data Evaluation	Auditor Comments
Documentation Completeness	The auditor is satisfied that the final versions of the JBS&G ESA is complete.
Data Completeness	The auditor is satisfied that each identified source of contamination has been assessed for all of the identified contaminants of concern. All potentially contaminated media have been adequately assessed. Targeted sampling and use of a broad suite of analytical analysis have been undertaken to address inherent data gaps in the site history.
Data Comparability	The auditor is satisfied that the sampling events are generally comparable with the different attributed to seasonal and tidal influences present in the site's environmental and not due to sampling methodology.
Data Representativeness	The auditor is satisfied that the data is representative of the site conditions at the time of sampling.
Precision and Accuracy of Sampling and Analysis	Whilst there are some relative percentage difference (RPD) exceedances, the auditor is satisfied that the primary cause for elevated RPD is natural sample/media heterogeneity and not an indication of inappropriate sampling. Furthermore, there are sufficient samples without elevated RPDs to indicate that the majority of the data set meets this requirement. The auditor is satisfied with the accuracy of the sampling and analysis.

Table 2: Auditor review of data quality

Item	Data Quality Indicator (DQI)	Comment
Field QA Program	Appropriate sampling strategy used and representative samples collected.	DQI requirement generally met. Works included: • Sufficient soil bores in a general grid/even distribution to meet the minimum grid sampling requirements, • Groundwater, surface water and sediment sampling during wet and dry season, and • Background sampling of sediments and surface water in Frances Bay. Soil vapour and LFG sampling was not considered necessary on the basis that there are no enclosed structures on-site currently and any future redevelopment of the site will likely require a land suitability audit. At which point, this data gap would be address. The nature of the waste material deposit on-site and the soil type is unlikely to result in volumes of gases that would laterally migrate off-site. Test pitting was requested by the auditor but not completed by JBS&G. This oversight is not of consequence as it has already been known that there are significant quantities of anthropogenic waste in the subsurface and it has been inferred that asbestos containing material (ACM) could be present. Additionally, some historical test pit photographs were available in SLR's documentation which confirms the presents of significant anthropogenic waste. Test pitting was not considered necessary to characterise the chemical nature of on-site soils.
	Sampling methodology appropriate with respect to COC.	DQI requirement met. A combination of soil bores, groundwater, surface water and sediment was undertaken. Soil bores were considered sufficient to characterise the chemical nature of the soils on-site. Groundwater monitoring wells targeted known areas of concern and established adequate coverage and sampling via low flow techniques. Surface water and sediment grab sampling was considered appropriate.
	Relevant environmental media sampled (i.e. soil, sediment, groundwater, surface water, vapour, dust, sediments).	DQI requirement met. Soil, groundwater, surface water and sediment were sampled.
	Appropriate locations were sampled at critical depths.	DQI requirement partially met. Natural soil samples were collected by not analysed by JBS&G. This oversight resulted in a more conservative ecological assessment criteria and conclusion may have otherwise not been necessary.
	Appropriate background locations sampled.	DQI requirement partially met. No background soil samples were collected as discussed above. Background groundwater samples were collected off-site further inland and background sediment, and surface water samples were collected around Frances Bay. The auditor considers the collection of background soil samples for the site has been adequately accounted for in the assessment conclusions by adopting more conservative ecological assessment criteria.

Item	Data Quality Indicator (DQI)	Comment
		The auditor considers that there is sufficient spread of groundwater, surface water and sediment samples.
	Standard operating procedures appropriate and complied with.	DQI requirement met. Field work was conducted in accordance with sampling plans, ASC NEPM, CRC CARE and in-house environmental field procedures.
	Soil samples screened for contamination using visual/olfactory observations and/or field instruments (i.e. PID for volatiles).	DQI requirement met.
	Soil sampling logs provided indicating subsurface conditions, sample collection depth and evidence of contamination (at a minimum).	DQI requirement met. All soil bore logs are provided in Appendix K of the ESA (JBS&G 2026a).
	Cross-contamination is avoided through the use of disposable gloves during all sampling.	DQI requirement met.
	Groundwater well construction appropriate (i.e. screen placement, backfill, seal above screen, etc.).	DQI requirement met. All groundwater well logs are provided in Appendix K of the ESA (JBS&G 2026a). Groundwater wells were installed across multiple fill layers and the shallow weather siltstone due to tidal influences resulting in significant standing water level variability. The screening across multiple lithology was considered acceptable as an initial effort as there was limited evidence of site-source contamination.
	Soil, groundwater, surface water and sediment sampling methodology appropriate with respect to COC.	DQI requirement met.
	Soil, groundwater, surface water and sediment sampling records provided.	DQI requirement met. Sampling records provided in Appendix K and N of the ESA (JBS&G 2026a).
	Analytical results compatible with field screening results (i.e. PID, WQM, LEL readings).	DQI requirement met.
	Calibration certificates are provided for field instruments used.	DQI requirement partially met. Appendix M of the ESA (JBS&G 2026a). This included the water quality meter, PID, peristaltic pumps and interface meter. Calibration certificate for the continuous groundwater level loggers used were not available. There were no indicators of anomalous groundwater level results and the results from this equipment was generally consistent with the spot monitoring undertaken with the interface meter.
	Cross-contamination avoided through appropriate decontamination of reused sampling equipment.	DQI requirement met.
	Samples collected into laboratory supplied and appropriately preserved sampling containers.	DQI requirement met.

Item	Data Quality Indicator (DQI)	Comment
	Samples placed in a chilled insulated container (ideally <4^{0}C) during sample handling and transport to the laboratory.	DQI requirement met. It is noted that whilst loose ice was used for chilling, some laboratory reports reported elevated temperatures between 18°C to 30°C. JBS&G confirmed that the original temperatures listed by the lab in laboratory batches 1330281 and 1330456 was erroneous and actually 9.8°C. The remaining elevated temperatures were considered by JBS&G to be associated with the short dispatch time (< 20 mins) by field staff to the primary laboratory resulting in insufficient time for temperature equilibration. In-situ surface water and groundwater temperature were measured above 25°C which reflects this statement. Upon sample receival, the laboratory staff transferred the samples into the laboratory fridge. On this basis, the auditor does not consider the elevated sample temperatures to be non-compliance.
	Samples transported to the laboratory under Chain of Custody conditions (signed by a representative of Consultant). Any alterations to original Chain of Custody documented and provided in the report. Where appropriate lobortory report completeness was commented on.	DQI requirement met. COCs provided in Appendix O of the ESA (JBS&G 2026a).
	Ensure comparability through experienced sampler as well as a consistent sampler, sampling methods and climatic conditions during the project.	DQI requirement met.
	Soil/groundwater/surface water/sediment sampling methods appropriate/any limitations.	DQI requirement met.
Field QC Program	Duplicate collected/analysed at a rate of ≥5%.	DQI requirement met.
	Triplicate collected/analysed at a rate of ≥5%.	DQI requirement met.
	Rinsate blanks collected/analysed at a rate of 1 per reused piece of sampling equipment per batch.	DQI requirement met.
	Trip Blanks collected/analysed at a rate of 1 per batch (important where COC includes volatiles).	DQI requirement met.
	Trip Spikes (important where COC includes volatiles).	DQI requirement met.
	Acceptable soil, groundwater and soil QC sample RPD results (RPD% ≤50%).	DQI requirement generally met with the following exceptions **Soil** *Duplicate* • BH02/QC01: Zn (53%), TPH C_{29}-C_{36} and TRH C_{34}- C_{40} (97 to 113%), dieldrin (59%), various PFAS (67 to 133%) *Triplicate* • BH03/QA02: Pb (61%), TPH/TRH C_{15} – C_{40} (78 to 84%), PFHxS and PFOS (86 to 100%)

Item	Data Quality Indicator (DQI)	Comment
		Sediment *Duplicate* • SDT-B01-DS/QC01: Cu (52%), PFOS (143%) *Triplicate* • SDT-B01-DS/QA01: Total Cr (51%), PFOS (67%), Organic Matter (101%) • SDT-B01/QA08: TOC (92%) **Surface water** *Duplicate* • SW-B01/QC01: Unfiltered heavy metals (As, total Cr, Cu, Pb, Ni) (67% to 120%), • SW-B01-DS/QC01: Cu and Se (133%) *Triplicate* • SW01/QA01: PFOS and PFHxS (127 to 147 %), total phosphate (100%), ammonia (74%) and nitrate (152%), TSS (86%) **Groundwater** *Duplicate* • MW01/QC01 – Cu (67%) *Triplicate* • MW03-DS/QA01 – Ni, Se and Zn (117 to 164%) The exceptions above exclude consolidate analytes (eg. "*Sum of PFAS*") with RPD exceedances as the primary analyte resulting in the elevated RPD has been listed. JBS&G considered the elevated RPD values in soil and sediment samples to be associated with the heterogenous nature of the soil and sediment samples. Variability in the surface water samples were considered potentially associated with sediments in the sample as they were not filtered. Groundwater RPD exceedances were not noted by JBS&G which was erroneous. Overall, the auditor considers these RPD exceedances to be minor as much of these were associated with detections close to the limit of reporting and the actual magnitude does not change the contamination profile at the site.
	COC <PQLs in Rinsate Blanks.	DQI requirement met.
	COC < PQLs in Trip Blanks.	DQI requirement met with the following minor exception • 1 June 2026 trip blank – PFOS (0.0001 µg/L)
	Trip Spike recoveries 70% to 130%.	DQI requirement met.
Laboratory QA	Samples received by the laboratory under Chain of Custody conditions (signed by a representative of Laboratory).	DQI requirement met. COCs provided in Appendix O of the ESA (JBS&G 2026a).
	Correct samples and compounds analysed by laboratory as requested in COC.	DQI requirement met.
	Laboratories NATA accredited and utilised NATA endorsed analytical methods (list laboratories used).	DQI requirement met. Laboratories (Eurofins and ALS) used were NATA-accredited for the analyses that were performed.

Item	Data Quality Indicator (DQI)	Comment
	Comparability of data through consistency in laboratories/analytical methods throughout the project.	DQI requirement met.
	Samples extracted and analysed within recommended holding times.	DQI requirement met except for • The analysis of SW-B03, in lab report 1335671 which reported holding time exceedances (6 to 7 days) for TRH, TPD, OCP, PCBs, PAHs, nitrite and TSS. • SW-B03 is an off-site background surface water sample. The location where this sample was collected was sampled twice with sample ID SW-B03-DS being the more current data point. There is no material difference in the magnitude of the results between SW-B03 and SW-B03-DS. The auditor does not consider this holding time non-compliance to have the potential to impact the conclusion of the audit. • Nitrate analysis in QA01 (triplicate of SW-B01) in ES2606941 which was out by one day. The concertation of QA01 was marginal lower compared to the primary sample which is potentially associated with the holding time non-conformance but both samples were above the adopted criteria. Overall, the non-conformance is not critical.
	PQLs for COC below respective Environmental Quality Criteria.	DQI requirements met.
Laboratory QC Program	Preparation and analysis of laboratory QC samples at rates in general accordance with NEPM (2013), including surrogate spikes, matrix spikes, matrix spike duplicates, laboratory duplicates, method blanks (as applicable).	DQI requirement met.
Laboratory QC Results	Surrogate spike recoveries 70% to 130% (exceptions for some contaminants where laboratory reports recommend a different limit).	DQI requirement generally met except the following: **<u>Soil/sediment non-compliance</u>** *Duplicate* • 1330281-S-V2– TRH C29-C36 (41%), PFHpA, (34%), and Dieldrin (91%) • 1335779-S – As, Cd, Cr, Pb, Mo, Ni, and Sn (33 to 80%) *Matrix Spike* • ES2617909 – Various TRHs (140 to 210 %) *Spike Recovery* • 1330456-S-V2 - PFDA, PFTrDA, PFUnDA, and PFDoDA (151 to 170 %) • 1368242-S-V2 - 8:2 FTSA (154%), TRH C6-C10 (143%) and toluene (132%), Chromium (128%), and PFOS (34%) **<u>Groundwater/surface water non-compliance</u>** *Matrix Spikes* • ES2607116 – 12 different OCP (14.7 to 69.4 % and 545 %) • ES2606941 – Ammonia, nitrate + nitrate and Total Phosphorus (Not determined), and 11 PAHs (54.6 to 66.1%) *Spike Recovery* • 1368258-W – Mo (71%) *Duplicate samples* • 1330456-W-V2: Zn (200%), and PFPeS (38%)
	Control samples analysed	
	Matrix spike recoveries 70% to 130% (exceptions for some contaminants where laboratory reports recommend a different limit).	
	Contaminants <PQLs in Method Blanks.	
	Matrix Duplicate/Laboratory Duplicate RPD% ≤50%. (exceptions for some contaminants where laboratory reports recommend a different limit).	

Item	Data Quality Indicator (DQI)	Comment
		• 1331080-W – Total Phosphorus (60%) • 1331459-W-V2 – PFPeA (50%) • 1368258-W - TRH >C10-C16 (53%) *Frequency of Quality Control Samples* • ES2607116 – PFAS TRH semi-volatile • ES2617908 - PFAS *Control Surrogates* • ES2606941 - 2-Fluorobiphenyl, Anthracene-d10, 4-Terphenyl-d14 (16.2 to 23.6%) Overall, the non-conformances are considered minor. A number of these exist because the analytical laboratory adopted a more conservative non-compliance limit (i.e RPD >30%) rather than the standard 50%. Non-conformance in samples affects only a minor number of samples, and there were no abnormalities when compared to all the overall data set which included two rounds of sampling for most media. The majority of these non-conformance are also from the triplicate samples and as such the presence of the primary and/or duplicate sample provided another layer of comparison.
	95% of laboratory QA results within DQIs.	DQI requirement met.

Appendix G:
Site Audit Statement and OEMP

NSW Site Auditor Scheme

Site Audit Statement

A site audit statement summarises the findings of a site audit. For full details of the site auditor's findings, evaluations and conclusions, refer to the associated site audit report.

This form was approved under the *Contaminated Land Management Act 1997* on 12 October 2017.

For information about completing this form, go to Part IV.

Part I: Site audit identification

Site audit statement no. EA1237

This site audit is a:

☒ statutory audit

❑ non-statutory audit

within the meaning of the *Contaminated Land Management Act 1997*.

Site auditor details

(As accredited under the *Contaminated Land Management Act 1997*)

Name	Alyson Nance Macdonald		
Company	Australian Environmental Auditors Pty Ltd		
Address	Level 2, 63 Foveaux Street, Surry Hills, NSW		
		Postcode	2010
Phone	02 8644 0681		
Email	amacdonald@envaud.com.au		

Site details

Address	4 Mavie Street, Darwin, NT (and portions of adjacent properties)		
		Postcode	0801

Property description

(Attach a separate list if several properties are included in the site audit.)

1. Eastern portion of Lot 5280, Town of Darwin,
2. North-western portion of Lot 10881, Town of Darwin, and
3. Northern portion of Lot 10882, Town of Darwin.

(Note audit boundary is shown in red in Attachment C of the Section 48(1) Notice)

Local government area	City of Darwin
Area of site (include units, e.g. hectares)	approximately 0.27 ha (red outlined area)
Current zoning	Lot 5280: Specific Use SD9 – Fisherman's Wharf locality. Lot 10881: Multi Zone (MZ). Lot 10882: Central Business (CB).

Regulation and notification

To the best of my knowledge:

❑ **the site is** the subject of a declaration, order, agreement, proposal or notice under the *Contaminated Land Management Act 1997* or the *Environmentally Hazardous Chemicals Act 1985,* as follows: (provide the no. if applicable)

- ❑ Declaration no.
- ❑ Order no.
- ❑ Proposal no.
- ❑ Notice no.

☒ **the site is not** the subject of a declaration, order, proposal or notice under the *Contaminated Land Management Act 1997* or the *Environmentally Hazardous Chemicals Act 1985*.

To the best of my knowledge:

❑ the site **has** been notified to the EPA under section 60 of the *Contaminated Land Management Act 1997*

☒ the site **has not** been notified to the EPA under section 60 of the *Contaminated Land Management Act 1997*.

Site audit commissioned by

Name	Jasmine Brown
Company	DWD Project Pty Ltd as trustee for DWD Trust
Address	6 Carey Street, Darwin, NT
	Postcode 0801
Phone	0409 877 247
Email	jasmine@rapidformsystems.com

Contact details for contact person (if different from above)

Name n/a

Phone

Email

Nature of statutory requirements (not applicable for non-statutory audits)

❑ Requirements under the *Contaminated Land Management Act* 1997 (e.g. management order; please specify, including date of issue)

❑ Requirements imposed by an environmental planning instrument (please specify, including date of issue)

❑ Development consent requirements under the *Environmental Planning and Assessment Act 1979* (please specify consent authority and date of issue)

☒ Requirements under other legislation (please specify, including date of issue)

A notice has been issued to carry out an Environmental Audit Program pursuant to Section 48(1) of the Northern Territory Waste Management and Pollution Control Act 1998, issued on 22 August 2025 to Mr Michael Anthony and DWD Projects Pty Ltd of Mavie Street, Darwin, NT. The relevant portion of land is shown in Attachment C of the notice, and includes parts of Lots 5280, 10881 and 10882, Town of Darwin and including adjacent seabeds.

Purpose of site audit

❑ **A1** To determine land use suitability

Intended uses of the land:

OR

❑ **A2** To determine land use suitability subject to compliance with either an active or passive environmental management plan

Intended uses of the land:

OR

(Tick all that apply)

☒ **B1** To determine the nature and extent of contamination

☒ **B2** To determine the appropriateness of:

- ❑ an investigation plan
- ❑ a remediation plan
- ☒ a management plan

❑ **B3** To determine the appropriateness of a **site testing plan** to determine if groundwater is safe and suitable for its intended use as required by the *Temporary Water Restrictions Order for the Botany Sands Groundwater Resource 2017*

❑ **B4** To determine the compliance with an approved:

- ❑ **voluntary management proposal** or
- ❑ **management order** under the *Contaminated Land Management Act 1997*

❑ **B5** To determine if the land can be made suitable for a particular use (or uses) if the site is remediated or managed in accordance with a specified plan.

Intended uses of the land:

Information sources for site audit

Consultancies which conducted the site investigations and/or remediation:

JBS&G Pty Ltd

Titles of reports reviewed:

JBS&G (2025) *Preliminary Site Investigation with a Sampling Analysis and Quality Plan – Parts of 4 Mavie Street, and Lots 10881 and 10882, Darwin NT*, 18 November 2025.

JBS&G (2026a) *Environmental Site Assessment – Parts of 4 Mavie Street, and Lots 10881 and 10882, Darwin NT*, 22 September 2026.

JBS&G (2026b) *Operational Environmental Management Plan – 4 Mavie Street, Darwin, NT*, Rev 0 27 October 2026.

Other information reviewed, including previous site audit reports and statements relating to the site:

HiQA (2016) *Rapid Form System Informative Report Lot 5280 Mavie Street, Darwin NT*, 14 February 2016.

AECOM (2017) *Mavie Street Development Area Detailed Site Investigation*, 11 July 2017.

Coffey (2019) *Soil Sampling - 4 Mavie Street, Darwin NT*, 12 February 2019.

Senversa (2021) *Addendum Detailed Site Investigation Report Summary - Former Stokes Hill Naval Fuel Installation-site*, 10 December 2021.

Site audit report details

Title *Site Audit Report, 4 Mavie Street, Darwin, Northern Territory*

Report no. EA1237 Date 29 October 2026

Part II: Auditor's findings

Please complete either Section A1, Section A2 or Section B, not more than one section. (Strike out the irrelevant sections.)

- Use **Section A1** where site investigation and/or remediation has been completed and a conclusion can be drawn on the suitability of land uses **without the implementation** of an environmental management plan.
- Use **Section A2** where site investigation and/or remediation has been completed and a conclusion can be drawn on the suitability of land uses **with the implementation** of an active or passive environmental management plan.
- Use **Section B** where the audit is to determine:
    - (B1) the nature and extent of contamination, and/or
    - (B2) the appropriateness of an investigation, remediation or management plan[1], and/or
    - (B3) the appropriateness of a site testing plan in accordance with the *Temporary Water Restrictions Order for the Botany Sands Groundwater Source 2017*, and/or
    - (B4) whether the terms of the approved voluntary management proposal or management order have been complied with, and/or
    - (B5) whether the site can be made suitable for a specified land use (or uses) if the site is remediated or managed in accordance with the implementation of a specified plan.

[1] For simplicity, this statement uses the term 'plan' to refer to both plans and reports.

Section A1

I certify that, in my opinion:

The **site is suitable** for the following uses:

(Tick all appropriate uses and strike out those not applicable.)

☐ Residential, including substantial vegetable garden and poultry

☐ Residential, including substantial vegetable garden, excluding poultry

☐ Residential with accessible soil, including garden (minimal home-grown produce contributing less than 10% fruit and vegetable intake), excluding poultry

☐ Day care centre, preschool, primary school

☐ Residential with minimal opportunity for soil access, including units

☐ Secondary school

☐ Park, recreational open space, playing field

☐ Commercial/industrial

☐ Other (please specify):

_____

OR

☐ I certify that, in my opinion, the **site is not suitable** for any use due to the risk of harm from contamination.

Overall comments:

_____

_____

_____

_____

_____

_____

Section A2

I certify that, in my opinion:

Subject to compliance with the **attached** environmental management plan[2] (EMP), the site is suitable for the following uses:

(Tick all appropriate uses and strike out those not applicable.)

☐ Residential, including substantial vegetable garden and poultry

☐ Residential, including substantial vegetable garden, excluding poultry

☐ Residential with accessible soil, including garden (minimal home-grown produce contributing less than 10% fruit and vegetable intake), excluding poultry

☐ Day care centre, preschool, primary school

☐ Residential with minimal opportunity for soil access, including units

☐ Secondary school

☐ Park, recreational open space, playing field

☐ Commercial/industrial

☐ Other (please specify):

_____

EMP details

Title _____

Author _____

Date _____ No. of pages _____

EMP summary

This EMP (attached) is required to be implemented to address residual contamination on the site.

The EMP: (Tick appropriate box and strike out the other option.)

☐ requires operation and/or maintenance of **active** control systems[3]

☐ requires maintenance of **passive** control systems only[3].

[2] Refer to Part IV for an explanation of an environmental management plan.
[3] Refer to Part IV for definitions of active and passive control systems.

~~Purpose of the EMP:~~

~~Description of the nature of the residual contamination:~~

~~Summary of the actions required by the EMP:~~

~~How the EMP can reasonably be made to be legally enforceable:~~

~~How there will be appropriate public notification:~~

~~Overall comments:~~

Section B

Purpose of the plan[4] which is the subject of this audit:

Operational Environmental Management Plan to minimise the risk of harm from the imported fill material, including for the current industrial site use, and to reduce the likelihood of contaminant migration into Frances Bay.

I certify that, in my opinion:

(B1)

☒ The nature and extent of the contamination **has** been appropriately determined

☐ ~~The nature and extent of the contamination **has not** been appropriately determined~~

AND/~~OR~~ (B2)

☒ The investigation, remediation or management plan **is** appropriate for the purpose stated above

☐ ~~The investigation, remediation or management plan **is not** appropriate for the purpose stated above~~

~~AND/OR (B3)~~

☐ ~~The site testing plan:~~

- ☐ ~~**is** appropriate to determine~~
- ☐ ~~**is not** appropriate to determine~~

~~if groundwater is safe and suitable for its intended use as required by the *Temporary Water Restrictions Order for the Botany Sands Groundwater Resource 2017*~~

~~AND/OR (B4)~~

☐ ~~The terms of the approved voluntary management proposal* or management order** (strike out as appropriate):~~

- ☐ ~~**have** been complied with~~
- ☐ ~~**have not** been complied with.~~

~~*voluntary management proposal no.~~

~~**management order no.~~

~~AND/OR (B5)~~

☐ ~~The site **can be made suitable** for the following uses:~~

~~(Tick all appropriate uses and strike out those not applicable.)~~

- ☐ ~~Residential, including substantial vegetable garden and poultry~~
- ☐ ~~Residential, including substantial vegetable garden, excluding poultry~~

[4] For simplicity, this statement uses the term 'plan' to refer to both plans and reports.

- ~~❑ Residential with accessible soil, including garden (minimal home-grown produce contributing less than 10% fruit and vegetable intake), excluding poultry~~
- ~~❑ Day care centre, preschool, primary school~~
- ~~❑ Residential with minimal opportunity for soil access, including units~~
- ~~❑ Secondary school~~
- ~~❑ Park, recreational open space, playing field~~
- ~~❑ Commercial/industrial~~
- ~~❑ Other (please specify):~~

IF the site is ~~remediated~~/managed* in accordance with the following plan (**attached**):

*Strike out as appropriate

Plan title	*Operational Environmental Management Plan – 4 Mavie Street, Darwin, NT*		
Plan author	JBS&G Pty Ltd		
Plan date	27 October 2026	No. of pages	31

SUBJECT to compliance with the following condition(s):

1. The attached Lot 5280 OEMP must be implemented by 1 December 2026 and should remain in place until the site is redeveloped or an auditor states that it is no longer required.

2. Any fill material proposed to be imported to the audit site after the completion of the site audit must be tested and classified as per relevant NT EPA guidance.

3. If the site is proposed to be redeveloped in future for any purpose, a site suitability audit should be completed by a person registered under Section 68 of the NT *Waste Management and Pollution Control Act 1998*.

Overall comments:

Imported fill including some elevated metals, asbestos and waste materials are present on the site, and have been assessed using site investigation data and a conceptual site model to evaluate source-pathway-receptor linkages and potential risk of harm to human health and the environment. The auditor considers that the condition of the site with respect to historical filling activities does not represent a significant risk of harm to human health or the environment under the current site use for industrial purposes, provided the OEMP is implemented.

With regard to erosion management measures which apply to the Crown land (Lots 10881 and 10882), it is recommended they are incorporated into any existing environmental management plans for those lots or implemented via the general environmental duty.

This risk of harm audit does not constitute a land use suitability audit and was limited to evaluation of the historical land filling activities as per the Section 48 notice.

Part III: Auditor's declaration

I am accredited as a site auditor by the NSW Environment Protection Authority (EPA) under the *Contaminated Land Management Act 1997.*

Accreditation no. 1904

I certify that:

- I have completed the site audit free of any conflicts of interest as defined in the *Contaminated Land Management Act 1997,* and
- with due regard to relevant laws and guidelines, I have examined and am familiar with the reports and information referred to in Part I of this site audit, and
- on the basis of inquiries I have made of those individuals immediately responsible for making those reports and obtaining the information referred to in this statement, those reports and that information are, to the best of my knowledge, true, accurate and complete, and
- this statement is, to the best of my knowledge, true, accurate and complete.

I am aware that there are penalties under the *Contaminated Land Management Act 1997* for wilfully making false or misleading statements.

Signed 

Date 29 October 2026

Part IV: Explanatory notes

To be complete, a site audit statement form must be issued with all four parts.

How to complete this form

Part I

Part I identifies the auditor, the site, the purpose of the audit and the information used by the auditor in making the site audit findings.

Part II

Part II contains the auditor's opinion of the suitability of the site for specified uses or of the appropriateness of an investigation, or remediation plan or management plan which may enable a particular use. It sets out succinct and definitive information to assist decision-making about the use or uses of the site or a plan or proposal to manage or remediate the site.

The auditor is to complete either Section A1 or Section A2 or Section B of Part II, **not** more than one section.

Section A1

In Section A1 the auditor may conclude that the land is *suitable* for a specified use or uses OR *not suitable* for any beneficial use due to the risk of harm from contamination.

By certifying that the site is *suitable*, an auditor declares that, at the time of completion of the site audit, no further investigation or remediation or management of the site was needed to render the site fit for the specified use(s). **Conditions must not be** imposed on a Section A1 site audit statement. Auditors may include **comments** which are key observations in light of the audit which are not directly related to the suitability of the site for the use(s). These observations may cover aspects relating to the broader environmental context to aid decision-making in relation to the site.

Section A2

In Section A2 the auditor may conclude that the land is *suitable* for a specified use(s) subject to a condition for implementation of an environmental management plan (EMP).

Environmental management plan

Within the context of contaminated sites management, an EMP (sometimes also called a 'site management plan') means a plan which addresses the integration of environmental mitigation and monitoring measures for soil, groundwater and/or hazardous ground gases throughout an existing or proposed land use. An EMP succinctly describes the nature and location of contamination remaining on site and states what the objectives of the plan are, how contaminants will be managed, who will be responsible for the plan's implementation and over what time frame actions specified in the plan will take place.

By certifying that the site is suitable subject to implementation of an EMP, an auditor declares that, at the time of completion of the site audit, there was sufficient information satisfying guidelines made or approved under the *Contaminated Land Management Act 1997*

(CLM Act) to determine that implementation of the EMP was feasible and would enable the specified use(s) of the site and no further investigation or remediation of the site was needed to render the site fit for the specified use(s).

Implementation of an EMP is required to ensure the site remains suitable for the specified use(s). The plan should be legally enforceable: for example, a requirement of a notice under the CLM Act or a development consent condition issued by a planning authority. There should also be appropriate public notification of the plan, e.g. on a certificate issued under s.149 of *the Environmental Planning and Assessment Act 1979*.

Active or passive control systems

Auditors must specify whether the EMP requires operation and/or maintenance of active control systems or requires maintenance of passive control systems only. Active management systems usually incorporate mechanical components and/or require monitoring and, because of this, regular maintenance and inspection are necessary. Most active management systems are applied at sites where if the systems are not implemented an unacceptable risk may occur. Passive management systems usually require minimal management and maintenance and do not usually incorporate mechanical components.

Auditor's comments

Auditors may also include **comments** which are key observations in light of the audit which are not directly related to the suitability of the site for the use(s). These observations may cover aspects relating to the broader environmental context to aid decision-making in relation to the site.

Section B

In Section B the auditor draws conclusions on the nature and extent of contamination, and/or suitability of plans relating to the investigation, remediation or management of the land, and/or the appropriateness of a site testing plan in accordance with the *Temporary Water Restrictions Order for the Botany Sands Groundwater Source 2017*, and/or whether the terms of an approved voluntary management proposal or management order made under the CLM Act have been complied with, and/or whether the site can be made suitable for a specified land use or uses if the site is remediated or managed in accordance with the implementation of a specified plan.

By certifying that a site *can be made suitable* for a use or uses if remediated or managed in accordance with a specified plan, the auditor declares that, at the time the audit was completed, there was sufficient information satisfying guidelines made or approved under the CLM Act to determine that implementation of the plan was feasible and would enable the specified use(s) of the site in the future.

For a site that *can be made suitable*, any **conditions** specified by the auditor in Section B should be limited to minor modifications or additions to the specified plan. However, if the auditor considers that further audits of the site (e.g. to validate remediation) are required, the auditor must note this as a condition in the site audit statement. The condition must not specify an individual auditor, only that further audits are required.

Auditors may also include **comments** which are observations in light of the audit which provide a more complete understanding of the environmental context to aid decision-making in relation to the site.

Part III

In **Part III** the auditor certifies their standing as an accredited auditor under the CLM Act and makes other relevant declarations.

Where to send completed forms

In addition to furnishing a copy of the audit statement to the person(s) who commissioned the site audit, statutory site audit statements must be sent to

- the **NSW Environment Protection Authority**:
  nswauditors@epa.nsw.gov.au or as specified by the EPA

  AND
- the **local council** for the land which is the subject of the audit.

Operational Environmental Management Plan – 4 Mavie Street, Darwin, NT

DWD Projects Pty Ltd

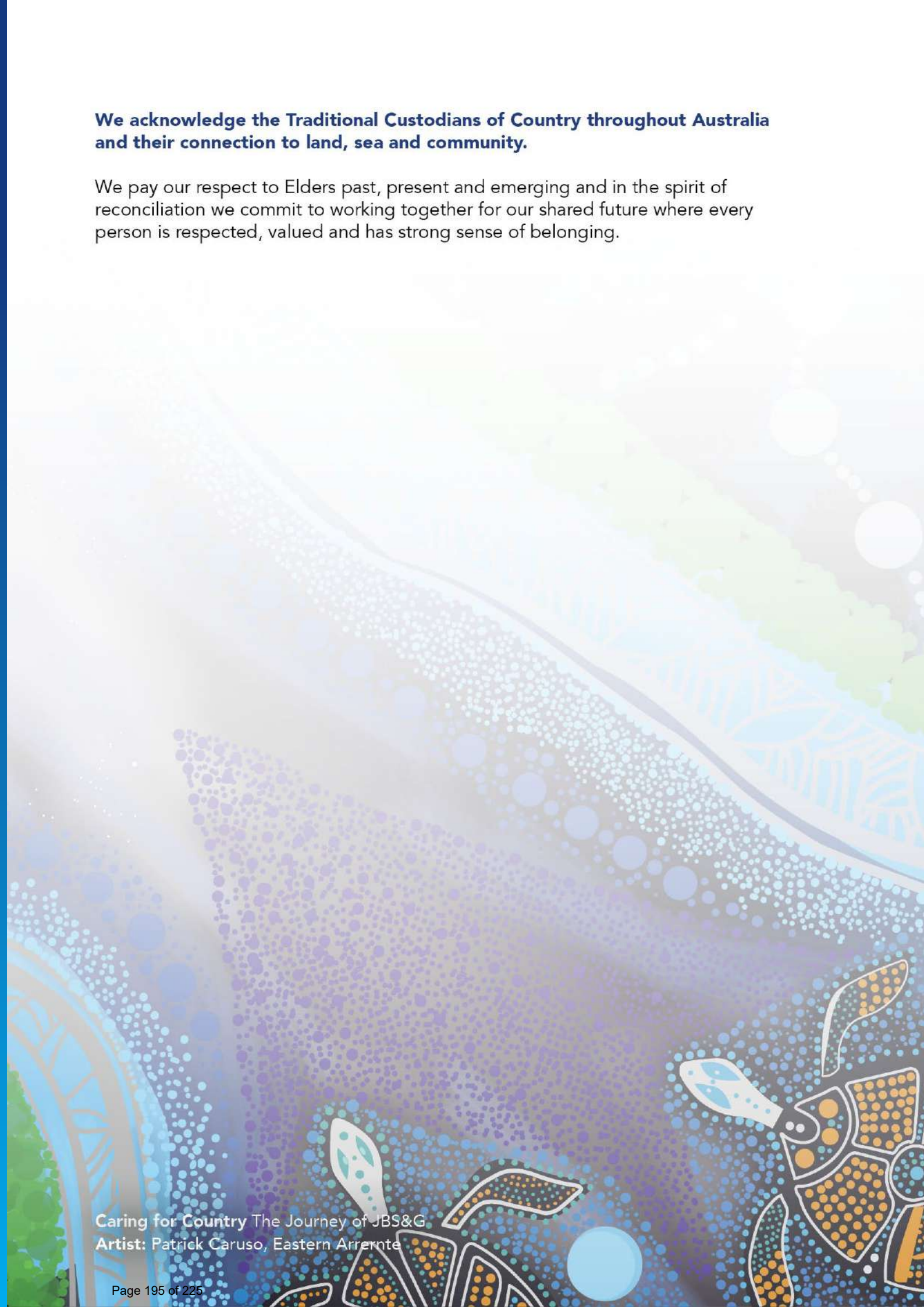
Report

70417 | 179196 (Rev 0)

27 October 2026

We acknowledge the Traditional Custodians of Country throughout Australia and their connection to land, sea and community.

We pay our respect to Elders past, present and emerging and in the spirit of reconciliation we commit to working together for our shared future where every person is respected, valued and has strong sense of belonging.



Executive Summary

JBS&G Australia Pty Ltd (JBS&G) was engaged by DWD Projects Pty Ltd (DWD) to prepare an Operational Environmental Management Plan (OEMP) for part of 4 Mavie Street, Darwin, NT (the site). The site covers an area of approximately 900 m^2 and is legally identified as part Lot 5280 Town of Darwin. The site location and site layout are shown on **Figure 1** and **Figure 2**, respectively.

JBS&G has previously carried out an Environmental Site Assessment (ESA, JBS&G 2026[1]) for the site and adjoining land to the south in response to a notice to Carry Out Environmental Audit Program, which was issued by the Northern Territory (NT) Environment Protection Authority (EPA). The investigation works undertaken as part of the ESA (JBS&G 2026) was subject to audit by the engaged contaminated land site auditor, Alyson Macdonald of Australian Environmental Auditors (AEA).

The ESA (JBS&G 2026) included review of reports of previous intrusive environmental investigation undertaken on the site by HiQA Geotechnical in 2016 and SLR in 2019. Historical sampling locations and locations sampled by JBS&G (2026) are shown on **Figure 2**. While concentrations of contaminants of potential concern (COPCs) were below health-based assessment criteria, the presence of asbestos in fill has been identified in off-site areas in Lot 5280 and may also be present on the site. While ecological criteria were exceeded for copper, nickel and zinc, total recoverable hydrocarbons (TRHs) and perfluorooctane sulfonate (PFOS) exceedances of the per- and polyfluoroalkyl substances (PFAS), the detected contaminants were generally consistent with those expected in urban fill. Further details are provided in **Section 2.3**.

The objective of this OEMP is to define the measures to be implemented so that any intrusive works are managed in an appropriate manner to ensure the protection of the health of site occupiers, visitors, contractors, and the surrounding environment during on-going use of the site for commercial/industrial purposes in its current layout. It is not intended that the OEMP apply to major excavations, earthworks or construction activities. A specific management plan should be prepared if major works are proposed for any area of the site. The OEMP requires on-going implementation until such site conditions change, such as when the site is redeveloped, or until an auditor states it is no longer required.

[1] JBS&G 2026, *Environmental Site Assessment – Parts of 4 Mavie Street, and Lots 10881 and 10882, Darwin NT*, JBS&G Australia Pty, 70147/176,476 (Rev 2), 22 September 2026

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Abbreviations

Term	Definition
ACM	Asbestos containing material
BTEX	benzene, toluene, ethylbenzene and xylenes
CEMP	construction environmental management plan
COPCs	contaminants of potential concern
CSM	conceptual site model
DWD	DWD Projects Pty Ltd
EPA	Environment Protection Authority
ESA	Environmental Site Assessment
HEPA	Heads of EPA
HiQA	HiQA Geotechnical
NEMP	National Environmental Management Plan
OCPs	organochlorine pesticides
OEMP	Operational Environmental Management Plan
OPPs	organophosphorus pesticides
PAHs	polycyclic aromatic hydrocarbons
PCBs	polychlorinated biphenyls
PFAS	per- and polyfluoroalkyl substances
PFOS	perfluorooctane sulfonate
SHNFI	Stokes Hill Naval Fuel Installation
WHS Regulations	*Work Health And Safety (National Uniform Legislation) Regulations 2011*

1. Introduction and Background

JBS&G Australia Pty Ltd (JBS&G) was engaged by DWD Projects Pty Ltd (DWD) to prepare an Operational Environmental Management Plan (OEMP) for part of 4 Mavie Street, Darwin, NT (the site). The site covers an area of approximately 900 m^2 and is legally identified as part Lot 5280 Town of Darwin. The site location and site layout are shown on **Figure 1** and **Figure 2**, respectively.

JBS&G has previously carried out an Environmental Site Assessment (ESA, JBS&G 2026[2]) for the site and adjoining land to the south in response to a notice to Carry Out Environmental Audit Program, which was issued by the Northern Territory (NT) Environment Protection Authority (EPA). The investigation works undertaken as part of the ESA (JBS&G 2026) was subject to audit by the engaged contaminated land site auditor, Alyson Macdonald of Australian Environmental Auditors (AEA). This OEMP has been specifically prepared for the owner, occupier and relevant users of part of 4 Mavie Street shown on **Figure 2** and does not relate to the adjoining land to the south covered by the ESA (JBS&G 2026), which is under control of the relevant owner administrator of that land. The ESA (JBS&G 2026) included review of reports of previous intrusive environmental investigation undertaken on the site by HiQA Geotechnical in 2016 and SLR in 2019. Historical sampling locations and locations sampled by JBS&G (2026) are shown on **Figure 2**. Site investigations identified the presence of asbestos in fill on the site, while concentrations of other contaminants of potential concern (COPCs) were below health-based assessment criteria. While ecological criteria were exceeded for copper, nickel and zinc, isolated total recoverable hydrocarbons (TRHs) and perfluorooctane sulfonate (PFOS) exceedances of the per- and polyfluoroalkyl substances (PFAS) National Environmental Management Plan (NEMP, HEPA 2026[3]) indirect exposure criterion were identified, the detected contaminants were generally consistent with those expected in urban fill. Further details are provided in **Section 2.3**.

This OEMP has been prepared due to the presence of asbestos in fill at the site posing a potential human health risk and due to heavy metals and PFAS posing a potential ecological impact, and to ensure that in-situ fill material is being managed appropriately, noting Frances Bay site adjoins the eastern boundary of the site. The OEMP requires on-going implementation until such site conditions change, such as, when the site is redeveloped.

1.1 Objective

The objective of this OEMP is to define the measures to be implemented so that any invasive works are managed in an appropriate manner to ensure the protection of the health of site occupiers, visitors, contractors, and the surrounding environment.

This OEMP does not apply to major excavations or construction activities (such as the construction of new buildings). In addition, hazardous ground gases and acid sulfate soils (ASS) were identified as potential issues on the siteas part of the ESA (JBSG 2026), however, these were not assessed and therefore would require consideration if major excavations or construction activities are proposed at the site. In any event, these large-scale works would require a more detailed management plan to be prepared, and possibly Development Consent, which would have its own requirements.

[2] JBS&G 2026, *Environmental Site Assessment – Parts of 4 Mavie Street, and Lots 10881 and 10882, Darwin NT*, JBS&G Australia Pty, 70147/176,476 (Rev 2), 22 September 2026

[3] HEPA 2026, *PFAS National Environmental Management Plan Version 3.1*, Heads of EPA Australia and New Zealand 2026

2. Summary of Site Conditions

2.1 Site History

A summary of the history of the site and surrounding land is provided in JBS&G (2026). A review of the site information provided in JBS&G (2026) indicates that between 1945 and 1955 the site comprised part of Frances Bay. By 1963 the western portion of the site had been filled and comprised reclaimed land. By 1988, filling had extended further to the east and a boat shed had been constructed I the western portion of the site. By 2014, most of the site comprised reclaimed land, with the remainder of the site being reclaimed between 2016 and 2018.

2.2 Surrounding Landuse

The site is situated within an industrial area associated with marine-based activities such as cargo shipping, ship maintenance, several boat ramps, jetties, marinas, seafood distributors, and fishing retailers.

The former Stokes Hill Naval Fuel Installation (Stokes Hill (SHNFI) had historically been located to the west/southwest of the site. To the east of the site was Frances Bay.

2.3 Site Investigations

The ESA (JBS&G 2026) included review of reports of previous intrusive environmental investigation undertaken on the site by HiQA Geotechnical (HIQA) in 2016 and SLR in 2019. Historical sampling locations (HiQA 2016 and SLR 2019) and locations sampled by JBS&G (2026) within and close to the site boundary are shown on **Figure 2**. Review of results of intrusive site investigations indicated the asbestos had been identified at the site as follows:

- Asbestos in the form of compressed fibre cement fragments was reported in TP04_1.3A (SLR 2019).

It is noted that friable asbestos present as a fibre bundle with measurements of approximately 3 x 1 x 1 mm, had been identified in TP1 (HiQA 2016) in the western extent of Lot 5280.

JBS&G (2026) identified that fill extending to depths of approximately 5 to 6.8 m below ground surface (bgs) overlay natural weathered siltstone. JBS&G submitted fill samples for laboratory analysis for contaminants of potential concern (COPCs) including heavy metals (Ag, As, Cd, Cr, Cu, Hg, Pb, Se, Sn, Mo, Ni, Zn), polycyclic aromatic hydrocarbons (PAHs), total recoverable hydrocarbons (TRHs), benzene, toluene, ethylbenzene and xylene (BTEX), organochlorine pesticides (OCPs), polychlorinated biphenyls (PCBs), organophosphorus pesticides (OPPs), phenols, per- and polyfluoroalkyl substances (PFAS), and asbestos.

Review of soil analytical data indicated all COPC concentrations were below the adopted human health-based assessment criteria. No asbestos or asbestos containing material (ACM) were observed or identified by laboratory analysis in JBS&G samples. While ecological criteria were exceeded for copper, nickel and zinc, isolated TRHs and PFOS exceedances of the PFAS NEMP indirect exposure criterion were identified, the detected contaminants were generally consistent with those expected in urban fill.

Review of results of groundwater analysis for groundwater collected from the site and land to the south identified copper, zinc and PFAS concentrations exceeding adopted ecological criteria. Concentrations of copper and zinc in seepage water samples collected adjacent to the site were comparable to those reported in the background sample locations, indicating that metal concentrations in surface water adjacent to the site are consistent with those observed more broadly within the Frances Bay surface water

2.4 Summary of Identified Contamination Issues

JBS&G (2026) provided a conceptual site model (CSM), which has been summarised in **Table 2-1**, to identify potential complete exposure pathways if fill material is not appropriately managed at the site, based on the potential contamination issues identified in **Section 2.3**.

Table 2-1: Conceptual Site Model and Management Requirements

Receptor	Media	Potential Exposure Pathways	Contaminant of Concern	Potential Health/Environmental Issue Requiring Management
On-site receptors				
Current/future site users/occupants/ visitors	Fill/soil	Inhalation	Asbestos	No asbestos identified by JBS&G (2026) in the surface inspection of the site, nor in samples analysed by the laboratory. Asbestos has previously been identified in fill in proximity of the site by HiQA (2016) and SLR (2019), or within Lot 5280 with the potential for further asbestos to be present in fill across the site.
		Aesthetic (Health and Safety)	Asbestos and demolition debris	No asbestos or gross demolition materials were identified on the site surface. Potential for asbestos to be exposed after rainfall or during excavation
Onsite ecological receptors	Fill/soil	Uptake by plants	Heavy metals, PFAS	Low levels of heavy metals and PFAS were reported above the adopted ecological soil criteria. However, the vegetation cover on the site did not appear stressed
Off-site receptor				
Frances Bay adjacent to the site	Soil	Uptake by marine organisms if site soil entrained in surface water runoff enter Frances Bay	Heavy metals, PFAS	Metals and PFAS present n site soils have the potential to impact sediments in Frances Bay adjacent to the site

2.5 Risk Posed by Impacted Fill Soils

The asbestos in soil impacts at the site do not pose a risk to human health, while being used in its current form. The soil impacts potentially pose a risk to site occupants, visitors or workers if the soils were to be disturbed and release asbestos fibres.

Soils on the site pose a potential risk to potential ecological receptors in the event that erosion occurs during storm events and soil are entrained in surface water runoff entering Frances Bay.

Therefore, this environmental management plan has been prepared to manage:

- potential health -based risk disturbing soil impacted with asbestos;
- environmental risks with managing impacted soil due to erosion and surface water runoff; and
- environmental risks with managing impacted soil, should excavation or removal of these materials be required.

3. Application of OEMP and Responsibilities

3.1 Application of OEMP

The requirements of this OEMP are intended to apply during on-going use of the site for commercial/industrial purposes. It is not intended that the OEMP apply to major excavations, earthworks or construction activities. A specific management plan should be prepared if major works are proposed for any area of the site.

3.2 Site Owner

A copy of this OEMP must be provided to all persons acquiring ownership of all or part of the site (site owners).

A site owner must provide a copy of this OEMP to any successor in Title.

A site owner must ensure that a copy of this OEMP is provided to all persons with management or control of a workplace at the site.

3.3 Persons with management or control of a workplace at the site

The following detail is provided on the key environmental responsibilities for specific personnel.

It is the responsibility of a person with management or control of a workplace at the site to ensure that an appropriate responsible person (the Responsible Person) is nominated and made responsible for the implementation of the provisions of the OEMP. The responsible person must be made aware of, and must understand, all the provisions of this OEMP. The Responsible Person must be identified in Schedule 1 (**Appendix A**) of this OEMP, which must be updated whenever a new Responsible Person is nominated.

The Responsible Person must ensure that the provisions of this OEMP are implemented.

3.4 Summary of Provisions of this OEMP

The provisions of this OEMP are summarised as follows:

- Site personnel or contractors required to conduct intrusive works at the site must be inducted into the OEMP and must be aware of their responsibilities with regard to health and safety and protection of the environment;
- A copy of this OEMP is to be supplied to all persons conducting intrusive works on the site;
- Inspections must be undertaken to ensure there is no visible asbestos on the site surface;
- Inspections must be undertaken to ensure that erosion is not occurring across the site surface that would result in discharge of fill/soil to the surrounding environment; and
- An activity-specific management plan, such as a construction environmental management plan (CEMP), is required to be developed for any significant intrusive activity and any major construction activities.

3.5 Stakeholder Agreement

The OEMP has been discussed with relevant stakeholders including the site owner, responsible person and the site auditor. The OEMP has been agreed by all parties to be implemented.

4. Management Strategy

4.1 Regulatory and Technical Guidelines

The OEMP has been prepared with consideration to the following relevant guidelines and regulation:

- *Northern Territory Contaminated Land Guideline*, NT EPA, 2017 (NT EPA 2017);
- *National Environment Protection (Assessment of Site Contamination) Measure 1999* (as amended 2013), National Environment Protection Council (NEPC 2013);
- *Guidelines for the Assessment, Remediation and Management of Asbestos Contaminated Sites in Western Australia,* Government of Western Australia Department of Health, 2021 (WA DoH 2021.);
- *PFAS National Environmental Management Plan Version 3.1*, The Heads of EPAs Australia and New Zealand, 2025 (HEPA 2025);
- *Work Health And Safety (National Uniform Legislation) Regulations 2011;*
- *Waste Management and Pollution Control Act 1998*;
- *Water Act 1992*;
- *Water Quality Objectives for the Darwin Harbour Region – Background Document*, Northern Territory Government, 2010 (NT Gov, 2010);
- *Australian and New Zealand Guidelines for Fresh and Marine Water Quality*, Australian and New Zealand Governments, 2018 (ANZG 2018);
- *Australian Drinking Water Guidelines,* National Health and Medical Research Council and Agriculture and Resource Management Council of Australia and New Zealand, 2011 (NHMRC/NRMMC 2011).

4.2 Requirements for Intrusive Works

Where any intrusive works are required, the following management measures will apply:

- Prior to any intrusive work commencing, approval for the works must be sought from the person responsible for the management of the OEMP (**Section 3**);
- Site personnel or contractors required to conduct intrusive works at the site must be inducted into the OEMP and must be aware of their responsibilities with regard to health and safety and protection of the environment; and
- Due to the known presence of asbestos in fill at the site, any workers involved in intrusive works must be cognisant to potentially encounter asbestos. Where asbestos is encountered, work shall be carried out under the supervision of an appropriately qualified contaminated land specialist, who will implement air quality monitoring as required.

4.3 Specific Requirements for Those Working with Soil

Site investigation did not identify chemical constituents at concentrations above applicable health-based landuse criteria. However, it is noted that asbestos has been identified in fill across the site. Any works involving asbestos must be undertaken in accordance with Chapter 8 of the Northern Territory *Work Health And Safety (National Uniform Legislation) Regulations 2011* (WHS Regulations).

4.4 On-Site Soil Management

Any soil/fill excavated during on-site works, such as maintenance of underground services, should be securely stockpiled. Stockpiles must be placed on a sealed surface or on plastic sheeting away from the shoreline, where possible.

Stockpiles must be placed in a secure location on site and covered if they are to remain for more than 24 hours or if rainfall is forecast.

Appropriate dust, sediment and erosion controls must be implemented and maintained for the duration of soil management works, to prevent off-site migrations of soils.

For substantial site works, appropriate dust controls and monitoring at the work site boundary should be applied.

4.5 Waste Soil Management

Any waste materials requiring to be removed from the site must be appropriately classified. The material must be transported in a manner that ensures there is no spillage from the transporting vehicle.

Material that contains asbestos or elevated concentrations of heavy metals will be deemed a 'listed waste" and will be required to be:

- Transported offsite by a person/company with an Environmental Protection Licence (EPL) to transport listed waste; and
- Accepted by a person/company with an EPL to dispose or treat listed waste.

Documentation of the volume of material disposed offsite, type of material, EPLs of the transporting and receiving facility and receipts from the receiving facility are to be recorded.

4.6 General Environmental Duty

Part 3, 12 of the Northern Territory *Waste Management And Pollution Control Act 1998*, identifies the general environmental duty for,

(1) A person who:

(a) conducts an activity that causes or is likely to cause pollution resulting in environmental harm or that generates or is likely to generate waste; or

(b) performs an action that causes or is likely to cause pollution resulting in environmental harm or that generates or is likely to generate waste,

must take all measures that are reasonable and practicable to:

(c) prevent or minimise the pollution or environmental harm; and

(d) *reduce the amount of the waste.*

Therefore, the site requires management to ensure appropriate management of fill materials on the site to ensure they are not migrating off-site via surface water entrainment and any waste materials must be appropriately classified and disposed of off-site to a facility lawfully able to accept the waste.

4.7 Unexpected Finds Protocol

The possibility exists for hazards other than those identified and expected based on previous investigations, to be present at the site. Environmental sampling is based on chemical analytes identified as a potential concern during a documented process of reviewing historical site activities. However, ground conditions between sampling points may vary, and further hazards may arise from unexpected sources and/or in

unexpected locations. The nature of any additional hazards which may be present at the site are generally indicated through visual or olfactory means, for example:

- Asbestos fragments within fill material;
- Drums or underground tanks;
- Chemical bottles; and/or
- Malodorous or unusual coloured soils.

As a precautionary measure to ensure the protection of the workforce and surrounding community, should any of the abovementioned indications of potential contamination (or any other indications of the presence of potentially hazardous substances) be observed, a suitably qualified environmental consultant should be engaged.

The sampling strategy for each 'unexpected find' shall be designed by a suitably qualified environmental consultant, in accordance with guidelines made or endorsed by EPA. The strategy will, however, be aimed at determining the nature of the substance – that is, if it is hazardous and, if so, is it present at concentrations which pose an unacceptable risk to human health or the environment.

4.8 Environmental Inspections

Inspections shall be conducted by a person responsible for the workplace or a nominated suitably experienced and competent person trained in the identification of asbestos, identified under regulation 445 of the WHS Regulations. Inspections should be grid-based, in accordance with WA DoH (2021), and shall occur at the following times throughout the occupation of the site (**Table 4-1**).

Table 4-1: Environmental Inspections

Inspection Time	Inspection Frequency
Routine inspection of site surface to ensure surface erosion is not occurring	**Annually**, recommended to occur around the end of the wet season or as required (e.g. following significant rainfall or storm events that may have exposed asbestos at the surface or has the potential to cause erosion of surface soils)
Routine inspection of site surface for visible asbestos. This inspection must be completed by an experienced and competent person trained in identifying asbestos materials, preferably an appropriately qualified, trained and experienced environmental scientist / hygienist / competent person.	**Annually** or after any event that may result in disturbance or exposure of sub-surface fill materials (e.g. following intrusive site works)

An example environmental surface inspection form is provided for site surface inspections in **Appendix C**. Records of the inspection shall be retained for a minimum period of five years.

4.9 Notification

If any incidents occur (e.g. migration of contamination offsite via erosion into the adjacent bay), it is the responsibility of the site owner and/or the responsible person to notify the NT EPA in a timely manner.

5. Revision of the OEMP

It may, from time to time, be necessary to revise this OEMP to reflect changes to legislation or changes on site.

Revision of the OEMP should be undertaken at east every five years by a consultant certified under either the Environment Institute of Australia and New Zealand's Certified Environmental Practitioner (Site Contamination) scheme (CEnvP(SC)) or the Soil Science Australia Certified Professional Soil Scientist Contaminated Site Assessment and Management (CPSS CSAM) scheme. Copies of the revised OEMP should be distributed to the current site owners and occupiers and all other persons nominated on the distribution lists in Schedule 1 (**Appendix A**) for on-going implementation while the site is its current state, that is, until the site is redeveloped, or an auditor confirms it is no longer required.

6. Schedules

The following schedules are attached to (**Appendix A**) and form part of this OEMP:

- Schedule 1A: Site Owners
- Schedule 1B: Persons with Management or Control of Workplace
- Schedule 1C: Responsible Persons

Additions to the Schedules shall not be regarded as constituting revisions or amendments to the OEMP.

7. Limitations

This report has been prepared for use by the client who has commissioned the works in accordance with the project brief only, and has been based in part on information obtained from the client and other parties. The report has been prepared specifically for the client for the purposes of the commission, and no warranties, express or implied, are offered to any third parties and no liability will be accepted for use or interpretation of this report by any third party.

The advice herein relates only to this project and all results conclusions and recommendations made should be reviewed by a competent person with experience in environmental investigations, before being used for any other purpose. This report should not be amended in any way without prior approval by JBS&G, or reproduced other than in full including all attachments as originally provided to the client by JBS&G.

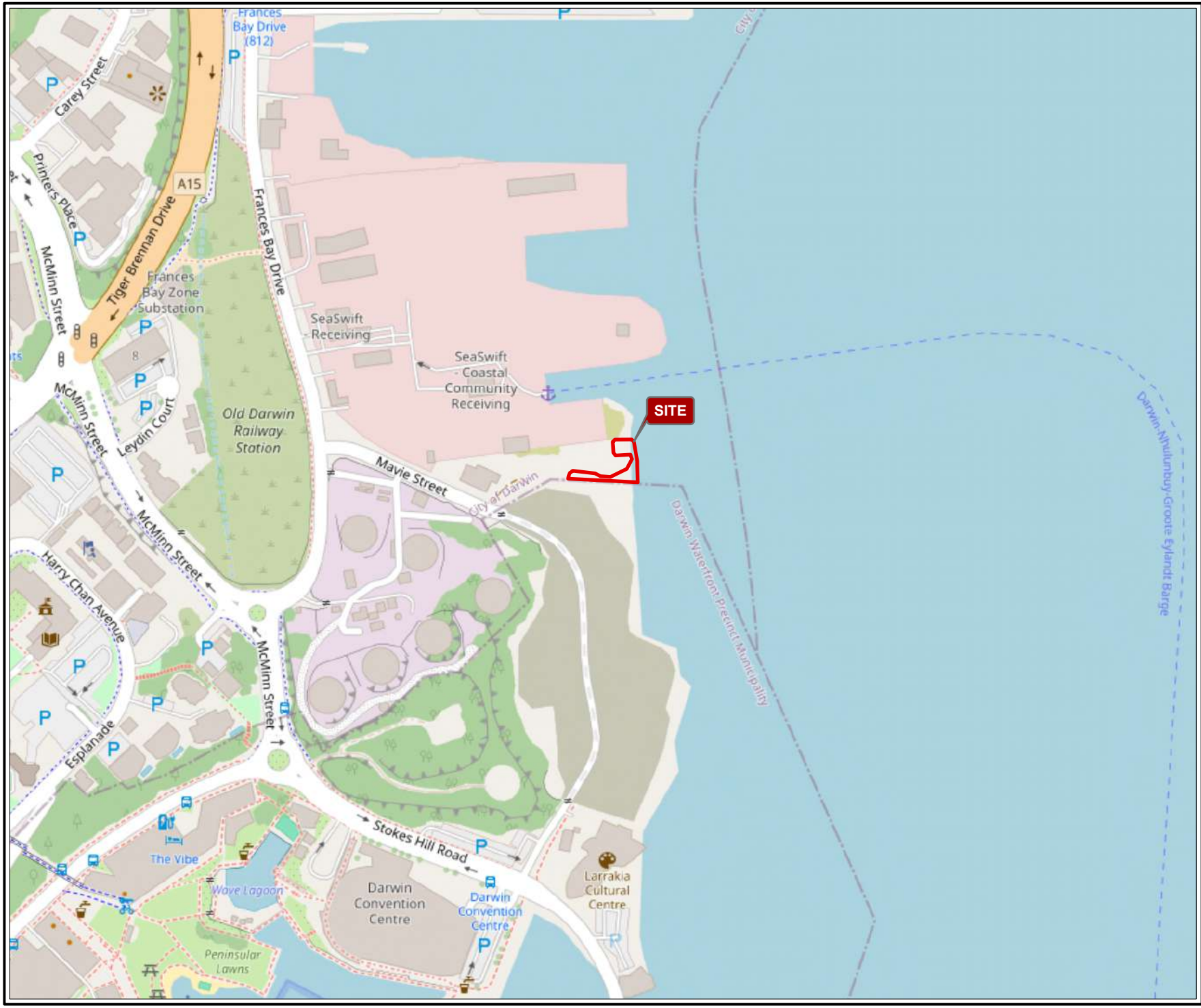
Sampling and chemical analysis of environmental media is based on appropriate guidance documents made and approved by the relevant regulatory authorities. Conclusions arising from the review and assessment of environmental data are based on the sampling and analysis considered appropriate based on the regulatory requirements or agreed scope of work.

Limited sampling and laboratory analyses were undertaken as part of the investigations undertaken, as described herein. Conditions between sampling locations and media may vary, and this should be considered when extrapolating between sampling points. Chemical analytes are based on the information detailed in the site history. Further chemicals or categories of chemicals may exist at the site, which were not identified in the site history and which may not be expected at the site.

Changes to the conditions may occur subsequent to the investigations described herein, through natural processes or through the intentional or accidental addition of contaminants. The conclusions and recommendations reached in this report are based on the information obtained at the time of the investigations.

This report does not provide a complete assessment of the environmental status of the site, and it is limited to the scope defined herein. Should information become available regarding conditions at the site including previously unknown sources of contamination, JBS&G reserves the right to review the report in the context of the additional information.

Figures



Legend

Approximate Site Boundary

JBS&G

Job No: 70147	
Client: DWD Projects PTY Ltd	
Version: R03 Rev 0	Date 14/10/2026
Drawn By: MW	Checked By: RL
Scale 1:5,000	

0 50 100

metres

Coord. Sys. GDA2020 MGA Zone 52

4 Mavie Street,
Town of Darwin, NT

SITE LOCATION

FIGURE 1

File Name: 70147_DWDDarwinSoilAssessment_R03_Rev0

Reference: © OpenStreetMap contributors CC BY-SA



Legend

Cadastre

Approximate Site Boundary

Histroical Sample Locations

Test Pit (HIQA 2016)

Test Pit (SLR 2019)

Sample Locations

Borehole (JBS&G 2026)

Borehole/Monitoring Well (JBS&G 2026)

Sediment/Surface water (JBS&G 2026)

JBS&G

Job No: 70147

Client: DWD Projects Pty Ltd

Version: R03 Rev 0	Date 14/10/2026
Drawn By: MW	Checked By: RL

Scale 1:983

0 10 20

metres

Coord. Sys. GDA2020 MGA Zone 52

4 Mavie Street,
Town of Darwin, NT

SITE LAYOUT AND SAMPLE LOCATIONS

FIGURE 2

File Name: 70147_DWDDarwinSoilAssessment_R03_Rev0
Reference: Nearmap - w[illegible] (Capture Date: 02/05/2025)

Appendix A Schedules

SCHEDULE 1A

Site Owners

Site	Owner	Contact Details	Date of Acquisition
Part Lot 5280 Town of Darwin	DWD Projects Pty Ltd	Mathew Anthony 0417083185 Mathew@rapidformsystems.com P.O. Box 4637 Darwin NT 0801	20 October 2015

SCHEDULE 1B

Persons with Management or Control of Workplace

Site	Workplace Description	Person	Contact Details	Date
Part Lot 5280 Town of Darwin	4 Mavie Street, Darwin	Mathew Anthony	0417 083 185	26 October 2026

SCHEDULE 1C

Responsible Persons

Responsible Person	Date Nominated	Position	Phone/ Contact Details
Mathew Anthony	26 October 2026	Site Manager	0417 083 185 Mathew@rapidformsystems.com

Notes: 1. Additional copies of this sheet may be made and inserted into the document as required

Appendix B Asbestos Management Procedures

B1.1 Immediate Management Controls

The immediate management controls are:

1. Stop works.
2. Move yourself and others away from the find.
3. Immediately contact your supervisor and the Site Manager.
4. Site Manager implement interim controls such as an exclusion zone and covering of impacted material with 200 µm plastic or geo-textile.
5. Site Manager to contact competent person.
6. A competent person (bonded ACM) or a Licensed Asbestos Assessor (friable asbestos) to assess the find.

If no competent person or LAA is present on the site at the time of the find, the interim controls should be maintained until such a time that a competent person or LAA is able to assess the find.

B1.1.1 Assessment of the Find

The competent person or LAA must determine the nature and quantity of the ACM or suspected ACM. Where uncertainty is present in the presence or identification of asbestos, asbestos must be assumed to be present in accordance with WHS Regulations.

Based on the nature and quantity of the ACM, one of three management procedures will be implemented to manage the identified ACM to enable the resumption of investigation works. The three management procedures are summarised below and discussed in detail within the following sections:

- **Procedure 1: Isolated Bonded ACM**. To be implemented where an isolated fragment of bonded ACM has been encountered at a sample location.
- **Procedure 2: Bonded ACM Impacted Strata**. To be implemented where a number of bonded ACM fragments totalling less than 10m^2 have been identified within a specific strata or fill material type at a sample location.
- **Procedure 3: Friable Asbestos.** To be implemented where friable asbestos or suspected friable asbestos has been identified within soils at a sample location.

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Procedure 1: Isolated Bonded ACM

PROCEDURE 1 – ISOLATED BONDED ACM	
Nature of ACM:	Bonded
Quantity of ACM:	Isolated Fragment
Frequency:	Continuous
Objective:	To prevent potential exposure to asbestos impact present in the sub-surface

Immediate Management Controls

- Stop works.
- Move yourself and others away from the find.
- Immediately contact your supervisor and the Site Manager.
- Site Manager to implement interim controls such as an exclusion zone and covering of impacted material with 200 µm plastic or geo-textile.
- Site Manager to contact competent person.

Assessment

- Competent person to assess find

Assessment Outcome

- Isolated bonded ACM fragment identified.

Management/Removal

- Removal of ACM fragment under controlled conditions, placement of fragment within 200 µm asbestos disposal plastic bag and storage in a secure location prior to offsite disposal to a landfill facility licensed to accept asbestos waste.

Monitoring

- Airborne asbestos fibre monitoring not necessarily required given the generally low risk and short duration of the management works.

Clearance

- Visual clearance of the removal area and surrounds by a competent person.
- Provision of verbal clearance.

Resume Works

- Agreement by all parties to re-start works.

Record Keeping

- Document find, removal works and clearance in Asbestos Register (Site Manager).
- Update Asbestos Register Map (Site Manager).

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Procedure 2: Bonded ACM Impacted Stata

PROCEDURE 2 – BONDED ACM IMPACTED STRATA	
Nature of ACM:	Bonded
Quantity of ACM:	Impacted strata / fill material type
Frequency:	Continuous
Objective:	To prevent potential exposure to asbestos impact present in the sub-surface

Immediate Management Controls

- Stop works.
- Move yourself and others away from the find.
- Immediately contact your supervisor and the Site Manager.
- Site Manager to implement interim controls such as an exclusion zone and covering of impacted material with 200 µm plastic or geo-textile.
- Site Manager to contact competent person.

Assessment

- Competent person to assess find.

Assessment Outcome

- Bonded ACM impacted strata / fill material type identified. Less than 10m^2 of bonded ACM identified.

Management/Removal

- Competent person, whom has also completed Bonded Asbestos Removal Training, to supervise excavation of impacted strata.
- Impacted strata to be stockpiled separately on geo-textile/plastic pending final destination (re-instatement or off-site disposal to a facility lawfully able to accept the waste). Geo-textile / plastic also to be used to cover stockpile and excavation walls.

Monitoring

- Airborne asbestos fibre monitoring should be implemented during management/removal works.

Clearance

- Visual clearance of the excavation area by a competent person to confirm the impacted strata has been removed. Visual clearance of surrounds to confirm adjacent area and stockpile appropriately managed.
- If visual clearance inconclusive, collection of soil samples and laboratory asbestos analyses may be required.
- Provision of verbal clearance.

Resume Works

- Agreement by all parties to re-start works.

Record Keeping

- Document find, removal works and clearance in Asbestos Register (Site Manager).
- Update Asbestos Register Map (Site Manager).

Other

- Should more than 10m^2 of bonded ACM be identified, a Class B Licensed Asbestos Removalist must be engaged to undertake the removal works.

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Procedure 3: Friable Asbestos

PROCEDURE 3 – Friable Asbestos	
Nature of ACM:	Friable
Quantity of ACM:	Any
Frequency:	Continuous
Objective:	To prevent potential exposure to asbestos impact present in the sub-surface

Immediate Management Controls

- Stop works.
- Move yourself and others away from the find.
- Immediately contact your supervisor and the Site Manager.
- Site Manager to implement interim controls such as an exclusion zone and covering of impacted material with 200 µm plastic or geo-textile.
- Site Manager to contact competent person.

Assessment

- Licensed Asbestos Assessor to assess find.

Assessment Outcome

- Friable asbestos identified or suspected.

Management/Removal

- Class A Licensed Asbestos Removalist engaged.
- Licensed Asbestos Assessor to supervise excavation of impacted strata.
- Impacted strata to be stockpiled separately on geo-textile/plastic pending final destination (re-instatement or off-site disposal to a facility lawfully able to accept the waste). Geo-textile / plastic also to be used to cover stockpile and excavation walls.

Monitoring

- Airborne asbestos fibre monitoring must be implemented during management/removal works.

Clearance

- Visual and analytical clearance of the excavation area by a LAA to confirm the impacted strata has been removed. Visual clearance of surrounds to confirm adjacent area and stockpile appropriately managed.
- Clearance air monitoring must be undertaken by LAA.
- Provision of clearance certificate by LAA.

Resume Works

- Agreement by all parties to re-start works.

Record Keeping

- Document find, removal works and clearance in Asbestos Register (Site Manager).
- Update Asbestos Register Map (Site Manager).

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Appendix C Record of Surface Inspection

Surface Cover inspection – to be undertaken in accordance with Section 4.6

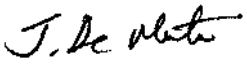
Site Surface Inspection	Date	Yes/No	Outcome	Action/works completed
Evidence of surface erosion/sediment runoff			**If no**, no further action is required. **If yes**, the site surface should be repaired appropriately to surface soils are stabilised to prevent runoff.	
Visible ACM at the surface			If no, no further action is required. If yes, any visible ACM fragments exposed will need to be removed in compliance with the requirements of the WHS Regulations	
Evidence of surface erosion/sediment runoff			**If no**, no further action is required. **If yes**, the site surface should be repaired appropriately to surface soils are stabilised to prevent runoff.	
Visible ACM at the surface			If no, no further action is required. If yes, any visible ACM fragments exposed will need to be removed in compliance with the requirements of the WHS Regulations	

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Document Status

Rev No.	Author	Reviewer	Approved for Issue		
		Name	Name	Signature	Date
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B	Ryan Lill	John De Martin	John De Martin	Draft for client review	19/10/2026
C	Ryan Lill	John De Martin	John De Martin	Draft for client review	26/10/2026
0	Ryan Lill	John De Martin	John De Martin		27/10/2026

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