



Chullora Waste Transfer Station

Scoping Report

 Canterbury-Bankstown LGA, NSW



WASTE TO ROAD



WASTE TO RAIL



RESOURCE RECOVERY
AND CIRCULAR FUTURE



PREPARED FOR
Cleanaway



PREPARED BY
Arup



JUNE 2026

ARUP

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Executive Summary

Cleanaway proposes to construct and operate the Chullora Waste Transfer Station (WTS) on part of 20 Dasea Street, Chullora (Lot 35 DP1007367), within the existing Sydney Freight Terminal (SFT) operated by Pacific National. The Project area is approximately 33,560 m² within the broader 20 ha SFT site, which is zoned E4 General Industrial under the *Canterbury-Bankstown Local Environmental Plan 2023*.

The Project will be delivered in two operational phases sharing a single physical footprint constructed under Phase 1. Phase 1 (Waste to Road, approximately 150,000 tonnes per annum (tpa), from 2028–2030) will provide replacement transfer capacity following the planned closure of Cleanaway's Auburn Waste Transfer Station in 2027/28, with residual waste hauled by road. Phase 2 (Waste to Rail, approximately 800,000 tpa, from 2030/31) will transition to rail-based transport via the Southern Sydney Freight Line for delivery to a future regional Energy from Waste (EfW) facility (such as the Parkes Energy Recovery Facility), while retaining road access for both inbound waste delivery vehicles and outbound vehicles transporting recovered materials and non-permissible residual waste. Phase 1 throughput (~150,000 tpa) is included within the Phase 2 total. Once Phase 2 begins, the WTS is expected to handle up to ~800,000 tpa in total, with residual waste exported by rail and recovered recyclable materials and non-permissible residual waste transported to other lawful facilities by road.

The Project responds to the immediate need for replacement of metropolitan waste transfer capacity, and to the longer-term strategic need identified in the *NSW Waste and Sustainable Materials Strategy 2041* for large-scale aggregation infrastructure to support a transition to regional energy recovery. Greater Sydney's non-putrescible landfill airspace is projected to be exhausted by approximately 2030 (notwithstanding any pending capacity extensions) and putrescible airspace by approximately 2036 under business-as-usual conditions. The Project is consistent with the objectives of the NSW Energy from Waste Framework and NSW EfW Technical Note, the *Greater Sydney Region Plan*, the *South District Plan*, and Canterbury-Bankstown Council's *Connective City 2036* and *Employment Lands Strategy*. The Chullora precinct already performs a waste transfer function recognised in the *South District Plan*, and the Project would continue and expand this established urban services role within an operational freight and logistics environment.

The Project is classified as State Significant Development under Schedule 1, clause 23(2) of the *State Environmental Planning Policy (Planning Systems) 2021*, on the basis that it is a waste transfer station in metropolitan Sydney exceeding 100,000 tpa. The development is permissible with consent in the E4 zone under section 2.153 of the *State Environmental Planning Policy (Transport and Infrastructure) 2021*. A new Environment Protection Licence (EPL) in Cleanaway's name will be required prior to commencement of operations, and the existing EPL 21108 held by Pacific National will need to be modified to excise the Project Area. The consent authority is the Minister for Planning, or the Independent Planning Commission if relevant triggers are met.

This Scoping Report has been prepared by Arup on behalf of Cleanaway to accompany a formal request to the NSW Department of Planning, Housing and Infrastructure (DPHI) for Secretary's Environmental Assessment Requirements (SEARs). The report describes the Project, its strategic and site context, the proposed approvals pathway, and identifies the environmental, planning and technical matters expected to require assessment as part of the Environmental Impact Statement (EIS).

Preliminary technical advice has identified five matters requiring detailed assessment in the EIS:

- contamination (six Areas of Concern were identified in the Preliminary Site Investigation, including confirmed asbestos-containing materials and potential hydrocarbon impacts).
- hazard and risk (the interface with the adjacent Major Hazard Facility).
- noise and vibration (residential receivers approximately 400 m from the site, driven by 24/7 operations and potential cumulative noise from existing container handling).
- traffic and transport (indicative heavy vehicle movements of 814 per weekday at Phase 2, with the potential of some morning peak waste delivery traffic coinciding with the commuter peak).
- flooding and stormwater.

Matters proposed for standard assessment include air quality and odour, social impacts, biodiversity, visual impact, Aboriginal and non-Aboriginal heritage, and waste management. Bushfire is proposed for no further assessment given the urbanised industrial setting.

Targeted and proportionate community and stakeholder engagement will be undertaken during scoping, EIS preparation and public exhibition. Key stakeholders include DPHI, Canterbury-Bankstown Council, the NSW Environment Protection Authority (EPA), Transport for NSW, Fire and Rescue NSW, Sydney Water, Pacific National, Sydney Trains, Civil Aviation Safety Authority (CASA), SafeWork NSW, nearby residential and sensitive receivers, and adjoining industrial occupiers.

1. Introduction

1.1 Project Overview

Cleanaway proposes to construct and operate the Chullora Waste Transfer Station (WTS) (the Project) on part of 20 Dasea Street, Chullora NSW 2190, within Lot 35 DP1007367. The Project is located within the Sydney Freight Terminal (SFT), which is operated and owned by Pacific National and classified as a Major Hazard Facility (MHF). The Project area is approximately 33,560 m² within the broader SFT site, which has a total area of approximately 20 ha, refer to Figure 1-1.

The Project will be delivered in two operational phases:

- Phase 1 – Waste to Road (approximately 150,000 tpa, from 2028–2030): An enclosed transfer shed receiving and consolidating general solid waste for road-based haulage. Incoming: approximately 85 trucks per weekday and 10 per weekend day. Outgoing: approximately 22 trucks per weekday and 3 per weekend day.
- Phase 2 – Waste to Rail (approximately 800,000 tpa, from 2030/31): Full-scale operations with residual waste loaded into containers for transport by rail transfer to a regional EfW facility. Phase 2 would involve up to two train services per day, up to seven days per week, and approximately 407 truck arrivals per weekday, comprising 400 inbound and seven outbound arrivals, equivalent to 814 truck movements per weekday.

Phase 1 throughput (~150,000 tpa) is included within the Phase 2 total. Once Phase 2 begins, the WTS is expected to handle up to ~800,000 tpa in total, with residual waste transported by rail, and recovered recyclables (and residual waste that is non-permissible for regional rail transfer) transported to other recovery or disposal facilities by road.

The Auburn Transfer Station, currently operated by Cleanaway, is subject to a planned closure requirement by 2027/28. The Project has been developed to provide a replacement facility to maintain continuity of waste transfer services for metropolitan Sydney's southwest, and to support Cleanaway's future transition to deliver residual waste to proposed EfW infrastructure in NSW.

The Chullora site was identified as the preferred location following a site selection assessment, with key selection criteria including planning permissibility within the E4 General Industrial zone, direct access to the Southern Sydney Freight Line for future rail-based export, proximity to the existing waste catchment, and available site area within the established SFT precinct.

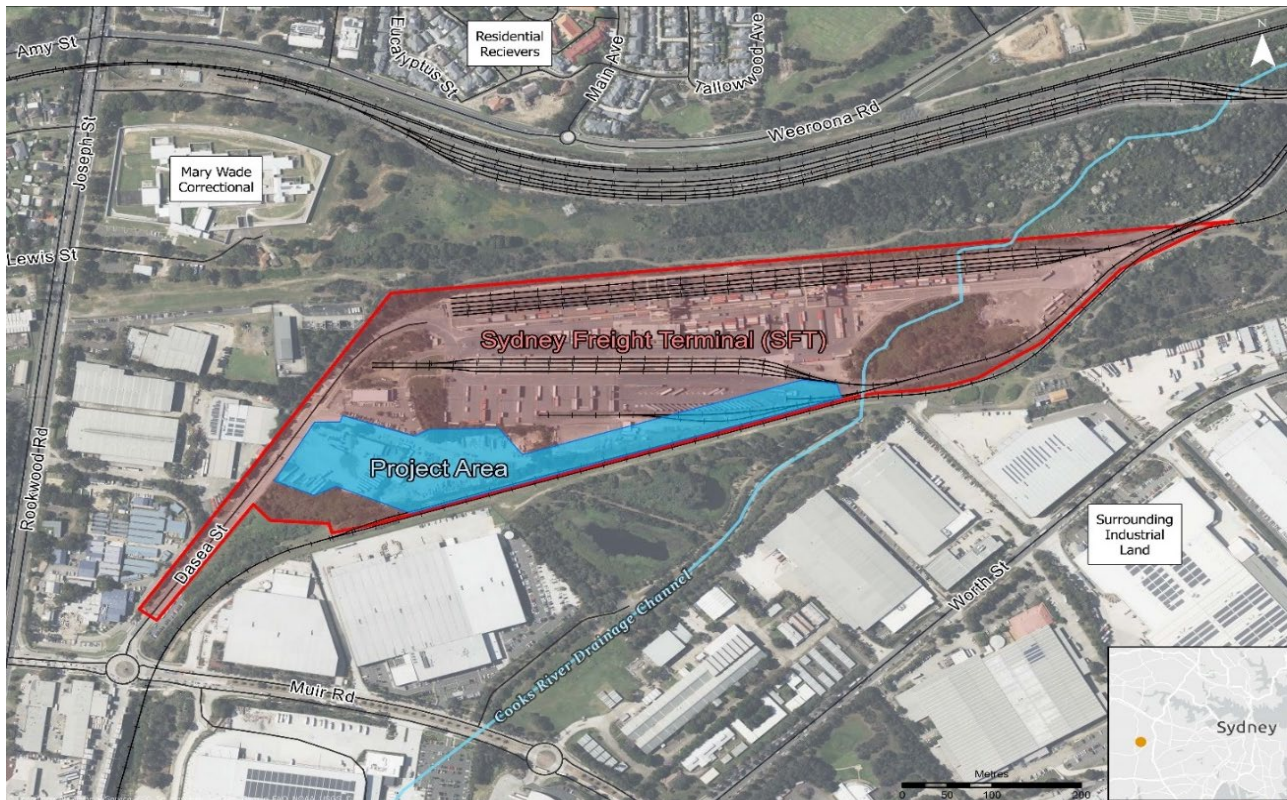


Figure 1-1: Project area and surrounding context

1.2 Applicant Details

Cleanaway is the proponent for the project, with company detail listed in the following table.

Table 1-1: Applicant details

Applicant Details	
Proponent	Cleanaway Operations Pty Ltd
Registered Address	PO Box 1824, Milton, QLD 4064
ABN	79 000 164 938
Site Owner	Pacific National Pty Ltd.
Nominated Contact	Henry Gundry Senior Project Manager
Phone / Email	Henry.Gundry@cleanaway.com.au

1.3 Purpose of this Scoping Report

This Scoping Report has been prepared by Arup on behalf of Cleanaway to support a formal request to the NSW Department of Planning, Housing and Infrastructure (DPHI) for Secretary's Environmental Assessment Requirements (SEARs) for the Chullora Waste Transfer Station Project.

The request for SEARs relates to **both** operational phases of the Project, being Phase 1 – Waste to Road and Phase 2 – Waste to Rail. The Project will be assessed as State Significant Development (SSD) under Part 4 of the *Environmental Planning and Assessment Act 1979* (EP&A Act).

The purpose of this Scoping Report is to describe the Project, its strategic and site context, the proposed approvals pathway, and the key environmental, planning and technical matters that are expected to require assessment as part of the Environmental Impact Statement (EIS). The report also identifies preliminary environmental risks and proposed assessments to inform the SEARs issued by DPHI.

The Scoping Report is intended to guide the preparation of the SSD application and ensure that the future EIS appropriately addresses the scale, nature and potential impacts of the Project across both proposed operational phases.

1.4 Related Development and Existing Approvals

The Project area forms part of the broader site owned and operated by Pacific National. The following existing operations and approvals are relevant to the Project:

- **Ministerial Approval (Commission of Inquiry, 1998):** The broader SFT site was approved by the Minister for Urban Affairs and Planning following a Commission of Inquiry in 1998. This approval established the strategic freight and intermodal terminal that continues to operate on the site and provides the planning framework for subsequent development.
- **Sydney Freight Terminal (SFT):** Pacific National operates the SFT on the broader Site, classified as a Major Hazard Facility (MHF) under Chapter 9 of the WHS Regulation 2025. The SFT is currently authorised under a suite of development approvals including DA-153-06-01 (approved 9 November 2001 by the Minister for Urban Affairs and Planning as State Significant / Integrated Development) and subsequent modifications. The SFT connects to the Southern Sydney Freight Line and currently accommodates two train services per day. The SFT's current operating hours are 24 hours per day except Sundays, which are limited to between 07:00 and 21:00.
- **Environment Protection Licence (EPL) 21108:** Pacific National currently holds EPL 21108 for the broader SFT site, authorising waste storage activities associated with the SFT. A new EPL in Cleanaway's name will be required for the WTS, and EPL 21108 will need to be modified to excise the overlapping portion of the licensed premises prior to, or concurrent with, commencement of WTS operations.
- **Parkes Energy Recovery Facility (SSD-109430741):** The Parkes Energy Recovery Facility is a related proposal that would form part of the broader waste management and resource recovery network. While separate from the proposed WTS, the facility is relevant to the Project, as residual waste materials will ultimately be transported from the WTS to Parkes for energy recovery, subject to relevant approvals, operational arrangements and transport logistics. The WTS and the proposed Parkes Energy Recovery Facility are being progressed under separate planning approval processes and have independent approval pathways. The WTS is expected to be operational prior to the Parkes Energy Recovery Facility to provide replacement transfer capacity following the planned closure of Cleanaway's Auburn Waste Transfer Station in 2027/28. During this period, residual waste materials will continue to be managed through existing approved facilities. If approved, the Parkes Energy Recovery Facility would become an additional waste management destination once operational.

The Project area is a discrete part of the broader Pacific National-owned SFT site. It does not include land where existing development consent rights would be incorporated into, or surrendered as part of, the SSD approval. The SFT will continue to operate independently under its existing approvals, while the proposed WTS will operate as a separate development under a commercial arrangement between Cleanaway and Pacific National.

1.5 Environment Protection Licence

The broader SFT site is currently subject to EPL 21108, held by Pacific National, which authorises waste storage activities associated with the SFT. EPL 21108 was varied in August 2024 following an EPA inspection that identified third-party tenancy areas within the lot that were not associated with Pacific National's scheduled activities. As part of that variation, a premises map was incorporated into the licence to formally exclude those tenancy areas from the licensed premises boundary (refer Figure 1-2).



Figure 1-2: EPL boundary and excluded tenancy areas

The Project area is understood to be located partly within the tenancy areas excluded from EPL 21108 and partly within Pacific National’s currently licensed premises.

A new EPL will be required for the Cleanaway facility, with the premises boundary reflecting the full operational footprint of the WTS and authorising the proposed waste storage and transfer activities. The SSD application will clearly distinguish the Cleanaway development area from Pacific National’s ongoing operations and consider any implications for Pacific National’s existing approvals.

Early consultation with both Pacific National and the EPA will be undertaken to confirm the EPL boundary, licensing pathway and transition strategy prior to SSD lodgement.

2. Strategic Context

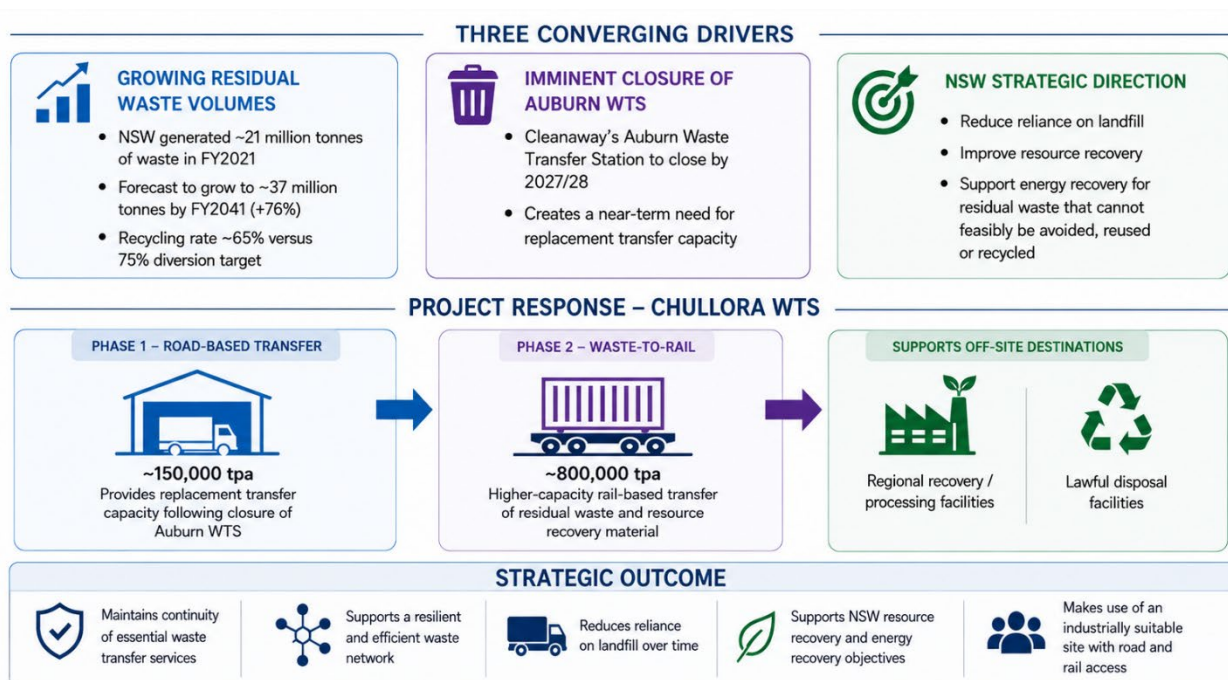
2.1 Project Need and Justification

The Project is proposed in response to a clear and growing need for additional residual waste transfer capacity across Greater Sydney. The NSW Waste and Sustainable Materials Strategy 2041 identifies that NSW generates around one-third of Australia's total waste and forecasts that NSW waste volumes will increase from approximately 21 million tonnes in FY2021 to nearly 37 million tonnes by FY2041, representing an increase of about 76 per cent over two decades (DPIE, 2021). NSW also generates almost 2.8 tonnes of solid waste per person each year. While NSW currently recycles about two-thirds of its waste, the Strategy identifies the need for safe and adequate disposal options for material that cannot be recycled, noting that NSW had fallen short of its previous 75 per cent landfill diversion target, achieving around 65 per cent diversion as at FY2019 (DPIE, 2021).

This increasing waste generation is placing pressure on Greater Sydney's residual waste infrastructure. The NSW Waste and Sustainable Materials Strategy 2041 identifies that, under a business-as-usual scenario, Greater Sydney's non-putrescible landfill airspace may be exhausted by around 2030, with putrescible landfill airspace potentially exhausted by around 2036. The Strategy also identifies the need for large-scale regional residual waste infrastructure, including Energy-from-Waste (EfW) facilities, to support the management of residual waste and reduce reliance on landfill over time.

At the same time, Cleanaway's existing Auburn Waste Transfer Station is understood to be subject to planned closure by 2027/28. This facility currently performs an important transfer function for Sydney's metropolitan waste network. Its closure creates a near-term operational need for replacement transfer capacity to maintain service continuity, avoid disruption to waste collection and transfer operations, and preserve flexibility within the broader waste network.

The key drivers for the Project and the staged response proposed through the Chullora WTS are summarised in Figure 2-1.



Source: Arup, based on NSW Waste and Sustainable Materials Strategy 2041 (2021), NSW Energy from Waste Policy Statement (2021), and project information.

Figure 2-1: Project need and strategic response

The Chullora WTS responds to both the immediate and longer-term drivers for waste infrastructure. In Phase 1, the facility would provide replacement road-based transfer capacity of approximately 150,000 tpa, supporting continuity of operations following the closure of the Auburn WTS. In Phase 2, the Project would transition to a higher-capacity waste-to-rail operation, with a design throughput of approximately 800,000 tpa, supporting the consolidation and transfer of residual waste and resource recovery material to a future regional EfW facility, such as the Parkes Energy Recovery Facility (SSD-109430741).

However, the strategic role of the Project extends beyond any single downstream recovery facility. If a future regional EfW facility, such as Parkes, does not proceed, Chullora would still perform an important metropolitan waste transfer, consolidation and processing role within Cleanaway's NSW network. Its location within the SFT, together with access to established road and rail infrastructure, would support the efficient handling of Sydney's commercial and municipal waste streams, including the transfer of organics to regional markets, integration with existing and emerging recycling processors, and movement of residual waste to lawful off-site recovery, processing or disposal facilities.

The importance of the Project and its geographical location is further reinforced by the forecast closure of the Auburn Waste Transfer Station, which would remove a major component of Sydney's existing waste transfer infrastructure. In this context, Chullora would provide critical replacement capacity and operational flexibility, allowing displaced tonnages to be managed within the metropolitan network while also supporting future growth in Cleanaway's resource recovery and waste logistics operations.

The Project is therefore strategically aligned with the NSW Government's direction to reduce reliance on landfill, improve resource recovery and support energy recovery for residual waste that cannot feasibly be avoided, reused, recycled or reprocessed. The WTS would not operate as a landfill or EfW facility. Rather, it would provide the metropolitan aggregation, screening, sorting containerisation and transfer infrastructure needed to support a more resilient residual waste network and enable the efficient movement of waste from Sydney to lawful off-site recovery, processing or disposal facilities.

The Chullora site is also strategically suited to this role. It is located within an established industrial and freight precinct, has access to existing heavy vehicle routes, interfaces with rail infrastructure within the SFT, and is largely modified industrial land. These locational attributes allow the Project to respond to the immediate Auburn replacement need while also supporting the longer-term transition to rail-based residual waste transfer infrastructure.

2.2 Strategic Planning Policies

The Project is consistent with a range of State, regional and local strategic planning policies that support the retention of industrial and urban services land, improved waste management infrastructure, increased resource recovery, reduced reliance on landfill, and more efficient freight and logistics networks.

2.2.1 NSW Waste and Sustainable Materials Strategy 2041

The NSW Waste and Sustainable Materials Strategy 2041 is the NSW Government's primary long-term strategy for waste management and resource recovery. It establishes headline targets including reducing total waste generated, increasing resource recovery, reducing organics sent to landfill, and reducing emissions from organic waste.

The Strategy identifies the need for additional residual waste infrastructure, including large-scale regional infrastructure, to respond to future waste generation and landfill capacity constraints. The Project directly supports this direction by providing metropolitan-scale transfer infrastructure capable of consolidating residual waste and resource recovery material for transfer to a future regional facility.

The Project supports the Strategy in the following ways:

- Phase 1 would provide replacement transfer capacity for the Auburn Waste Transfer Station, maintaining waste network continuity.
- Phase 2 would provide the scale of aggregation infrastructure required to support regional residual waste processing.

- The enclosed transfer shed would allow resource recovery activities and separation of recoverable material where practicable.
- The waste-to-rail model would support a more efficient logistics chain and reduce reliance on long-distance road haulage.
- The Project would support residual waste management in a way that is consistent with broader circular economy objectives.

2.2.2 NSW Energy from Waste Framework and Energy from Waste Technical Note

The NSW Energy from Waste Framework and Technical Note provide the current policy and regulatory framework for energy recovery from residual waste in NSW. The Framework recognises energy from waste as a pathway for managing residual waste where higher-order resource recovery options, such as avoidance, reuse, recycling and organics recovery, are not available or practicable. The Technical Note updates and replaces the 2021 NSW Energy from Waste Policy Statement and sets out the minimum operational standards and technical requirements for facilities proposing to thermally treat waste or waste-derived materials for energy recovery.

The Project would not itself be an Energy from Waste facility. Rather, it would form part of the upstream waste transfer and aggregation infrastructure required to support a future regional Energy from Waste supply chain. Waste received at Chullora WTS would comprise residual municipal solid waste that remains after source separation, recycling and organics recovery systems have been applied through the metropolitan collection network. The Project would receive, consolidate and containerise this residual waste before transfer to a future off-site facility, subject to that receiving facility obtaining all necessary planning approvals, environment protection licences and demonstrating compliance with the NSW Energy from Waste Framework and Technical Note.

The Framework's resource recovery criteria are relevant to the Project because they distinguish residual waste from recyclable and organic streams that should first be separately collected and recovered. Cleanaway's metropolitan collection network operates separate dry recycling and FOGO collection systems. On this basis, residual waste delivered to the Chullora WTS would form part of an EfW supply chain, subject to the future receiving facility meeting relevant policy and approval requirements.

Although the NSW Energy from Waste Framework does not mandate rail as the preferred logistics solution, the Chullora site has been selected because it provides a direct interface between metropolitan residual waste collection and established rail freight infrastructure. The site's location within the Sydney Freight Terminal and connection to the Southern Sydney Freight Line would enable containerised residual waste to be transferred efficiently by rail to a future regional Energy from Waste facility (such as Parkes Energy Recovery Facility), reducing reliance on long-distance road haulage and supporting a more controlled and scalable transport pathway for residual waste generated in Greater Sydney.

The Project is therefore strategically aligned with the NSW Energy from Waste Framework and Energy from Waste Technical Note because it would provide the metropolitan transfer infrastructure needed to support lawful, controlled and efficient movement of residual waste to a future regional EfW facility, while maintaining a focus on resource recovery prior to energy recovery.

2.2.3 Greater Sydney Region Plan

The Greater Sydney Region Plan establishes the long-term planning framework for Greater Sydney. It recognises the importance of retaining and managing industrial and urban services land, improving infrastructure efficiency, supporting freight and logistics networks, and reducing waste through circular economy approaches.

The Project supports the Greater Sydney Region Plan by retaining industrial land for an essential urban services function. Waste transfer stations are critical urban infrastructure that support the functioning of the city, similar to freight, logistics, utilities and other service infrastructure. The Project would be located within an established industrial and freight precinct, avoiding the need to locate this type of infrastructure in more sensitive urban environments.

The Project also supports the Greater Sydney Region Plan's direction to protect industrial and urban services land from competing land use pressures. The Chullora industrial precinct has an established freight and logistics function, and the Project would reinforce this strategic role by continuing the use of the land for industrial, infrastructure and urban services purposes.

In addition, the Project supports broader circular economy and waste objectives by providing infrastructure that can facilitate improved resource recovery, residual waste consolidation, and future rail-based transfer to a regional facility.

2.2.4 South District Plan

The South District Plan provides the district-level planning framework for the Canterbury-Bankstown area and is directly relevant to the Chullora industrial precinct. The Plan identifies Chullora as part of a significant industrial and urban services precinct and recognises the importance of retaining industrial land for freight, logistics and urban services functions.

The Project is consistent with the South District Plan in several respects.

Planning Priority S10 – Retaining and managing industrial and urban services land

The South District Plan identifies the Chullora precinct as one of the largest industrial and urban services precincts in the Canterbury-Bankstown LGA. It recognises that the precinct's established freight and logistics character is strategically important and should be retained. The Project directly supports this priority by locating a WTS within an existing freight terminal and reinforcing the precinct's industrial and logistics function.

Southern Sydney Freight Line

The South District Plan recognises the strategic role of the Southern Sydney Freight Line in supporting freight movements across Greater Sydney. The Project would make direct use of this infrastructure during Phase 2 operations, enabling waste to be transferred by rail rather than relying solely on road haulage.

Planning Priority S17 – Reducing carbon emissions and managing energy, water and waste efficiently

The South District Plan recognises the need to protect existing waste management locations, identify new locations for waste recycling and management, and reduce waste transport requirements. The Project supports this priority by replacing the Auburn Waste Transfer Station, providing future residual waste transfer capacity, and enabling a waste-to-rail operating model.

The South District Plan also recognises that Chullora already performs a waste transfer function. The Project would continue and expand this established urban services role in a location that is already industrial, freight-oriented and strategically connected to rail.

2.2.5 Bankstown Airport and Milperra Industrial Area Collaboration Area

The South District Plan identifies the Bankstown Airport and Milperra Industrial Area as a Collaboration Area and recognises the broader importance of industrial, employment, freight and logistics lands across this part of Sydney.

Although the Project is not located within Bankstown Airport itself, it sits within the broader Chullora industrial precinct and shares the same strategic context: industrial land with freight connectivity, regional road access and proximity to major logistics infrastructure.

The Project is compatible with the intent of the Collaboration Area planning framework because it would retain industrial land for an operational use that supports metropolitan waste, freight and logistics functions. It would also strengthen the role of the broader industrial corridor as a location for essential urban services infrastructure.

2.2.6 Connective City 2036

Connective City 2036 is Canterbury-Bankstown Council's Local Strategic Planning Statement. It establishes the 20-year strategic planning vision for the LGA and identifies the importance of protecting and strengthening employment lands, improving transport connectivity, supporting sustainable infrastructure and contributing to emissions reduction.

The Project is consistent with Connective City 2036 because it would be located within the Chullora employment precinct, which is identified as a key employment and logistics area. The WTS would support employment-generating industrial activity and make use of existing freight, road and rail infrastructure.

The Project also supports the LSPS focus on sustainability and emissions reduction. Phase 2 would enable residual waste to be transferred by rail, reducing the need for long-distance road haulage once the waste-to-rail operation commences. This would support a more efficient and sustainable waste logistics network.

2.2.7 Canterbury-Bankstown Employment Lands Strategy

The Canterbury-Bankstown Employment Lands Strategy supports the retention and protection of industrial and employment lands where they continue to perform important operational and economic functions. The Strategy recognises that industrial land should not be assessed only on the number of jobs it generates, but also on the role it performs in supporting the functioning of the city.

The Project is strongly aligned with this approach. Waste transfer infrastructure is an urban services use that is essential to the functioning of the metropolitan region. It requires industrial land, heavy vehicle access and separation from sensitive receivers. The Chullora precinct has a logistics focus that the Employment Lands Strategy seeks to maintain and protect.

The Project would reinforce this function by locating a metropolitan waste transfer facility within an established freight and logistics precinct. The Chullora WTS would serve as a waste management hub and would support the continued retention of the land for productive industrial and urban services purposes.

2.3 Site context

The Project area is located within the SFT at 20 Dasea Street, Chullora, on part of Lot 35 DP1007367. It occupies the south-western and western portions of the terminal and comprises existing hardstand, freight-related infrastructure and modified industrial land.

The surrounding freight terminal forms part of an established freight and logistics precinct, with direct access to Dasea Street largely owned by Pacific National, proximity to regional freight routes, and an interface with rail infrastructure associated with the Southern Sydney Freight Line. It has a long history of industrial and freight-related use, including rail operations, container handling, vehicle movements, fuel storage, maintenance activities and associated infrastructure. As a result, the Project area is highly disturbed and does not represent an undeveloped or greenfield setting. This context supports the proposed waste transfer use by locating it within an established operational environment designed to accommodate heavy vehicles, freight activity and logistics functions.

The SFT is located within the Upper Cooks River catchment. Cooks Creek passes through the terminal in a concrete-lined channel and ultimately drains to the Cooks River. The EIS will consider the surrounding drainage and water environment, including upstream receiving environments such as the Yana Badu wetlands, with particular regard to any potential changes to stormwater design, water quality, flood behaviour and emergency containment measures that may alter existing conditions.

Phase 2 is intended to use the existing rail interface within the terminal, including associated hardstand and loading areas, to support transport by rail of residual waste containers. Any loading infrastructure or minor interface works required to facilitate rail operations would be described and assessed in the EIS.

2.4 Surrounding land uses

The Project area is located within an established industrial and logistics precinct in the Canterbury-Bankstown local government area. Surrounding land uses are predominantly freight, rail, warehousing,

logistics and industrial in nature, including container hardstand areas, rail sidings, logistics yards, warehousing, industrial premises and infrastructure land. The broader Sydney Freight Terminal and Pacific National operations form the primary operational interface.

Although the locality is industrial in character, sensitive or potentially sensitive receivers are located in the broader area. The nearest residential receivers are approximately 370 to 400 metres to the north and north-west, beyond intervening industrial and infrastructure land. Other nearby receivers include Mary Wade Correctional Facility to the north-west, Tallowood Reserve to the north, Rookwood Cemetery to the north-east/east, and surrounding commercial or community uses. These receivers will be considered in the assessment of operational noise, air quality, odour, traffic and visual impacts.

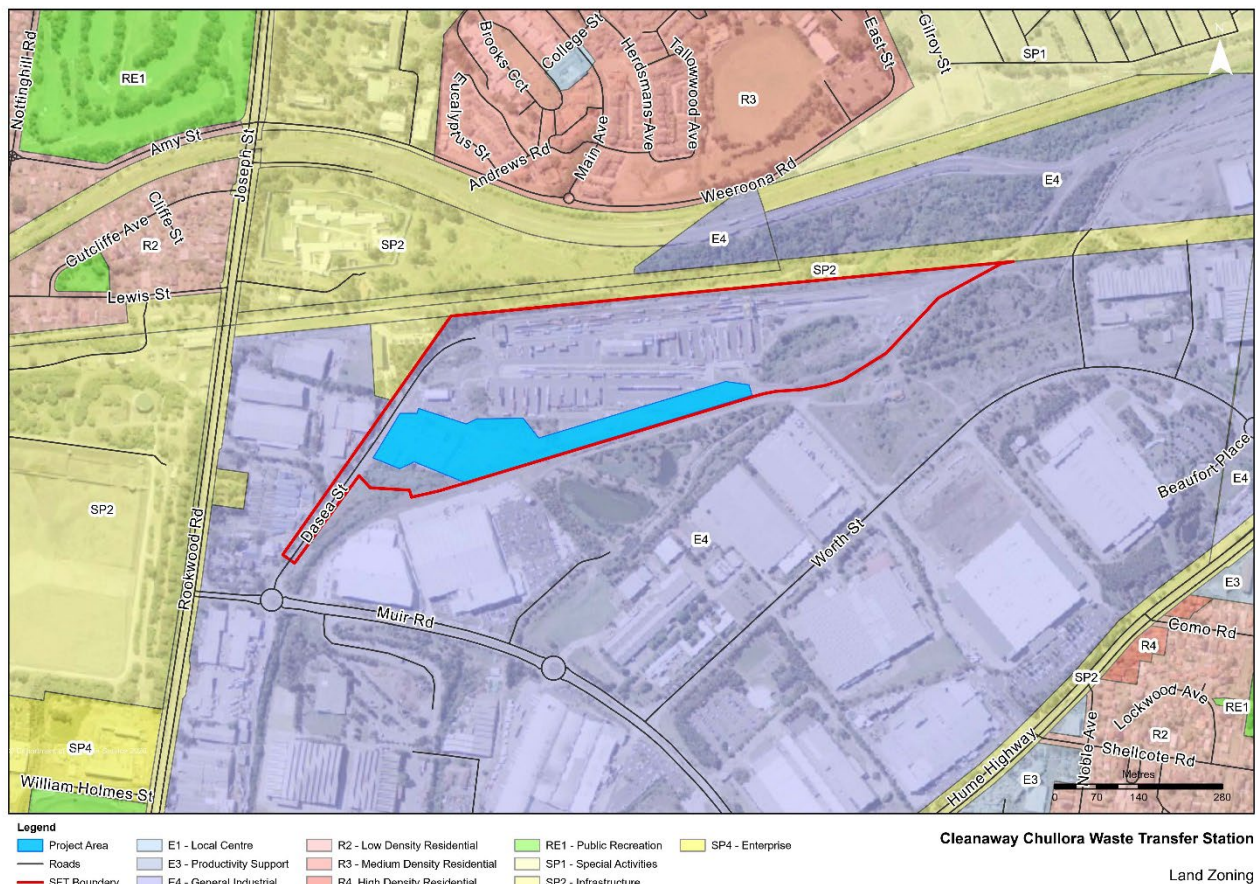


Figure 2-2: Land zoning

The land is zoned E4 General Industrial (Figure 2-2) under the *Canterbury-Bankstown Local Environmental Plan 2023*. This zoning reflects the established industrial and freight role of the precinct and supports industrial, warehouse, logistics and urban services. The proposed waste transfer function is therefore compatible with the surrounding land use setting, subject to detailed assessment of environmental and amenity impacts.

2.5 Key risks and hazards

A preliminary review of the Project and surrounding context has identified several key risks and hazards that will require further assessment within the EIS. These matters are not considered as fatal constraints to the Project, but they will influence the design, assessment scope, mitigation strategy and agency consultation requirements.

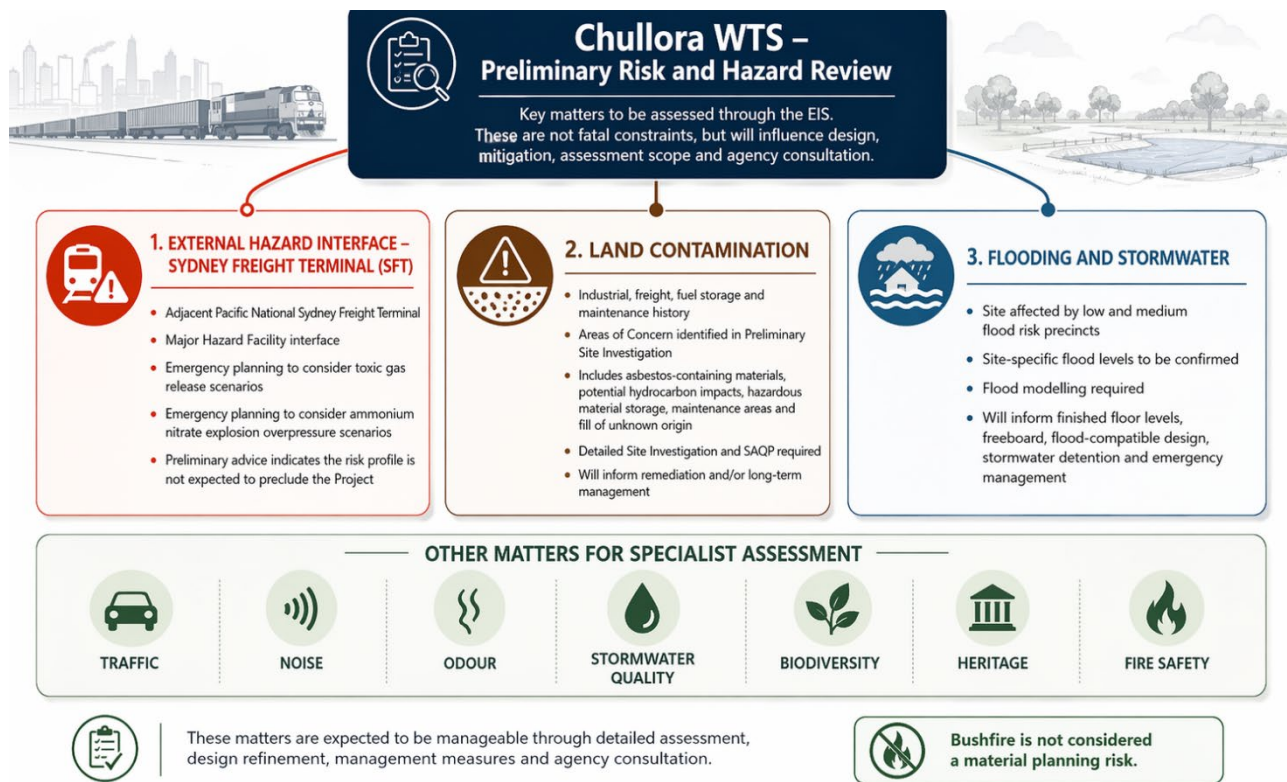


Figure 2-3: Key hazards and risks

The key external hazard interface is the adjacent SFT, operated by Pacific National, which is classified as a Major Hazard Facility due to the handling of dangerous goods as part of intermodal freight operations. Preliminary hazards advice indicates that the risk profile from the SFT is not expected to preclude the proposed WTS; however, emergency response planning will need to account for relevant SFT incident scenarios, including toxic gas release and ammonium nitrate explosion overpressure.

Contamination is a key criteria to assess due to the SFT site’s long history of industrial, freight, fuel storage, vehicle maintenance and material storage activities. A Preliminary Site Investigation (PSI) has identified several Areas of Concern, including confirmed asbestos-containing materials, potential hydrocarbon impacts, hazardous material storage, mechanical maintenance areas and fill of unknown origin. A Sampling and Analysis Quality Plan and Detailed Site Investigation will be required to characterise contamination risks and confirm whether remediation, encapsulation or long-term management is required.

The SFT site is also affected by low and medium flood risk precincts under Canterbury-Bankstown Council mapping. Finished floor levels will be set in accordance with Council’s adopted flood levels (including the 1% AEP flood extent plus freeboard. Flood modelling may be undertaken to demonstrate that the Project does not adversely affect flood behaviour on adjoining land.

Other risks are expected to be manageable through standard EIS safeguards and detailed design processes. Bushfire is not considered a material planning risk, as the Site is not mapped as bushfire prone land and the nearest mapped bushfire hazard is separated from the Site by intervening industrial land. Traffic, noise, odour, stormwater quality, biodiversity, heritage and fire safety will require specialist assessment and targeted mitigation but are expected to be addressed through design, management measures and agency consultation.

2.6 Potential cumulative impacts

The Project is located within an established industrial and freight precinct where cumulative impacts may arise from existing and future freight, waste, industrial and infrastructure operations. Potential cumulative impacts are likely to relate to traffic, noise, air quality, odour, hazards, water quality and social amenity.

The following developments and activities are likely to be relevant to cumulative impact assessment:

- Sydney Freight Terminal operations, operated by Pacific National, which are co-located on the broader Site and may contribute to cumulative noise, traffic, hazard and operational interface impacts.
- existing surrounding industrial, warehousing and logistics operations within the Chullora industrial precinct.
- proposed or future EfW facilities in NSW, noting that the Project is designed to supply residual waste streams to future regional EfW infrastructure.
- any other approved or proposed SSD or major development projects within the Canterbury-Bankstown, Rookwood, Lidcombe or Chullora precincts that may contribute to cumulative traffic, noise, air quality, odour or water quality impacts.

The EIS will identify relevant nearby projects and assess cumulative impacts in accordance with the Department's Cumulative Impact Assessment Guidelines for State Significant Projects, where applicable.

2.7 Agreements and offsets

The Project is proposed to be developed on land leased from Pacific National within the SFT. A commercial lease arrangement between Cleanaway and Pacific National will govern access, co-location and interface management between the WTS and the broader SFT operations. Relevant interface matters include shared access via Dasea Street owned by Pacific National, interaction with Pacific National vehicle movements, rail interface requirements, emergency response planning, Major Hazard Facility considerations, and coordination of EPL boundaries.

No voluntary planning agreements, biodiversity offset agreements or other mitigation agreements have been entered into for the Project at this stage.

A BDAR waiver (Appendix H) will be sought for the Project under the *Biodiversity Conservation Act 2016*. Accordingly, a BDAR is not proposed to be prepared or lodged with the EIS.

3. Project Description

3.1 Project Area

The Project area is located within the southwestern and western portions of the Site (Lot 35 DP1007367, 20 Dasea Street, Chullora). The Project has a total area of approximately 33,560 m². Approximately 5,000 m² of vacant land within the Project area will not be developed during the initial phases of the Project and will serve as a depot for Cleanaway or other local logistics operators during early years of operation. This land may be incorporated into future expansion for additional resource recovery activities.

3.2 Existing Operations

The broader SFT site is owned and operated by Pacific National and is classified as a Major Hazard Facility (MHF). The terminal operates 24 hours per day, except Sundays between 7:00 am and 9:00 pm. Up to 86 personnel may be on site over a 24-hour period, excluding truck drivers.

The SFT connects to the Southern Sydney Freight Line and currently accommodates two train services per day. Trains typically remain on site for around 12 hours during loading and unloading. Pacific National also manages up to 26 truck movements per hour, with a site rule limiting the number of trucks on site to 30 at any one time.

3.3 Proposed Facility Design and Layout

The Chullora WTS is a three-level facility with an overall building height of approximately 20m, designed to safely receive, efficiently sort, pre-screen for non-permissible waste, compact and transfer waste for road or rail transport. The full WTS footprint will be constructed under Phase 1, staging refers to operational mode (road-based then rail-based) and throughput, not to the physical footprint. The key facility components are illustrated in Appendix B and described below.

Transfer Shed (Upper Level): A fully enclosed warehouse of 6,600 m² with a 300 m² office, incorporating multiple waste bunkers with a combined stockpiling capacity in excess of 4,650 m³. The upper level is used for receiving inbound waste vehicles and access to the office.

The mezzanine level will be used for floor sorting of recoverable materials, and stockpiling of waste prior to compaction. The facility operates under negative air pressure with fast-acting roller shutter doors to control odour emissions. An odour management system is integrated into the facility design, with discharge to atmosphere subject to Civil Aviation Safety Authority (CASA) consent for stack height.

Compactor Level (Lower Level): The lower level houses the compactors used to load waste into intermodal containers for road or rail transfer.

Container Hardstand and Rail Interface: A container hardstand within the eastern portion of the Project area is used for loading containers onto rail wagons for export via the Southern Sydney Freight Line. Container handling equipment will include up to three container handlers (with two in use at any one time). Rail wagon loading may be carried out by an overhead gantry system (Rubber Tyre Gantry crane or equivalent).

Other key facility components include:

- Entry and exit weighbridges (~30 m), with two entry weighbridges proposed to manage inbound vehicle queuing.
- Fire protection infrastructure: static water supply, incoming waste truck Hot Load Bay, thermal hotspot detection in waste bays, water cannons, ring main hydrant system, fire sprinkler tanks and fire sprinkler tanks.
- A 30,000 L diesel fuel cell to refuel yellow gears and container terminal tractors or transfer trucks.
- Leachate storage for offsite transfer and treatment and/or onsite treatment infrastructure to meet Sydney Water sewer discharge requirements.

- First-flush stormwater system and isolation valve for contaminated firefighting water containment.
- Automated traffic control system.
- Fire rated external walls facing the SFT (FRL 240/240/240) to limit radiant heat exposure.
- 1.0 m wide perimeter walkway.

Plant and equipment proposed for the facility includes:

- up to three front-end loaders (e.g. CAT 938–966 or Komatsu WA 380–470), all operating inside the shed.
- up to two material handlers (e.g. Liebherr LH18–26).
- Up to three container handlers or container terminal tractors/transfer trucks (Omega 54E or equivalent) and or Rubber Tyre Gantry Cranes (RTGs) - Konecranes or Liebherr RTGs)

Building construction is proposed in concrete and steel frame with a metal roof.

3.4 Waste Streams, Volumes and Classification

The WTS is proposed to receive the following waste streams across the two project phases:

Table 3-1: Waste Streams, Volumes and Calculations

Waste Stream	Classification	Phase 1 (tpa)	Phase 2 (tpa)
Municipal Solid Waste (MSW)	General solid waste (putrescible)	50,000	575,000
Commercial and Industrial (C&I) residual waste	General solid waste (putrescible / non-putrescible)	70,000	185,000
Food Organics and Garden Organics (FOGO)	General solid waste (putrescible)	15,000	15,000
Garden Organics (GO)	General solid waste (putrescible)	5,000	5,000
Commercial organics	General solid waste (putrescible)	5,000	5,000
Construction and Demolition (C&D) residual waste (potential)	General solid waste (non-putrescible)	5,000	15,000
TOTAL		~150,000	~800,000

3.5 Key Operations and Processes

The WTS is proposed to operate 24 hours per day, 7 days per week across three shifts. The WTS will seek to adopt the SFT's approved operating conditions for rail transport where possible, which currently allows 24-hour operations except on Sundays, which is limited to between 07:00 and 21:00.

The indicative operational sequence for the Chullora WTS is shown in Figure 3-1, illustrating the main processing steps from inbound vehicle entry and weighbridge inspection, through to enclosed unloading, resource recovery, compaction, containerisation and off-site transfer via road in Phase 1 or rail in Phase 2.

Indicative Waste Processing and Transfer Pathway

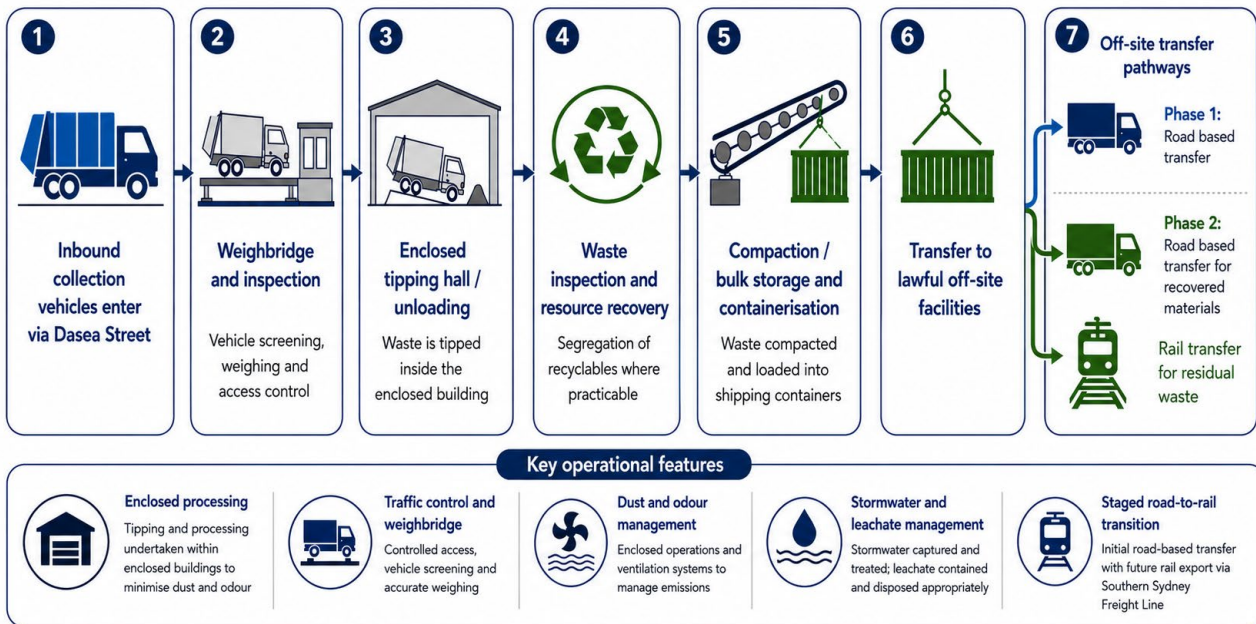


Figure 3-1: Indicative waste processing and transfer pathway

Key operational processes are as follows:

- Inbound vehicles are weighed at the entry weighbridge and classified by waste stream.
- Vehicles are directed to the appropriate tipping bay within the fully enclosed upper-level tipping hall.
- Waste is tipped onto the tipping floor for floor screening and sorting of recoverable materials (timber, steel, mattresses, cardboard, tyres, bulky metals etc). Floor screening will identify and remove any non-permissible waste materials for transport offsite by road to a lawful disposal facility.
- Remaining residual waste is then pushed into compactors on the lower level and compacted into intermodal containers.
- Loaded containers are transferred to the container hardstand for rail loading (Phase 2) or dispatched by road (Phase 1 and rail outage continuity).
- Rail container loading via container handler or overhead gantry (Phase 2); two train services per day up to 7 days per week.
- Tipping hall and facility cleaned regularly.
- Odour treatment system operated to meet the requirement of air quality impact assessment.

3.6 Access and Transport

Road access to the Project is proposed via Dasea Street, which connects to the Dasea Street / Muir Road roundabout approximately 390 metres south of the site access. From this roundabout, heavy vehicles would access the broader arterial road network via Muir Road, Rookwood Road and the Hume Highway. Dasea Street, Muir Road and Rookwood Road are identified as NHVR-approved 26 metre B-double routes, supporting access for the heavy vehicle types required for the WTS.

Access to the Project coming off Dasea Street would be managed through detailed site access arrangements, including automated traffic control, weighbridge management, queuing controls and a Traffic Management Plan. Swept path analysis has been completed for 20 metre articulated vehicle ingress, internal manoeuvring

and egress, with further assessment to be undertaken as part of the EIS for larger vehicle combinations that conform to the arterial NHVR road network to and from the facility.

The proposed access and transport arrangements are shown in Figure 3-2. During Phase 1, waste haulage would occur primarily by road. During Phase 2, the Project would transition to rail-based transport for residual waste via the internal freight terminal rail interface and the Southern Sydney Freight Line, while retaining road access for inbound waste vehicles, recovered recyclable materials, EfW residual and contingency operations.

Indicative anticipated traffic movements by project phase are summarised in Table 3-2 below. A detailed traffic impact assessment will be undertaken as part of the EIS to confirm traffic movement numbers and assess potential impacts.

Table 3-2: Anticipated Traffic Movements

Movement Type	Phase 1 (~150,000 tpa, 2028–2030)	Phase 2 (~800,000 tpa, from 2030/31)
Inbound waste vehicles	85 trucks per weekday and 10 trucks per weekend day, comprising rigid side-lift, front lift, and rear-lift trucks, and occasional walking floor semi-trailers.	350–400 trucks per weekday and 35–40 trucks per weekend day, comprising front-lift, hooklift and rear-lift trucks and quad axle semi-trailers up to 20 m, B – doubles up to 26m.
Outbound vehicles (road)	22 trucks per weekday and 3 trucks per weekend day, comprising quad axle and tri-axle semi-trailers (up to 20 m) and truck and dog configurations. Up to 5 prime movers are expected to operate on rotation for waste export.	7 trucks per weekday and 2 trucks per weekend day, with up to 3 prime movers on rotation for waste haulage.
Rail movements (Phase 2)	N/A	2 train services per day are proposed, up to 7 days per week, with Pacific National utilising a range of locomotives with up to 4 locomotives per train service.

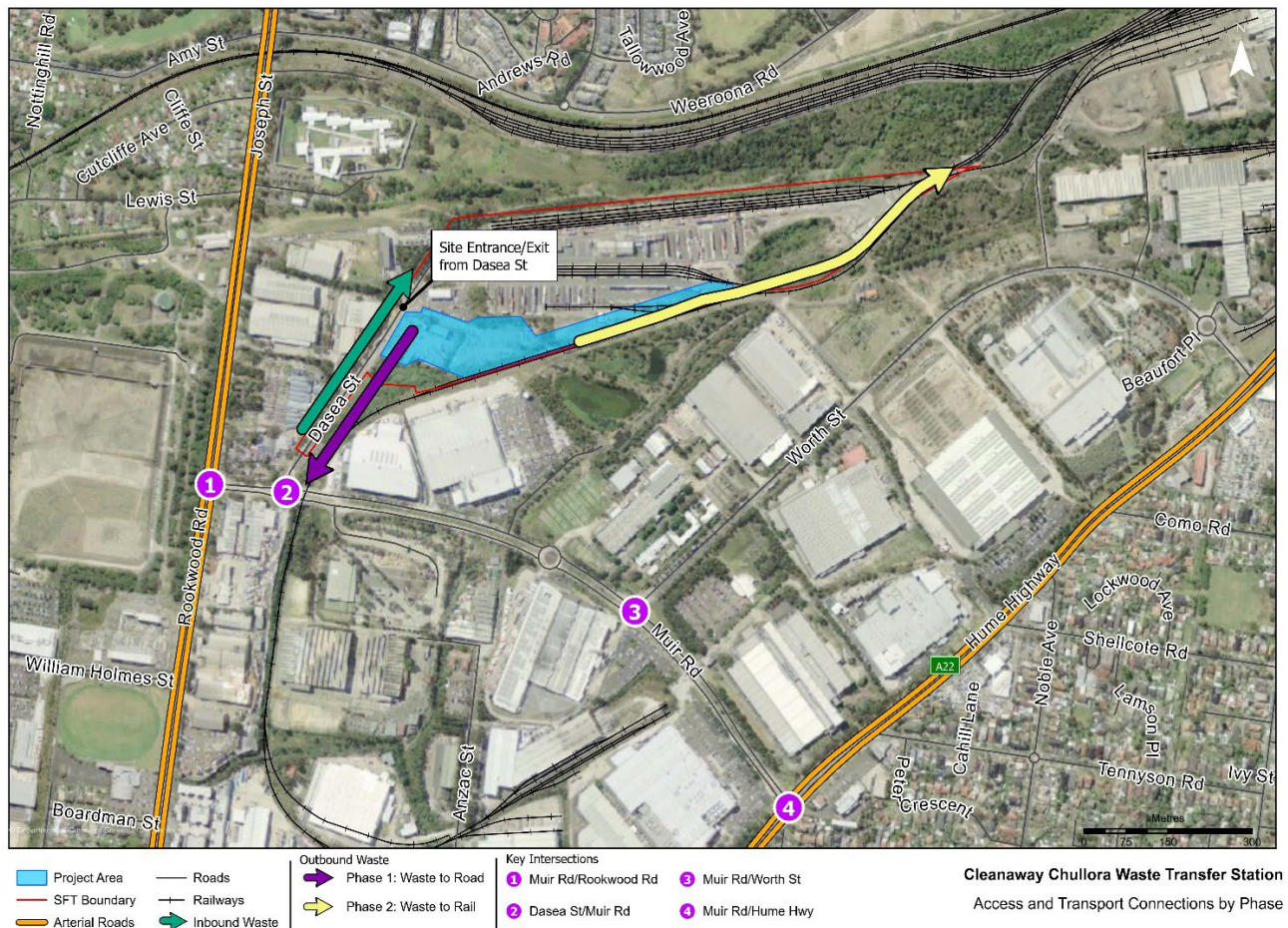


Figure 3-2: Access and transport connections by phase

3.7 Project Staging and Timing

The Project is expected to be delivered progressively, with the:

- Phase 1: full development footprint excluding the external hardstand that accommodates the rail infrastructure and container storage.
- Phase 1 will commence operations while Phase 2 is being developed.
- Phase 2 development includes the external hardstand to support the Phase 2 rail infrastructure, and container storage.
- Staging refers to throughput and operational mode based on Phase 1 road-based then Phase 2 rail-based.

The anticipated staging and timing are summarised in Table 3-3.

Table 3-3: Anticipated staging and timing

Phase	Incoming Waste	Indicative Timing	Key Activities
Site Preparation / Demolition	N/A	2026–2027	Sampling Analysis and Quality Plan (SAQP), Detailed Site Investigation (DSI), Hazardous Building Material Survey (HBMS), demolition of existing structures; earthworks and remediation (if required).
Construction	N/A	2027–2028	Civil works, building construction, fit-out, plant and equipment installation, rail siding interface works, commissioning.

Phase 1 – Waste to Road	~150,000 tpa	2028–2030	Operations using road-based waste haulage; Auburn WTS replacement service commencement.
Phase 2 – Waste to Rail	~800,000 tpa	From 2030/31	Full-scale operations with rail-based transport to regional EfW facility; two train services per day.

3.8 Construction

The indicative design involves minor excavation works within the southern portion of the Project Area to accommodate compactor equipment at the lower level and adjacent hardstand during Phase 1. The container storage area and rail siding access are to be established during Phase 2 on hardstand constructed from engineered fill. Building construction will use concrete and steel frame with a metal roof, consistent with Cleanaway's Erskine Park and South East Melbourne Transfer Stations.

3.9 Alternatives Analysis

In developing the Project, the following feasible alternatives have been considered:

- 'Do nothing' alternative (Phase 1 & Phase 2): Not proceeding with the Project would leave metropolitan Sydney's southwest without a waste transfer facility following the planned closure of the Auburn WTS in 2027/28 and would eliminate a critical node in the supply chain for EfW delivery. The 'do nothing' alternative is inconsistent with the NSW WaSM 2041 and has been rejected.
- Alternative sites (Phase 1 & Phase 2): The Chullora site was identified as preferred following a site selection assessment. Key selection criteria included: planning permissibility in the E4 General Industrial zone without rezoning; direct access to the Southern Sydney Freight Line for future rail export; proximity to the existing waste catchment; available site area within the established SFT precinct; and Cleanaway's existing commercial relationship with Pacific National. The Project remains feasible and operationally viable at Phase 1 scale independent of the timing of any downstream EfW facility approval.
- Alternative facility scale and configuration (Phase 1): Phase 1 (waste-to-road at 150,000 tpa) has been designed to align with the planned closure date of the Auburn WTS and allows operations to commence while Phase 2 rail infrastructure is procured and commissioned. A single-phase approach was considered but rejected as impractical given the Auburn closure timeline.
- Alternative waste streams: The exclusion of special waste (clinical, asbestos, tyres), hazardous waste, restricted solid waste and liquid waste from the facility's acceptance criteria reflects the constraints of the shared site with the SFT MHF and the design basis of the odour management system.

4. Statutory Context

This chapter identifies the relevant Commonwealth and NSW State legislation, environmental planning instruments and planning policies applicable to the Project and discusses the relevant planning approval process. The key requirements of the Environmental Planning and Assessment Act 1979 (EP&A Act) and the Environmental Planning and Assessment Regulation 2021 (EP&A Regulation) in relation to the approval and assessment of the Project are summarised in Table 4-1.

Table 4-1: Summary of statutory requirements for the Project

Matter	Assessment
Power to grant consent	Development consent will be sought under Division 4.7 – State Significant Development of the Environmental Planning and Assessment Act 1979 (EP&A Act). Section 4.36(2) of the EP&A Act states that: <i>A State environmental planning policy may declare any development, or any class or description of development, to be State significant development.</i> Schedule 1 of the State Environmental Planning Policy (Planning Systems) 2021 (Planning Systems SEPP) lists development that is declared to be State Significant Development (SSD). Schedule 1, Section 23 of the Planning Systems SEPP states that: 23 Waste and resource management facilities 1) Development for the purpose of regional putrescible landfills or an extension to a regional putrescible landfill that — a. has a capacity to receive more than 75,000 tonnes per year of putrescible waste, or b. has a capacity to receive more than 650,000 tonnes of putrescible waste over the life of the site, or c. is located in an environmentally sensitive area of State significance. 2) Development for the purpose of waste or resource transfer stations in metropolitan areas of the Sydney region that handle more than 100,000 tonnes per year of waste. 3) Development for the purpose of resource recovery or recycling facilities that handle more than 100,000 tonnes per year of waste. 4) Development for the purpose of waste incineration that handles more than 1,000 tonnes per year of waste. 5) Development for the purpose of hazardous waste facilities that transfer, store or dispose of solid or liquid waste classified in the Australian Dangerous Goods Code or medical, cytotoxic or quarantine waste that handles more than 1,000 tonnes per year of waste. The Project is a waste transfer station located in metropolitan Sydney that will handle approximately 150,000 tpa at Phase 1 and approximately 800,000 tpa at Phase 2, exceeding the 100,000 tpa threshold. The SSD provision applicable to the Project is Schedule 1, clause 23(2) of the Planning Systems SEPP (shown in bold above). The Project will be subject to the provisions of Part 4, Division 4.7 of the EP&A Act. Under section 4.5(a) of the EP&A Act, the consent authority for SSD is the Minister for Planning. Under clause 2.7(1) of the Planning Systems SEPP, the Independent Planning Commission (IPC) becomes the consent authority where Council objects to the Project, 50 or more persons have objected to the Project, or the applicant has made a reportable political donation. Prior to preparing an EIS, Cleanaway must request Secretary’s Environmental Assessment Requirements (SEARs). This Scoping Report has been prepared to accompany the SEARs application and will be published on the NSW Planning Portal upon lodgement. The EIS will be prepared in accordance with the project-specific SEARs and the SSD Guidelines – Preparing an Environmental Impact Statement (DPHI, 2026).

Permissibility	The Project (Lot 35 DP1007367, 20 Dasea Street, Chullora) is located within Canterbury-Bankstown LGA. The Project is on land zoned E4 General Industrial under the Canterbury-Bankstown Local Environmental Plan 2023 (CB LEP 2023). The Project is a waste transfer station, which meets the definition of a ‘waste or resource management facility’ under the CB LEP 2023 and the Standard Instrument: <i>Waste transfer station means a building or place used for the collection, sorting, consolidating, temporary storage and transfer of waste (other than radioactive waste) for transport to another facility for processing or disposal.</i> Section 2.153 of the State Environmental Planning Policy (Transport and Infrastructure) 2021 (TI SEPP) provides that waste management facilities (including waste transfer stations) are permissible with consent in the E4 General Industrial zone. The TI SEPP prevails over the CB LEP 2023 to the extent of any inconsistency (section 1.6, TI SEPP). The Project is therefore permissible with consent on the SFT site. No rezoning is required.																
Other approvals	<u>Consistent approvals (section 4.42 of the EP&A Act)</u> Any authorisations under certain legislation, identified in section 4.42 of the EP&A Act, cannot be refused if necessary for carrying out an approved SSD project and is substantially consistent with the SSD approval. In relation to the Project, these authorisations include: <table> <tr> <th>Authorisations</th><th>Applicable to the project</th></tr> <tr> <td>An aquaculture permit under the Fisheries Management Act 1994</td><td>No</td></tr> <tr> <td>An approval under section 15 of the Mine Subsidence Act 1961</td><td>No</td></tr> <tr> <td>A mining lease under the Mining Act 1992</td><td>No</td></tr> <tr> <td>A production lease under the Petroleum (Onshore) Act 1991</td><td>No</td></tr> <tr> <td>An environment protection licence under the Protection of the Environment Operations Act 1997</td><td>Yes</td></tr> <tr> <td>A consent under section 138 of the Roads Act 1993</td><td>TBC</td></tr> <tr> <td>A licence under the Pipelines Act 1967</td><td>No</td></tr> </table> An Environment Protection Licence (EPL) will be required under Chapter 3 of the <i>Protection of the Environment Operations Act 1997 (POEO)</i> for operation of the WTS. The WTS would trigger scheduled waste activities under Schedule 1 of the POEO Act, including waste storage, which includes receiving waste from off site and storing it, including storage for transfer. A new EPL in Cleanaway’s name will therefore be required to authorise the operation of the facility. The broader Sydney Freight Terminal is currently covered by EPL 21108, held by Pacific National. As a pre-lodgement action, Cleanaway should agree an EPL excision and transition strategy with the NSW EPA to confirm how the Project Area will be separated from the existing licence and transitioned to a new Cleanaway EPL. A consent under section 138 of the <i>Roads Act 1993</i> may be required if works are proposed within the Dasea Street or Muir Road reserves, including access upgrades, driveway works or road interface improvements. The need for section 138 approval will be confirmed through the Traffic Impact Assessment and further design development. <u>Other Approvals</u> Section 4.41 of the EP&A Act stipulates that certain authorisations are not required for SSD. Although these approvals are not required for SSD, the assessment that would be carried out for the issuing of these authorisations still needs to be carried out as part of	Authorisations	Applicable to the project	An aquaculture permit under the Fisheries Management Act 1994	No	An approval under section 15 of the Mine Subsidence Act 1961	No	A mining lease under the Mining Act 1992	No	A production lease under the Petroleum (Onshore) Act 1991	No	An environment protection licence under the Protection of the Environment Operations Act 1997	Yes	A consent under section 138 of the Roads Act 1993	TBC	A licence under the Pipelines Act 1967	No
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An environment protection licence under the Protection of the Environment Operations Act 1997	Yes																
A consent under section 138 of the Roads Act 1993	TBC																
A licence under the Pipelines Act 1967	No																

the SSD, where relevant to the site. The following table lists legislative approvals that may otherwise be required if the Project was not SSD.

Authorisations	Applicable to the project
A permit under section 201, 205 or 219 of the Fisheries Management Act 1994	N/A
An approval under Part 4, or a permit under section 139 of the Heritage Act 1977	N/A
An Aboriginal heritage impact permit (AHIP) under section 90 of the National Parks and Wildlife Act 1974	N/A
A production lease under the Petroleum (Onshore) Act 1991	N/A
An environment protection licence under the Protection of the Environment Operations Act 1997	N/A
A bush fire safety authority under section 100B of the Rural Fires Act 1997	N/A
A water use approval under section 89, a water management work approval under section 90, or an activity approval (other than an aquifer interference approval) under section 91 of the Water Management Act 2000.	N/A

Pre-conditions to exercising approval

Biodiversity Conservation Act 2016

Part 7 of the Biodiversity Conservation Act 2016 (BC Act) applies to approvals under the EP&A Act. Section 7.9 requires a development application for SSD to be accompanied by a Biodiversity Development Assessment Report (BDAR). Section 7.14 requires the consent authority to take into consideration the likely impact of the proposed development on biodiversity values as assessed in the BDAR.

A BDAR waiver will be sought for the Project under the *Biodiversity Conservation Act 2016*. Accordingly, a BDAR is not proposed to be prepared or lodged with the EIS.

SEPP (Resilience and Hazards) 2021 – Contaminated Land (s.4.6)

Section 4.6 stipulates that a consent authority must not consent to the carrying out of development unless it has considered whether the land is contaminated, and if contaminated, it is satisfied the land is suitable in its contaminated state (or will be suitable after remediation) for the purpose for which the development is proposed. Six Areas of Concern (AOCs) have been identified in the Preliminary Site Investigation (SLR Consulting, November 2025). A Detailed Site Investigation (DSI) and, if required, a Remediation Action Plan (RAP) must be prepared and approved before the EIS is lodged.

SEPP (Resilience and Hazards) 2021 – Potentially Hazardous Industries (ss.3.10–3.12)

Sections 3.10–3.12 stipulate that a person who proposes to make a development application for a potentially hazardous industry must prepare a Preliminary Hazard Analysis (PHA) in accordance with the DPE guidelines and current circulars, including HIPAP No 6 – Guidelines for Hazard Analysis. The Pacific National SFT adjacent to the Project Area is classified as a Major Hazard Facility (MHF) under the WHS Regulation 2025. A PHA addressing the WTS–MHF interface must be prepared for the EIS.

SEPP (Biodiversity and Conservation) 2021 – Flood-prone Land (cl.6.22)

Consent must not be granted to a waste or resource management facility on flood-prone land in a regulated catchment unless the consent authority has considered a flood impact study. Cooks River runs through the SFT; the Project site is within a regulated catchment under the B&C SEPP. A Flood Impact Assessment will be required for the EIS.

SEPP (Transport and Infrastructure) 2021 – Traffic Generating Development (s.2.122(4))

	Before determining the DA, the consent authority must give written notice to Transport for NSW (TfNSW) and consider any response. Phase 2 operations (~814 heavy vehicle movements per weekday) exceed the Schedule 3 thresholds. A Traffic Impact Assessment (TIA) will be prepared for the EIS and the application referred to TfNSW as required.
Mandatory matters for consideration	Section 4.15 of the EP&A Act In determining the application, the consent authority must consider: • The provisions of any EPI, draft EPI, DCP, planning agreement, and any matters prescribed by the EP&A Regulation (s.4.15(1)(a)). • The likely impacts of the development, including environmental impacts on both the natural and built environments and social and economic impacts (s.4.15(1)(b)). • The suitability of the site for the development, having regard to contamination, flood risk and the existing industrial character of the precinct (s.4.15(1)(c)). • Any submissions made in accordance with the EP&A Act and Regulation (s.4.15(1)(d)). • The public interest, including the objects of the EP&A Act and the principle of ecologically sustainable development (s.4.15(1)(e)). ESD principles under s.4.15(1)(a) (precautionary principle; intergenerational equity; conservation of biological diversity and ecological integrity; improved valuation, pricing and incentive mechanisms) will be addressed in a dedicated ESD chapter in the EIS. Relevant EPIs include: • SEPP (Planning Systems) 2021 • SEPP (Transport and Infrastructure) 2021 • SEPP (Resilience and Hazards) 2021 • SEPP (Biodiversity and Conservation) 2021 • SEPP (Sustainable Buildings) 2022 • CB LEP 2023, and • CB DCP 2023 Each instrument will be addressed in the Statutory Compliance chapter of the EIS.
Other NSW legislation	
<i>Protection of the Environment Operations Act 1997 (POEO Act)</i>	The objectives of the POEO Act are to protect, restore and enhance the quality of the environment in recognition of the need to maintain ecologically sustainable development. The POEO Act provides for an integrated system of licensing and contains a core list of activities in Schedule 1 requiring an Environment Protection Licence (EPL). The Project will be classified under Schedule 1 of the POEO Act (waste storage and waste transfer activities). Section 4.42 of the EP&A Act provides that an EPL cannot be refused if it is necessary for carrying out an approved SSD project and is consistent with the project approval. A new EPL in Cleanaway's name will be required prior to commencement of operations.
<i>SEPP (Sustainable Buildings) 2022</i>	Chapter 3 applies to non-residential development with an estimated development cost (EDC) of \$5 million or more. The consent authority must consider whether the development is designed to enable: • minimisation of construction waste • reduction in peak electricity demand • reduced reliance on artificial lighting through passive design • generation and storage of renewable energy • metering and monitoring of energy consumption, and • minimisation of potable water consumption. The Project will exceed the \$5 million EDC threshold. A NABERS or equivalent sustainability assessment will be required and addressed in the EIS sustainability chapter.

Canterbury-Bankstown LEP 2023 Canterbury-Bankstown DCP 2023	Key LEP provisions to be addressed in the EIS: • Clause 2.1 and 2.3 – Land Use Zone objectives (E4 General Industrial). • Clause 7.1 – Flood planning. • Clause 7.2 – Biodiversity protection. Key DCP provisions to be addressed in the EIS: • Section 3.1 – Parking • Section 4.5 – Contamination. • Section 6.3 – Flood controls. • Section 6.6 – Stormwater quality and management.
Commonwealth approvals	
Environment Protection and Biodiversity Conservation Act 1999 (Cth) (EPBC Act)	The EPBC Act requires referral to the Commonwealth Minister for the Environment of any action likely to have a significant impact on a Matter of National Environmental Significance (MNES). If declared a controlled action, formal Commonwealth approval is required. No impacts on MNES. A BDAR waiver will be sought for the Project under the <i>Biodiversity Conservation Act 2016</i>. Accordingly, a BDAR is not proposed to be prepared or lodged with the EIS.
Native Title Act 1993 (Cth) (NTA)	The Project site is located on existing freehold land within an established industrial precinct. Existing freehold land extinguishes native title in NSW. A review of the National Native Title Tribunal Register did not identify any Native Title determinations within the area surrounding the Project. Accordingly, the NTA is not expected to apply. This will be confirmed during EIS preparation.
National Greenhouse and Energy Reporting Act 2007 (Cth) (NGER Act)	Cleanaway is a registered NGER reporter. Operational greenhouse gas emissions from the Chullora WTS will be included in Cleanaway's annual NGER report in accordance with the NGER (Measurement) Determination. This does not constitute a separate approval requirement for the Project.

5. Community Engagement

This section outlines the proposed community and stakeholder engagement approach for the Project. Engagement will be proportionate to the Project's scale, industrial context and likely impacts, and will support preparation of the EIS, public exhibition, design refinement and development of mitigation measures. The indicative engagement process and timing are shown in Figure 5-1, while key stakeholder groups and engagement methods are summarised in Figure 5-2.



Figure 5-1: Consultation process and timing

5.1 Engagement objectives

The objectives of engagement are to inform stakeholders and the community about the Project and assessment process, identify issues relevant to the EIS, support agency and technical consultation, provide opportunities for input during exhibition, and ensure feedback is considered in design refinement, mitigation and management measures.

The engagement approach will be guided by the principles of being early, targeted, transparent, proportionate and responsive.

5.2 Engagement context and approach

The Project is being assessed under the State Significant Development pathway. Engagement will occur during scoping, EIS preparation and public exhibition, with consultation outcomes used to inform technical studies, design development and mitigation measures. As shown in Figure 5-1, early engagement will focus on agency consultation, stakeholder briefings and technical inputs, followed by public exhibition of the EIS and a formal response to submissions.

Given the Project's location within an established industrial precinct and its separation from most residential areas by intervening industrial land, engagement is expected to be targeted and proportionate rather than broad-based. However, consultation with nearby sensitive receivers, relevant agencies and adjoining

operators will be important to identify and respond to local issues, particularly in relation to traffic, noise, odour, visual impact, hazards and construction interface matters.

5.3 Key stakeholders

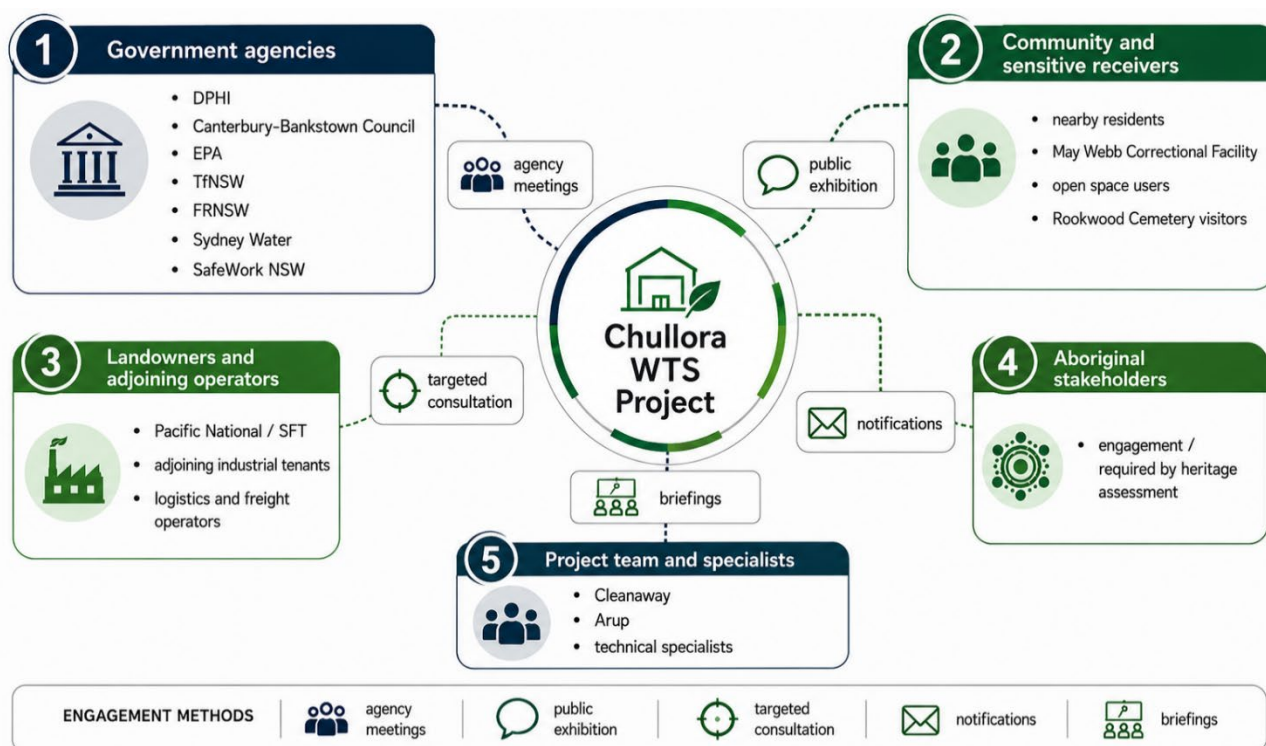
Key stakeholders are summarised in Figure 5-2 and include government agencies, community and sensitive receivers, landowners and adjoining operators, Aboriginal stakeholders where required, and the Project team and technical specialists.

Government and agency stakeholders are expected to include DPHI, Canterbury-Bankstown Council, NSW EPA, Transport for NSW, Fire and Rescue NSW, SafeWork NSW and Sydney Water. These agencies have regulatory, servicing, transport, environmental protection, emergency management and local planning responsibilities relevant to the Project.

Community and sensitive receiver stakeholders may include nearby residents, Mary Wade Correctional Facility, users of nearby open space, and visitors to Rookwood Cemetery. Engagement with these stakeholders will focus on matters such as amenity, access, traffic, noise, odour and visual impact.

Landowner and adjoining operator engagement will include Pacific National and relevant Sydney Freight Terminal interfaces, adjoining industrial tenants, logistics operators and freight operators. This engagement will be important for access, operational interface, safety, construction coordination and emergency response planning.

Aboriginal stakeholder engagement will be undertaken if required by the Aboriginal cultural heritage assessment process. The need, scope and timing of this engagement will be guided by relevant statutory requirements and heritage assessment outcomes.



Source: Arup, based on preliminary stakeholder identification for the Project.

Figure 5-2: Stakeholder and engagement map

5.4 Engagement methods and timing

Engagement methods will be selected according to the stakeholder group and stage of assessment. These may include agency meetings, stakeholder briefings, project updates, notification letters or emails, public exhibition through the NSW Planning Portal, and review of submissions.

The indicative engagement process is shown in Figure 5-1 and is expected to include:

1. Scoping and SEARs request.
2. EIS studies and targeted consultation.
3. Design refinement.
4. Public exhibition of the EIS.
5. Submissions review and response.
6. Assessment and determination.

5.5 Use of consultation outcomes

Consultation outcomes will be reviewed and used to inform the EIS, design refinement and environmental management measures. Issues raised by stakeholders will be considered by the Project team and relevant technical specialists and, where appropriate, addressed through mitigation measures, management commitments or design changes.

Submissions received during public exhibition will be reviewed and responded to as part of the formal SSD assessment process.

5.6 Consultation undertaken during scoping

Consultation activities have been undertaken with key regulatory stakeholders to inform the project's ongoing planning and environmental assessment. This has included consultation with Canterbury-Bankstown Council on 10 June 2026, the NSW Environment Protection Authority on 3 June 2026, and DPHI on 5 June 2026 and 24 June 2026. These discussions have provided an opportunity to confirm relevant approval considerations, identify key environmental and planning matters, and ensure that the scope of the assessment responds to agency expectations. Feedback received through consultation will continue to inform the preparation of the environmental assessment documentation and supporting technical studies.

6. Proposed Assessment of Impacts

This section identifies the proposed level of assessment for each environmental matter to be addressed in the EIS. The assessment scope has been informed by the Project description, existing site context, preliminary technical advice, statutory requirements, relevant NSW Government guidelines and the potential for construction or operational impact pathways.

As shown in Figure 6-1, the proposed level of assessment has been determined using a proportionate framework based on the likely significance of impact. This considers the scale of impact, including severity, geographical extent and duration; the nature of impact, including whether impacts are direct, indirect, cumulative or perceived; and the sensitivity of the receiving environment, including the relevant regulatory context, value to society and vulnerability to change.

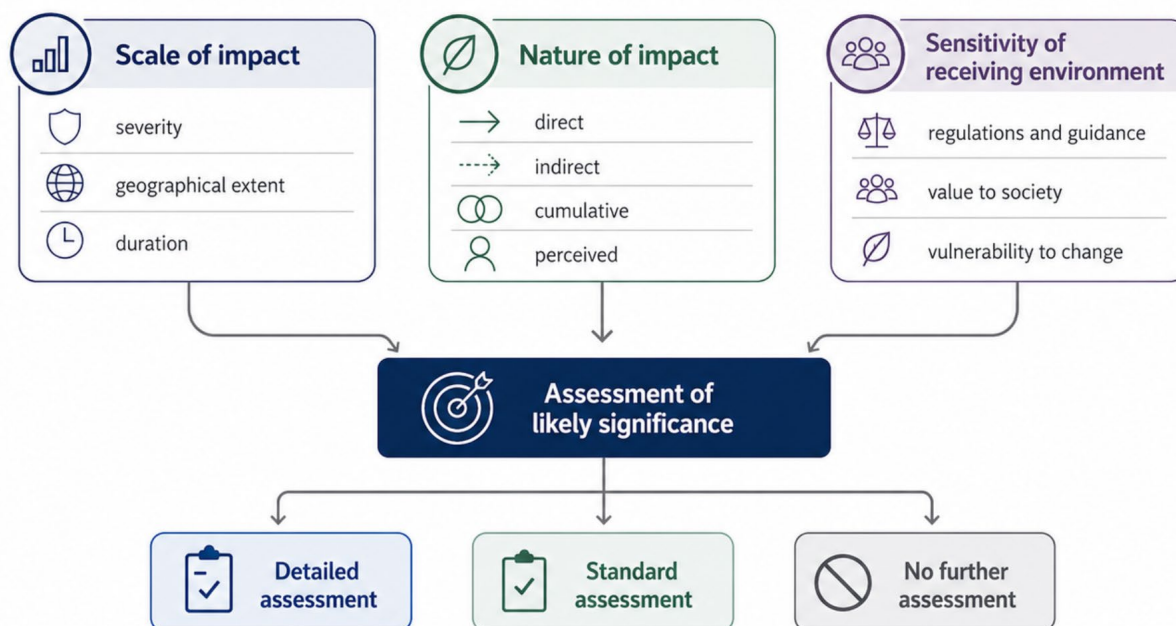


Figure 6-1: Approach to proposed impact assessment

For the purposes of this scoping report, environmental matters have been grouped as follows:

- Matters requiring detailed assessment - matters with the potential to result in material environmental or amenity impacts, requiring detailed modelling, specialist assessment or likely to be a key focus of the SEARs.
- Matters requiring standard assessment - matters where impacts are expected to be manageable through established assessment methods, standard mitigation measures or compliance with relevant guidelines.
- Matters requiring no further assessment - matters where the Project is unlikely to interact with the relevant environmental constraint or impact pathway, having regard to the location, scale and nature of the proposal.

6.1 Matters Requiring Detailed Assessment

6.1.1 Contamination

Overview

A Preliminary Site Investigation (PSI) was prepared by SLR Consulting Australia for the Project in March 2026 to identify potential contamination constraints relevant to the proposed redevelopment (Appendix G). The PSI included a desktop review, review of historical aerial imagery and registers, a site inspection undertaken on 29 October 2025, and preparation of a preliminary Conceptual Site Model (CSM).

The PSI identified that the site has been used for rail and road freight activities since at least 1978, with progressive development of hardstand across much of the site. Notwithstanding this, some portions of the site have remained unsealed, including areas historically used for vehicle, machinery and material storage, particularly near the southern boundary. The site is also listed as holding Environment Protection Licence 21108 for waste storage; however, the site was not listed as a notified or regulated site under relevant contaminated land registers reviewed as part of the PSI.

The PSI identified no known occurrence of acid sulfate soils or naturally occurring asbestos at the site. Registered groundwater monitoring bores were identified approximately 500–800 metres from the site, however, no beneficial groundwater use was identified, and the site and surrounding area are serviced by reticulated water.

During the site inspection, SLR identified several potential contamination indicators within or near the proposed redevelopment area, including visible fill along the southern site boundary, a 67 kL diesel above-ground storage tank, an AdBlue intermediate bulk container, three engine bays, hydrocarbon sheen on unsealed ground near the engine bays, cracking in hardstand near the fuel storage area, and an asbestos-containing building structure near the western boundary. The PSI also noted asbestos storage areas and fuel storage infrastructure identified in Pacific National's Safety Case, however, those areas were reported to be outside the proposed Cleanaway redevelopment area.

The PSI identified the key areas of contamination concern relevant to the proposed redevelopment, as summarised in Table 6-1.

Table 6-1: Area of concern (AOC)

Area of concern	Relevance to the proposal
Historical buildings and demolition	Potential hazardous building materials, including asbestos-containing materials, associated with structures proposed for demolition.
Historical and current commercial/industrial use	Potential impacts from fill, hardstand disturbance, historical storage and freight-related activities.
Hazardous and dangerous materials storage	Potential soil and groundwater impacts associated with fuel storage, diesel infrastructure and historical material storage.
Historical stockpiling of fill	Potential contamination within stockpiled or imported fill, particularly where proposed earthworks would disturb these areas.
Vehicular storage and movements	Potential localised hydrocarbons, metals and other contaminants associated with vehicle storage, trafficable areas and unsealed surfaces.
Mechanical maintenance	Potential impacts from lubricant storage, maintenance activities and hydrocarbon releases near engine bay areas.

Based on the PSI, contaminants of potential concern include hydrocarbons, BTEXN, PAHs, metals, PCBs, PFAS and asbestos-containing materials.

Potential Impacts

The proposed development has the potential to disturb contaminated soil, fill, hardstand, groundwater and hazardous building materials during construction, particularly where excavation, demolition, cut-and-fill, service trenching, piling or hardstand removal is required. Potential construction impacts are detailed in Table 6-2 below and may include:

Table 6-2: Potential construction impacts

Potential impact	Description
Disturbance of contaminated soil or fill	Excavation and earthworks may expose or mobilise contaminated fill or soil associated with historical industrial use, vehicle storage, material storage and freight operations.

Exposure to asbestos-containing materials	Demolition of existing structures or disturbance of fill may expose workers to asbestos-containing materials if not appropriately identified and managed.
Hydrocarbon impacts	Earthworks near the fuel storage area, engine bays and maintenance areas may encounter hydrocarbon-impacted soil or groundwater.
Contaminated dust generation	Disturbance of exposed soil or fill may generate contaminated dust, with potential inhalation risks to construction workers and nearby site users.
Surface water and groundwater migration	Poorly managed excavation, stockpiling or dewatering could mobilise contaminants to stormwater systems, groundwater or the nearby Cooks River.
Waste classification and disposal risks	Excavated material may require classification, segregation, treatment, reuse controls or off-site disposal to appropriately licensed facilities.

The PSI's preliminary Conceptual Site Model (CSM) identified complete or potentially complete source-pathway-receptor linkages, including aerial dispersion of contaminated dust or vapours, direct contact with contaminated soil or materials, and hydraulic migration of contaminants. Potential receptors include construction workers, future site users, maintenance workers, soil organisms, flora and fauna, groundwater, and receiving surface waters including the Cooks River.

Operational contamination risks are expected to be manageable provided the proposed Waste Transfer Station is designed and operated with appropriate hardstand, drainage, spill containment, fuel and chemical storage controls, stormwater treatment, operational environmental management procedures and ongoing maintenance. However, any residual contamination remaining in situ following redevelopment may require long-term management controls, depending on the outcomes of further investigation and any remediation works.

Indicative Assessment Scope

The EIS will include a contamination assessment to confirm the suitability of the Project for the proposed WTS in accordance with Chapter 4 of State Environmental Planning Policy (Resilience and Hazards) 2021.

The assessment will build on the Preliminary Site Investigation and include targeted investigation of potential contamination sources associated with historical freight and industrial use, fill, fuel storage, mechanical maintenance areas, vehicle movements, unsealed areas and hazardous building materials.

A Sampling and Analysis Quality Plan and Detailed Site Investigation will be prepared, as required, to assess soil, fill and groundwater conditions and identify contaminants of potential concern, including hydrocarbons, BTEXN, PAHs, metals, PCBs, PFAS and asbestos. Excavated material requiring off-site disposal will be classified in accordance with NSW EPA waste classification requirements.

Where contamination requiring remediation or management is identified, a Remediation Action Plan will be prepared.

6.1.2 Hazard and Risk

Overview

A Consultants' Advice Notice - Hazards Assessment (Appendix C) was prepared by Riskcon Engineering Pty Ltd for the proposed WTS on 18 October 2025. The assessment considered the potential hazard and land use safety planning implications associated with the proposal, including its interface with the adjacent Sydney Freight Terminal (SFT), surrounding industrial land uses, dangerous goods considerations, fire safety matters and approval risks.

The key existing hazard consideration is the site's proximity to the SFT, operated by Pacific National. The SFT is classified as a Major Hazard Facility (MHF) due to the temporary handling of dangerous goods as part of intermodal freight operations. Riskcon identified the SFT's MHF status as the primary external hazard interface for the proposed WTS.

The SFT Safety Case considers a range of dangerous goods scenarios, including flammable gas fire, toxic gas release, flammable liquids fire, flammable solids fire and oxidising gas release. Additional modelling has also considered ammonium nitrate storage and potential overpressure impacts from an ammonium nitrate explosion. Riskcon notes that the likelihood of these incidents is low, as the SFT transfers sealed containers and does not open or process dangerous goods materials. However, some scenarios, including toxic gas dispersion and ammonium nitrate explosion overpressure, have the potential to extend beyond the SFT boundary.

A review of surrounding industrial land uses identified nearby logistics, warehousing, industrial and rail-related operations. Riskcon concluded that these uses do not indicate a high accumulation of hazardous materials or dangerous goods and are unlikely to materially affect the approval pathway for the proposed WTS.

Potential Impacts

The main hazard and risk consideration is the potential interaction between the proposed WTS and the adjacent SFT MHF. Although the likelihood of a major incident at the SFT is considered low, potential consequences could include toxic gas dispersion or explosion overpressure affecting workers or site users within the WTS area. These risks would need to be considered in the design, operational procedures and emergency response arrangements for the proposed development.

Potential risks from the WTS itself are expected to be limited, provided dangerous goods are not accepted or stored above relevant planning thresholds. Riskcon concluded that the proposed WTS is unlikely to generate significant off-site risk impacts on surrounding land uses, including the SFT.

Fire risk is also a key consideration for the proposed WTS. Waste facilities can present increased fire risk where non-compliant materials, such as batteries, aerosols or flammable items, enter the waste stream. A fire within the WTS could generate radiant heat, smoke, contaminated firewater or operational disruption. Given the proximity of the SFT and other industrial uses, the design should seek to minimise fire occurrence, prevent incident escalation and manage potential impacts on adjacent land uses.

The hazards review recommends early engagement with FRNSW and consideration of fire protection measures including fire-rated walls facing the SFT, detection systems, sprinkler protection, remotely operated monitors, increased hydrant capacity, fire separation, smoke extraction and containment of potentially contaminated firewater.

Indicative Assessment Scope

The EIS will include a hazards and risk assessment for the proposed WTS, including its interface with the adjacent Sydney Freight Terminal, which is classified as a Major Hazard Facility.

The assessment will identify any dangerous goods or hazardous materials to be stored, handled or transported through the WTS and undertake preliminary risk screening in accordance with Chapter 3 of *State Environmental Planning Policy (Resilience and Hazards) 2021*.

Where required, a Preliminary Hazard Analysis will be prepared in accordance with *HIPAP No. 6 – Guidelines for Hazard Analysis* and relevant land use safety risk criteria. The assessment will consider credible incident scenarios, including fire, dangerous goods spills, lithium-ion battery events, smoke generation, contaminated firewater and potential interaction risks with the adjacent Major Hazard Facility.

The EIS will identify any design, operational or emergency management measures required to manage hazards and risks, including fire protection, separation, emergency access and firewater containment.

6.1.3 Noise and Vibration

Overview

A Consultant Advice Notice - Due Diligence Acoustic Review (Appendix D) was prepared by Waves Acoustic Consulting Pty Ltd for the proposed WTS on 24 March 2026. The review considered the potential operational noise impacts of the proposal, including nearby sensitive receivers, indicative project noise trigger levels, key operational noise sources and likely mitigation requirements.

The site is located within an industrial area, with the nearest surrounding buildings generally comprising industrial premises. The closest industrial building is approximately 20 metres north of the site. The nearest residential receivers are located approximately 370 metres west, 400 metres north, 845 metres south-east, 900 metres south-west and 1.1 kilometres east of the site. Other nearby sensitive and non-residential receivers include Mary Wade Correctional Facility, Tallowood Reserve, Rookwood Cemetery, Sydney University campus, Carnarvon Golf Club, Sydney Water and surrounding commercial premises.

The SFT is an existing operational rail freight terminal and some activities relevant to the assessment, including train movements, gantry crane operations and container handling, already occur or are permitted within the terminal environment. The review therefore considered the potential incremental and cumulative noise contribution of Project-related activities, including residual waste receipt, container loading and handling, truck manoeuvring, mobile plant, front-end loaders, excavators, prime movers and reversing alarms.

The review adopted indicative noise trigger levels based on the NSW Noise Policy for Industry 2017. The acoustic review noted that detailed background noise monitoring and confirmation of project-specific noise trigger levels would be required during the EIS stage.

Potential Impacts

The acoustic review identified that, without mitigation, operational noise from the proposed WTS could exceed the indicative project noise trigger levels at a number of nearby sensitive receiver areas. The highest predicted impacts occur during the night-time period, with exceedances of up to 11 dB and potential sleep disturbance impacts at some receiver groups.

The overall risk of adverse noise impact was assessed as Very High for the closest residential receivers. This is primarily due to the character and magnitude of noise from Project related container handling and mobile plant activities, which may include metal-on-metal impacts. The review applied a +5 dB impulsiveness penalty to container handling, loaders and excavators, and a +5 dB tonality penalty to reversing alarms.

Potential operational noise impacts may include disturbance to residential receivers, sleep disturbance during night-time operations, including traffic movements, amenity impacts to nearby recreational and educational receivers, and nuisance associated with impulsive or tonal noise from container handling and reversing alarms. Industrial and commercial receivers are expected to be less sensitive, with the acoustic review identifying low risk at the nearest affected industrial and commercial receivers.

Indicative Assessment Scope

The EIS will include a noise and vibration impact assessment for construction and operation of the proposed WTS for a proposed throughput of 800,000tpa.

Construction noise and vibration will be assessed in accordance with the *Interim Construction Noise Guideline* and relevant vibration guidelines. The assessment will identify likely construction activities, equipment and work hours, predict impacts at nearby sensitive receivers and structures, and outline mitigation measures, including any requirements for out-of-hours works.

Operational noise will be assessed in accordance with the *NSW Noise Policy for Industry 2017*. The assessment will establish project-specific noise trigger levels and model key operational sources, including train and traffic movements, gantry cranes, container handling, truck movements, mobile plant, tipping activities and reversing alarms.

The assessment will consider day, evening and night-time operations, including potential sleep disturbance where 24-hour activities are proposed. It will also consider impulsive and tonal noise characteristics associated with container handling and reversing alarms and identify feasible and reasonable mitigation measures to manage impacts at residential, recreational, educational, commercial and industrial receivers.

6.1.4 Traffic and Transport

Overview

A Preliminary Traffic and Transport Assessment was prepared by TRAFFIX for the proposed WTS on 12 February 2026 (Appendix E). The assessment considered the feasibility of the proposed vehicle access arrangements, internal circulation, parking, queuing and preliminary traffic generation associated with the proposed development phases.

The site is located within an established industrial area with access via Dasea Street. The surrounding road network includes Rookwood Road, Muir Road and Dasea Street, all of which are identified as NHVR-approved 26.0 metre B-double routes. Rookwood Road is a TfNSW Main Road and provides regional north-south connectivity, while Muir Road provides east-west access between Remembrance Driveway and Rookwood Road.

The key intersections likely to require assessment during the EIS are outlined in the table below.

Table 6-3: Key intersections

Intersection	Relevance
Rookwood Road / Muir Road	Key regional access intersection for heavy vehicles.
Muir Road / Dasea Street	Primary local access route to the site.
Muir Road / Worth Street	Nearby local network intersection potentially affected by truck movements.
Muir Road / Hume Highway	Broader network intersection requiring assessment for cumulative and peak hour impacts.

TRAFFIX noted that the proposed development would be a major development and would likely require referral to Transport for NSW under the State Environmental Planning Policy (Transport and Infrastructure) 2021 at the future development application stage.

Potential Impacts

The proposal would generate additional heavy vehicle movements on the surrounding road network, with traffic volumes varying by operational phase. Phase 1 is expected to generate up to 107 truck arrivals per weekday (85 inbound / 22 outbound), or 214 truck movements per weekday (counting arrivals and departures), with approximately 26 truck movements during the morning peak hour. TRAFFIX considered this increase to be moderate and likely to have some impact on surrounding streets and nearby intersections.

Phase 2 would generate a higher level of traffic, with up to 407 (400 inbound / 7 outbound) truck arrivals per weekday and 814 truck movements per weekday. During the morning peak, this could equate to approximately 100 truck movements per hour, comprising 50 inbound and 50 outbound movements. TRAFFIX identified this increase as substantial and likely to have significant impacts on nearby intersections if not appropriately managed.

Potential traffic and transport impacts include increased heavy vehicle movements on Dasea Street, Muir Road and Rookwood Road; additional pressure on nearby intersections during peak periods; potential conflicts between WTS vehicles and Pacific National vehicles at the Dasea Street access; internal circulation and swept path requirements for heavy vehicles; and the need to manage queuing at weighbridges and site entry points.

TRAFFIX completed a preliminary queuing assessment based on two weighbridges and concluded that queuing could be contained within the site, subject to detailed design. The assessment indicated that the system would need to accommodate approximately five vehicles at any one time to meet the 98th percentile queue requirement, and that this appeared achievable based on the preliminary layout.

Parking demand is expected to be driven by staff rather than public access. While a strict application of the Canterbury-Bankstown DCP parking rate would require 119 spaces, TRAFFIX noted that the proposed

operation is not publicly accessible and that the parking provision could be significantly reduced to reflect projected staffing demands, subject to operational justification at DA stage.

Indicative Assessment Scope

A Traffic Impact Assessment will be prepared to support the EIS, based on a total operational throughput of up to 800,000 tpa. The potential impacts are still expected to be moderate and substantial for Phase 1 and Phase 2 requiring detailed assessment.

The assessment will include traffic surveys, modelling of key intersections, and assessment of Phase 1, Phase 2, and combined worst-case operating scenarios.

The assessment will consider heavy vehicle generation, peak hour traffic impacts, access arrangements, internal circulation, swept paths, queuing, parking, pedestrian safety and interaction with Pacific National vehicle movements. It will also identify feasible mitigation measures, including truck scheduling, peak spreading, access management, internal traffic controls and a Traffic Management Plan where required.

Consultation with TfNSW and Council will be undertaken as part of the EIS process, including consideration of referral requirements under the Transport and Infrastructure SEPP.

6.1.5 Flooding, Surface Water & Hydrology

Overview

A Flooding and Stormwater Due Diligence Assessment was prepared by SLR Consulting Australia on 27 February 2026 (Appendix F). The assessment considered available flood mapping, stormwater constraints, Council flood controls, Sydney Water stormwater quality requirements and preliminary water quality treatment options for the proposed development.

The site forms part of the Upper Cooks River catchment, which drains east to the Cooks River before flowing into Botany Bay. The area is highly urbanised, with surface water conveyed mainly through stormwater pipes and concrete-lined channels. Cooks River flows through a concrete-lined channel within the property boundaries, and no natural watercourses occur directly on or adjacent to the property. The site is generally flat to gently graded, with local slopes directing runoff toward the localised SFT stormwater drainage system.

Available flood information for the site is limited. SLR reviewed a range of flood and stormwater studies, including Council mapping, the Cooks River Catchment Flood Study – Stage 1, the Rookwood Road Catchment Flood Study and relevant Canterbury-Bankstown planning controls. Council flood mapping indicates that the site is located within low and medium flood risk areas, with the 1% AEP extent generally corresponding to medium flood risk and the PMF extent corresponding to low flood risk. The Cooks River channel is identified as a higher risk area.

The Canterbury-Bankstown DCP applies flood-related controls to development within low and medium flood risk precincts. For industrial and commercial development, finished floor levels are generally required to be set at or above the 1% AEP flood level plus 0.5 metres freeboard, subject to confirmation of flood levels from Council and detailed design.

Stormwater discharge from the development would need to comply with Council's Development Engineering Standards, including provision of on-site detention for non-residential development.

Stormwater quality treatment will also be required prior to discharge. Sydney Water requires pollutant reduction targets of 90% gross pollutants, 85% total suspended solids, 60% total phosphorus and 45% total nitrogen. A preliminary MUSIC model prepared for the site indicated that the proposed treatment train could meet the targets for gross pollutants, total suspended solids and total nitrogen, but would require further design refinement to meet the total phosphorus target.

Potential Impacts

Potential flooding, water and hydrology impacts relate to site flooding, changes to stormwater runoff, receiving water quality and potential impacts to groundwater where excavation extends below the groundwater table. The SLR due diligence assessment identified a high preliminary risk of site flooding during extreme rainfall events, such as the 1% AEP event, where local drainage capacity may be exceeded due to blocked inlets, coincident tailwater conditions or insufficient site freeboard.

The proposed development could also increase peak stormwater discharge due to additional impervious areas, changes to site grading or loss of flood storage. Without appropriate on-site stormwater detention (OSD) and drainage design, this could increase flood levels, velocities or hazards on neighbouring properties or downstream stormwater infrastructure.

Water quality impacts could occur where stormwater from hardstand areas, trafficable surfaces, waste handling areas come into contact with waste or operational contaminants before discharge. Potential pollutants may include sediment, gross pollutants, hydrocarbons, metals, nutrients and contaminants from yard spills or operational activities. These impacts would need to be managed to protect the Cooks River catchment and comply with Council and Sydney Water requirements. There is also potential for temporary groundwater quality impacts during construction if excavation intercepts groundwater or requires dewatering activities.

With appropriate flood-compatible design, stormwater detention, water quality treatment, erosion and sediment controls, and groundwater management measures (where required), these impacts are expected to be effectively managed through the detailed design and environmental assessment process.

Indicative Assessment Scope

A Flood Risk Assessment and Integrated Water Management Plan will be prepared to support the EIS. The assessment will confirm flood behaviour, flood risk controls, finished floor levels, flood-compatible design requirements and whether the development could affect flood behaviour on neighbouring land. The flood assessment will be undertaken with reference to the DCCEEW Flood Risk Management Toolkit and the Flood Impact and Risk Assessment Guideline, as appropriate.

The stormwater assessment will include detailed drainage design, OSD sizing and MUSIC modelling to demonstrate compliance with Council and Sydney Water requirements. The assessment will identify water quality treatment measures, such as gross pollutant traps, silt and oil arrestors, bioretention, rainwater reuse, filtration or other treatment devices, to manage runoff before discharge.

The assessment will also consider potential groundwater impacts associated with excavation activities. Where excavation is likely to intercept groundwater, the assessment will address groundwater inflows, dewatering requirements, potential groundwater quality impacts, water take requirements and consistency with the NSW Aquifer Interference Policy and relevant DCCEEW guidance.

The assessment will consider flood emergency management, safe access and egress, overland flow paths, drainage connections, construction-phase erosion and sediment controls, and any required approvals for works connecting to Council or Sydney Water stormwater infrastructure.

6.2 Matters Requiring Standard Assessment

6.2.1 Air Quality and Odour

Overview

The proposal would receive and process putrescible and organic waste streams, including MSW and C&I residual waste, FOGO, GO and commercial organics, with Phase 2 operations proposing up to 800,000 tpa on a 24/7 basis.

The proposed design includes an enclosed transfer shed, odour management system, leachate management infrastructure, first-flush stormwater controls and operational controls for waste receipt and processing. The

transfer shed is proposed to operate under negative pressure, with fast-acting roller shutter doors and odour treatment prior to discharge.

The nearest sensitive receivers include residential receivers approximately 370–400 metres north/northwest and Mary Wade Correctional Facility approximately 250 metres northwest. The site is within an established E4 General Industrial zone, with intervening industrial land uses providing separation from most sensitive receivers.

Potential Impacts

Potential air quality impacts may include odour from putrescible waste handling, dust from vehicle movements and construction works, exhaust emissions from trucks and mobile plant, and potential bioaerosol generation if enclosure or ventilation systems are not appropriately designed.

Odour is expected to be the key air quality issue for the proposed WTS. Odour is a common objection trigger for putrescible waste facilities and may require iterative modelling to inform ventilation design, stack parameters and odour treatment technology. Potential impacts could include amenity impacts at nearby residential receivers, the correctional facility and other surrounding land uses if odour emissions are not effectively contained and treated.

Cleanaway has been operating Erskine Park Transfer Station since 2018 with a proven odour management system and has shown capability to mitigate potential offsite impacts from odour emissions.

Indicative Assessment Scope

An Air Quality and Odour Impact Assessment will be prepared to support the EIS. The assessment will consider construction dust, operational odour, vehicle and plant emissions, bioaerosols and potential cumulative impacts from surrounding industrial activities.

Air quality and odour modelling will be undertaken in accordance with the *Approved Methods for the Modelling and Assessment of Air Pollutants in NSW* (EPA, 2022) and the *Technical framework: assessment and management of odour from stationary sources in NSW* (DEC, 2006). Modelling inputs will include indicative waste throughput, transfer shed ventilation rates, building footprint and roller-shutter operation, with outputs to inform the ventilation strategy, stack height and discharge location, odour treatment technology selection and operational controls.

6.2.2 Social

Overview

The social locality for the Project is the area within which people may reasonably be expected to experience social impacts from construction and operation of the Chullora WTS (Figure 6-2). For scoping purposes, this includes the immediate vicinity of the site (Zone 1), where direct amenity and land use interface impacts may be experienced, and the wider local area (Zone 2), where indirect impacts such as traffic, road safety and changes to waste transfer patterns may occur.

The immediate social locality includes the nearest residential receivers approximately 370–400 metres to the north and north-east, Mary Wade Correctional Centre, Rookwood Cemetery and associated religious sites, and adjacent industrial and logistics occupiers within the Sydney Freight Terminal precinct.

The wider social locality includes surrounding suburbs and access corridors that may be affected by heavy vehicle movements and broader waste network changes associated with closure of the Auburn WTS. The Project is located within Canterbury-Bankstown LGA, which is characterised by strong cultural and linguistic diversity, ongoing population growth and increasing sensitivity to industrial, traffic and planning issues.

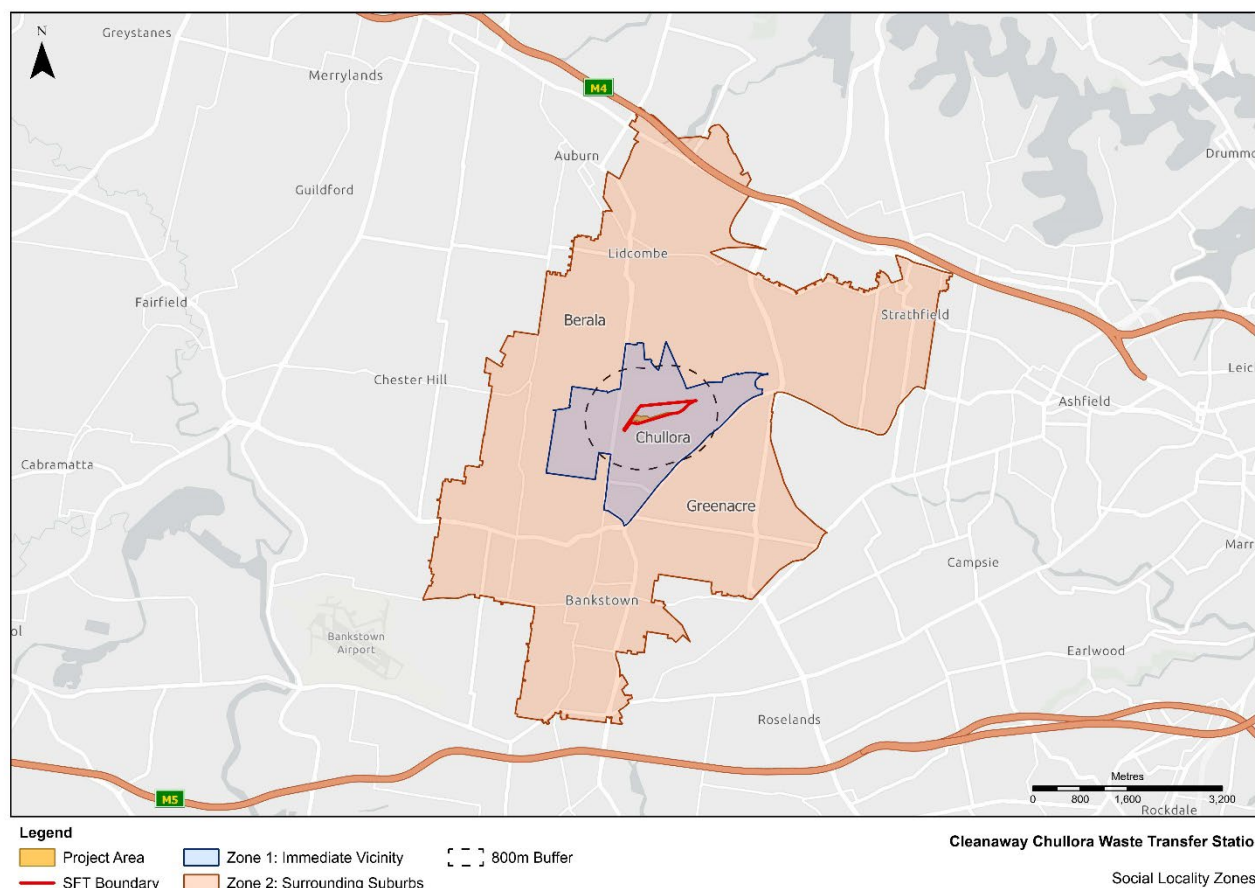


Figure 6-2: Social locality zones

Potential impacts

The main potential social impacts relate to health and wellbeing, way of life, accessibility, surroundings and decision-making systems. Construction and 24-hour operation of the facility may affect nearby communities through noise, odour, air quality, lighting, visual change and heavy vehicle traffic. These impacts may influence residential amenity, sleep, perceptions of safety and the way surrounding communities experience the locality. Areas within approximately 800 metres of the site, equivalent to a typical 10-minute walk, are considered most likely to experience direct physical impacts during construction and operation.

Heavy vehicle movements along Muir Road, Rookwood Road and connecting arterials may also affect traffic conditions, road safety and accessibility for local residents, businesses and other road users.

The proximity of the site to the adjoining Major Hazard Facility may contribute to community concern about safety, even where technical risk is demonstrated to be manageable.

Potential positive impacts include continuity of waste transfer services following the closure of the Auburn WTS, support for metropolitan waste network resilience, and generation of construction and operational employment.

The cultural diversity of the surrounding community is also an important social consideration, as it influences how engagement should be undertaken and how impacts may be perceived and understood.

Indicative Assessment Scope

The EIS will include a Social Impact Assessment for the proposed WTS. The assessment will be prepared with regard to the Social Impact Assessment Guideline for State Significant Projects (DPHI, 2026) and will include appropriate community consultation.

6.2.3 Biodiversity

Overview

A desktop review and field assessment were undertaken to determine whether the Project is likely to have a significant impact on biodiversity values and whether a BDAR waiver may be appropriate. The assessment identified two potential Biodiversity Values Map triggers within the site and reviewed mapped vegetation, including PCT 3448 Castlereagh Ironbark Forest and PCT 3972 Sydney Creekflat Wetland.

The SFT site occurs within a highly modified industrial landscape and is located near, but does not drain directly into, the Yana Badu Wetlands. No mapped or actual watercourses were identified as intersecting the site.

Field inspection found that vegetation within the Project area is generally cleared, fragmented, degraded and dominated by exotic or planted species, with only limited native vegetation present and no vegetation occurring in a condition or floristic composition consistent with the mapped PCTs or an endangered ecological community.

Potential Impacts

Potential biodiversity impacts are expected to be limited due to the highly disturbed nature of the site and the poor quality of on-site habitat. The assessment found that the mapped wetland area within the site was dominated by exotic weeds and did not support PCT 3972, with only a very small patch of native wetland vegetation recorded further east that was insufficient in extent, condition or composition to constitute a wetland PCT or endangered ecological community. Similarly, vegetation mapped as PCT 3448 along the northern boundary was found to be heavily degraded, dominated by Lantana and not consistent with the mapped community.

Although some native species were recorded within the site, these were generally isolated, planted, non-characteristic of the mapped PCTs, or present in highly modified vegetation patches. Habitat value for threatened species was assessed as low, with any fauna use likely to be infrequent and opportunistic. On this basis, the Project is unlikely to result in significant impacts on threatened species, threatened ecological communities, fauna movement pathways, water sustainability, protected fauna flight paths, or the nearby Yana Badu Wetlands.

Indicative Assessment Scope

Cleanaway will seek a BDAR waiver (Appendix H) under the *Biodiversity Conservation Act 2016*, and accordingly a BDAR is not proposed as part of the EIS.

6.2.4 Visual Impact

Overview

The Project would involve construction of a large industrial shed, including an approximately 6,600 m² warehouse, within an established industrial and logistics precinct. The Project is surrounded by comparable industrial built form and is not located in an elevated or visually prominent setting.

The land is zoned E4 General Industrial and is surrounded by industrial, logistics and rail-related land uses. No heritage items, scenic protection overlays or significant view corridors have been identified within the site.

Potential Impacts

Potential visual impacts are expected to be limited and generally consistent with the existing industrial character of the surrounding area. The proposal may result in localised changes to the existing industrial streetscape through the introduction of the transfer shed, container hardstand, vehicle access arrangements, lighting, tanks and ancillary infrastructure.

Sensitive visual receivers are expected to be limited due to the industrial setting, separation from residential areas and intervening built form. Potential impacts may include changes to local views from nearby roads, adjoining industrial premises and limited distant views from surrounding non-industrial land uses. Night-time lighting may also require consideration given the proposed 24/7 operation.

Indicative Assessment Scope

The EIS will include a visual impact assessment for the proposed WTS, proportionate to its location within an established industrial and logistics precinct.

The assessment will describe the existing visual setting, identify relevant public viewpoints and assess the visual change associated with the proposed transfer shed, hardstand areas, vehicle access arrangements, tanks, lighting and ancillary infrastructure.

The assessment will consider construction and operational visual impacts, including potential views from nearby roads, adjoining industrial premises and any sensitive receivers in the broader area. Night-time lighting and glare will also be considered, particularly in relation to nearby road and rail corridors and the proposed 24/7 operation.

6.2.5 Aboriginal Heritage

Overview

The Project is located on the traditional lands, waters and skies of the Dharug nation and within the Metropolitan Local Aboriginal Land Council area. It has been extensively disturbed by historical rail, freight and industrial uses.

An AHIMS search identified no recorded Aboriginal sites or declared Aboriginal places within the search area. However, proximity to the Cooks River remains a relevant indicator of Aboriginal cultural heritage potential.

Potential Impacts

Potential impacts could occur if ground disturbance encounters previously unidentified Aboriginal objects or deposits. This risk is expected to be low due to previous disturbance, although subsurface potential cannot be fully discounted.

Indicative Assessment Scope

The EIS will include an Aboriginal Cultural Heritage Assessment Report (ACHAR). The assessment will include AHIMS searches, review of archaeological and environmental context, assessment of previous disturbance, Aboriginal community consultation, and identification of management measures, including unexpected finds procedures.

6.2.6 Non-Aboriginal Heritage

Overview

A State Heritage Register item, Pressure Tunnel Shaft No. 1 and associated infrastructure (SHR Item No. 01334), is located adjacent to the Project, with the associated pressure tunnel extending beneath the Project footprint. The infrastructure has been identified by Sydney Water as redundant; however, it remains listed on the State Heritage Register and will be considered as part of the environmental assessment.

Potential Impacts

As the State Heritage Register-listed pressure tunnel extends beneath the Project footprint, construction activities have the potential to interact with the heritage infrastructure. While Sydney Water has advised that the tunnel is redundant, the EIS will assess whether the proposed works have the potential to affect the heritage significance or physical fabric of the listed item and identify any appropriate management measures.

Indicative Assessment Scope

A non-Aboriginal heritage assessment (or Statement of Heritage Impact, as appropriate) will be prepared to support the EIS. The assessment will:

- confirm the location and extent of the State Heritage Register-listed Pressure Tunnel Shaft No. 1 and associated infrastructure.
- consider Sydney Water's advice regarding the redundant status of the tunnel and assess potential impacts of the Project on the heritage item, including any interaction with infrastructure beneath the Project footprint.
- identify mitigation measures and any approvals or consultation required under the *Heritage Act 1977*.

6.2.7 Waste

Overview

The WTS is expected to process approximately 150,000 tonnes per annum in Phase 1, increasing to up to 800,000 tonnes per annum in Phase 2.

The facility would receive residual general solid waste, including putrescible and non-putrescible municipal solid waste, commercial and industrial residual waste, organics, and potentially residual construction and demolition waste. Waste handling would occur mainly within the enclosed transfer shed, supported by bunkers, compactors, containers, leachate management, odour controls, stormwater infrastructure and road-to-rail loading areas.

The WTS would operate as an aggregation, sorting, containerisation and transfer facility, with recovered materials transported off-site for reuse, recycling or processing. It would not operate as a landfill or final disposal facility.

Potential impacts

Potential impacts relate to the receipt, handling, storage and transfer of large waste volumes. Key risks include odour, leachate, contaminated runoff, pests, litter, dust, fire risk and amenity impacts if waste is not appropriately managed.

Non-conforming or prohibited waste, such as hazardous materials, batteries, aerosols, flammable items or asbestos-containing material, could increase fire, contamination, safety and operational risks if not identified through waste acceptance procedures.

Construction would generate waste from demolition, excavation, hardstand removal, packaging and excess materials. Excavated or contaminated material may require classification, segregation, reuse assessment or disposal to appropriately licensed facilities.

Indicative assessment scope

The EIS will include a waste management assessment for construction and operation of the proposed WTS.

The assessment will identify, quantify and classify expected waste streams, including construction, demolition, excavation and operational wastes. It will describe proposed waste acceptance criteria, throughput, storage areas, handling processes, resource recovery activities, transfer arrangements and off-site destinations.

The assessment will outline measures to manage, reuse, recycle and dispose of waste in accordance with relevant regulatory and council requirements. This will include procedures for non-conforming waste, litter, pests, leachate, stormwater, odour, fire risk, waste tracking and record keeping.

Where buildings or structures are proposed to be demolished or modified, a hazardous materials survey will be undertaken to inform waste classification, handling and disposal requirements.

6.3 Matters Requiring No Further Assessment

6.3.1 Bushfire

Overview

The Project is not mapped as bushfire prone land. The nearest mapped bushfire hazard comprises Category 2 vegetation and associated buffer, located approximately 1.5 kilometres east and separated from the Project Area by intervening industrial land. Given the highly urbanised industrial setting, predominance of hardstand and limited vegetation, bushfire risk is considered negligible.

Potential Impacts

Bushfire impacts are expected to be minimal. The proposal is unlikely to increase bushfire exposure or require substantive bushfire protection measures.

Indicative Assessment Scope

No further bushfire assessment is proposed, as the Project is not mapped as bushfire prone land and is sufficiently separated from mapped bushfire hazard by existing urban and industrial development.

7. Conclusion

The Chullora Waste Transfer Station represents a strategically important replacement and expansion of metropolitan Sydney's residual waste transfer infrastructure. The Project responds to a defined and time-critical need created by the planned closure of the Auburn Waste Transfer Station in 2027/28, and to the longer-term need identified in the NSW Waste and Sustainable Materials Strategy 2041 for large-scale aggregation infrastructure to support regional energy recovery and reduce reliance on landfill.

The proposed site at 20 Dasea Street, Chullora is well suited to this role. It is located within the established Sydney Freight Terminal, a strategic NSW rail freight asset connected to the Southern Sydney Freight Line and designed to support dedicated freight movements while reducing freight-related impacts on the Sydney Trains passenger network. Access to this rail infrastructure is a key reason the site was selected, as it enables the proposed waste-to-rail operating model to be implemented at scale during Phase 2. Together with the site's largely modified, hardstand-dominant industrial character, these attributes support the proposed waste transfer use and locate the facility within an operational environment already designed to accommodate heavy vehicles, freight activity and 24/7 logistics functions.

The Project is permissible with consent in the E4 zone, is classified as State Significant Development, and does not require rezoning. A preliminary review has not identified any fatal constraints. The matters proposed for detailed assessment - contamination, hazard and risk, noise and vibration, and traffic and transport - reflect material but manageable impact pathways that can be addressed through detailed design, specialist assessment, and standard mitigation and management measures. The remaining environmental matters are proposed for standard assessment or, in the case of bushfire, no further assessment.

This Scoping Report has been prepared to support a formal request to DPHI for Secretary's Environmental Assessment Requirements. The EIS will be prepared in accordance with the project-specific SEARs and the DPHI SSD Guidelines – Preparing an Environmental Impact Statement (DPHI, 2026), and will draw on the technical studies, agency consultation and community engagement outlined in this report. Cleanaway is committed to engaging proactively with regulatory agencies, Pacific National, the local community and other stakeholders throughout the assessment process to refine the design of the Project and ensure that its environmental, social and operational impacts are appropriately managed.

8. References

Canterbury-Bankstown Council 2023, Canterbury-Bankstown Development Control Plan 2023, City of Canterbury Bankstown, Sydney.

Canterbury-Bankstown Council 2023, *Canterbury-Bankstown Local Environmental Plan 2023*, City of Canterbury Bankstown, Sydney.

City of Canterbury Bankstown 2019, *Connective City 2036: Local Strategic Planning Statement*, City of Canterbury Bankstown, Sydney.

City of Canterbury Bankstown 2020, *Canterbury Bankstown Employment Lands Strategy*, City of Canterbury Bankstown, Sydney.

Department of Environment and Climate Change NSW 2009, *Interim Construction Noise Guideline*, NSW Government, Sydney.

Department of Environment and Conservation NSW 2006, *Technical framework: assessment and management of odour from stationary sources in NSW*, NSW Government, Sydney.

Department of Planning and Environment 2022, *State significant development guidelines – preparing a scoping report*, NSW Government, Sydney.

Department of Planning, Housing and Infrastructure 2026, *State Significant Development Guidelines*, NSW Government, Sydney.

Department of Planning, Housing and Infrastructure 2026, *State significant development guidelines – preparing an environmental impact statement*, NSW Government, Sydney.

Department of Planning, Housing and Infrastructure 2026, *Cumulative Impact Assessment Guidelines for State Significant Projects*, NSW Government, Sydney.

Department of Planning, Housing and Infrastructure 2026, *Social Impact Assessment Guideline for State Significant Projects*, NSW Government, Sydney.

Department of Planning, Industry and Environment 2021, *NSW Waste and Sustainable Materials Strategy 2041: Stage 1 – 2021–2027*, NSW Government, Sydney.

Greater Sydney Commission 2018, *A Metropolis of Three Cities – the Greater Sydney Region Plan*, NSW Government, Sydney.

Greater Sydney Commission 2018, *Our Greater Sydney 2056: South District Plan*, NSW Government, Sydney.

National Transport Commission 2024, *Australian Code for the Transport of Dangerous Goods by Road & Rail*, edition 7.9, National Transport Commission, Melbourne.

NSW Environment Protection Authority 2014, *Waste Classification Guidelines: Part 1 – Classifying Waste*, NSW Government, Sydney.

NSW Environment Protection Authority 2017, *Noise Policy for Industry*, NSW Government, Sydney.

NSW Environment Protection Authority 2022, *Approved Methods for the Modelling and Assessment of Air Pollutants in NSW*, NSW Government, Sydney.

NSW Environment Protection Authority 2026, *Energy from Waste Framework*, NSW Government, Sydney.

NSW Environment Protection Authority 2026, *Energy from Waste Technical Note*, NSW Government, Sydney.

NSW Environment Protection Authority 2026, *Energy from waste in NSW*, NSW Government, Sydney.

Riskcon Engineering Pty Ltd 2025, *Consultants' Advice Notice – Hazards Assessment: Chullora Waste Transfer Station*, prepared for Cleanaway, 18 October 2025.

SLR Consulting Australia Pty Ltd 2026, *Flooding and Stormwater Due Diligence Assessment: Chullora Waste Transfer Station*, prepared for Cleanaway, 27 February 2026.

SLR Consulting Australia Pty Ltd 2026, *Preliminary Site Investigation: Chullora Waste Transfer Station*, prepared for Cleanaway, March 2026.

TRAFFIX 2026, *Preliminary Traffic and Transport Assessment: Chullora Waste Transfer Station*, prepared for Cleanaway, 12 February 2026.

Waves Acoustic Consulting Pty Ltd 2026, *Consultant Advice Notice – Due Diligence Acoustic Review: Chullora Waste Transfer Station*, prepared for Cleanaway, 24 March 2026.

Appendix A – Scoping Summary Table

Table 8-1 identifies the proposed level of assessment for each environmental matter, whether cumulative impacts are expected to require consideration, the likely engagement approach, relevant government plans, policies and guidelines, and the corresponding section of this Scoping Report where each matter is addressed.

Table 8-1: Scoping summary table

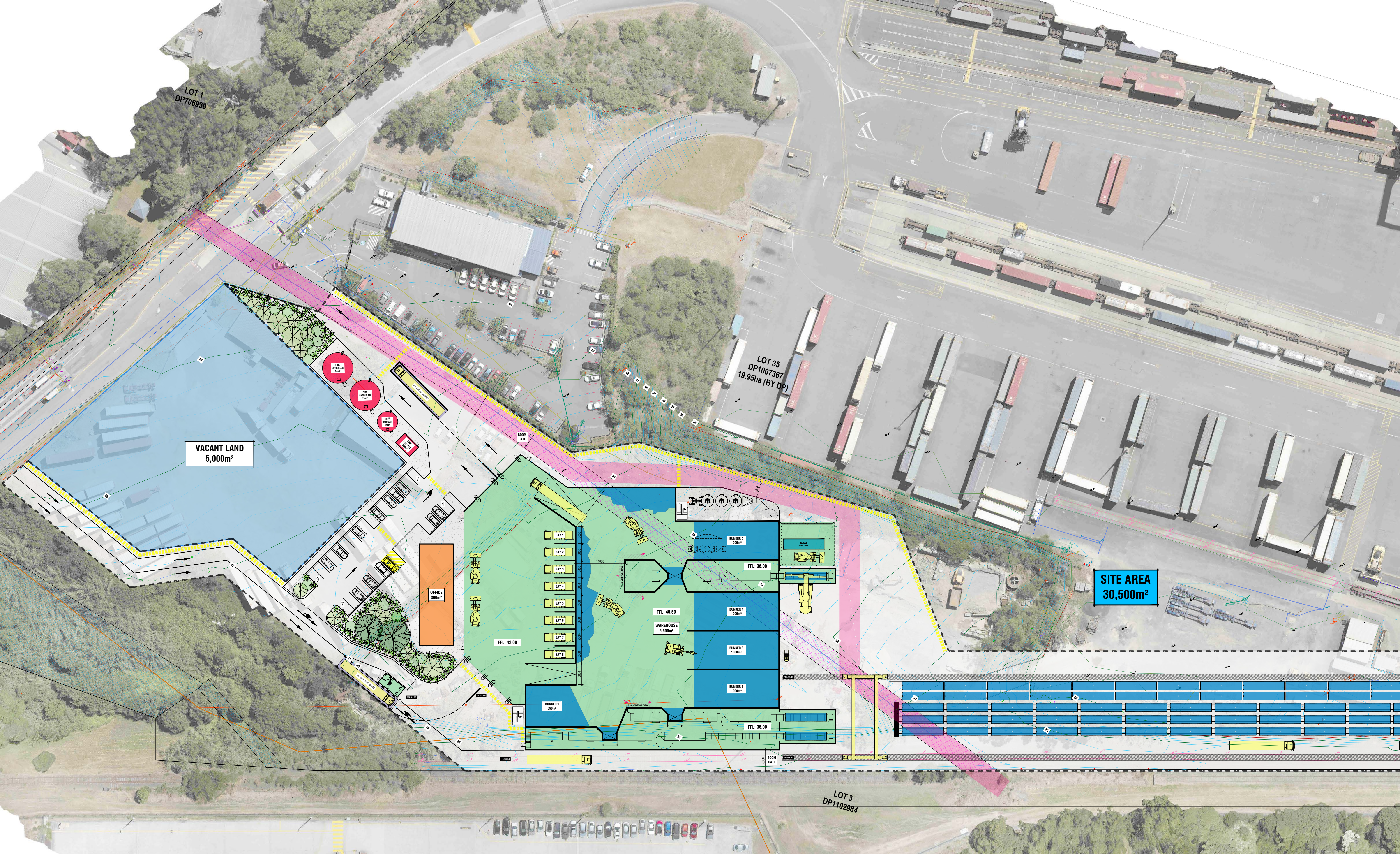
Matter	Level of Assessment	Cumulative Impact Assessment?	Engagement	Relevant Government Plans, Policies and Guidelines	Scoping Report Reference
Access – Traffic and Transport	Detailed	Y	Specific	- State Environmental Planning Policy (Transport and Infrastructure) 2021 - Roads Act 1993 - Guide to Transport Impact Assessment (TfNSW, 2024) - Guide to Traffic Generating Developments (TfNSW, 2002) - Bicycle Parking Facilities: Guidelines for Design and Installation (AS 2890.3:2015)	Section 6.1.4
Air Quality and Odour	Standard	N	Specific	- Protection of the Environment Operations (Clean Air) Regulation 2022 - Approved Methods for the Sampling and Analysis of Air Pollutants in New South Wales (EPA, 2022) - Approved Methods for the Modelling and Assessment of Air Pollutants in NSW (EPA, 2022) - Technical Framework: Assessment and Management of Odour from Stationary Sources in NSW (DEC, 2006)	Section 6.2.1
Amenity – Noise and Vibration	Detailed	N	Specific	- NSW Noise Policy for Industry (EPA, 2017) - Interim Construction Noise Guideline (DECC, 2009) - NSW Road Noise Policy (EPA, 2011) - Rail Infrastructure Noise Guideline (EPA, 2013) - Assessing Vibration: A Technical Guideline (DEC, 2006)	Section 6.1.3

				- AS1055:2018 Acoustics – Description and Measurement of Environmental Noise - Approved methods for measurement and analysis of environmental noise in NSW (EPA, 2022).	
Amenity – Visual	Standard	N	General	Control of Obtrusive Effects of Outdoor Lighting (AS 2482)	Section 6.2.4
Biodiversity	Standard	N	General	- Biodiversity Conservation Act 2016 - Biodiversity Conservation Regulation 2017 - Biodiversity Assessment Method 2020 - State Environmental Planning Policy (Biodiversity and Conservation) 2021 - Environment Protection and Biodiversity Conservation Act 1999	Section 6.2.3
Bushfire	No further assessment	N	General	- Rural Fires Act 1997 - Planning for Bush Fire Protection 2019 - NSW RFS bush fire prone land mapping	Section 6.3.1
Hazards and Risk – Land Contamination	Detailed	N	General	- State Environmental Planning Policy (Resilience and Hazards) 2021 - Contaminated Land Management Act 1997 - Protection of the Environment Operations Act 1997 - National Environment Protection (Assessment of Site Contamination) Measure 1999, as amended 2013 - NSW EPA Consultants Reporting on Contaminated Land - NSW EPA Sampling Design Guidelines - NSW EPA Waste Classification Guidelines.	Section 6.1.1
Hazards and Risk – Safety & Regulatory	Detailed	N	Specific	State Environmental Planning Policy (Resilience and Hazards) 2021	Section 6.1.2

				• HIPAP No. 4 – Risk Criteria for Land Use Safety Planning • HIPAP No. 6 – Guidelines for Hazard Analysis • Hazardous and Offensive Development Application Guidelines • Work Health and Safety Regulation 2017/2025 • Australian Dangerous Goods Code • Fire and Rescue NSW Fire Safety Guideline • AS2419.1 Fire Hydrant Installations. • Work Health and Safety Regulation requirements for Major Hazard Facilities.	
Heritage – Aboriginal	Standard	N	Specific	• Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010 (DECCW, 2010) • Guide to Investigating, Assessing and Reporting on Aboriginal Cultural Heritage in NSW (DECCW, 2011) • Code of Practice for the Archaeological Investigation of Aboriginal Objects in New South Wales (DECCW, 2010)	Section 6.2.5
Heritage – Non-Aboriginal	Standard	N	General	• Heritage Act 1977 • The Burra Charter (ICOMOS Australia, 2013) • NSW Heritage Manual (HO and DUAP, 1996) • Statements of Heritage Impact (HO and DUAP, 2002)	Section 6.2.6
Social – Socio-economic	Standard	N	General	• Social Impact Assessment Guideline for State Significant Projects (DPHI, 2026)	Section 6.2.2
Waste	Standard	N	Specific	• NSW Waste and Sustainable Material Strategy 2041 (EPA, 2021) • NSW Plastics Action Plan (EPA, 2021) • NSW Energy from Waste Technical Note (EPA, 2026) • NSW Energy from Waste Infrastructure Plan (2021)	Section 6.2.7

				• The National Waste Policy: Less Waste More Resources 2018 • Waste Classification Guidelines (EPA, 2014)	
Water – Surface Water, Flooding and Hydrology	Detailed	N	Specific	• NSW Government’s Flood Risk Management Manual (2023) • Flood Impact and Risk Assessment Flood Risk Management Guideline (LU01) (DPE, 2023) • Canterbury-Bankstown DCP 2023 • Canterbury-Bankstown Development Engineering Standards • Managing Urban Stormwater: Soils and Construction (Landcom 2004) • Sydney Water stormwater quality targets • Relevant Cooks River catchment flood and stormwater studies. • Groundwater assessment toolbox for major projects in NSW - Overview document. Technical guideline prepared for the Water group, DPE (2022).	Section 6.1.5

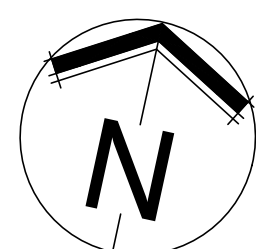
Appendix B – Concept Design



SITE PLAN
SCALE: 1:500 @ A1, 1:1000 @ A3



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1				
2				
3				

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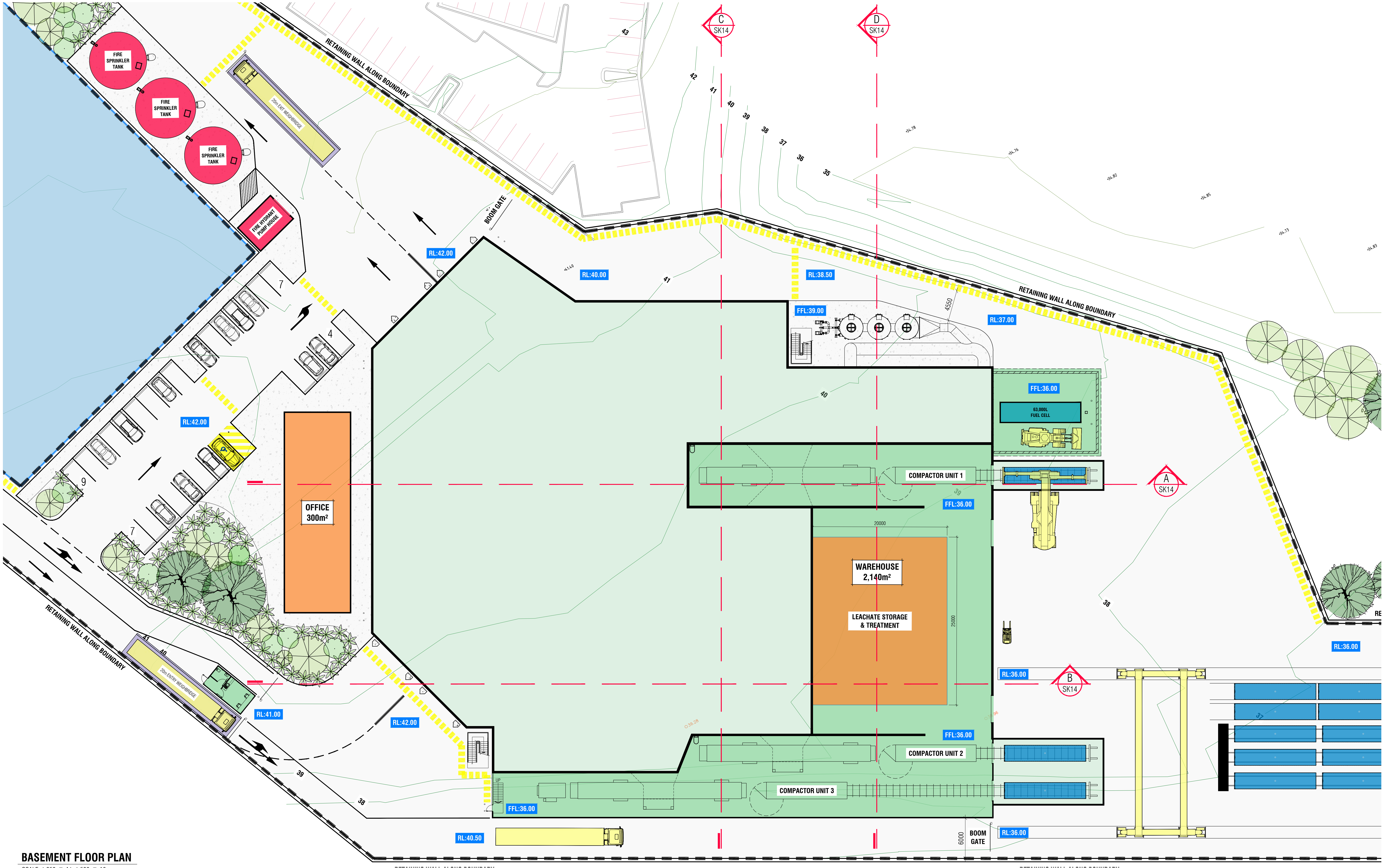
PROJECT NAME

SYDNEY WASTE TRANSFER STATION
20 DASEA STREET,
CHULLORA, NSW 2190.

DRAWING NAME

**SKETCH DESIGN DRAWINGS:
SITE PLAN - OPTION 1**

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REVISION	-	DATE	24.02.2026	

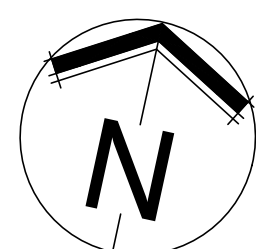


BASEMENT FLOOR PLAN
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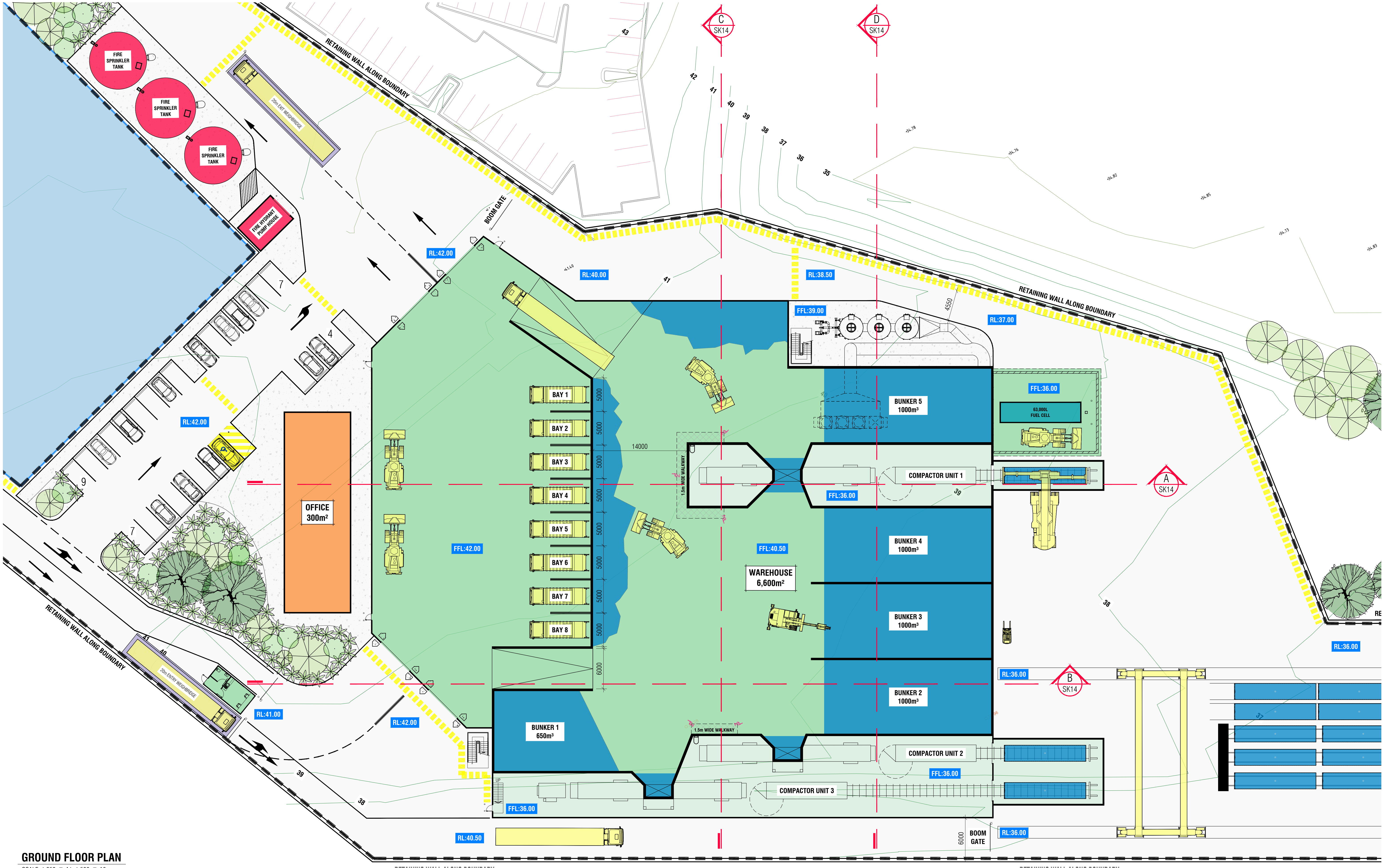
PROJECT NAME

SYDNEY WASTE TRANSFER STATION
20 DASEA STREET,
CHULLORA, NSW 2190.

DRAWING NAME

**SKETCH DESIGN DRAWINGS:
BASEMENT FLOOR PLAN - OPTION 1**

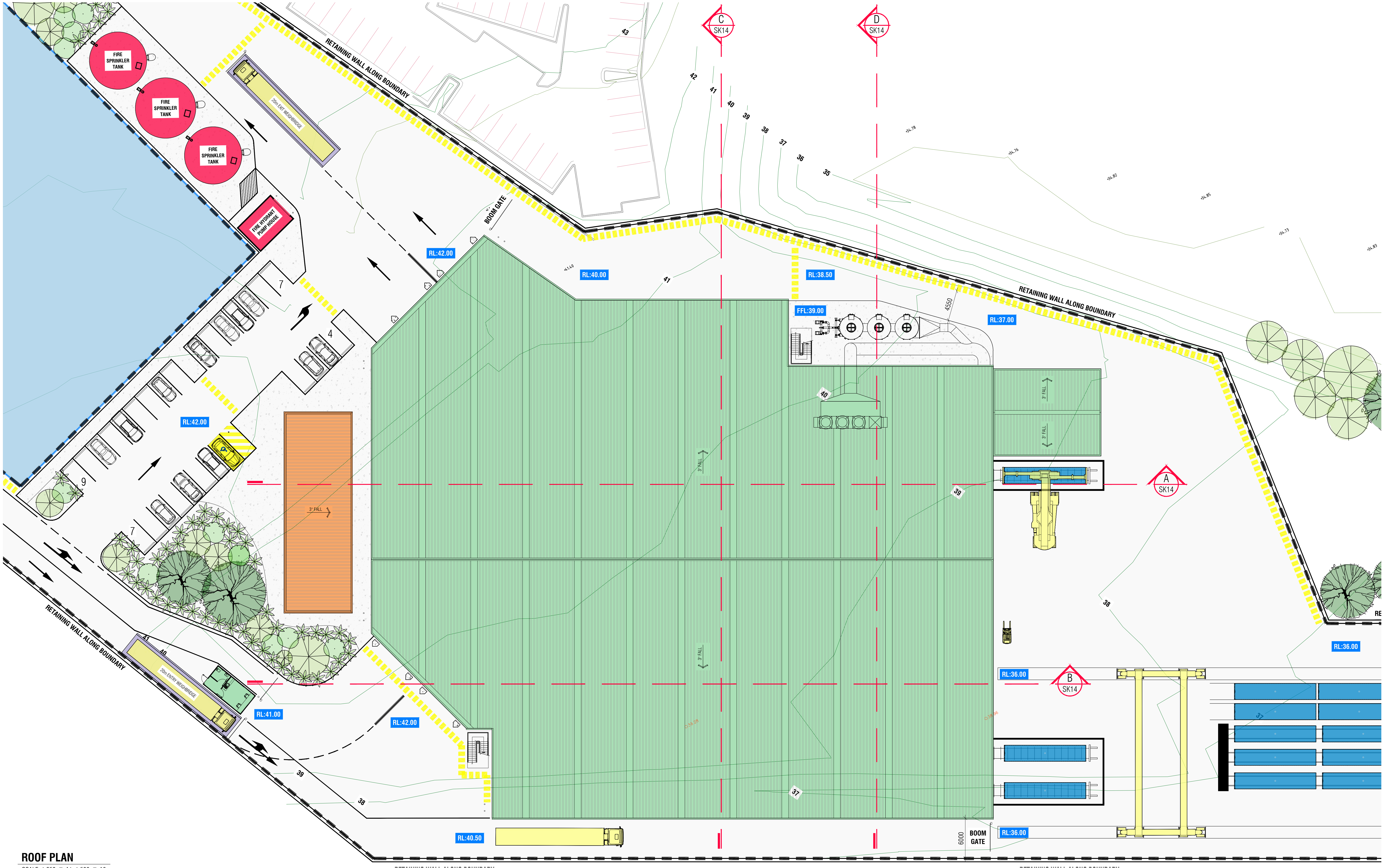
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REVISION	-	DATE	24.02.2026	



GROUND FLOOR PLAN

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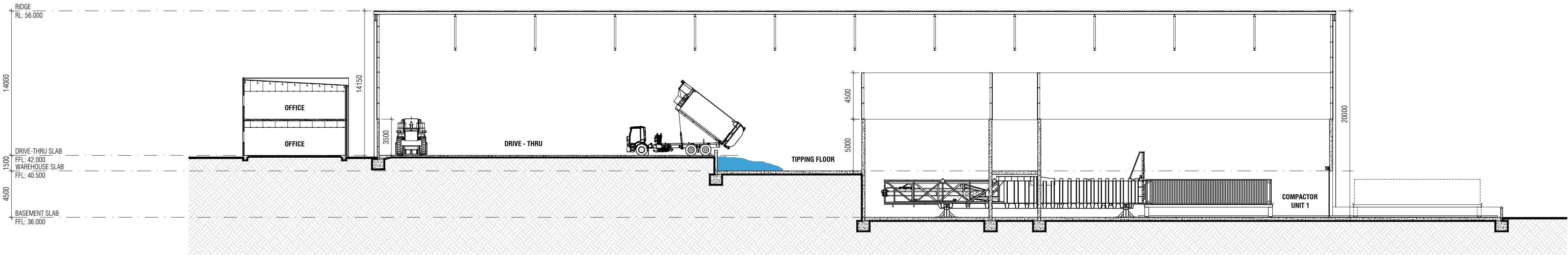
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	REVISION	-	DATE	24.02.2026										



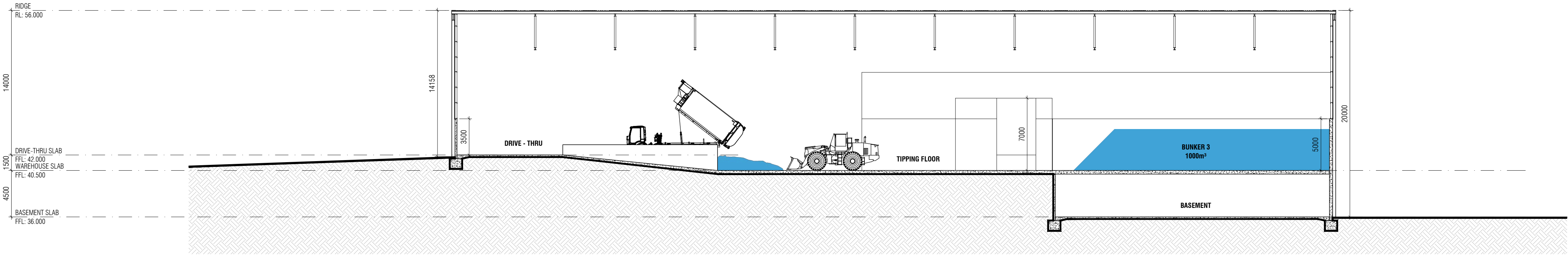
ROOF PLAN
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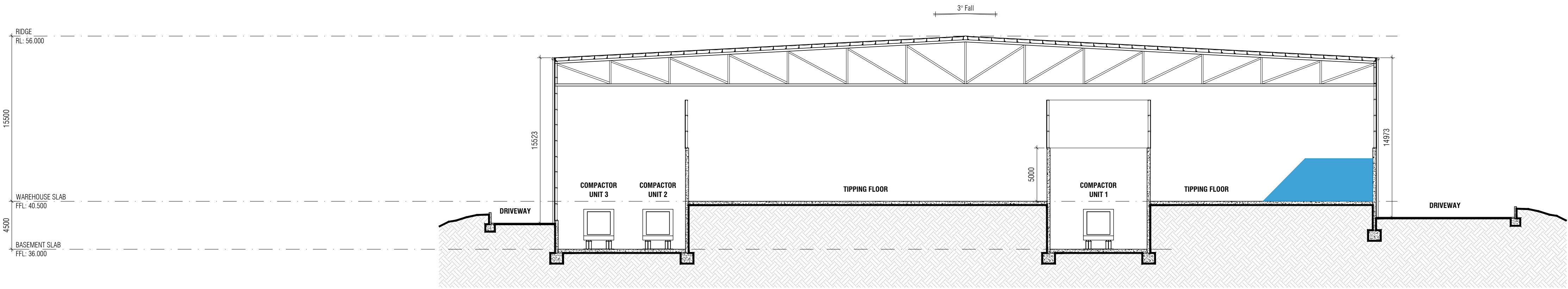
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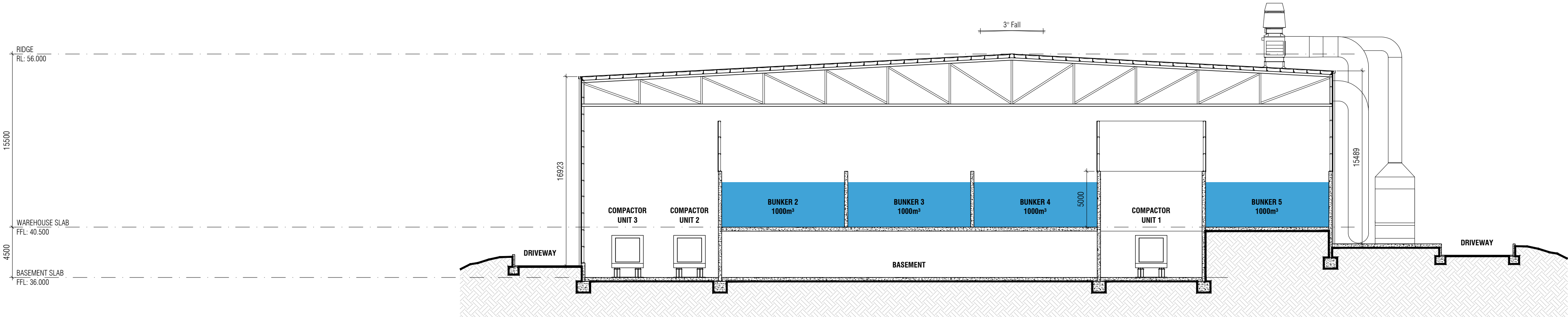
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SECTION C-C
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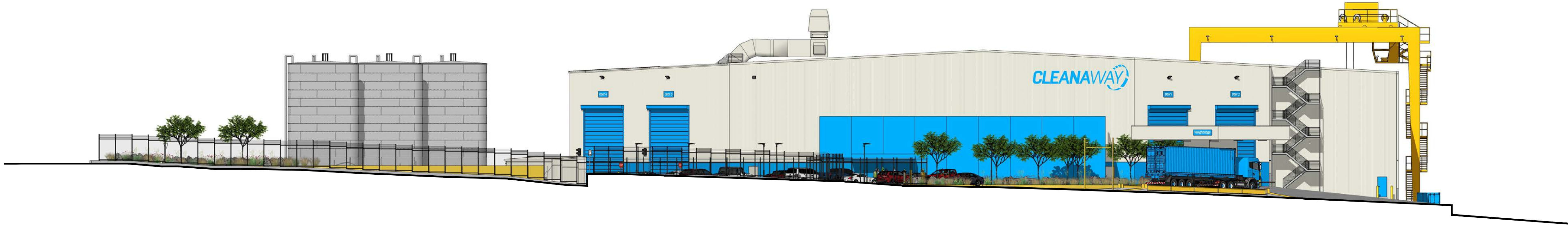


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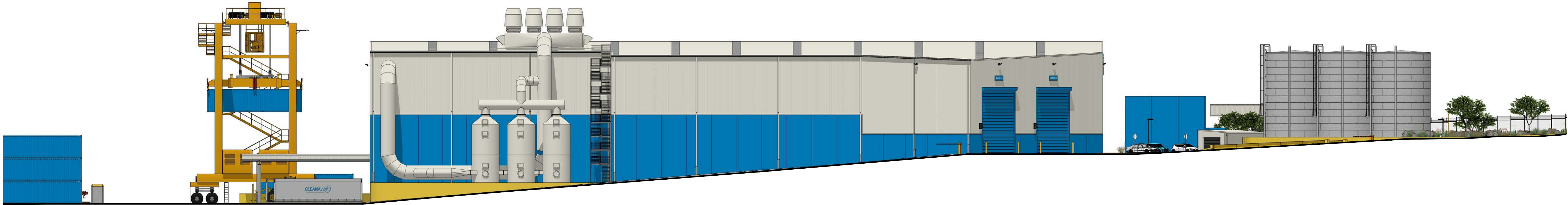
WEST ELEVATION

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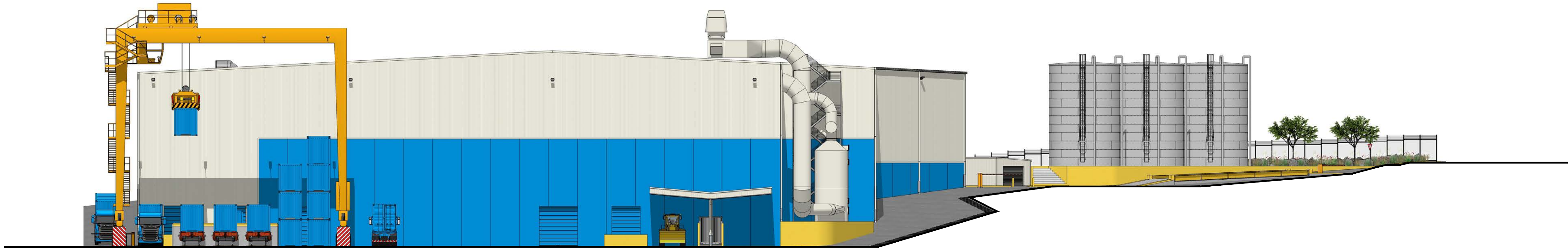
NORTH ELEVATION

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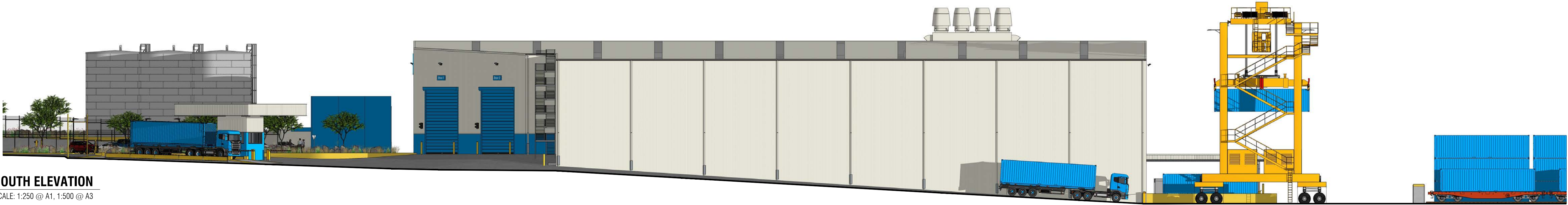
EAST ELEVATION

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SOUTH ELEVATION

SCALE: 1:250 @ A1, 1:500 @ A3



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PROJECT NAME
SYDNEY WASTE TRANSFER STATION 20 DASEA STREET, CHULLORA, NSW 2190.

DRAWING NAME
SKETCH DESIGN DRAWINGS: SECTIONS C-C, D-D - OPTION 1

DESIGN	NH	SCALE	AS SHOWN
DRAWN	NH	JOB No.	202506
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SK15



3D PERSPECTIVE 01
NOT TO SCALE



3D PERSPECTIVE 02
NOT TO SCALE



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3D PERSPECTIVE 03
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3D PERSPECTIVE 04
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3D PERSPECTIVE 05

NOT TO SCALE



3D PERSPECTIVE 06

NOT TO SCALE

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															SK18



3D PERSPECTIVE 07
NOT TO SCALE



3D PERSPECTIVE 08
NOT TO SCALE

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									REVISION	-	DATE	24.02.2026	
									SKETCH DESIGN DRAWINGS: 3D PERSPECTIVES - OPTION 1				

SK19

Appendix C – Hazard and Risk

Consultants' Advice Notice

Project:	Chullora WTS	Ref No.:	RCE-25487
From:	Renton Parker	Date:	18 th October, 2025
		Revision:	A
Attention	Company	Email	
To: Paul Bryant	EME Advisory	Paul@emeadvisory.com	

1.0 Introduction

Cleanaway Pty Ltd (Cleanaway) has proposed to develop a Waste Transfer Station (WTS) at 20 Dasea Street, Chullora, adjacent to the Sydney Freight Terminal operated by Pacific National. The proposal is a waste to rail transfer station that would supply waste feedstock to a future Energy-from-Waste facility outside the Sydney region from 2031/32. With a possibility of an interim use of the WTS from 2029 to haul waste to landfill.

The adjacent Sydney Freight Terminal site is classified as a Major Hazard Facility (MHF); which may pose issues with respect to obtaining approval for the site to operate; hence, it has been proposed to undertake a high level assessment to understand the potential impacts of the WTS on the surrounding land uses and also the existing land uses on the WTS and how these may influence the approval process.

This Consultants Advice Notice (CAN) has been developed to document the potential impacts to inform CWY of the potential risks associated with seeking approval for the development.

2.0 Land Use Safety Planning

2.1 Introduction

In NSW, developments involving materials classified as Dangerous Goods (DGs) are subject to Chapter 3 of the State Environmental Planning Policy – Resilience & Hazards (SEPP-RH). Where quantities of DGs are stored below the threshold, the potential for offsite risks are considered to be managed within the site premises. Exceedance of the thresholds requires additional risk assessment to be conducted to demonstrate that the risks are acceptable.

NSW publishes guidelines for hazardous industries known as the Hazardous Industry Planning Advisory Paper (HIPAP) which aim to assist in the orderly development of potentially hazardous facilities and deal with the aggregation of risk in industrial areas for facilities that are potentially hazardous. Where the thresholds are exceeded, for the facility to be approved, it must be demonstrated that the individual fatality risks along with risks associated with injury and incident propagation do not impact the surrounding land uses at values that are unacceptable.

The risk criteria adopted from HIPAP No. 4 (Ref. [1]) are summarised in **Table 2-1**.

Table 2-1: Risk Criteria

Description of Land Use	Designation	Criteria (per year)
Hospitals, childcare facilities, and old age housing	Sensitive	0.5×10^{-6}
Residential developments and places of continuous occupancy such as hotels and tourist resorts	Residential	1.0×10^{-6}
Commercial developments including retail centres, offices and entertainment centres	Commercial	5.0×10^{-6}
Sporting complexes and active open space areas	Recreational	10×10^{-6}
Target for site boundary	Industrial	50×10^{-6}
Injury risk – Radiant heat $> 4.7 \text{ kW/m}^2$	Residential	1.0×10^{-6}
	Sensitive	
Injury risk – Explosion overpressure $> 7 \text{ kPa}$	Residential	1.0×10^{-6}
	Sensitive	
Risk of property damage / escalation $> 23 \text{ kW/m}^2$	-	50×10^{-6}
Risk of property damage $> 14 \text{ kPa}$	-	50×10^{-6}
Toxic exposure – injury	Residential	10×10^{-6}
	Sensitive	
Toxic exposure - irritation	Residential	50×10^{-6}

The criteria are based upon the risks society currently accepts, for example driving, smoking, etc. Some examples of risks that the general population accept are provided in Error! Reference source not found. to provide a reference to the criteria outlined for land use acceptability. To illustrate the comparison, working adjacent to an industrial land use is at least 100 times less likely to result in a fatality than smoking 20 cigarettes a day.

Table 2-2: Fatality Risks of Common Activities

Activity	Fatality Risk (p.a.)
Smoking (20 cigarettes/day)	$5,000 \times 10^{-6}$
Drinking alcohol (average)	380×10^{-6}
Swimming	50×10^{-6}
Driving	145×10^{-6}
Travelling by plane	10×10^{-6}

2.2 SFT

The existing Sydney Freight Terminal (SFT) operated by Pacific National is an MHF; hence, materials classified as Dangerous Goods (DGs) are present at the site temporarily as part of operations at the terminal. Based on the presence of the DGs, as part of approval it would have had to have been demonstrated that the risks posed by the site did not result in unacceptable impacts to the surrounding land uses. In other words, the risk profile from the SFT would have to have been below the criteria identified in **Table 2-1**. Therefore, the fatality risks posed by the

terminal on the proposed development must be below 50×10^{-6} p.a. and the injury/propagation risks must also be below 50×10^{-6} p.a.

From a land use planning perspective, it should be acceptable to develop an industrial use adjacent to the SFT based on the planning risk criteria required for the existing site to have been approved. In conclusion, the presence of the SFT handling DGs should not prevent the approval of the proposed WTS as the encroachment of the SFT risks should be below the acceptable criteria.

There are additional considerations relating to the SFT based on the MHF designation; however, this is reviewed in further detail in **Section 3.0**.

2.3 Other Sites

There exist a range of other industrial facilities in proximity to the site as shown in **Figure 2-1**. The operations for each site are identified below:

- **Linfox** – is a logistics and supply chain company involved in the transportation of freight locally by semi-trailer and rigid vehicles. Operations at their facility are conducted seven days a week. Minor quantities of diesel and LPG gas are stored on site.
- **Ferrycarring** (Proposed WTS Site) – is a constructor of utilities and civil infrastructure. Operations at their facility involve deconstructing course concrete and brick material and recycling it to aggregate. Operations are 24/7
- **Western Containers** – the south of the SFT operates an ISO cleaning and repair operation involved in the cleaning/washing facility for bulk tanker ISO containers. They hold minor quantities of waste materials which may contain DG residue, associated with the tank cleaning.
- **Chullora Industrial Estate** – is an industrial estate that is used for a range of various warehousing, distribution, and commercial office uses, with multiple tenants located within the facility.
- **TGE Energy Services** – is an industrial involved in the maintenance of equipment across the mining, rail, and power industries.
- **EWE Group** – is a cross-border logistics services provider, the warehousing and distribution centre facilitates the delivery of overseas parcels and packaging.
- **Inenco Group** – is a warehousing and distribution center supplying equipment and services to a range of different industry groups including groups, including automotive, transport, mining and agriculture.
- **CERT (Rail) Training** – is a rail training facility located to the east of the SFT

A review of the operation descriptions does not suggest a high accumulation of hazardous materials or DGs; hence, the risk profiles at these sites are unlikely to encroach on the proposed site and are thus unlikely to complicate the approval process.



Figure 2-1: Surrounding Sites

2.4 Residential Areas

There are no residential areas directly adjacent to the site. However, community opposition may be a risk to the project approval. Therefore, it is necessary to undertake early engagement with the community. Whilst the operations of the WTS would be unlikely to cause incident, the community may take issue with burning waste at the intended destination site redirecting opposition to the ultimate use to the proposed site.

2.5 Proposed WTS

The purpose of the WTS is to transport waste for a future Energy from Waste (EfW) facility. CWY has indicated that DGs will not be transported through the facility; however, experience with other EfW facilities typically evolves to include the processing of flammable and combustible liquid fuels as an effective way of disposing of these wastes whilst assisting in calorific input into the combustion chambers. Therefore, it is expected that there will be some volume of DGs that will be transported through the facility at some point in the future.

It is difficult to ascertain the potential for these commodities at this stage; however, it is expected that the quantities of goods can be managed such that the site would remain below thresholds of SEPP-RH. Therefore, the potential impact of the proposed site on the SFT would be expected to be negligible as the risk profile from the WTS would be within site boundaries of the site. Provided quantities at a future state are managed below SEPP-RH, then the approval process would be the same as if these were not present as currently indicated by CWY.

It is noted that even if the quantities are below the thresholds, DPHI may still request a Preliminary Hazard Analysis (PHA) to be conducted given the proximity to the MHF; however, this is considered a low risk.

Proceeding under the assumption that the site does not exceed the thresholds, and that a PHA is not required, it is expected that a Fire & Incident Management Plan (FIMP) would be required as part of the DA application. This is essentially an early phase Fire Safety Study (FSS) which aims

to understand the potential impacts of fire from the site and how these may impact surrounding land uses and to make early recommendations around fire protection design prior to detail design.

Given the proposed design involves numerous bunkers which are expected to have fire rated walls creating discrete fire scenarios that would be modelled in the FIMP reducing the overall fire size and thus potential impact on the adjacent sites. To assist with obtaining approval, minimizing the potential for radiant heat impact on the adjacent site as it is critical infrastructure is important; hence, the following recommendation has been made:

- Consideration should be given to fire rating the external walls facing the SFT with an FRL of 240/240/240.

It is expected that a Fire Safety Study (FSS) will be required as part of the Conditions of Consent (CoC). Obtaining approval from FRNSW is difficult as experienced on the 600 Woodstock Avenue MIRF. To assist in the design, all methods for minimizing the potential for a fire, restricting fire sizes, identification of fire, and mitigation of fire should be considered. Examples include:

- UVIR, smoke, and VESDA detection.
- Sorting of waste offsite to prevent non-compliant wastes entering the WTS (i.e. lithium-ion batteries, aerosols, etc.)
- Remotely operated monitors.
- Increased hydrant flow above minimum requirements from AS 2419.1.
- Sprinkler protection.
- Containment for potentially contaminated water.
- Fire separation.
- Smoke extraction.

Approval through FRNSW is likely the key project timing risk with respect to planning from the hazards & risks requirements. The following recommendation has been made:

- Early involvement with FRNSW shall be sought to assist in attempting to minimize FRNSW approval risks to the construction timeline of the project should it proceed.

2.6 Summary

Based on a review of the existing SFT, other surrounding industrial uses, and the proposed site, it is expected there would be a low risk of the project not being found acceptable for the location based purely on the hazards & risk studies required in the Development Application.

There may be some opposition from the community based on the intended destination for waste being transferred through the WTS which should be factored into the business case and any project timelines.

There is a significant risk of project delay whilst obtaining approval from FRNSW; hence, this should be considered in all project timelines and adequately provisioned for.

3.0 Work Health and Safety

3.1 Introduction

The Work Health and Safety Regulation (WHS) 2025 (Ref. [2]) governs the requirements for managing risk on site. Compliance with WHS Regulations is not a consideration as part of the approval pathway and is something that the Person Conducting a Business or Undertaking (PCBU) must cover as a minimum. Review and approval by the Regulator (SafeWork NSW) is not provided and is thus not a risk to obtaining approval for the site; however, should an incident occur, their involvement and review of risk studies and assessments become critical and thus these must be done in advance to demonstrate that PCBU obligations under the Regulation has been complied with.

3.2 SFT

The main impact the WHS Regulation will have on the site is that the SFT is classified as a MHF which is regulated by SafeWork NSW. Based on this, SafeWork NSW may become involved in the approval process if requested by DPHI; however, it is noted that SafeWork NSW tries to distance itself from the approval process as it can complicate their ability to regulate due to the blurring of the lines should they provide advice.

Nonetheless, as the adjacent site is an MHF, it has had a Safety Case prepared which assesses the potential for onsite and offsite risks. The initial development of the Safety Case in 2016 undertook modelling for various DGs that may be received at the site at this time. The following incidents are discussed in the Safety Case:

- Scenario 1: Class 2.1 flammable gas fire (10 kg cylinders in a shipping container)
- Scenario 2: Class 2.3 toxic gas release (920 kg chlorine drum / 450 L ammonia cylinder)
- Scenario 3: Class 3 flammable liquids fire (20 L drums within a shipping container)
- Scenario 4: Class 3 flammable liquid fire (20,000 L iso-container)
- Scenario 5: Class 4 flammable solids fires (12 kg cartons in a shipping container)
- Scenario 6: Class 2.2 non-toxic, non-flammable gas with subsidiary risk of 5.1 oxidising agent.

Provided in **Table 3-1** is a summary of each scenario and a discussion of whether these would have significant impacts on the CWY WTS site.

Table 3-1: MHF Scenario Discussion

Scenario	Class	Incident	Discussion
1	2.1	Fire	A localised fire in a container. Unlikely to have significant offsite impacts.
2	2.3	Dispersion	Dispersion of toxic gas which may disperse downwind. Further discussion required.
3	3	Fire	A localised fire in a container. Unlikely to have significant offsite impacts.
4	3	Fire	A localised fire in a container. Unlikely to have significant offsite impacts.

Scenario	Class	Incident	Discussion
5	4	Fire	A localised fire in a container. Unlikely to have significant offsite impacts.
6	2.2(5.1)	Dispersion	Dispersion of non-toxic, non-flammable gas. Unlikely to have significant offsite impacts.

In 2019, SFT had additional modelling conducted for Scenario 2 and an additional scenario (7) involving Ammonium Nitrate (AN) storage. The results of the modelling showed that there would be offsite impacts as shown in **Figure 3-1** to **Figure 3-3**.

The potential for either incident is low as the SFT only transfers containers in the intermodal and does not open or process these materials; however, should an incident occur there is the potential for a consequential impact at the site. Personnel are located within the building which would provide protection from overpressure and toxic dispersions. Personnel outside are likely inside vehicles which would provide protection from toxic dispersions and limited protection from overpressure. A response to incidents occurring at the SFT would need to be factored into Emergency Response Planning; however, this is beyond the scope of this project given the early phases.

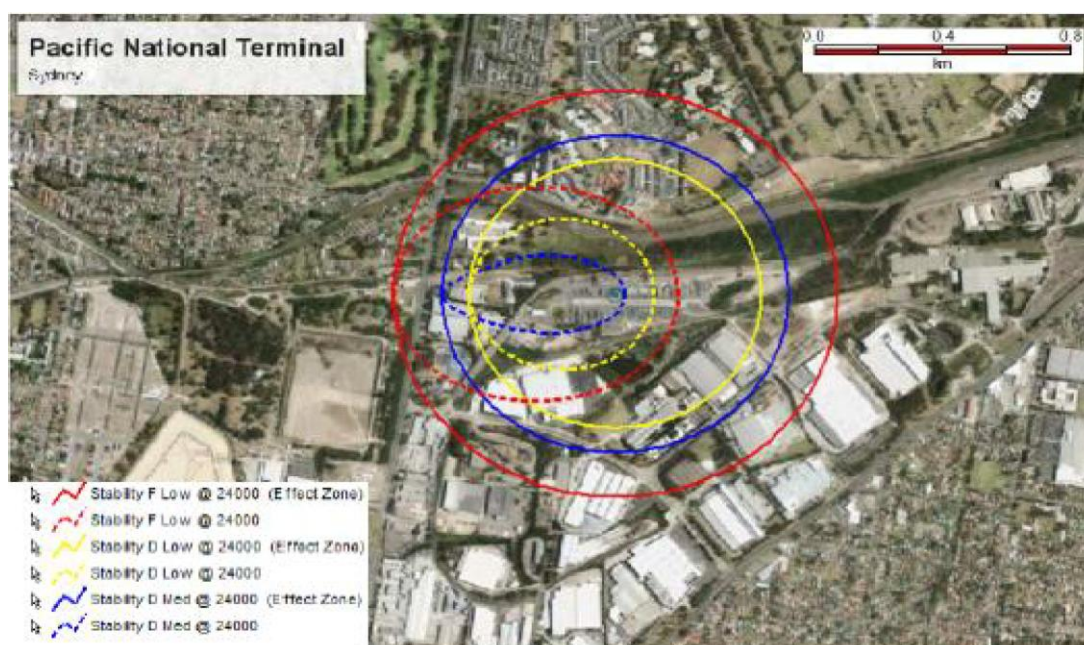


Figure 3-1: Catastrophic Rupture at AEGL-3 (Fatal Levels)

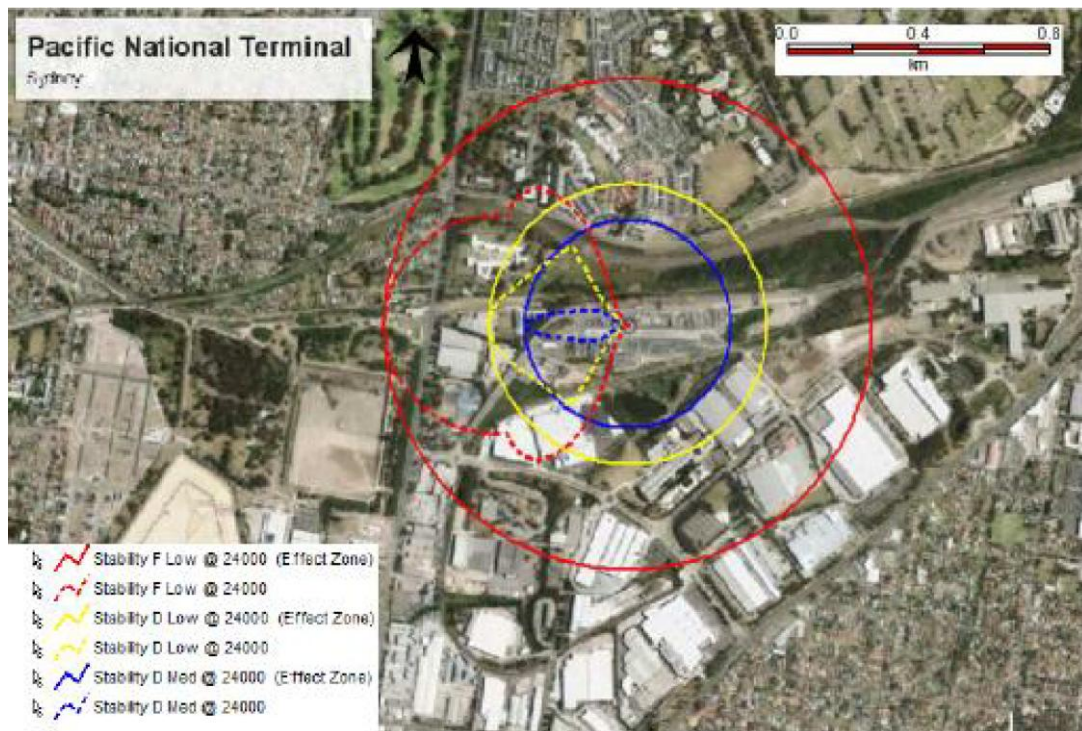


Figure 3-2: 10 mm Hole at AEGL-3 (Fatal Levels)

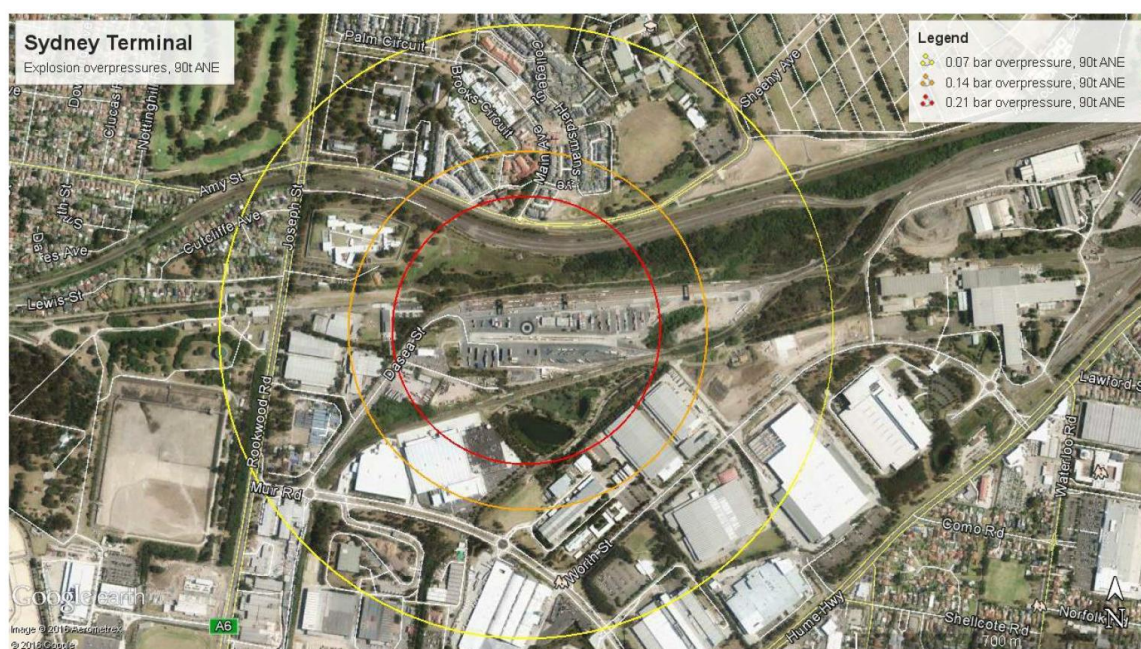


Figure 3-3: Overpressure from an AN Explosion

3.3 Proposed WTS

The development of the proposed WTS may require SFT to update their Safety Case to account for incidents that could occur at the WTS. It is unlikely that incidents would result in any appreciable impact at the SFT; however, early engagement with SFT should be considered.

4.0 Conclusions and Recommendations

4.1 Conclusions

A review of the planning process and planning risks posed to the proposed site was undertaken to determine any potential issues that could prevent approval of the site. The findings of the assessment are summarised in **Table 4-1**.

Table 4-1: Summary of Assessment

Source	Assessment of Risk
SFT	- Low risk of approval impacts from SFT based on risk criteria being met. - Potential consideration by SafeWork NSW through SFT Safety Case.
Other Industrial Sites	Low risk of approval impacts due to low potential of risk impacts from surrounding areas.
Residences	- No directly adjacent residences. Unlikely to have a significant impact on planning approval based on impacts at residences. - Potential community opposition as a result of intended destination and use of waste.
Proposed WTS	- Unlikely to have sufficient offsite impacts on surrounding uses. - Significant risk of construction delay from FRNSW approval of FSS.

4.2 Recommendations & Observations

Based on the assessment, the following recommendations have been made:

- Consideration should be given to fire rating the external walls facing the SFT with an FRL of 240/240/240.
- Early involvement with FRNSW shall be sought to assist in attempting to minimize FRNSW approval risks to the construction timeline of the project should it proceed.

The following observations have been made as items to be incorporated into the design

- UVIR, smoke, and VESDA detection.
- Sorting of waste offsite to prevent non-compliant wastes entering the WTS (i.e. lithium-ion batteries, aerosols, etc.)
- Remotely operated monitors.
- Increased hydrant flow above minimum requirements from AS 2419.1.
- Sprinkler protection.
- Containment for potentially contaminated water.
- Fire separation.
- Smoke extraction.

Riskcon Engineering Pty Ltd

ABN 74 626 753 820

A handwritten signature in black ink, appearing to be "Renton Parker", with a horizontal line extending from the end of the signature.

Renton Parker

Managing Director – Risk Engineering

Riskcon Engineering Pty Ltd

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5.0 References

[1] Department of Planning, Housing, and Infrastructure, "Hazardous Industry Planning Advisory Paper No. 4 - Risk Criteria for Land Use Safety Planning," Department of Planning, Housing, and Infrastructure, Sydney, 2011.

[2] SafeWork NSW, "Work Health and Safety Regulation," SafeWork NSW, Lisarow, 2025.

Appendix D – Noise and vibration memo

24 March 2026
Document No. 60.01053.01 LTR1R1.DOCX

EME Advisory Pty Ltd
17 Carlotta Street
Greenwich
Sydney
NSW 2065

Attention: Brian Cullinane

Dear Brian

Consultant Advice Notice
Cleanaway Chullora - Waste Transfer Station
Due Diligence - Acoustic Review

1 Introduction

Waves Acoustic Consulting Pty Ltd (Waves Consulting) has been engaged by EME Advisory Pty Ltd (EME) on behalf of Cleanaway Pty Ltd to undertake an acoustic review as part of a due diligence assessment for the proposed Waste Transfer Station (WTS) located at 20 Dasea Street, Chullora, NSW (the site).

2 Project Description

This due diligence assessment has been undertaken for the proposed waste to rail transfer station located at 20 Dasea Street, Chullora, NSW. The project proposes to supply waste feedstock to a future Energy-from-Waste facility outside the Sydney region from 2031 / 32 with a possibility of an interim use of the WTS from 2029 to haul waste to landfill. It is understood that the subject site is currently occupied by the Sydney Freight Terminal operated by Pacific National.

There are four (4) proposed phases for the project which include:

- Phase 1 - Waste to Road Transfer Station – Tonnage throughput – 150 ktpa (2028 to 2030).
- Phase 2 - Waste to Rail Transfer Station – Tonnage throughput – 760 ktpa (2030/31 and beyond).
- Business Continuity - in the event of a rail outage over the Blue Mountains.
- Phase 2 + Business Continuity.

Waves Consulting have reviewed the traffic and equipment data to support Phase 2 of the project which provides a maximum throughput of 760 ktpa.

The site is located within the suburb of Chullora, NSW. The lot is an irregular shape and is situated in an industrially zoned area. The nearest buildings to the site are all industrial, with the closest located approximately 20 m to the north. The nearest residential premises are located as follows:

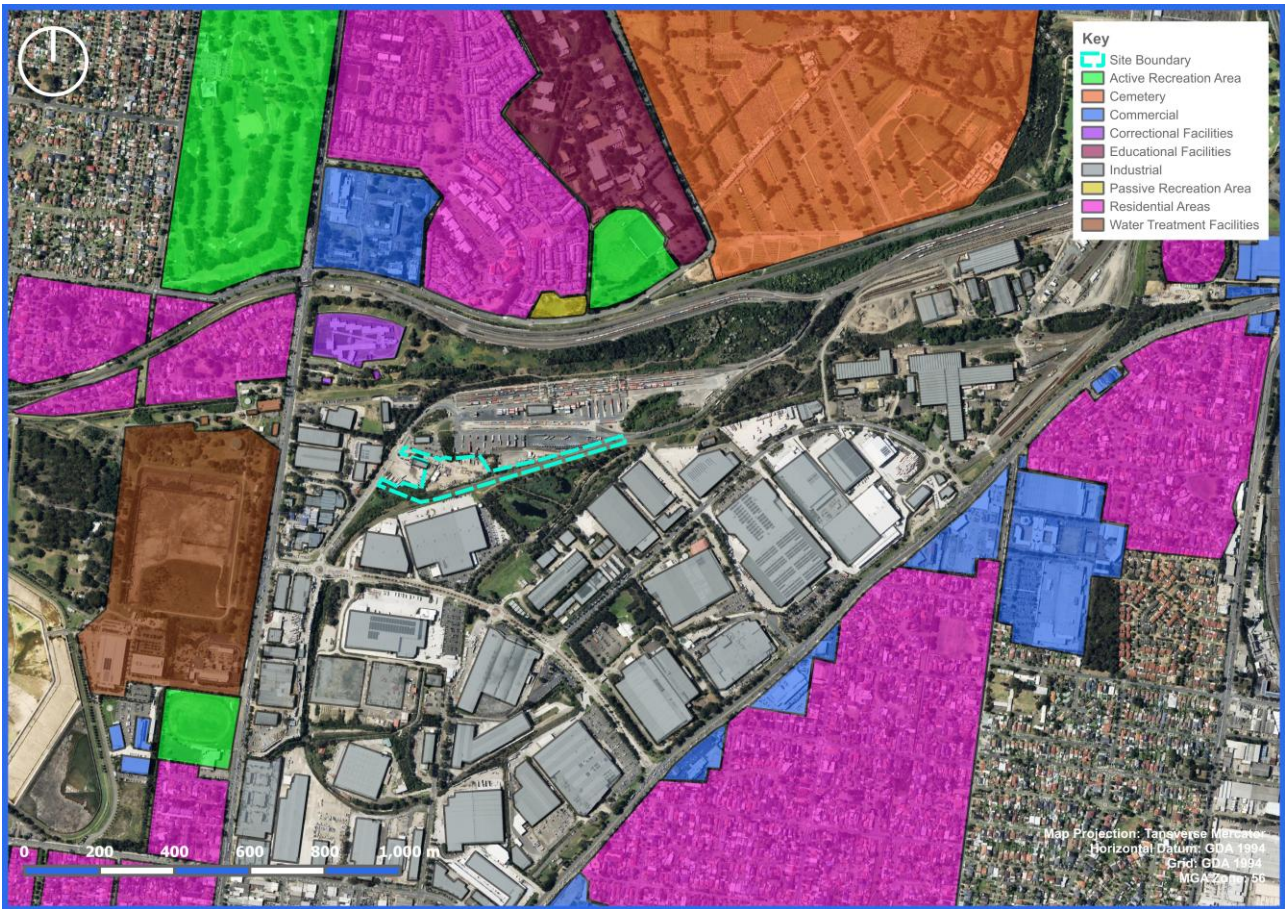
- North at a distance of ~ 400 m.
- West at a distance of ~ 370 m.
- Southwest at a distance of ~ 900 m.
- Southeast at a distance of ~ 845 m.
- East at a distance of ~ 1100 m.

Non-residential premises in the surrounding area include:

- Sydney University campus directly north at a distance of ~ 500 m.
- Rookwood Cemetery northeast at a distance of ~ 500 m.
- Mary Wade Correctional Facility northwest at a distance of ~ 250 m.
- Tallowood Reserve directly north at a distance of ~ 340 m.
- Carnarvon Golf Club northwest at a distance of ~ 570 m.
- Sydney Water directly west at a distance of ~ 300 m.
- Commercial precinct northwest at a distance of ~ 510 m.

Figure 1 below illustrates the 20 Dasea Street site including the proximity of the nearest residential, passive / active recreational areas, educational areas, industrial and commercial buildings in the surrounding area.

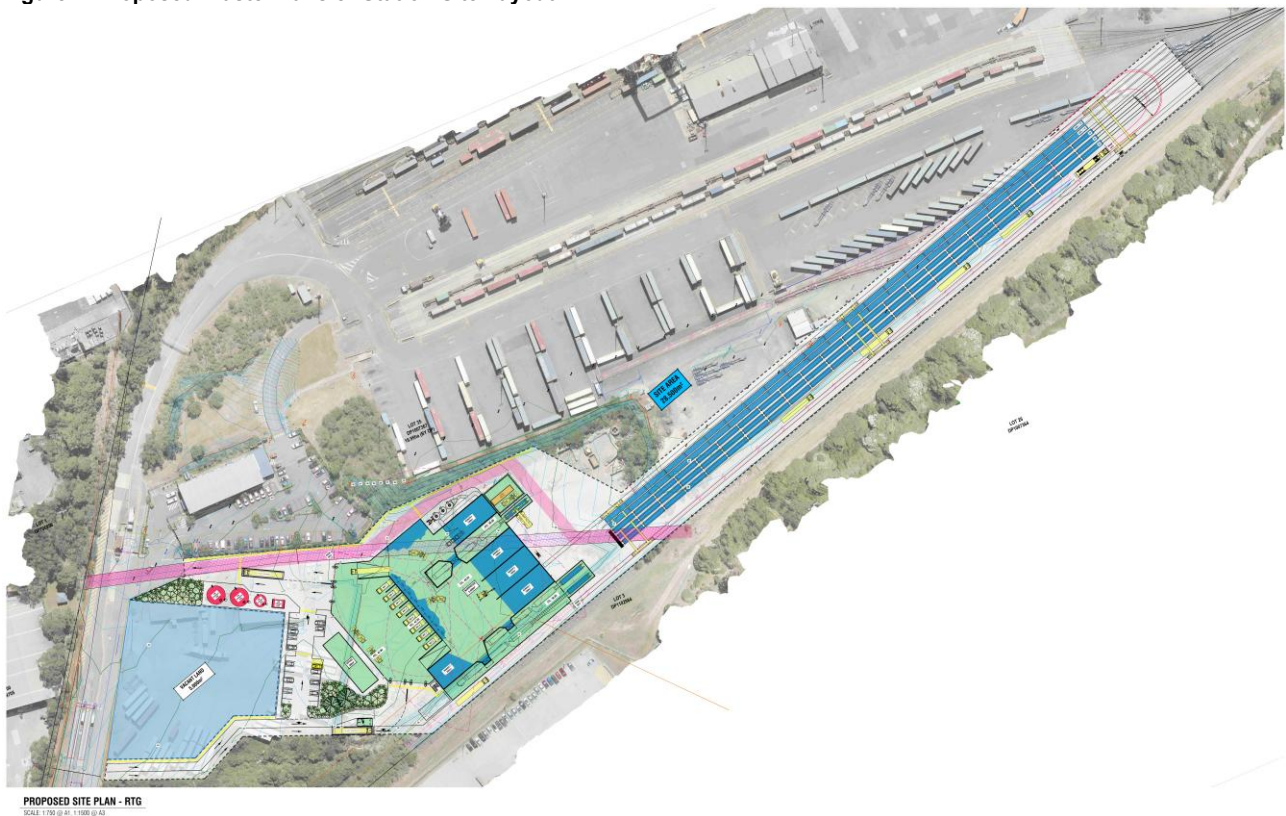
Figure 1. Site Location & Surrounding Area



Aerial photography courtesy of NSW Imagery.

Figure 2 below details the proposed site layout and indicative heavy vehicle routes throughout the site.

Figure 2. Proposed Waste Transfer Station Site Layout



2.1 Operational Noise Levels

Table 1 provides the indicative overall sound power levels for the proposed equipment / processes associated with the development.

Table 1. Indicative Sound Power Levels for the Proposed Mechanical Plant / Equipment

Equipment / Process	Number	Overall Sound Power Level (dB re 1pW)	
		LAeq	LAFmax
Train arrival / departure	4	100	118
Gantry Crane (rail / rubber tyre)	2	110	120
Prime Mover	5	90	97
Container Tipping	5	108	116
Trucks Manoeuvring (per hour)	50	106	113
Front End Loader	3	111	118
Excavator	2	107	113

3 Operational Noise Assessment Guidelines

3.1 NSW Noise Policy for Industry (NPI)

Responsibility for the control of noise emissions in New South Wales is vested in Local Government and the NSW Environment Protection Authority (EPA).

The EPA oversees the NSW Noise Policy for Industry (NPI) 2017 which provides a framework and process for deriving noise trigger levels. The NPI replaced the Industrial Noise Policy (INP) at the end of October 2017.

The NPI sets out the procedure to determine the *Project Noise Trigger Levels (PNTLs)* relevant to a particular industrial development. The project PNTLs apply to existing noise-sensitive receivers; however, they may also be used in strategic planning processes for proposed land uses.

If it is predicted that the development is likely to cause the PNTL to be exceeded at existing noise-sensitive receivers, management measures are required to reduce the noise emissions from the site.

3.2 Indicative NPI Project Noise Trigger Levels (PNTLs)

The background noise levels and indicative PNTLs for the nearby noise-sensitive receivers are presented in Table 2. The background noise data and PNTLs are based on a recent, historical noise study conducted for a development in the area. During the Development Application (DA) detailed background noise monitoring and definition of the applicable noise trigger levels will be necessary to satisfy the requirements of the Noise Policy for Industry (NPI).

For each assessment period, the lower (ie the more stringent) of the amenity or intrusive trigger levels are adopted (if applicable), as marked in **bold**, as the project noise trigger levels (PNTL).

Table 2. Indicative NPI Project Noise Trigger Levels (PNTLs)

Receiver	Time of Day	RANL ¹ LAeq,period	Measured RBL ² LAF90,15min	Project Noise Trigger Levels		
				Intrusive LAeq,15min	Amenity LAeq,15min	Sleep Disturbance LAFmax
Urban Residential ³	Day	60	44	49	58	-
	Evening	50	44	49	48	-
	Night	45	43	48	43	58
Educational	Noisiest 1-hour period when in use	45 ⁴	-	-	43	-
Passive Recreation	When in use	50	-	-	48	-
Active Recreation	When in use	55	-	-	53	-
Commercial	When in use	65	-	-	63	-
Industrial	When in use	70	-	-	68	-

Note 1. RANL = Recommended Amenity Noise Level for residences in Suburban areas.

Note 2. RBL = Rating Background Level.

Note 3. The Mary Wade Correctional Facility will be classified as an urban residential receiver for the purposes of this assessment.

Note 4. Internal criteria have been converted to external criteria for the purposes of assessment against external noise level predictions. This is achieved by using a conservative inside to outside conversion factor of 10 dB, which assumes a standard building facade with windows partially open.

The indicative background noise levels are typical of *Urban* areas.

4 Potential Operation Noise Impacts / Risks

4.1 Estimated Risk of Adverse Impact

This assessment is based on a simplified 3D computer noise model for the site / surrounding area and the indicative noise trigger levels (PNTLs) applicable to each receiver type. The worst-case location in each residential street has been selected for the assessment. For other sensitive receivers (such as recreation areas) the worst-case location in each area has been used for the assessment.

The Cleanaway Risk Matrix will be used to classify the estimated risk of Adverse Noise Impacts. The Cleanaway Risk Matrix is reproduced in Figure 3 below.

Figure 3. Cleanaway Risk Matrix

SIGNIFICANT	A	H	V	E	E	E
MAJOR	B	M	H	V	V	E
SERIOUS	C	M	M	H	H	V
MODERATE	D	L	L	M	M	H
MINOR	E	L	L	L	M	M
Consequence	↑	1	2	3	4	5
Likelihood	→	RARE	UNLIKELY	POSSIBLE	LIKELY	ALMOST CERTAIN

Risk Rating

Extreme (E)	Very high (V)	High (H)	Medium (M)	Low (L)
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Each receiver group will be categorised based on the Cleanaway Risk Rating. The Risk Ratings in Table 3 demonstrates the anticipated noise mitigation and management measures which should be considered during the design development phase of the project.

Table 3. Summary of the Cleanaway Risk Rating vs Potential Noise Mitigation Measures

Risk Rating	Potential Noise Mitigation Measures Required
Low (L)	No / negligible noise mitigation management measures are required to satisfy the noise criteria at these receivers.
Medium (M)	Standard noise mitigation measures, such as silencers, attenuators, orientating / locating equipment away from sensitive receivers as well as small, localised noise barriers will be required to satisfy the noise criteria at these receivers.
High (H)	Standard mitigation measures will be required as well as consideration of selection of the quietest equipment possible, larger localised noise barriers and specialist silencers / attenuators for static and mobile equipment.
Very High (V)	Standard and non-standard mitigation measures will be required. Residual exceedances are possible and may require at property treatments for affected residences.
Extreme (E)	It may not be possible to achieve the noise criteria even with custom designed noise control measures and at property treatments for affected residences. Acquisition of affected receivers would need to be considered.

4.2 Corrections for Annoying Noise Characteristics

Where a noise source contains certain characteristics, such as tonality, intermittency, irregularity or dominant low-frequency content, there is evidence to suggest that it can cause greater annoyance than other noise at the same noise level. On the other hand, some sources may cause less annoyance where only a single event occurs for a limited duration.

The NPI identifies correction factors for annoying noise characteristics which must be applied to the predicted noise levels before assessing against the PNTLs. In addition, noise sources with impulsive noise events should have noise corrections added as per the guidelines in AS 1055:2018.

The proposed operational noise sources have been assessed against the NPI and AS1055:2018 guidelines and the following correction factors included to account for potential annoying characteristics:

- +5 dB impulsiveness penalty added to container handling, loaders and excavators (AS1055:2018 estimated +5 dB penalty).
- +5 dB tonality penalty added to reversing alarms (NPI Fact sheet C).

4.3 Estimated Noise Emissions – No Mitigation Measures

Table 4 below summarises the estimated worst-case operational noise impacts / risks associated with the site (with no mitigation measures). Note that each receiver area may contain several individual receivers with similar noise levels.

Table 4. Summary of the Estimated Worst-case Operational Noise Impacts / Risk Rating – No Mitigation Measures

Receiver Area	Estimated Noise Emissions		Exceedance LAeq Criteria			Exceedance LAFmax Criteria	Risk Rating	Dominant Noise Source	Mitigation Measure Required
	LAeq	LAFmax	Day	Eve	Night	Night			
Residential			49	48	43	58			
Main Avenue	54	67	5	6	11	9	Very High (V)	Container Handling	Noise wall along tracks + rubber isolation of container handling forks
Eucalyptus Street	53	66	4	5	10	8	Very High (V)		
Andrews Road	53	65	4	5	10	7	Very High (V)		
Herdsmans Avenue	53	65	4	5	10	7	Very High (V)		
Brooks Circuit	53	66	4	5	10	8	Very High (V)		
Farm Road	52	64	3	4	9	6	High (H)	Container Handling + reversing beepers	Noise wall along tracks + reversing squawker alarm
College Street	50	63	1	2	7	5	High (H)		
Lewis Street	50	62	1	2	7	4	High (H)		
Cliffe Street	49	59	-	1	6	1	High (H)	Container Handling	Noise wall along tracks
Hume Highway	48	58	-	-	5	-	Medium (M)		
Amy Street	47	56	-	-	4	-	Medium (M)		
Rookwood Road	45	57	-	-	2	-	Medium (M)		
Brunker Road	45	58	-	-	2	-	Medium (M)		
Patience Avenue	44	53	-	-	1	-	Medium (M)	-	-
McMillan Street	43	52	-	-	-	-	Low (L)		
Marlene Crescent	43	52	-	-	-	-	Low (L)		
Nottinghill Road	41	52	-	-	-	-	Low (L)		
Davidson Street	40	52	-	-	-	-	Low (L)		
Cutcliffe Avenue	40	51	-	-	-	-	Low (L)	Container Handling	Noise wall along tracks + rubber isolation of container handling forks
Mary Wade Correctional Facility	53	64	4	5	10	6	Very High (V)		
Educational			43	43					
Sydney University	50	-	7	7	-	-	High (H)	Container Handling + reversing beepers	Noise wall along tracks + reversing squawker alarm

Receiver Area	Estimated Noise Emissions		Exceedance LAeq Criteria			Exceedance LAFmax Criteria	Risk Rating	Dominant Noise Source	Mitigation Measure Required
	LAeq	LAFmax	Day	Eve	Night	Night			
Passive Recreation Areas			48	48					
Tallowood Avenue	53	-	5	5	-	-	Medium (M)	Container Handling	Noise wall along tracks
Rookwood Cemetery	50	-	2	2	-	-	Medium (M)		
Tallowood Reserve	54	-	6	6	-	-	High (H)	Container Handling + reversing beepers	Noise wall along tracks + reversing squawker alarm
Active Recreation Areas			53	53	53				
Arena Sports Club	47	-	-	-	-	-	Low (L)	-	-
Carnarvon Golf Club	45	-	-	-	-	-	Low (L)	-	-
Sydney University Hockey Fields	52	-	-	-	-	-	Low (L)	-	-
Commercial			63	63	63				
Nearest Affected	51	-	-	-	-	-	Low (L)	-	-
Industrial			68	68	68				
Nearest Affected	67	-	-	-	-	-	Low (L)	-	-

The results show that the noise emissions from the site exceed the nominated PNTLs at nineteen (19) of the nearby sensitive receiver areas (for residential areas there will be several individual receivers with similar noise levels). The worst-case impacts / risks occur during the nighttime period with exceedances of up to 11 dB. Sleep disturbance impacts would be experienced by nine (9) receiver groups in the area.

Exceedances of this magnitude and the character of the noise (ie impulsive noise) should be categorised as *Very High (V)* risk – which means that standard and non-standard mitigation measures will be required for the site. For this site the container handling has been identified as the dominant noise source. Adverse noise emissions from container handling are typically attributed to the impulsive noise of metal-on-metal impacts. This type of noise emission is loud and also attracts a +5 dB penalty for impulsive noise as discussed in Section 4.2 above. Sleep disturbance would need detailed consideration for this type of noise impact.

To mitigate the noise from handling containers it is likely that a long noise wall will be required to the north of the siding tracks where the cranes operate. The extents and height of the noise wall will be dependent on the handling operations and operating height of the containers / cranes. It may also be necessary to add vibration isolation (rubber cladding) to the handling forks / hooks to mitigate the metal-on-metal impacts.

Reversing beepers for site equipment (frontend loaders / excavators / prime movers) may also need to be replaced with reversing squawkers.

5 Conclusion

This review has considered the noise impacts for the proposed Waste Transfer Station (WTS) located at 20 Dasea Street, Chullora, NSW. The review has outlined the nearby noise-sensitive receivers surrounding the site and provided indicative noise criteria based on recent historical noise studies in the area.

Using this data, the potential exceedance of the noise criteria due to site operations have been predicted. The associated risk of adverse noise impact for the worst-case emissions has been estimated.

This review finds the overall risk of noise impact is *Very High (V)* for the closest residential receivers. This means that standard and non-standard mitigation measures will likely need to be considered during the detailed design stage of the project to ensure compliance with the noise criteria. The mitigation measures may include:

- Noise wall to the north of the siding tracks adjacent to where the cranes handle containers.
- Vibration isolation (rubber cladding) to the crane handling forks / hooks.
- Reversing squawkers for all site equipment.

I trust this letter provides sufficient detail for your current requirements. If you have any questions, please do not hesitate to contact me.

Yours sincerely



Tom Cockings
Director | Acoustic Engineer

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Appendix E – Traffic and transport memo

Reference: 25.455r01v02

12 February 2026

EME Advisory
Via Email

Attention: Brian Cullinane, Director

Re: 20 Dasea Street, Chullora
Proposed Waste Transfer Facility
Preliminary Assessment

Dear Brian,

TRAFFIX has been commissioned to assess the preliminary traffic and transport impacts of a proposed waste transfer facility located at 20 Dasea Street, Chullora. The subject site is located within the City of Canterbury Bankstown local government area (LGA) and has been assessed under that Council's controls.

This statement documents the preliminary findings of our investigations, to assess the feasibility of proposed vehicular accesses and internal design configurations.

The proposed development is considered to be a major development being a Waste Transfer Facility. As such, the future DA stage will require referral to Transport for NSW (TfNSW) under the provision of the State Environmental Planning Policy (Transport and Infrastructure) 2021.

➤ Site and Location

The subject site is situated at 20 Dasea Street, Chullora and is located approximately 1.83 kilometres east of Regents Park and Birrong Railway Stations.

In a regional context, it is located approximately 15 kilometres west of the Sydney Central Business District (CBD). More specifically, it is located on the eastern side of Dasea Street, being approximately 390 meters north of the Dasea Street and Muir Road roundabout.

The site is irregular in configuration and has a total site area of approximately 20 hectares. It is bounded by existing vegetation to the north and east. The southern boundary is bounded by the existing railway tracks, and the western boundary is bounded by Dasea Street. Vehicular access to the site is currently provided via Dasea Street.

A Location Plan is presented in Figure 1, with a Site Plan presented in Figure 2.

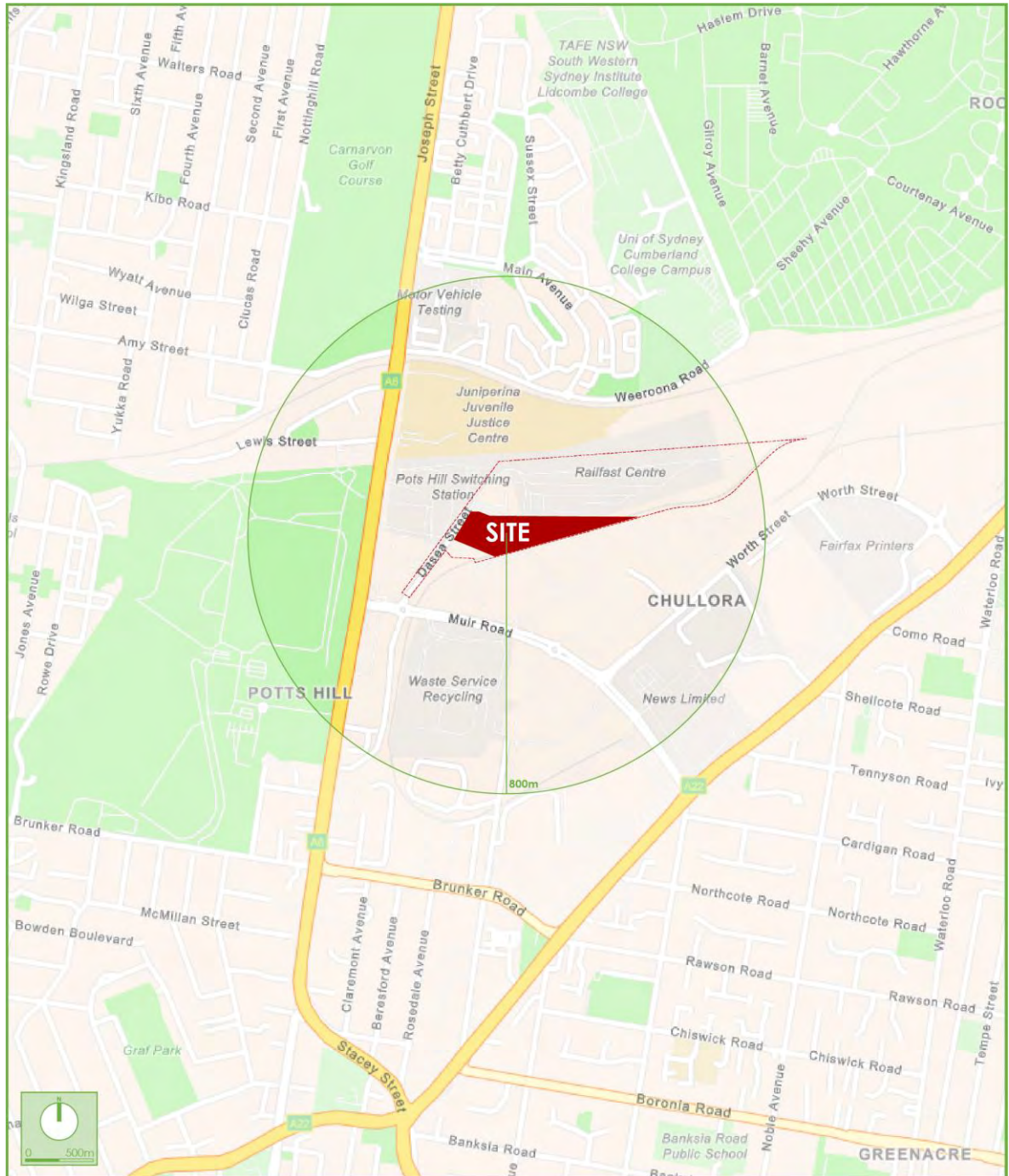


Figure 1: Location Plan



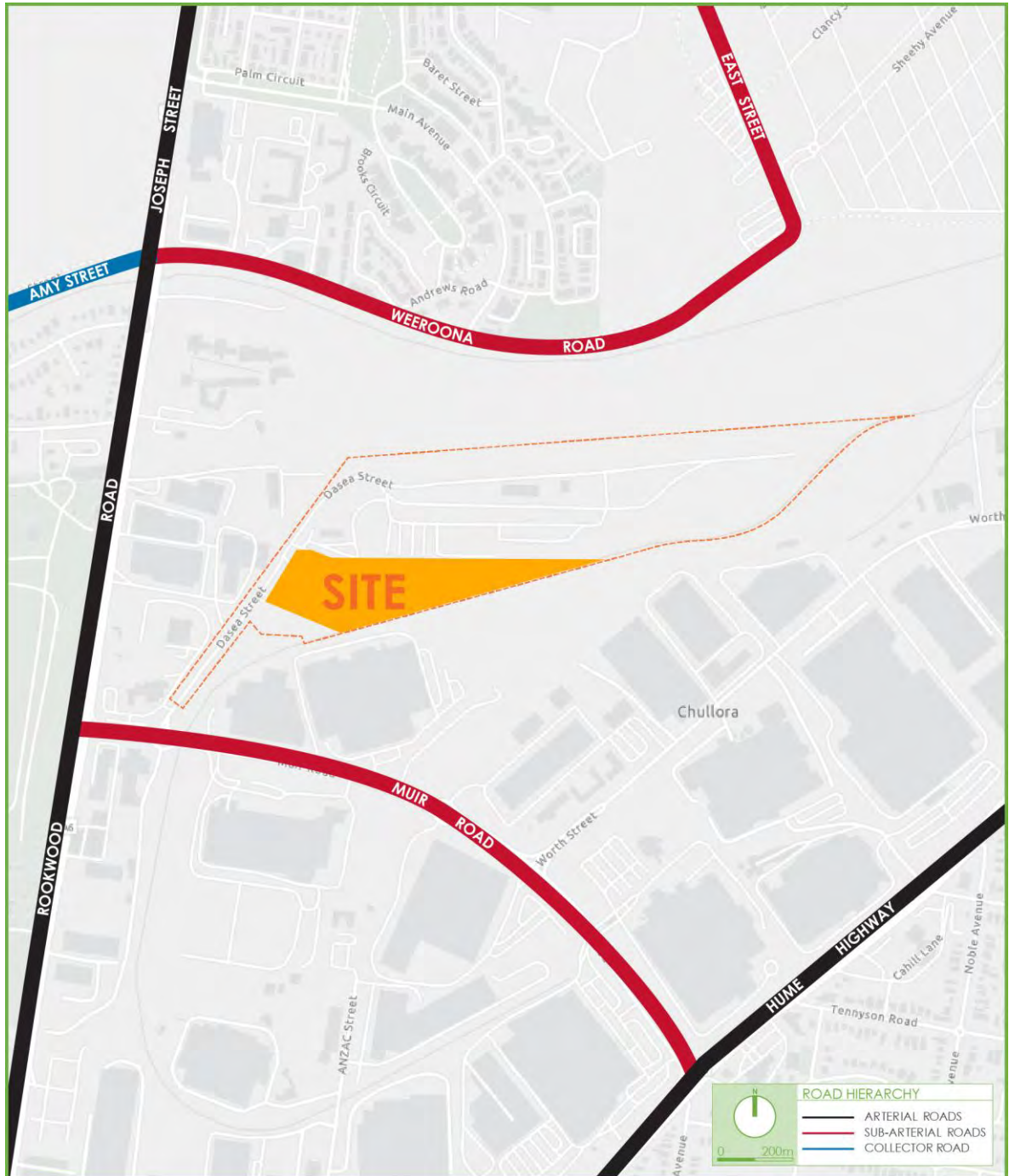
Figure 2: Site Plan

➤ Road Hierarchy

The road hierarchy in the vicinity of the site is shown in Figure 3 with the following roads of particular interest:

- **Rookwood Road:** a TfNSW Main Road (MR 190) and a National Heavy Vehicle Regulator (NHVR) approved 26.0m B-Double Route that traverses in a north-south direction between Joseph Street in the north and Stacey Street in the south. Within the vicinity of the site, Rookwood Road features a divided carriageway and accommodates three (3) lanes of traffic in each direction of travel. Rookwood Road is subject to 70km/h speed zoning and restricts kerbside parking on both sides of the road. Rookwood Road accommodates existing bus route with bus zones situated on the left side of the road on each direction of travel.
- **Muir Road:** a local collector road and a National Heavy Vehicle Regulator (NHVR) approved 26.0m B-Double Route that traverses in an east-west direction between Remembrance Driveway in the east and Rookwood Road in the west. Within the vicinity of the site, Muir Road features a divided carriageway and accommodates two (2) lanes of traffic in each direction of travel. Muir Road is subject to 60 km/h speed zoning and restricts kerbside parking on both sides of Muir Road. Muir Road accommodates existing bus route with bus zones situated on the left side of the road on each direction of travel.
- **Dasea Street:** a local road and a National Heavy Vehicle Regulator (NHVR) approved 26.0m B-Double Route that traverses in a north-south direction between the vehicular access into 20 Dasea Street in the north and the Dasea Street and Muir Road roundabout in the south. Within the vicinity of the site, Dasea Street accommodates two (2) through lanes northbound towards the subject site and a single lane of southbound traffic in the respective direction of travel. Dasea Street is subject to a pavement marked 20 km/h speed zoning and restricts kerbside parking on both sides of the road.

It can be seen from Figure 3 below the subject development is conveniently located within an established industrial area with direct access to and from the site using National Heavy Vehicle Regulator (NHVR) approved 26.0m B-Double Route roads.



➤ Description of Proposed Development

This preliminary feasibility assessment has been undertaken for the proposed waste to rail transfer station located at 20 Dasea Street, Chullora that would supply waste feedstock to a future Energy-from-Waste facility outside the Sydney region from 2031/32 with a possibility of an interim use of the WTS from 2029 to haul waste to landfill. It is understood that the subject site is currently occupied by the Sydney Freight Terminal operated by Pacific National.

Traffic understands the target tonnage capacity of the proposed Waste Transfer Station is 760,000 tonnes per annum (tpa).

Traffic has assessed the impacts of four (4) potential phases summarised as follows:

- Phase 1 - Waste to Road Transfer Station – Tonnage throughput – 150ktpa (2028 to 2030)
- Phase 2 - Waste to Rail Transfer Station – Tonnage throughput – 760 ktpa (2030/31 and beyond)
- Business Continuity - in the event of a rail outage over the Blue Mountains.
- Phase 2 + Business Continuity

Reference should be made to the initial concept plans that are presented at a reduced scale in Attachment 1.

➤ Parking Requirements

The Canterbury Bankstown Development Control Plan (DCP) 2023, Chapter 3.2 (Amended August 2024) requires parking for industries to be provided by the rates shown in Table 1 below:

Table 1: Canterbury Bankstown Council DCP 2023 Parking Rates and Provision

Type	Area/Units	Parking Rate	Parking Spaces Required	Parking Spaces Provided
Industries (including ancillary office) (subject to confirmation from Planner)	11,550m ²	1 space per 100m ² GFA Note 1: Where a retailing component is involved and provided this does not exceed 15% of the GFA (covering the retail component only), 1 car space per 100m ² GFA is to be provided Note 2: Where an office component is involved and provided this does not exceed 20% of the total GFA, 1 car space per 100m ² GFA is to be provided. Any additional office space will be assessed at a rate of 1 car space per 40m ² GFA.	118.5	20
Total			119	20

It can be seen that from Table 1 above, the subject development is nominally required to provide 119 car parking spaces in strict accordance with Council's DCP 2023.

However, given the unique operating nature of the proposed Waste Transfer Facility, it is expected that this requirement can be significantly reduced to meet projected staffing demands given that the subject development is not available for public access and all parking demands will be derived from

staff. It is expected that operational data can be provided at DA stage to support any proposed reduction in parking provisions.

➤ Traffic Impacts

Key intersections

The following key intersections are located within proximity of the subject site:

- Rookwood Road / Muir Road
- Muir Road / Dasea Street
- Muir Road / Worth Street
- Muir Road / Hume Highway

It is likely that any future DA would require impacts to the above intersections to be assessed, which will involve undertaking traffic surveys and SIDRA intersection modelling as considered appropriate.

Traffic Generation

Reference is made to the 'Response to RFI 202526_004 – 20/10/2025' memo dated 22 October 2025 prepared by Cleanaway in relation to the proposed waste transfer facility, which set out the likely maximum expected traffic generation related to each stage of the proposal, as follows:

Phase 1

A maximum of:

- 107 truck arrivals per day on a weekday;
- 214 truck movements per day (arrivals and departure).

Assuming a 24-hour operation and truck movements are spread evenly across the day would equate to the following:

- AM Peak: 26 truck movements per hour during the morning peak. This is based on the presumption that approximately 12% of truck movements over a 24-hour period will occur during the morning peak based on graph in the memo presented in *Attachment 2*.

The above increase in vehicle trips (+26 vehicle trips per hour) during the critical morning peak is moderate and would have some impacts to the operation of surrounding streets and the nearby key intersections discussed above.

Phase 2

- Maximum 407 truck arrivals per day on a weekday; and
- 814 truck movements per day (arrival and departure).

It is understood that there would be a maximum of 50 truck arrivals per hour at 8:00am for the incoming waste trucks based on the graph provided in the memo presented in *Attachment 2* which coincides with the morning commuter peak.

In addition, there will be seven (7) truck arrivals per day for outgoing waste to spread evenly across the day which equates to less than one (1) truck arrival per hour.

Therefore, the indicative peak truck arrivals are as follows:

- AM Peak: 100 truck movements per hour (50 in, 50 out); and
- PM Peak: 30 truck movements per hour (15 in, 15 out).

The above increase (+100 vehicle trips per hour) during the critical morning peak is considered substantial and would likely have significant impacts to the operation of nearby intersections.

Business Continuity

It is pertinent to note that this scenario is included as a contingency in the event of any rail outage and would be in addition to the abovementioned Phase 2.

- Maximum 220 vehicle movements per day (arrival and departure).

If 12% of truck movements occur during the morning peak, this equates to:

- 26 truck movements per hour during the morning peak.

Phase 2 + Business Continuity

The indicative peak hour truck movements include:

- AM Peak: Max 110 truck movements per hour (55 in, 55 out); and
- PM Peak: Max 40 truck movements per hour (20 in, 20 out)

The above increase (+110 vehicle trips per hour) during the critical morning peak is considered substantial and would likely have significant impacts to the operation of nearby intersections.

In light of the above, it is considered that intersection surveys and modelling would be required to assess the impacts to the surrounding road network and the key nearby intersections mentioned above. It is recommended to undertake intersection surveys and sensitivity testing modelling at DA or pre-DA stage to develop a truck arrival schedule (if feasible) which would have least impact to nearby intersections during peak periods.

Vehicular Access & Queueing Analysis

A queueing assessment presented in [Attachment 3](#) has been undertaken to assess the likelihood of vehicle arrivals access via Dasea Street based on the traffic generation associated with the proposed development as summarised below:

- 55 vehicle arrivals per hour (maximum morning peak hour arrivals during Stage 2)

Clause 3.5 of AS2890.1 (2004) states that the storage area shall be designed to accommodate the 98th percentile queue to ensure that queuing does not extend beyond the property boundary onto the public domain under normal foreseeable conditions and as such the storage area should accommodate the 98th percentile queue. TRAFFIX has assumed that the time required to service a vehicle on the weighbridge is typically 30 seconds (service time can be adjusted based on client advice, as required) and this has been adopted as the service rate. It is understood that at least two (2) weighbridges will be provided for incoming vehicles.

Based on the above the above, there would be a requirement to accommodate five (5) vehicles in the system at any one time to accommodate the 98th percentile queue. This is considered achievable (subject to receipt of updated plans) whereby up to two (2) vehicles can be accommodated on two (2) weighbridges, and at least 3-4 vehicles in the queuing areas.

It is envisaged that queueing will therefore be contained within the subject site and will not extend back onto Dasea Street based on the queueing assessment which was undertaken in accordance with AS2890.1 (2004). This assumes that two weighbridges will be provided. Reference should be made to the queueing assessment presented in [Attachment 3](#).

It is pertinent to note that the vehicular access and internal design will be assessed in full once plans are progressed to a development application (DA) stage. Reference should be made to the swept path analysis provided in [Attachment 4](#) showing all critical manoeuvres to/from and within the subject site via Dasea Street.

It is understood that concerns have been raised regarding the potential for vehicle conflicts between vehicles accessing the subject site and Pacific National vehicles at the Dasea Street access. It is envisaged that a Traffic Management Plan could be prepared at DA stage to manage such conflicts as considered appropriate.

➤ Internal Design

The preliminary investigation concluded that the proposed vehicular access and the internal car park layout is acceptable and will generally comply with AS2890.1 (2004) and AS2890.2 (2018) requirements.

It is pertinent to note that the proposed vehicular access and internal design will be assessed in full once plans are progressed to a Development Application (DA) stage. Reference should also be made to the swept path analysis provided in [Attachment 4](#) showing all critical manoeuvres to/from and within the subject site via Dasea Street.

➤ Conclusion

On the basis of the above, the proposed development in our view is considered supportable in terms of queuing and design (subject to receipt of the plans), and the traffic impacts are to be assessed at DA Stage and will likely to involve sensitivity testing to understand operational requirements ensuring impact to surrounding intersection are mitigated.

It is pertinent to note that the vehicular access and internal design will be assessed in full once plans are progressed to a development application (DA) stage.

We trust the above is of assistance and please contact the undersigned should you have any queries.

Yours faithfully,

Traffix



Justin Pindar
Director

Encl: Attachment 1 – Concept Plans
Attachment 2 – Memo
Attachment 3 – Queueing Analysis
Attachment 4 – Swept Path Analysis

ATTACHMENT 1

Concept Plans

ATTACHMENT 2

Memo

To: Brian Cullinane, Paul Bryant

cc: Paul Antony

From: Henry Gundry

Date: October 22, 2025

Subject: Response to RFI 202526_004 – 20/10/2025

Strategy

The operation of the transfer station will involve two phases. The initial phase, the transfer station will be used to replace the current Auburn Transfer Station, which is slated for mandatory closure in 2027/28.

The second phase and transition to rail will involve ramp up in volume direct to rail and the regional base Energy from Waste facility. In addition, waste outgoings via road are assumed for any resource recovery objectives within the transfer station building.

Phase 1 – Waste to Road Transfer Station – Tonnage throughput – 150ktpa (2028 to 2030)

Phase 2 – Waste to Rail Transfer Station – Tonnage throughput – 760 ktpa (2030/31 and beyond)

Note: Indicative tonnage subject to detail business and resource recovery strategy.

RFI Reference – 1 – Sydney Freight Terminal – Major Hazards Facility

Pacific National have provided the Safety Case documentation - document provided via Email to EME Advisory

RFI Reference – 2 – Risks

- a) Waste Types
 - General Solid Waste - Putrescible & Non-Putrescible
 - o MSW, C&I – residual, plus FOGO, GO and Commercial Organics
 - O Potential – C&D residual waste
- b) Pacific National MHF Safety Case provided
- c) Subject to Site and location assessment
- d) Refer to adjoining land uses and residential receivers in the Pacific National Safety Case
- e) Proposed fire protection – Static water supply, thermal hotspot detection in waste bays, cannons and ring main hydrant system

RFI Reference – 3 – Engagement

Cleanaway will take the lead on engagement with NSW EPA, Planning and relevant local government. The engagement process will involve Pacific National

Will advise if any changes to this strategy.

EME Advisory to engage with the local government and EPA to obtain the existing copies of development approval and EPL as required. The proposed development as part of request for existing information to be defined as "Industrial Facility to Align with Intermodal Rail Transport".

RFI Reference – 5 - Workforce

5a) Typical number of Workers onsite/day & 5b) Anticipated changes to workforce numbers

Phase 1 - Waste to Road (2028 to 2030) - 150ktpa Transfer Station throughput

Cleanaway Staff - up to 15/day, plus 2 to 3 Maintenance/fuelling/cleaning per day

Phase 2 - Waste to Rail (post 2030) - 760ktpa Transfer Station throughput

Cleanaway Operators & Staff - around 40 people/day + 4 Maintenance staff/fuelling/cleaning/day

Operations will be 24/7 operational site - assume 3 shifts/day.

RFI Reference – 6 - Traffic Projections

- a) DWG's will be available once the surveyor provides the relevant files to Cleanaway. Current time frame is that Architectural plans due end of 2nd week of November.

B) c) & d)

Phase 1 – Facility is proposed to operate as a transfer station servicing the existing Sydney processing and Landfilling business

Tonnage assumption – 150ktpa

Incoming waste

Weekday – 85 trucks/day

Weekend – 10 trucks per day

Vehicle Configuration assumes – Rigid Side Lifts, Front Lift, Rear Lift trucks and occasional walking floor semi-trailers

Outgoing Waste

Weekday – 22 Trucks/day

Weekend – 3 Trucks/day

Vehicle Configuration Assumes

- Quad Axle/Tri Axle Semi Trailers – up to 20m

- Truck & Dog Config

Phase 2 – Transition to Full production – Waste to Rail

Tonnage assumption via rail: 760ktpa

Incoming waste

Weekday – 350 to 400 trucks/day

Weekend – 35 to 40 trucks/day

Vehicle Configuration assumes – Kerbside, Front Lift, Rear Lift trucks, Quad Axle Semi trailers (up to 20m)

Outgoing Waste – Any resource recovery material

Weekday – 7 trucks/day

Weekend – 2 Trucks/day

Vehicle Configuration Assumes

- Quad Axle Semi Trailers – up to 20m

- Truck & Dog Config

Business Continuity - in the event of a rail outage over the Blue Mountains.

Note: In The past 5 years, the rail network has been impacted by bushfires and flooding. The longest impact was around 10 days.

Outgoing waste – 760ktpa

Daily vehicle movements – 95 - 110/day

Vehicle Configuration Assumes:

Quad Axle Semi Trailers – up to 53.5tonnes, or 50.5t (16.5m to 20m)

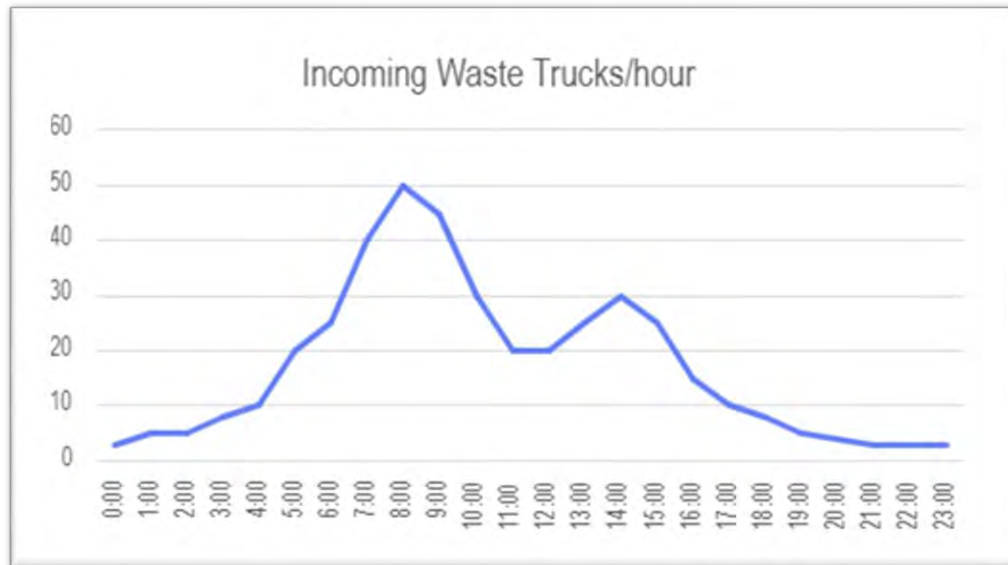
Tri Axle Semi Trailers – up to 45.5t (16.5m to 20m)

Note: Vehicle length restrictions on the Great Western Highway – Maximum Length 20m subject to PBS and Transport for NSW restriction.

Note: Design assumptions should include A Doubles and B Doubles – Exiting the container hardstand adjacent to the rail sidings

Income waste traffic schedule – Estimated

Exact schedule is subject to detailed modelling and Cleanaway scheduling or its internal fleet



Estimated outgoing resource recovered waste trucks during Phase 2, is expected to be regular through business hours.

RFI Reference – 8 – Project Kick Off Inputs

- a) Cleanaway Risk Matrix provided via email
- b) Revised layout due 15 November.
- c) Request for traffic data from Pacific National and neighbouring Linfox yard has been initiated.

ATTACHMENT 3

Queueing Analysis

Weighbridge Queue Analysis

Variable Inputs

Phase 1 Vehicle Arrivals (veh/hr)	13
Phase 2 + Business Vehicle Arrivals (veh/hr)	28
Weighbridge Capacity (veh/hr) (based on 2 x weighbridges)	60
Effective Service Time / Veh (sec)	60

Phase 1

Queuing Theory Factors	
average arrival rate (r)	13.00000 *r=(veh/hr)
average service rate (s)	60.00000 *s=3600/(Total Average Time)
utilisation factor (p)	0.21667 *p=r/s if p < 0, then queue is 'stable'
mean queue (E(m))	0.05993 *E(m)=(p/(1-p))-p

Probability of More than (n) Vehicles in System [P(n>N)]		*Pr(n>N) = p^(N+1)
No. Vehicles in System (n)	Probability (%)	Percentile (1-P)
0	21.7%	78.33%
1	4.7%	95.31%
2	1.0%	98.98%
3	0.2%	99.78%
4	0.0%	99.95%
5	0.0%	99.99%
6	0.0%	100.00%
7	0.0%	100.00%
8	0.0%	100.00%
9	0.0%	100.00%
10	0.0%	100.00%

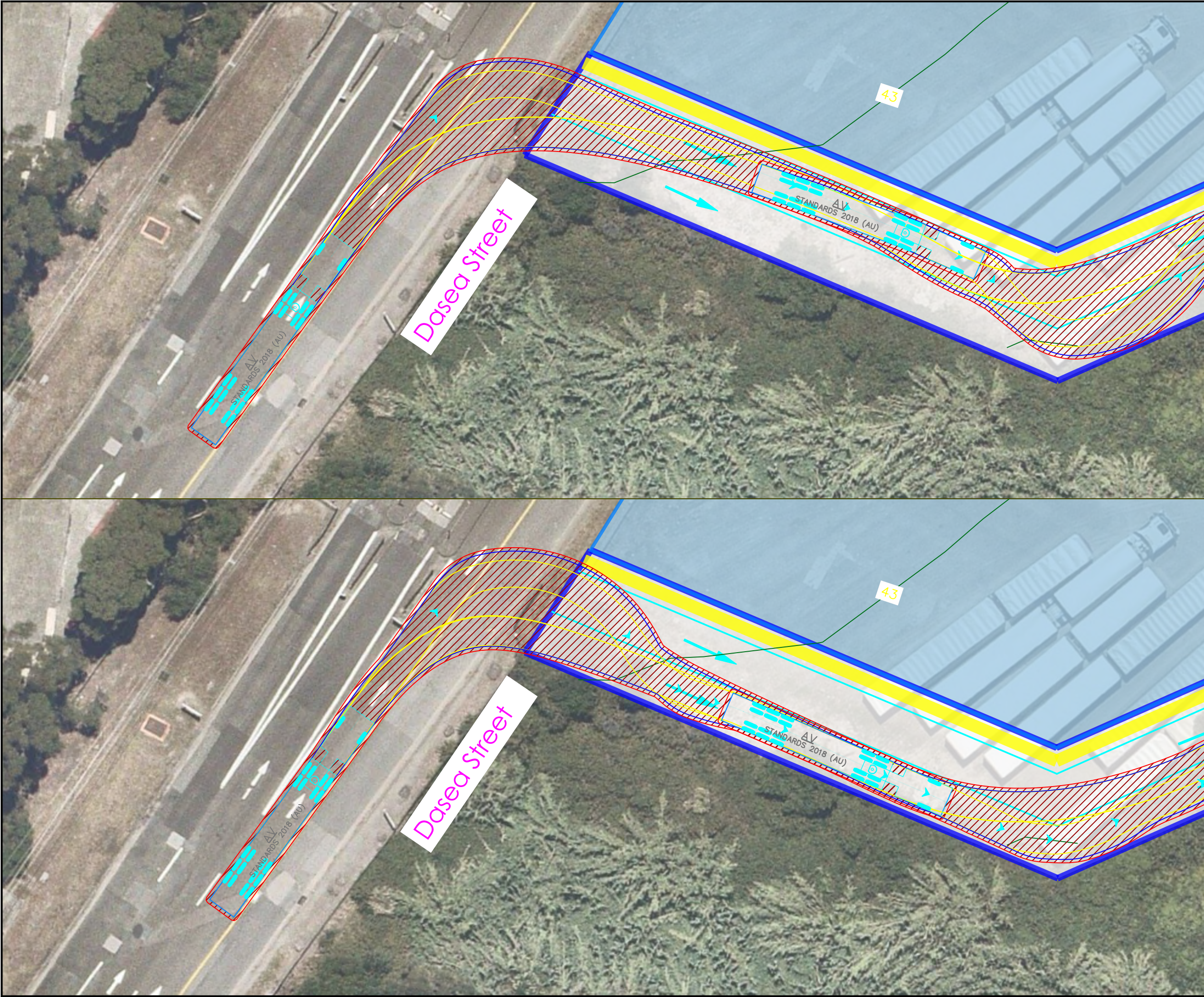
Phase 2 + Business

Queuing Theory Factors	
average arrival rate (r)	28.00000 *r=(veh/hr)
average service rate (s)	60.00000 *s=3600/(Total Average Time)
utilisation factor (p)	0.46667 *p=r/s if p < 0, then queue is 'stable'
mean queue (E(m))	0.40833 *E(m)=(p/(1-p))-p

Probability of More than (n) Vehicles in System [P(n>N)]		*Pr(n>N) = p^(N+1)
No. Vehicles in System (n)	Probability (%)	Percentile (1-P)
0	46.7%	53.33%
1	21.8%	78.22%
2	10.2%	89.84%
3	4.7%	95.26%
4	2.2%	97.79%
5	1.0%	98.97%
6	0.5%	99.52%
7	0.2%	99.78%
8	0.1%	99.90%
9	0.0%	99.95%
10	0.0%	99.98%

ATTACHMENT 4

Swept Path Analysis



Notes:

This drawing is prepared for information purposes only. It is not to be used for construction.

TRAFFIX is responsible for vehicle swept path diagrams and/or drawing mark-ups only. Base drawing prepared by others.

Vehicle swept path diagrams prepared using computer generated turning path software and associated CAD drawing platforms. Vehicle data based upon relevant Australian Standards (AS/NZS 2890.1:2004 Parking facilities - Off-street car parking, and/or AS2890.2:2002 Parking facilities - Off-street commercial vehicle facilities). These standards embody a degree of tolerance, however the vehicle characteristics in these standards represent a suitable design vehicle and do not account for all variations in vehicle dimensions / specifications and/or driver ability or behaviour.

Rev.	Revision Note	By.	Date
A	Initial Design Review	AS	17-12-25
B	Design Review Update	AS	10-02-26

Swept Path Legend

- Wheel Path
- Vehicle Body Envelope
- Clearance Envelope (300mm)

Architect

Client

EME Advisory

Scale / Plan Orientation

0 3 6 9 12m

1:300 @ A3

Project Description

20 Dasea Street, Chullora

Drawing Prepared By

TRAFFIX

TRAFFIC AND TRANSPORT PLANNERS

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Drawing Title

Swept Path Analysis

Proposed Site Plan

20.0m Articulated Vehicle (AV)

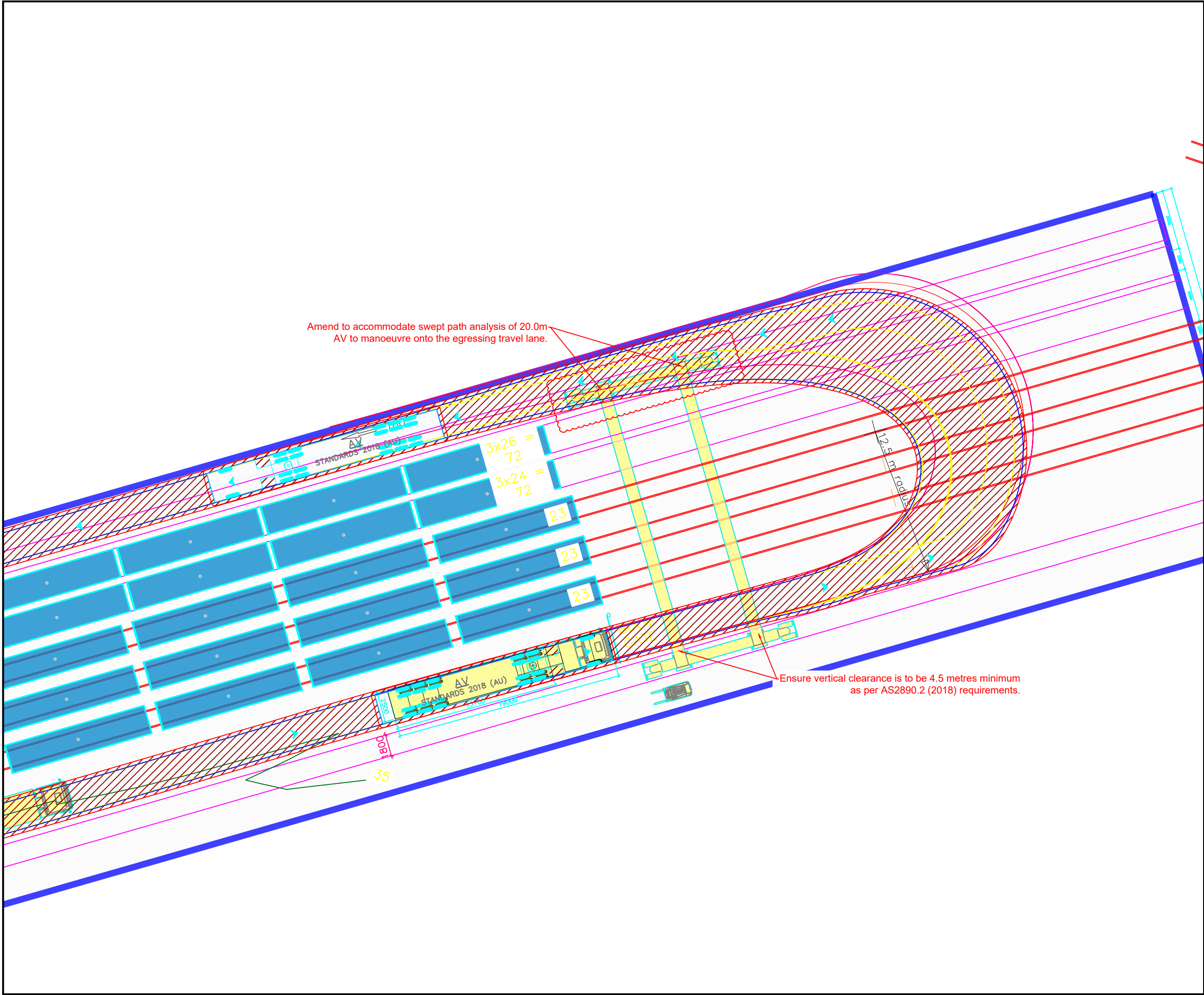
Forward Ingress from Dasea Street

Top: Lane 1 Bottom: Lane 2

Drawn: AS	Checked: JP	Date: See Rev.
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25.455d02v01 TRAFFIX [260206 Plans] Design Review.dwg

Project No.	Drawing Phase	Drawing No.	Rev.
25.455	Pre-DA	TX.01	B



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Architect

Client
EME Advisory

Scale / Plan Orientation

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Project Description
20 Dasea Street, Chullora

Drawing Prepared By

TRAFFIX
TRAFFIC AND TRANSPORT PLANNERS

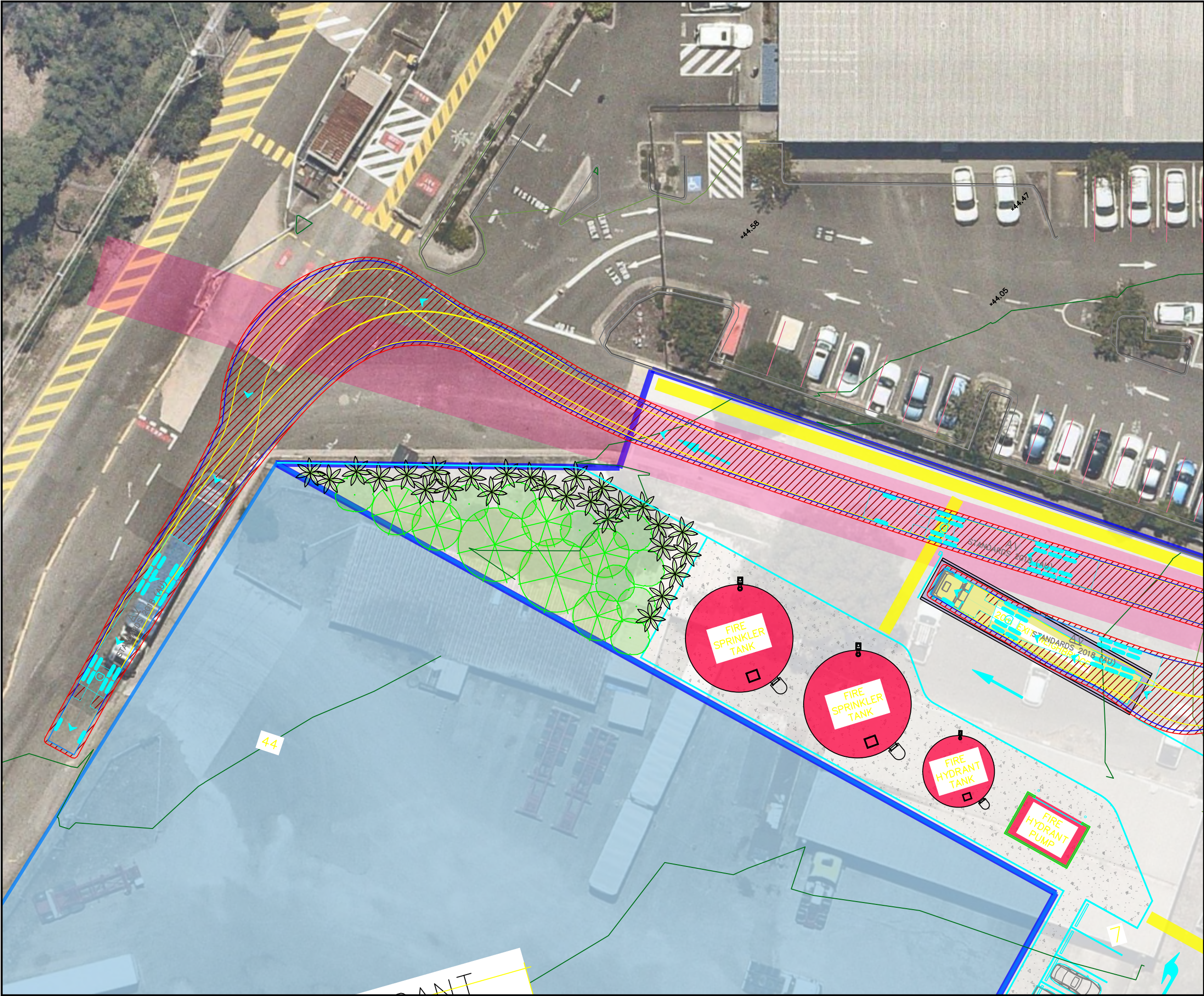
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Surry Hills, NSW 2010 f: +61 2 9830 4481
PO Box 1124 w: www.traffix.com.au
Strawberry Hills, NSW 2012

Drawing Title
Swept Path Analysis
Proposed Site Plan
20.0m Articulated Vehicle (AV)
Internal Manoeuvre

Drawn: AS	Checked: JP	Date: See Rev.
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25.455d02v01 TRAFFIX [260206 Plans] Design Review.dwg

Project No. 25.455	Drawing Phase Pre-DA	Drawing No. TX.02	Rev. B
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Swept Path Legend

- Wheel Path
- Vehicle Body Envelope
- Clearance Envelope (300mm)

Architect

Client

EME Advisory

Scale / Plan Orientation

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1:300 @ A3

Project Description

20 Dasea Street, Chullora

Drawing Prepared By

TRAFFIX

TRAFFIC AND TRANSPORT PLANNERS

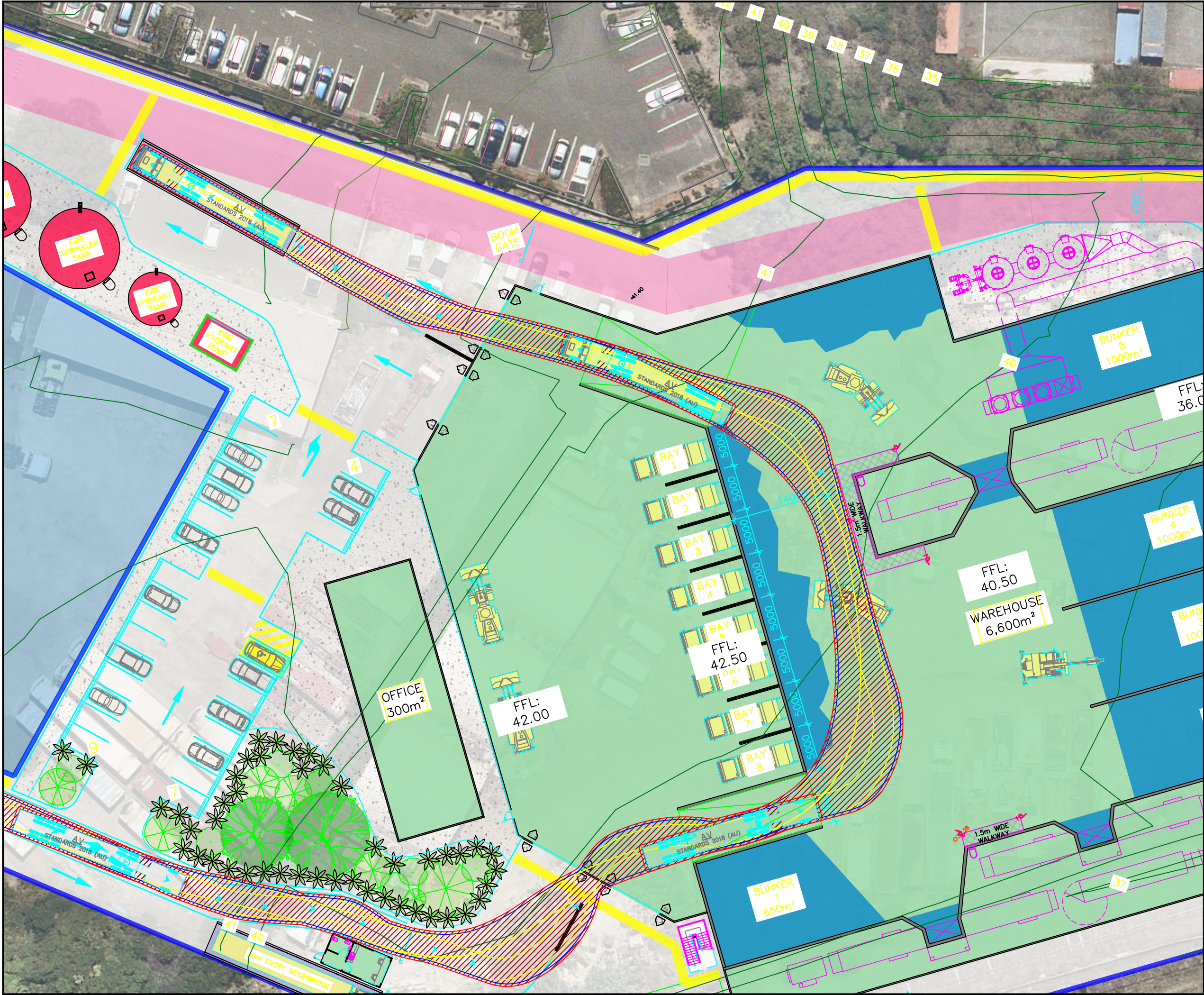
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Drawing Title

Swept Path Analysis
Proposed Site Plan
20.0m Articulated Vehicle (AV)
Forward Egress onto Dasea Street

Drawn: AS	Checked: JP	Date: See Rev.	
25.455d02v01 TRAFFIX [260206 Plans] Design Review.dwg			
Project No.	Drawing Phase	Drawing No.	Rev.
25.455	Pre-DA	TX.03	B



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- Clearance Envelope (300mm)

Architect

Client

EME Advisory

Scale / Plan Orientation

0 4 8 12 16m

1:400 @ A3

Project Description

20 Dasea Street, Chullora

Drawing Prepared By

TRAFFIX

TRAFFIC AND TRANSPORT PLANNERS

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Drawing Title

Swept Path Analysis
Proposed Site Plan
20.0m Articulated Vehicle (AV)
Internal Manoeuvre

Drawn: AS	Checked: JP	Date: See Rev.
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25.45502v01 TRAFFIX [260206 Plans] Design Review.dwg

Project No.	Drawing Phase	Drawing No.	Rev.
25.455	Pre-DA	TX.04	B

Appendix F – Surface water, flooding and stormwater due diligence

To: Brian Cullinane

From: Nigel Bosworth

Company: EME Advisory

SLR Consulting Australia

Date: 27 February 2026

Project No. 630.032712.00001

**RE: Chullora Waste Transfer Station
Flooding and Stormwater Due Diligence Assessment**

1.0 Background

SLR Consulting Pty Ltd (SLR) has been engaged by EME Advisory to provide preliminary flooding and stormwater assessment to support the Due Diligence Investigations at Waste Transfer Station Facility at 20 Dasea Street, Chullora, NSW. SLR has prepared this flooding and drainage advice on the understanding that it is to form part of the due diligence assessment of potential flood and stormwater issues at the site.

The purpose of this Memorandum is to outline key flooding and stormwater constraints based on available flood mapping and data.

2.0 Site Description

The site at 20 Dasea Street, Chullora is located within the local government area of the City of Canterbury–Bankstown in south-western Sydney. The site is situated in an established industrial precinct characterised by warehouses, logistics facilities, and transport-related operations. The property is set in the *E4: General Industrial Land Zoning* area.

The site forms part of the Upper Cooks River catchment, which drains east to the Cooks River before flowing into Botany Bay. Surface water in the area is conveyed mainly through stormwater pipes and concrete-lined channels, considering the highly urbanised environment. Cooks Creek flows through a concrete lined channel within the property boundaries, and no natural watercourses occur directly on or adjacent to the property.

Topography across the site is generally flat to gently graded, consistent with surrounding industrial lots and historical land regrading for urban development. Minor local slopes direct stormwater toward the street drainage system.

Vegetation within the lot is highly modified and limited to small patches of ornamental or landscaped plantings, with the wider area dominated by built surfaces, paved yards, and industrial structures.

CHULLORA WASTE TRANSFER STATION

FLOODING AND STORMWATER DUE DILIGENCE ASSESSMENT

FIGURE 1

LEGEND

- Waterway
- Site boundary
- LGA boundary
- 3m Contours



0 0.1 0.2 km



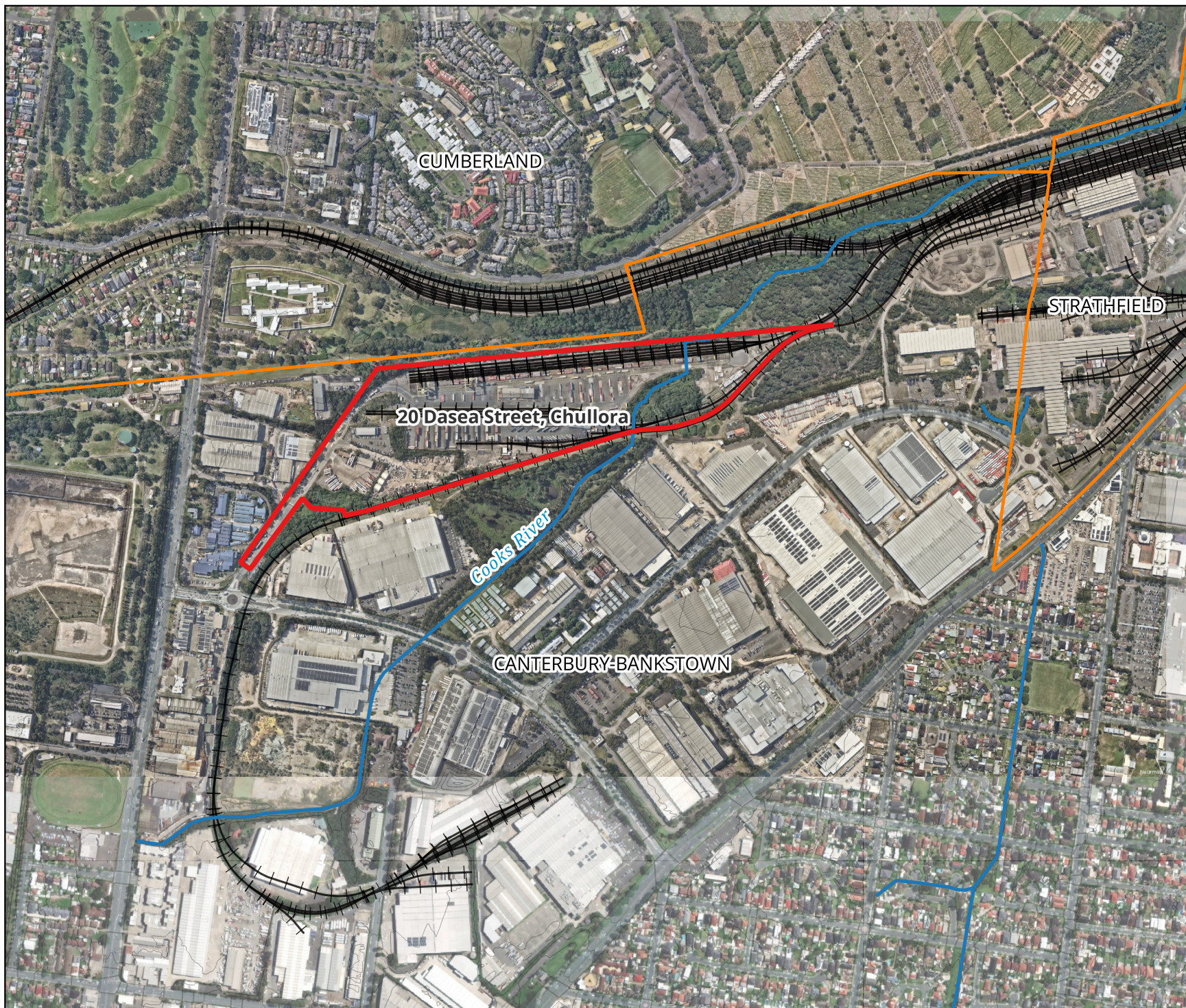
Coordinate System: GDA2020 MGA zone 56

Scale: 1:10671 at A4

Project Number: 630.032712.00001

Date: 26-Nov-2025

Drawn by: MS



3.0 Desktop Assessment

The following key sources and databases have been utilised for the preparation of this assessment:

- **Cooks River Stormwater Management Plan (PPK Environment, 1999):** the Plan aims to improve water quality and the health of the Cooks River by identifying practical and long-term solutions to stormwater problems. *This document is outdated and superseded by the controls proposed within the current Development Control Plan.*
- **Georges River Floodplain Risk Management Study and Plan (Bewsher Consulting, 2004):** reviews past floods, updates flood modelling, identifies flood behaviour, and evaluates flood damages across the Georges River catchment within Bankstown, Liverpool, Fairfield, and Sutherland Councils. *No information provided for the study area and Upper Cooks Creek.*
- **Cooks River Flood Study. (Sydney Water, 2009):** investigates the feasibility of naturalising the lower and middle reaches of both the Cooks River and the Alexandra Canal to improve their aesthetic and environmental values. Included an assessment of impacts on flooding within the Cooks River Catchment. *While the hydrologic model included the upper Cooks River and the study area, the flood modelling (TUFLOW) did not include the upper catchments of Cooks River and, thus, flood mapping does not include the project area.*
- **Cooks River & Coxs Creek Flood Study (WMAwater, 2010):** provides the basis for the future management of flood liable lands along the Cooks River and Coxs Creek within the Strathfield LGA. *This study includes flood modelling for the Cooks River catchment located within the Strathfield LGA which is located downstream of the site. The project area is not included in the analysis or mapping.*
- **Rookwood Road Catchment Flood Study (BMT WBM, 2010):** flood study of the Rookwood Road subcatchment, which covers the site area. *No report available online for this study.*
- **Cooks River Catchment Flood Study (BMT WBM, 2012):** defined flood behaviour throughout the Cooks River stormwater catchment, within Strathfield LGA. *No information provided for the study area and Upper Cooks Creek*
- **Final Overland Flow Study – Canterbury LGA Cooks Creek Catchment (Cardno, 2016):** the flood study covers the Cooks River catchment within the Canterbury LGA as part of the NSW Government Flood Prone Land Policy. *Until 2016 the site was part of the former Bankstown LGA and therefore this study does not include the project area.*
- **Sydney Water Stormwater Quality Targets (2021):** describes stormwater quality targets a site must meet when discharging to Sydney Water stormwater service or natural waterways. *This document provides reduction targets applicable to Cooks River.*
- **Cooks River Catchment Flood Study – Stage 1 (KBR, 2023):** the outcome of Stage 1 is a framework to support the development of an integrated and regional floodplain risk management plan in the catchment and to define the basis of future modelling and catchment-wide consideration of flood risk. *While this study did not provide flood mapping outputs, it consolidated an extensive range of datasets, including existing models from Flood Studies and Floodplain Risk Management*

Studies and Plans. This study was used to derive insights about the flood and stormwater context for the site.

- **Canterbury Bankston Development Control Plan (2023) and Development Engineering Standards (2009)**: provides the flood-related planning controls that apply across the LGA. It outlines development requirements for land affected by flooding, including categories of flood risk, minimum floor levels, building controls, safety considerations, evacuation, engineering requirements, and how flood studies must be used when assessing applications.
- **Canterbury Bankston Council Planning Maps (available online)**: for the purposes of planning, building and developing in the Council area.
- **Canterbury-Bankstown Local Environmental Plan (LEP, 2023)**: local environmental planning provisions for land in Canterbury-Bankstown in accordance with the relevant standard environmental planning instrument.

4.0 Flood Analysis

A high-level flood risk investigation, based on the datasets listed in **Section 3.0**, has been undertaken to assess flood impacts on the site.

This analysis is indicative only and reflects an initial evaluation of flood impacts using the information currently available for the existing location. **Any changes to site levels will require an assessment against existing levels and modelling, as part of the design process in order to minimise off site impacts to acceptable levels**

4.1 Data available from previous studies

The Cooks River Catchment Flood Study – Stage 1 (KBR, 2023) mapped all flood studies performed within the Cooks River catchment, shown on **Figure 2**.



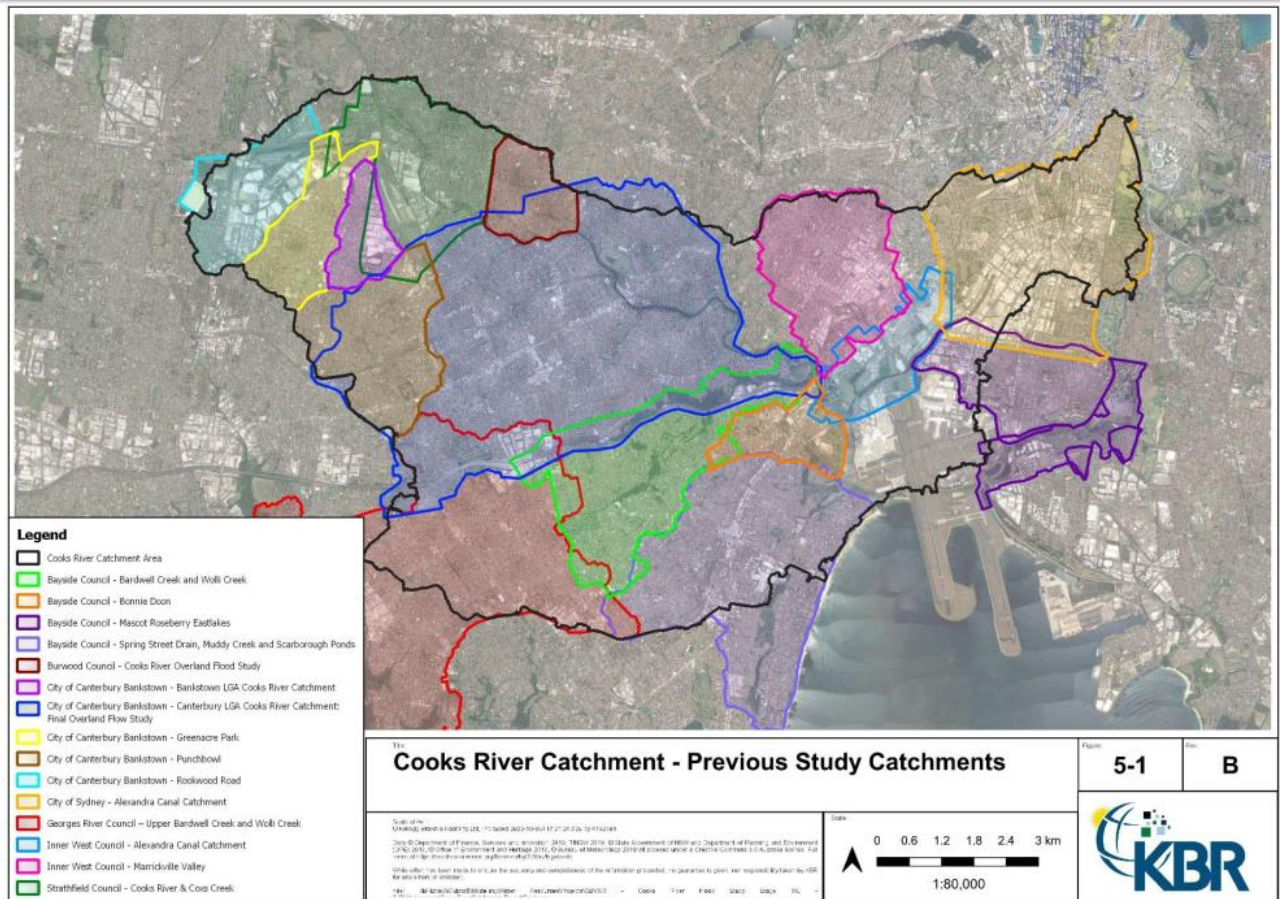


Figure 2 Study Area within Cooks River Catchment (KBR, 2023)

Among the studies listed, only the Rookwood Road Catchment Flood Study covered the site area, while another one covered an adjacent location (Greenacre Park Stormwater Catchment Flood Study).

Flood depths and levels were not available for any of the two studies. A flood risk map from the Rookwood Road flood study, contained in the *Stormwater Levy project fact sheet*, was available for analysis within Council website (**Figure 3**).



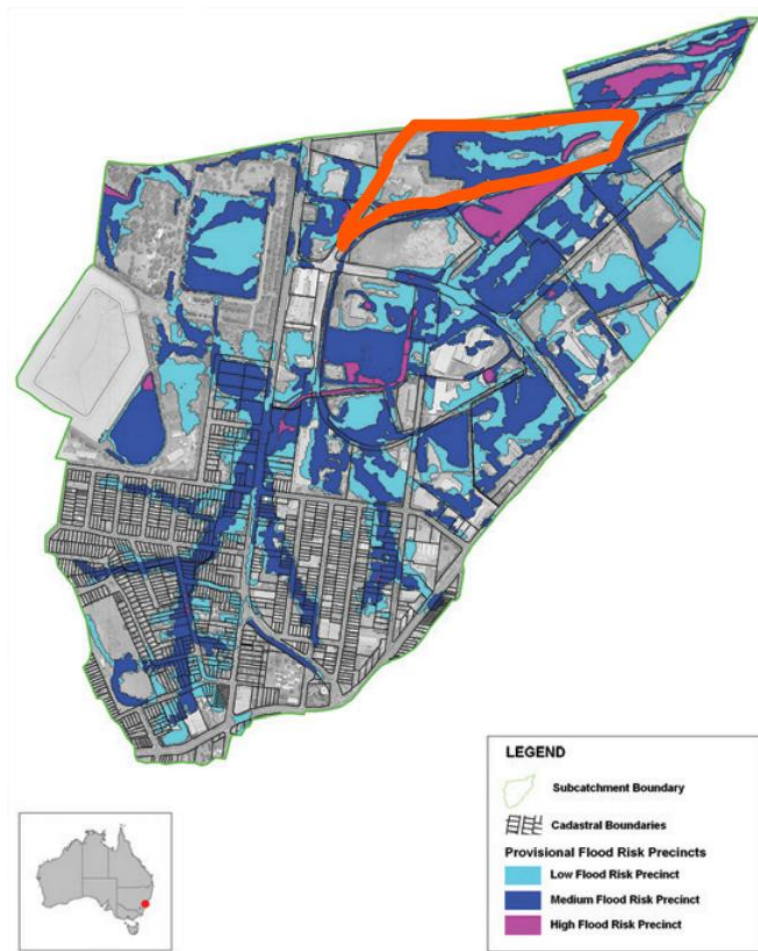


Figure 3 Rockwood Road flood risk map (Bankston City Council, 2009)

This figure shows that the project area (approximated by the red outline) is majorly contained within low and medium flood risk, with Cooks River listed as a high-risk area. Considering flood studies covering the study area were not available for review, flood depths and levels could not be retrieved.

4.2 Canterbury Bankstown Council Flood Information

The *Council Planning Map – Flood Mapping* is a Council online tool and presents the 1% AEP and PMF flood extents (but not depths) for the entire Council area (**Figure 4**). The flood extents correspond well to the flood risk map presented previously, with 1% AEP extents corresponding to medium flood risk, and PMF extents to low flood risk.

Identifying the site's flood risk is an important step towards defining the flood risk management controls in the Canterbury Bankstown Development Control Plan (DCP, 2023), since the DCP adopts a matrix approach. The 'planning matrix approach' identifies different categories of development and their suitability within different flood risk areas and provides a table of planning controls that apply to the different land uses in different parts of the floodplain (**Figure 5**).

This approach does not rely on a flood planning level. Importantly, the matrix approach operates in conjunction with the flood risk mapping (low, medium and high flood risk precincts). Rather than identify a single flood prone area within which all development is subject to planning considerations, the flood risk approach is used in conjunction with the



planning matrix to determine which controls apply, to which land uses, within each flood precinct.

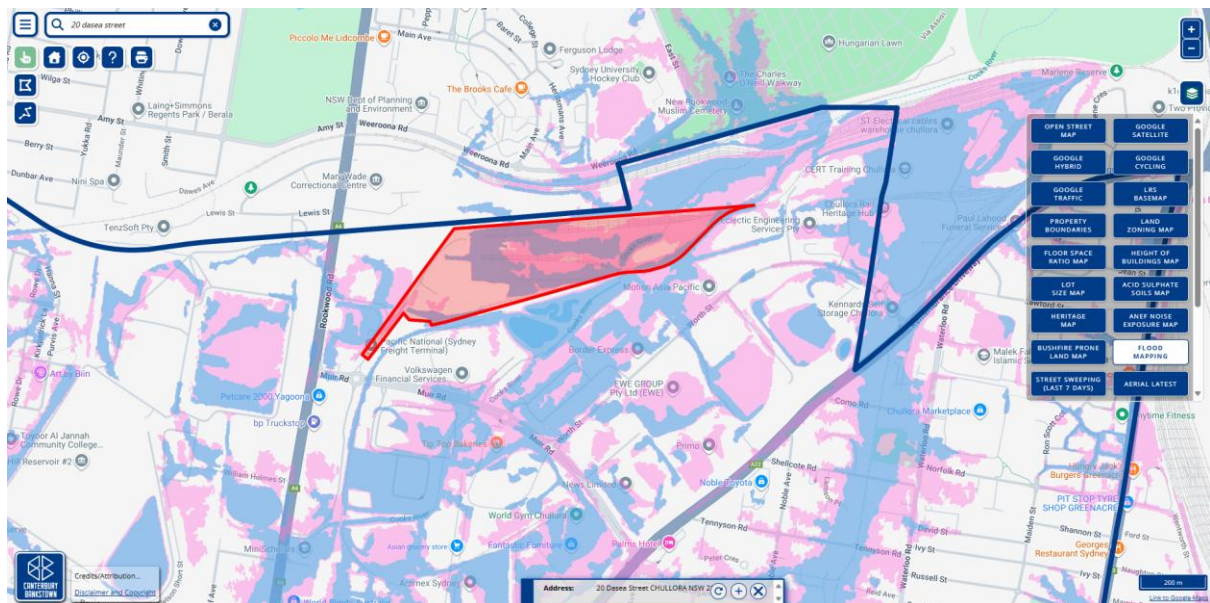


Figure 4 Flood Mapping available from Council online resources. 1% AEP extents (blue) and PMF extents (pink)

Considering the 'Industrial and Commercial' land use, the following controls apply for low and medium flood risk areas, considering the 'floor levels' and 'flood effects' rows (**Figure 5**):

- 1. *Freeboard: Freeboard equals an additional height of 500mm in the low, medium and high flood risk precincts*
- 2. *Permissibility of development: (...) The above matrix identifies where certain development types will be considered unsuitable due to flood related risks. If development consent is granted, compliance with the controls (...) of this DCP may also lead to design constraints that could reduce the development yield for the site.*
- 3. *Unsuitable land uses: Uses identified as "potentially unsuitable" will generally not be considered as a result of their overall incompatibility with flood risk. Such uses may however be considered where they show compliance with the objectives and the performance criteria of (...) this DCP. In such cases, these uses will also need to comply with controls as specified by Council.*
- 6. *Fencing: Any fencing that forms part of a proposed development is subject to the relevant flood effect and structural soundness considerations of the relevant category.*



Flood Precinct	Low								Medium								High							
	Critical Uses and Facilities	Sensitive Uses and Facilities	Subdivision	Residential	Commercial and Industrial	Tourist Related Development	Recreation and Non-Urban	Concessional Development	Critical Uses and Facilities	Sensitive Uses and Facilities	Subdivision	Residential	Commercial and Industrial	Tourist Related Development	Recreation and Non-Urban	Concessional Development	Critical Uses and Facilities	Sensitive Uses and Facilities	Subdivision	Residential	Commercial and Industrial	Tourist Related Development	Recreation and Non-Urban	Concessional Development
Floor Level												1,2 6	1,3 6	4,6 6	1,2 6	5,6							1,7	5,6
Building Components												1	1	1	1	1							1	1
Structural Soundness												1	1	1	2	1							3	4
Flood Effects											1,3	2,3	2,3	2,3	2,3	2,3							2,3	2,3
Parking and Driveway Access											1	2,3 4,5 6	2,3 4,5 6	2,3 4,5 6	3,5 6,7 8	5,6 9							3,5 6,7 8	5,6 9
Evacuation											1	2,6	3,6	3,6	4,6	5							4,6	5
Management and Design											1		2,3 4	2,3 4	2,3 4	2,3 4							2,3 4	2,3 4

= POTENTIALLY UNSUITABLE LAND USE = Not relevant

Figure 5 Council controls for catchments affected by stormwater flooding (DCP, 2023)

As more general guidance, the DCP states that development within a flood planning area can only be approved if it is compatible with local flood behaviour and does not increase flood impacts on neighbouring properties. The development must allow safe occupation and evacuation during floods, include measures to reduce risk to life, and avoid causing environmental harm such as erosion or damage to riparian areas

In regard to flood planning levels, the DCP states the following: “Council has a record of the flood levels for properties adjacent to the Cooks River and the Salt Pan Creek. Council will issue flood levels on written request, subject to a fee. Flood levels will be issued to Australian Height Datum to the nearest 100mm. Levels for the 1 in 20-year flood, 1 in 50-year flood and 1 in 100-year flood can also be provided. Approximate ground levels can also be given, however; it is the applicant’s responsibility to engage a surveyor to determine the actual ground and floor levels.”

Specifically, the DCP recommends that industrial flood levels should be calculated based on the 1% AEP plus freeboard.

Accordingly, this analysis concludes that the development is located within medium and low risk areas, where specific flood controls apply (see Figure 5). These controls may reduce the potential development yield of the site. Although site-specific flood levels were not available, the DCP requires using the 1% AEP flood level plus 0.5 m freeboard for planning purposes.



5.0 Stormwater Analysis

5.1 Stormwater discharge

Information available (KBR, 2023) shown on **Figure 6**, indicates that that local catchments in the Chullora drain to Cooks River.

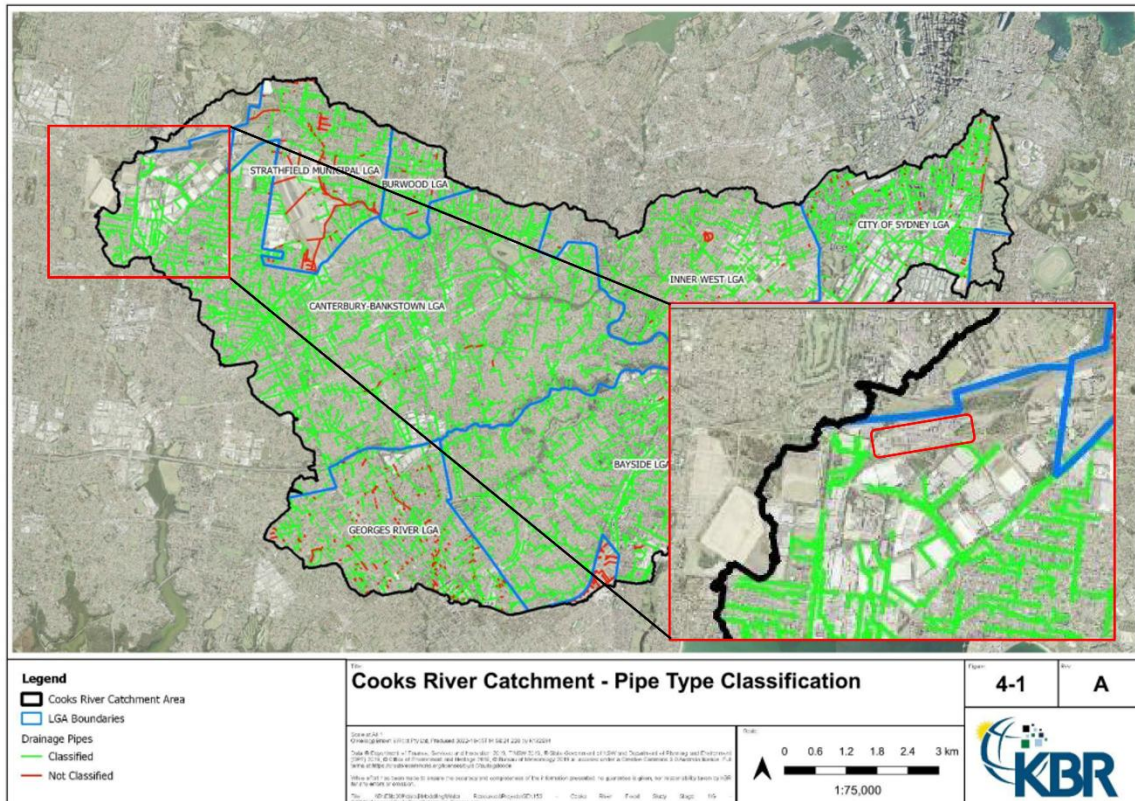


Figure 6 Stormwater drainage network (pipes) for the Upper Cooks River local catchments (KBR, 2023). Approximated Project area is outlined in red.

Council's Development Engineering Standards (DCP, 2023), specify that non-residential developments will require on-site detention (OSD) systems regardless of the impervious area before and after the development, and regardless of whether the site falls toward or to the street.

In addition, OSD must be designed and constructed to control stormwater runoff from development sites such that, for 5 to 100 year ARI events, peak stormwater discharges from the site do not exceed pre-development stormwater discharges. A minimum of 70% of the site piped stormwater system and 70% of the site's overland flow must drain through the OSD system.

The same standards advise that connection to Council or Sydney Water drainage channels are subject to approval from the relevant authority and, where required, a Part 3A Permit under the Rivers and Foreshores Improvement Act. All works must meet Council or Sydney Water requirements.



5.2 Stormwater quality

5.2.1 Council requirements

The Canterbury-Bankstown Local Environmental Plan (LEP), 2023, specifies that development within Council must demonstrate compliance with water-sensitive design requirements.

The LEP includes:

- maximising permeable surfaces,
- providing on-site stormwater retention where practical, and
- avoiding or minimising adverse impacts from stormwater runoff on neighbouring land, infrastructure, vegetation, and receiving waters.

Proposals must also incorporate appropriate riparian, stormwater, and flood management measures and apply water-sensitive urban design principles to protect water quality, maintain natural flow regimes, and integrate stormwater systems into the landscape to deliver environmental and amenity benefits.

Council Engineering Standards (2009), recommend that new developments must install permanent stormwater pollution controls to meet Council's stormwater quality objectives as in the catchment specific Stormwater Management Plan (SMP). For the Cooks River catchment, a current SMP is not available. Other references suggested by the DCP are the EPA stormwater manuals, NSW government user guides, and relevant Australian Standards.

Council Engineering Standards (2009) specify that in addition to standard construction-phase erosion and sediment controls, developments must incorporate:

- **silt arrestors** and trash screens on the final pit before connection to Council's system,
- **oil arrestors** where required for industrial or large commercial uses.
- developments discharging to bushland or natural waterways must apply stricter water-quality controls as specified by the development consent.

5.2.2 Sydney Water Requirements

Sydney Water is responsible for the management of significant stormwater assets, including a substantial portion of the Cooks River and Alexandra Canal.

Sydney Water requires new developments that connect to its stormwater system or to natural waterways to meet specific minimum stormwater pollutant reduction targets. Before discharge, stormwater runoff must be treated using approved stormwater quality improvement devices or treatment trains to achieve the following average annual load reductions:

- 90% reduction in gross pollutants (>5 mm)
- 85% reduction in total suspended solids (TSS)
- 60% reduction in total phosphorus (TP)
- 45% reduction in total nitrogen (TN)

These targets apply to most multi-dwelling residential, commercial, industrial, and special-use developments. Designs must be reviewed and approved by Sydney Water, and developers may be required to submit a MUSIC model to demonstrate compliance. Property



owners are responsible for both the installation and ongoing maintenance of stormwater quality treatment systems.

5.2.3 NSW Water Quality Objectives

Water Quality Objectives (WQO) are long-term targets for receiving water quality, expressed as numerical limits or narrative statements. They protect designated Environmental Values (EVs), not individual emission sources. When multiple EVs apply, the most stringent WQO is used to ensure all values are protected. The WQOs applicable to the Environmental Values identified for the Project Site are summarized in **Table 5-1**.

Table 5-1 Water Quality Objectives (WQO) for the Cooks River Catchment

Environmental Value (EV)	Description	Water Quality Objectives (WQOs)
 Aquatic ecosystem (Estuaries)	The objective aims to protect all waterways, giving highest priority to high-value natural areas, while encouraging water quality improvements in modified and artificial channels to support native species and downstream ecosystems	Total P $\leq$ 20 μ g/L, Total N $\leq$ 250 μ g/L, Turbidity: 2 – 25 NTU, Salinity: 30–350 μ S/cm, DO 90–110% saturation, pH 7.0–8.5, Temperature: based on reference data > 80%ile < 20%ile, Chemical contaminants or toxicants: apply 80% protection levels for highly disturbed systems as per Table 3.4.1 section 3.4.2 ANZG (2018)
 Visual amenity	Amenity of waterways for recreation which does not involve contact with water.	Waters aesthetically acceptable: free from oil, scum, colour, odour, floating debris; no objectionable deposits or undesirable aquatic life
 Secondary recreation	Achieve a low risk to human health from water quality threats posed by exposure through ingestion, inhalation or contact during recreational use of water resources.	Maintain faecal coliforms < 1000/100 mL, enterococci < 230/100 mL, algae < 15 000 cells/mL, and meet visual, chemical, and nuisance organism guidelines to ensure safe recreational use.

ANZG – Australian and New Zealand Guidelines for Fresh and Marine Water Quality (2018), DO – Dissolved Oxygen, NTU – Nephelometric Turbidity Units, TSS – Total Suspended Solids, Cu – Cobalt, Zn – Zinc, PCN - Polychlorinated Biphenyls.

Although those are the recommended targets, **the guidelines also acknowledge that urban waterways in the Cooks River catchment have highly modified ecosystems, and restoring them to natural conditions is unrealistic.** However, water quality can still be improved to benefit local species and catchment health. The recommended water quality objectives may take longer than five years to achieve, and current flow regimes have been heavily altered by existing developments.

5.3 Stormwater quality improvement design

Sydney Water requires the design of stormwater quality improvement devices to achieve the pollution reduction targets in **Section 5.2.2**. The design must be approved before construction begins.

Sydney Water commonly requires an eWater MUSIC model to demonstrate how the proposed stormwater quality improvement device or treatment trains will meet the stormwater quality targets.



A preliminary treatment system has been modelled using the MUSIC software, shown schematically on **Figure 7**, that incorporates the following features):

- Roof runoff from the warehouse and office buildings is directed to rainwater tanks, which then discharge to a proposed bioretention basin.
- Sheet flow from hardstand areas is captured by a gross pollutant trap (GPT) before also being conveyed to the bioretention basin.
- The system assessment assumed two 30kL rainwater tanks with a reuse rate of 1kL/day, and a bioretention area of approximately 300 m².

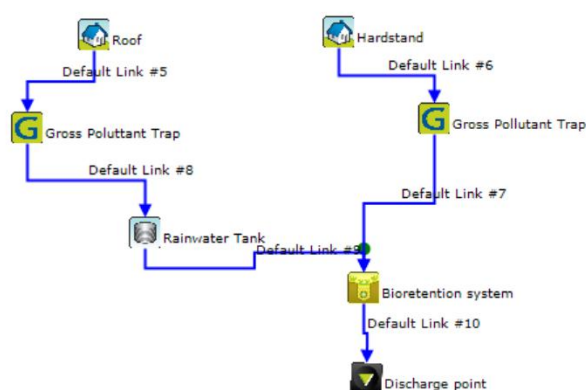


Figure 7 Example of MUSIC modelling treatment system for the site

This system is estimated to achieve the treatment train effectiveness as shown in **Table 5-2**.

Table 5-2 Treatment Train Effectives at site's discharge point

Target	Sources	Residual Load	% Reduction
Total Suspended Solids (kg/yr)	2678.6	215.6	91.9
Total Phosphorus (kg/yr)	5.4	2.9	45.1
Total Nitrogen (kg/yr)	50.1	20.9	58.2
Gross Pollutants (kg/yr)	562.0	0	100

All performance targets have been met except for phosphorus removal. Considering the modelling undertaken is a high-level assessment intended to estimate pollutant sources, the current system is pending more detailed design in order to achieve better efficiency. For example, the use of below-ground tanks in combination with Atlan Filters, which can achieve up to 74% phosphorus reduction, could be explored in subsequent project stages.



6.0 Preliminary Risk Assessment

Based on the information presented in this report, a preliminary risk assessment was undertaken using the Cleanaway Risk Matrix methodology (**Table 6-1**). This assessment is indicative only and reflects an initial evaluation of potential risks using the information currently available. For the purposes of this preliminary assessment, it was assumed that all controls recommended by Council and Sydney Water have been properly implemented and are functioning as intended.

Table 6-1 Cleanaway Risk Matrix for the flood and stormwater preliminary assessment

Risk	Causes (examples)	Consequence	Likelihood	Risk Rating	Current Control Rating	Risk Endorsement
Risk of site flooding due to an extreme rainfall event (e.g., 1% AEP)	Extreme rainfall exceeding local drainage capacity; blocked inlets; coincident high tailwater; insufficient site freeboard	Environment, Assets, Reputation, Compliance - SeC	Possible. Could possibly occur in the next 3 years (<40%)	High (H)	Satisfactory	Medium
Increase in discharge peak due to development	Added impervious area; lack of on-site detention; loss of flood storage	Environment, Assets, Reputation, Compliance - D	Possible. Could possibly occur in the next 3 years (<40%)	Medium (M)	Satisfactory	Medium
Impact on receiving waters due to development	Untreated/undertreated stormwater (sediment, metals, hydrocarbons); yard spills; lack of on-site detention	Environment, Assets, Reputation, Compliance - D	Possible. Could possibly occur in the next 3 years (<40%)	Medium (M)	Satisfactory	Medium



7.0 Conclusion and Recommendations

The site at 20 Dasea Street, Chullora lies within the Upper Cooks River catchment, in a highly urbanised industrial precinct. Available flood studies are limited, but Council mapping indicates the site is within low and medium flood risk areas. The site is subject to medium and low flood risk controls under the Canterbury Bankstown DCP. Development must incorporate flood freeboard requirements, OSD systems, and stormwater quality treatment measures to meet Council, Sydney Water, and NSW environmental standards (**Table 7-1**).

Table 7-1 Flooding & Stormwater Policy/Guidance Requirements Summary

Category	Requirement	Authority / Source	Recommendations
Flooding – Freeboard	Minimum 1% AEP flood level + 0.5 m freeboard for industrial/commercial uses	Canterbury Bankstown DCP (2023)	- Obtain flood levels from Council. - Set all finished floor levels (FFLs) at or above the 1% AEP flood level plus 0.5 m freeboard. - Check with Council the need to provide a demonstration that the development will not increase flood levels, velocities, or hazard on adjacent properties (flood impact assessment study).
Flood Risk Controls	Development in low/medium risk precincts only if compatible with flood behaviour; must not increase impacts on neighbours	Canterbury Bankstown DCP (2023)	
Flood Levels	Not available from previous studies. Council will issue flood levels on written request, subject to a fee	Canterbury Bankstown DCP (2023)	
Fencing	Must meet structural soundness and flood-effect considerations	Canterbury Bankstown DCP (2023)	Use fencing types that are flood-compatible,
Evacuation & Safety	Safe occupation and evacuation required; must reduce risk to life and avoid environmental harm	Canterbury Bankstown DCP (2023)	- Ensure all egress routes remain trafficable during flood events or identify alternative refuge provisions - Check requirement for a site-specific Flood Emergency Management Plan (FEMP)
Stormwater – OSD	On-site detention (OSD) required for all non-residential developments; 70% piped + 70% overland flow through OSD	Council Engineering Standards (2009)	Design of OSD in accordance with regulator's requirements
Peak Discharge	Post-development peak flows (5–100 yr ARI) must not exceed pre-development flows	Council Engineering Standards (2009)	Provide demonstration that post-development discharge rates are equal to or less than



Category	Requirement	Authority / Source	Recommendations
			pre-development flows for all relevant storm events.
Connection Approvals	Council/Sydney Water approval required; may need Part 3A Permit	Council / Sydney Water	Confirm whether a Part 3A permit is required for works affecting Sydney Water assets
Stormwater Quality – Council	Maximise permeable surfaces; install silt arrestors, trash screens, oil arrestors where required	Council Engineering Standards (2009)	Installation of silt arrestors, trash racks, and oil-water separators as required
Stormwater Quality – Sydney Water	Must meet pollutant reduction targets: 90% gross pollutants, 85% TSS, 60% TP, 45% TN	Sydney Water	Detailed stormwater modelling documented on a Stormwater management Plan
Water Quality Objectives (WQO)	Total P ≤ 20 µg/L; Total N ≤ 250 µg/L; Turbidity 2–25 NTU; DO 90–110%; pH 7.0–8.5; visual amenity & recreation standards . Guidance acknowledgment of unrealistic targets given current river conditions.	NSW WQO / ANZG Guidelines (2018)	- Installation of below-ground tanks with Atlan Filters to achieve maximum reduction in phosphorus - Use best-practice stormwater treatment measures to achieve the most practical pollutant reductions possible, recognising that full compliance may be limited by existing receiving-water conditions.

Regards,

SLR Consulting Australia



Nigel Bosworth

Technical Director – Stormwater, Hydrology and Flooding



Appendix G – Preliminary Site Investigation



Preliminary Site Investigation

20 Dasea Street, Chullora NSW 2190

**Cleanaway Waste Management Ltd
c/- EME Advisory Pty Ltd**

Prepared by:

SLR Consulting Australia

SLR Project No.: 630.032708.00001

13 March 2026

Revision: 3.0

Revision Record

Revision	Date	Prepared By	Checked By	Authorised By
1.0	20 November 2025	J. Seiler / H. Dinan	C. Newland	C. Newland
2.0	5 March 2026	H. Dinan	C. Newland	C. Newland
3.0	13 March 2026	H. Dinan	M. Haynes	M. Haynes
Revision	Basis for revision			
1.0	DRAFT for Client review.			
2.0	Updated revision following EME and Cleanaway review of v1.0.			
3.0	Updated revision following EME review of v2.0.			
Prepared by	SLR Consulting Australia Pty Ltd ACN: / 001 584 612 / ABN: 28 001 584 612 Tenancy 202, Sub Base Platypus, High Street, North Sydney NSW 2060 (02) 9427 8100			
Prepared for	Cleanaway Waste Management Ltd (c/- EME Advisory Pty Ltd) ACN : 74 101 155 220 / ABN: 101 115 220			

Basis of Report

This report has been prepared by SLR Consulting Australia (SLR) with all reasonable skill, care and diligence, and taking account of the timescale and resources allocated to it by agreement with Cleanaway Waste Management Ltd c/- EME Advisory Pty Ltd (the Client). Information reported herein is based on the interpretation of data collected, which has been accepted in good faith as being accurate and valid.

This report is for the exclusive use of the Client. No warranties or guarantees are expressed or should be inferred by any third parties. This report may not be relied upon by other parties without written consent from SLR.

SLR disclaims any responsibility to the Client and others in respect of any matters outside the agreed scope of the work.

This Preliminary Site Investigation has been prepared for issues pertaining to potential contamination at the Site only. This report may not be reproduced, except in full and is subject to the Limitations outlined in Section 16.0.



Executive Summary

Cleanaway Waste Management Ltd (c/- EME Advisory Pty Ltd) engaged SLR Consulting Australia Pty Ltd to prepare this Preliminary Site Investigation (PSI) report for 20 Dasea St, Chullora NSW (the Site).

SLR understood that Cleanaway are considering redeveloping part of the Site, which, at the time of this PSI, was used as the Sydney Freight Terminal operated by Pacific National (PN). The proposed redevelopment was limited to the southern portion of the Site, with the majority of the development located on the southwestern portion of the Site. SLR understood that Cleanaway intended to operate part the Site as a Waste Transfer Station (WTS) following the proposed redevelopment. It was understood that the WTS would be used to transfer municipal and other wastes from road containers onto railway carriages, transferring this feedstock to a future Energy from Waste (EfW) facility located outside of the Sydney metropolitan region.

Objectives

SLR understood that as part of its due diligence prior to Site redevelopment, Cleanaway's objective for this PSI was to identify potential contamination issues (if present) at the Site which may pose a risk to the proposed redevelopment of part of the Site.

EfW has been identified by the NSW Government as a component of future energy supply for the state. Additionally, WTS facilities were considered State-Significant Developments (SSD) under the Environmental Protection & Assessment Act 1989. While the proposed development is likely to be identified as SSD, this PSI has been prepared solely for the purpose of initial due diligence. The Technical Assessment Objectives of the PSI were:

- Review supplied documentation and assess the potential for contamination to be present at the Site based on a desktop review of the environmental and historical Site setting.
- Report the potential for contamination to be present at the Site, identifying potential Areas of Concern (AOC) and associated Contaminants of Potential Concern (COPC).
- Make recommendations for additional assessment, management, and / or remediation of identified contamination (if required) to render the site suitable for the proposed use.

Secondary to those Technical Assessment Objectives identified above, SLR notes that the conclusions of this PSI may be used to inform future detailed environmental assessment and / or remediation works (if required) prior to redevelopment of part of the Site.

Scope of Works

SLR completed the following Scope of Works:

- Desktop review of available information pertaining to the Site environmental and historical setting.
- A detailed non-intrusive Site inspection completed 29 October 2025, for ground-truthing of the desktop review and inspection of accessible ground surfaces.
- Development of a preliminary Conceptual Site Model (CSM).
- Preparation of this PSI report.



Results

Desktop Assessment

Environmental Setting

Some registered groundwater bores were identified 500–800 m from the Site. Some of these bores were identified to be present in a cluster (i.e. close proximity to each other) and all of these bores were identified to be registered for monitoring purposes. SLR notes that the area surrounding the Site, and the Site itself, were serviced by a reticulated water supply. No beneficial use of groundwater was identified. Neither acid sulfate soils nor naturally-occurring asbestos were identified at the Site.

Historical Setting

The Site appeared to have been historically developed and used for rail and road freight receipt and dispatch since at least 1978. Progressive development was identified to have occurred since then, including the installation of significant hardstand coverage across the surface of the Site. Portions of the Site have remained unsealed since the earliest aerial image reviewed by SLR (1951), and vehicle, machinery and other storage was identified in these areas.

Material receipt, distribution and storage were the only historical land use of the Site. Most storage of materials was noted to be conducted on areas of hardstand coverage, but some storage on unsealed land areas was also identified in the available aerial images, typically at the southern boundary of the Site.

The Site held an Environmental Protection Licence (21108) and several associated variations for the storage of waste. No other historical activities were identified to be sources of potential contamination, and the Site was not listed as notified, regulated, or otherwise under any relevant Act.

Site Inspection

A Site walkover and inspection was conducted by one of SLR's suitably trained and experienced environmental consultants on 29 October 2025.

Access and egress to the Site was available near a security gatehouse located at the end of Dasea Street, at the western boundary of the Site. The topography of the Site was varied but generally sloped east. The following were identified at the Site during the inspection:

- Fill visible to the accessible ground surface along the southern Site boundary.
- An on-Site detention area at the southern boundary of the Site.
- A 67 kL diesel AST and Ad Blue diesel fuel conditioner IBC near the southern boundary of the Site.
- Three engine bays located near the southern boundary of the Site, and a hydrocarbon sheen identified on the unsealed ground surface near these engine bays.
- An asbestos-containing building structure located at the western boundary of the Site.

It was noted that some areas of the Site were unable to be safely accessed due to the operational demands of the Site at the time of the inspection. Notably, the following could not be observed during the Site inspection, but were recorded in the Safety Case (PN 2024):

- Friable asbestos storage area, located near the eastern Site boundary.



- Bonded asbestos storage area, located near the eastern Site boundary.
- Historical liquid fuel storage area, located near the eastern Site boundary.
- Diesel tank farm and loading facility, located near the eastern Site boundary.

However, it was noted each of those areas listed above were not located within the proposed redevelopment area (refer **Appendix B**).

Hardstand was generally in good condition across the Site. However, some cracking was identified near the fuel storage area near the southern Site boundary. The Site was generally free of foul or offensive odours, staining and noises at the time of the SLR inspection.

Preliminary CSM

A preliminary CSM was prepared for the Site, which assessed the following complete and potentially completed Source-Pathway-Receptor (SPR) linkages:

AOC		Risk To Development	Recommended Further Assessment
Ref.	Name		
AOC-01	Historical building and demolition	MODERATE	Completion of a hazardous building material survey (HBMS) for all buildings proposed to be demolished. The HBMS should be included in a Detailed Site Investigation (DSI).
AOC-02	Historical and current commercial / industrial use	MODERATE	• A Cut-and-fill plan should be prepared for the proposed redevelopment at the Site. The extent of cut-and fill should then be used to inform soil and fill assessment in these areas. • Assessment of soil and fill should be completed following preparation of the cut-and-fill plan.
AOC-03	Historical and current hazardous and dangerous material storage	MODERATE	• Detailed assessment including soil and groundwater testing should be undertaken proximal to known fuel storages at the Site. • Detailed assessment and review of historical asbestos management works completed at the Site should be completed if redevelopment of that area is proposed by Cleanaway. • Consolidation of all known asbestos storages at the Site should be undertaken, if suitable and only if the cohabitation of those materials will not introduce a potentially dangerous chemical mixture. • Detailed assessment of the material managed beneath the high-visibility marker layer identified in the 2011 aerial image should be undertaken.
AOC-04	Historical stockpiling of fill	MODERATE	Stockpiled fill proposed to be disturbed in this assessment should be assessed on a per-domain basis.
AOC-05	Vehicular storage and movements	LOW	• It is likely that assessment of vehicular storage and movement areas would be suitably assessed secondary to another AOC, such as AOC-02. • Detailed assessment of the areas of unsealed land at the southwestern portion of the Site is recommended.



AOC-06	Mechanical maintenance	MODERATE	Detailed assessment including soil and groundwater testing should be undertaken proximal to known mechanical maintenance areas.
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SLR notes that other SPR linkages may be complete at the Site, but only those within the proposed redevelopment area have been considered AOC for Cleanaway.

Recommendations

Based on the findings of the Preliminary CSM, SLR concluded there were various complete / potentially complete SPR risk linkages at the Site which have not been fully characterised to date.

As it is understood Cleanaway were aware of the commercial / industrial use of the Site and proposed to redevelop the Site for on-going commercial / industrial purposes, identified risks posed from contamination could be better understood / managed through either:

- Further detailed assessment to quantify risk and allow re-evaluation of CSM risk status; and/or
- Managed (administratively) through routine industrial WH&S management, e.g., personal protective equipment (PPE) controls and Safe Work Method Statements (SWMS); and/or
- Remediation planning for onsite / offsite management of contamination / hazardous materials.

Prior to undertaking any DSI, SLR recommends that a Sampling and Analysis Quality Plan (SAQP) be prepared for the purpose of validating the Preliminary CSM and to suitably assess the AOC identified in this PSI. Key recommendations are summarised in the table below.

Recommendation		Objective
Ref.	Description	
Minimum recommended further assessment		
Recommended to be completed prior to the commencement of the proposed Site redevelopment works.		
1	Prepare SAQP	To provide recommendations to suitably validate the Preliminary CSM by means of intrusive investigation.
2	Conduct DSI	To characterise the nature, extent and risk posed by contamination within the proposed Cleanaway redevelopment area of the Site.
Additional further assessment recommended, if required by Item 2		
Recommended to be completed prior to the commencement of the proposed Site redevelopment works.		
3	Prepare Remedial Action Plan (RAP), if required	To provide recommendations to remediate identified contamination within the proposed Cleanaway redevelopment area of the Site to suitably remove any complete SPR linkages identified by the DSI.
Recommended to be completed prior to the completion of the proposed Site redevelopment works.		
4	Validate remediation works completed and prepare Remediation Validation Report (RVR), if required	To document the remediation works completed at the Site (if any) and to inform the on-going environmental contamination condition within the proposed Cleanaway redevelopment area of the Site.



5	Prepare Long Term Environmental Management Plan (LTEMP), if required	To recommend on-going management of the Site in a manner which suitably maintains the efficacy of the remediation actions (if any) completed within the proposed Cleanaway redevelopment area of the Site.
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1.0 Introduction and Background

1.1 Introduction

Cleanaway Waste Management Ltd (Cleanaway, the Client), c/-EME Advisory Pty Ltd (EME), engaged SLR Consulting Australia Pty Ltd (SLR) to complete a Preliminary Site Investigation (PSI) to investigate potential contamination risk at 20 Dasea Street, Chullora NSW 2190 (the Site). The Site was formally identified as Lot 35 on Deposited Plan (DP) 1007367 and covered an area of approximately 19.9 hectares (ha) (199,487 m²). The Site location and layout have been presented as **Figures 1** and **2** in **Appendix A**, respectively. The formal Site identification has been summarised in **Section 2.0**. The Site was located within the City of Canterbury Bankstown (Council) Local Government Area (LGA), and zoned *E4: General Industrial* under the Canterbury-Bankstown Local Environment Plan (LEP) 2023 (Govt of NSW 2023).

At the time of preparing this PSI the majority Site was used as the Sydney Freight Terminal (SFT), operated by Pacific National (PN). However, two other commercial / industrial uses of the Site were known, generally consisting of mechanical maintenance and truck / construction materials storage. These other commercial / industrial land uses were relatively small-scale and limited to the southwestern portion of the Site.

1.2 Background

1.2.1 Proposed Site Redevelopment

SLR understood that Cleanaway intend to redevelop the southwestern portion of the Site as a Waste Transfer Station (WTS) following proposed redevelopment approvals. The approximate extent of the proposed development area has been presented on **Figure 2, Appendix A**. It was understood that the WTS would be used to transfer and containerise residual waste and other resource-recovery material/s municipal and other waste streams / feedstock from road containers onto railway carriages for transportation to a future resource recovery facility, which may incorporate Energy-from-Waste (EfW) supporting infrastructure.

1.2.2 Proposed Development Staging

Cleanaway advised that the redevelopment and subsequent operation of the southwestern portion of the Site will be undertaken in two discrete phases:

- **Phase 1:** waste-to-road transfer station to replace an existing Auburn Transfer Station operated by Cleanaway:
 - Tonnage throughput 150 kilotonnes per annum (kTpa) from 2028–2030.
 - Cleanaway staff: 15/day.
 - Auxiliary (maintenance / fuelling / cleaning): 2 per day.
- **Phase 2:** waste-to-rail transfer station for provision of feedstock to regional EfW facility. Road waste outgoings are expected to meet resource recovery objectives.
 - 24/7 operation with tonnage throughput 760 kTpa from 2030/30–ongoing.
 - Cleanaway staff: 40/day.
 - Auxiliary (maintenance / fuelling / cleaning): 4 per day.



2.0 Site Identification

Table 1 summarises the Site Identification details. The Site was located on Dasea Street and was an irregularly shaped land area.

Table 1 Site Identification Summary

Aspect	Detail	
Property Address	20 Dasea St, Chullora NSW 2190	
Formal Assessment Site Identification and Area	Lot and DP	Area
	Lot 35 / DP 1007367	19.9 ha (199,487 m ²)
Easting / Northing	Irregularly shaped – refer to Figure 2, Appendix A for Easting / Northing of each vertex of the Site boundary polygon.	
Local Government Area	Canterbury-Bankstown Council	
Traditional Owners	Dharug	
Current Owner	Pacific National	
Current Occupier	Pacific National Ferry Carrig Construction Pty Ltd (short-term tenant) Linfox Australia Pty Ltd (short-term tenant)	
Surrounding land Use	North	Mary Wade Correctional Centre, and train line. Further afield, residential land parcels
	East	Cooks River and business park / industrial complexes. Further afield, Remembrance Drive and residential land parcels.
	South	Cooks River and business park / industrial complexes. Further afield, Muir Road and residential land parcels
	West	Industrial complexes and Rookwood Road. Further afield, Potts Hill Reservoir and residential land parcels.
Former Land Use	Land Use	Commercial / industrial
Current Land Use	Land Use	General Industrial
	Zoning	E4: General Industrial
Proposed Land Use	Land Use	General Industrial
	Zoning	E4: General Industrial
Trigger For Assessment	Contamination Risk Due Diligence	



3.0 Objectives

3.1 Client Objectives

SLR understood that as part of its due diligence prior to redevelopment of part of the Site, Cleanaway's objective for this PSI were to identify potential contamination issues (if present) at the Site which may pose a risk to the proposed redevelopment.

EfW has been identified by the NSW Government as a component of future energy supply for the state. Additionally, WTS facilities were considered State-Significant Developments (SSDs) under the Environmental Planning and Assessment (EP&A) Act 1979. While the proposed development is likely to be identified as SSD, this PSI has been prepared solely for due diligence.

3.2 Technical Assessment Objectives

The Technical Assessment Objectives of the PSI were to:

- Review supplied documentation and assess the potential for contamination to be present at the Site based on a desktop review of the environmental and historical Site setting.
- Report the potential for contamination to be present at the Site, identifying potential Areas of Concern (AOC) and associated Contaminants of Potential Concern (COPC).
- Make recommendations for additional assessment, management, and / or remediation of identified contamination (if required) to render the site suitable for the proposed use.

Secondary to those Technical Assessment Objectives identified above, SLR notes that the conclusions of this PSI may be used to inform future detailed environmental assessment and / or remediation works (if required) prior to redevelopment of part of the Site.

4.0 Scope of Works

To achieve the Objectives of this PSI, outlined in **Section 3.0**, SLR completed the following Scope of Works:

- Desktop review of available information pertaining to the Site environmental and historical setting.
- Site inspection completed 29 October 2025 for ground-truthing of the desktop review and inspection of accessible ground surfaces.
- Development of a preliminary Conceptual Site Model (CSM).
- Preparation of this PSI report.



5.0 Investigation Methods

5.1 Reporting Guidelines, Requirements and Legislation

This PSI has been prepared in pursuant to the following relevant guidelines and standards:

- American Society for Testing and Materials (ASTM) E1689-95 (2020) *Standard Guide for Developing Conceptual Site Models for Contaminated Sites*. (ASTM 2020)
- National Environmental Protection Council (NEPC). (2013). *National Environmental Protection (Assessment of Site Contamination) Measure 1999 (Amended 2013)* (ASC NEPM). (NEPC 2013).
- NSW Environmental Protection Authority (EPA) (2017). *Contaminated Land Management: Guidelines for the NSW Site Auditor Scheme (3rd edition)*. (NSW EPA 2017).
- NSW EPA. (2020). *Contaminated Land Guidelines: Consultants Reporting on Contaminated Land*. (NSW EPA 2020).
- NSW EPA. (2022a). *Contaminated Land Guidelines: Sampling Design Part 1 – Application*. (NSW EPA 2022).
- NSW EPA. (2022b). *Contaminated Land Guidelines: Sampling Design Part 2 – Interpretation*. (NSW EPA 2022).

This PSI has been prepared pursuant to the requirements of the following legislation.

- *Protection of the Environment Operations Act 1997 (POEO Act)*. (1997). (NSW). (Govt. of NSW 1997).
- *Contaminated Land Management Act 1997 (CLM Act)*. (1997). (NSW). (Govt. of NSW 1997).
- *State Environmental Planning Policy (Resilience and Hazards)*. (NSW). (Govt. of NSW 2021).

In addition to those Acts above, additional reference has been made to the following regulations, under the acts:

- *Protection of the Environment Operations (Waste) Regulation (POEO (Waste) Regulation)*. (2014). (NSW). (Govt. of NSW 2014).

This PSI has been prepared for the Site as identified in **Section 2.0** and for the proposed works at the Site at the time of preparing this PSI. Specific methods have been detailed in **Sections 5.2 to 5.4**.

5.2 Desktop Assessment

SLR completed a desktop assessment of the environmental and historical setting of the Site. This included a review of:

- Natural environmental setting information.
- Historical aerial imagery.
- Contaminated land public registers.

The results of the desktop assessment are presented in **Sections 7.0** and **8.0**. Specific sources reviewed have been referenced or appended to this PSI, where appropriate.



5.3 Site Inspection

SLR completed a Site inspection on 29 October 2025. The Site inspection was completed by a suitably qualified and experienced environmental consultant from SLR, and comprised a visual inspection of the accessible ground surface. The inspection included a walkover to assess the presence of notable Site features such as:

- Hardstand coverage, slumping, scarring and maintenance of hardstand coverage areas, bare ground and surface staining.
- Odours and other visual and olfactory indicators of potential or actual contamination.
- Presence of above and underground storage infrastructure, including the presence of fill points, vent pipes and monitoring wells.
- Discussions with current Site occupiers about Site activities and history.
- Limited inspection of neighbouring properties.

The results of the Site inspection are presented in **Section 10.0**. The Site inspection was limited to only the area of the proposed redevelopment and safely accessible adjacent land areas.

5.4 Assessment of Potential Contamination

An assessment of potential Site contamination has been made for the Site based on the preliminary CSM prepared in **Section 12.0**. The preliminary CSM drew on inputs from the desktop assessment and Site inspection, and was an interpretive contamination risk assessment developed in general accordance with the ASC NEPM (NEPC 2013), which draws upon *ASTM E1689-20 (2020) Standard Guide for Developing Conceptual Site Models for Contaminated Sites* (ASTM 2020).



6.0 Known Historical Assessments

At the time of preparing this PSI, SLR was aware of one historical contamination assessment prepared for part of the Site, referenced as follows:

- Environmental Investigation Services Pty Ltd (EIS) (2011), *Preliminary Stage 1 Environmental Site Assessment, Proposed Office Building and Carpark At 20 Dasea Street, Chullora* (ref.: E2522KHrpt1, dated 25 October 2011). (EIS 2011)

That part of the Site has since been developed. However, the findings of that historical assessment may form an important input into SLR's developed understanding of the Historical Setting (refer **Section 8.0**) and any contamination risks identified by EIS may be considered or conferred by SLR in this PSI.

In addition to this historical PSI prepared for part of the Site, SLR was also supplied a safety case prepared by PN, which is referenced as follows:

- PN. (2024). *Major Hazard Facility – Safety Case, Sydney freight Terminal*. (PN 2024)

These historical assessments have been summarised in **Section 6.1** and **6.2**.

6.1 Historical PSI (EIS 2011)

EIS prepared a PSI for part of the Site in 2011. This part of the Site was located near the gatehouse on Dasea Street, near an historical weighbridge. This part of the Site has since been developed. EIS prepared its PSI alongside a geotechnical assessment it completed at the same time and presented borehole excavation logs obtained from that geotechnical assessment in the PSI. No sampling or analysis of environmental media was undertaken during the PSI (EIS 2011). SLR was not supplied that historical geotechnical assessment.

EIS reviewed aspects of the Site history and titles and provided a limited review of the environmental setting of the Site. A summary of EIS key findings has been presented in **Table 2**.



Table 2 EIS (2011) Key Findings

Site Aspect Reviewed	Detail
Regional Geology	<i>Geological Map of Sydney (1983) reviewed and referenced by EIS.</i> Site underlain by Bringelly Shale of the Wianamatta Group.
Hydrogeology	<i>Groundwater bore register was reviewed and presented by EIS.</i> Stratigraphy of the site was expected to consist of residual clayey soils overlying relatively shale bedrock. EIS did not consider groundwater to be a significant resource in the immediate area of the site
Historical Aerial Imagery	<i>Historical aerial imagery was reviewed from 1930–2005 but not presented in the report.</i> A summary of the Site historical setting was provided which identified the following: • By 1930: the site was developed for two rural-type houses, but otherwise undeveloped and unsealed. Some unsealed / informal roads identified. • 1930–1961: the site remained in a consistent condition. Cutting works (earthworks) were identified at the eastern portion of the site in the 1961 aerial image. • 1961–2005: progressive commercial / industrial development of the site, including the installation of railway infrastructure. No summary of aerial imagery. However, the site appeared to have historically been developed for low-density residential / rural-residential living until those dwellings were not present by 1970.
Historical Land Titles	<i>EIS sub-contracted review of historical land titles to Advance Legal Searchers Pty Ltd</i> Land title records indicated that: • The site was historically crown land until 1923. • The site was historically land of the Commissioner for Railways, and the State Railway Authority from 1923–1999. • The site was historically land of the National Rail Corporation from 1999–2011. • The site was land of Asciano Services Pty Ltd from 2011 to the date of the historical land title review completed by Advance Legal Searchers Pty Ltd.
Contaminated Land Records	<i>Records were reviewed but not presented by EIS (2011).</i> EIS identified that the site was not listed on any public contaminated land records.
Anecdotal Evidence	The Site was historically used as a storage yard for State Railway Authority, and that much of the stored materials present at the time of this EIS (2011) report (concrete sleepers, rubber pads, steel pegs) were considered potentially suitable for beneficial re-use by State Railway Authority.

EIS (2011) presented geotechnical borehole excavation logs in its assessment. These excavation logs indicated that the Site was underlain primarily by native geological formation and residual natural soil comprising silty clay. Fill was identified in each borehole and extended to a maximum depth of 0.1–0.2 m below ground surface, which was identified to comprise sandy gravel and some gravelly clay. No commentary on the presence of anthropogenic inclusions was noted by EIS (2011).

Commentary was provided on the potential for contamination to exist at the Site. EIS indicated that based on the Site historical setting that the following were key contaminants of potential concern:

- Metals (limited to arsenic, cadmium, chromium, copper, lead, mercury, nickel and zinc).
- Total petroleum hydrocarbons (TPH).
- Monocyclic aromatic hydrocarbons (MAH).



- Polycyclic aromatic hydrocarbons (PAH).
- Organochlorine / organophosphorus pesticides (OCP / OPP).
- Polychlorinated biphenyls (PCB).
- Asbestos.

COPC were identified to derive primarily from importation of fill to the site, surface spills of product, the application of pesticides and demolition of former buildings. No commentary (qualitative or otherwise) was provided with respect to the risk of contamination to be present at the Site. However, a recommendation was made to complete subsequent detailed assessment at the entire Site.

6.2 Safety Case (PN 2024)

PN prepared a safety case for the Site in 2024 to meet its obligations under Chapter 9 (Major Hazard Facilities) of the Commonwealth Work Health and Safety Regulations 2011. This documented hazards at the Site which, if not adequately controlled, may result in a major incident as defined by the aforementioned regulation.

The Safety Case identified the several hazards at the Site, notably:

- The storage of liquid fuels.
 - An historic and current liquid diesel tank farm was identified in the Safety Case (PN 2024).
- The storage of asbestos waste at the Site.
- The storage of hazardous and explosive materials at the Site.

The relative locations of the current and historical liquid diesel tank farms and asbestos storages have been presented on **Figure 3, Appendix A**.

PN documented that there is an overhead gantry at the Site which loads and unloads containers from locomotive freight carriers. The Site receives and distributes solid and liquid fuels, including diesel fuel and ammonium nitrate explosive (ANE). Notably two asbestos storage areas (one friable, the other bonded) were identified by PN at the eastern portion of the Site. **Table 3** summarises asbestos storage at the Site at the time of the Safety Case (PN 2024). SLR notes that the location of asbestos storages at the Site were outside the area proposed for redevelopment by Cleanaway.

Table 3 Asbestos Storage Documented Safety Case

Asbestos Stored	Approximate Volume	Proposed Management
Friable Asbestos	1,000 m ³	PN identified that this stored asbestos would be retained at the Site and that it would be seeded prior to on-going management under vegetative coverage.
Bonded Asbestos	500 m ³	PN identified that this was consolidated waste material which would be removed from the Site with disposal certificates retained by PN.

The exact location of ANE storage was not clearly recorded by PN in the Safety Case. However, explosion risk modelling was presented which provided some context as to the location of that storage. The location of storages and Site features present by PN in the safety case have been presented on **Figure 3, Appendix A** alongside observations made by SLR in its Site inspections (refer **Section 10.0**).



7.0 Environmental Setting

A review of various aspects of the Site's environmental setting was undertaken. The results of this review have been presented in **Sections 7.1 to 7.4**.

7.1 Topography

The Site was located at a local elevation of approximately 32-44 m Australian Height Datum (AHD). The Site was found to slope gently down toward the northeast.

7.2 Geology

SLR reviewed the NSW Department of Mineral Resources (DMR) Sydney 1:100,000 Geological Map (NSW DMR 1991). The Site was found to be underlain by Bringelly Shale (Rwb) units of the middle Triassic Period in the Mesozoic Era. These geological units comprised *shale, carbonaceous claystone, laminate, fine to medium grained lithic sandstone, rare coal and tuff*.

More generally, the region surrounding the Site comprises other Wianamatta Group units including Ashfield Shale (Rwa) comminated by *dark-grey to black claystone-siltstone and fine sandstone-siltstone laminate*.

7.3 Soil Landscape

The Site was located within a highly modified / disturbed landscape. This soil landscape was described as:

- **Landscape:** Level plain to hummocky terrain, extensively disturbed by human activity, including complete disturbance, removal or burial of soil. Local relief <10 m, slopes <30%. Landfill includes soil, rock, building and waste materials. Original vegetation completely cleared, replaced with turf or grassland.
- **Soils:** Turfed fill areas commonly capped with up to 40 cm of sandy loam or up to 60 cm of compacted clay over fill or waste materials.
- **Limitations:** Dependent on nature of fill material. Mass movement hazard, unconsolidated low wet strength materials, impermeable soil, poor drainage, localised very low fertility and toxic materials.

The soil landscape factsheet for the Site is presented in **Appendix C**.

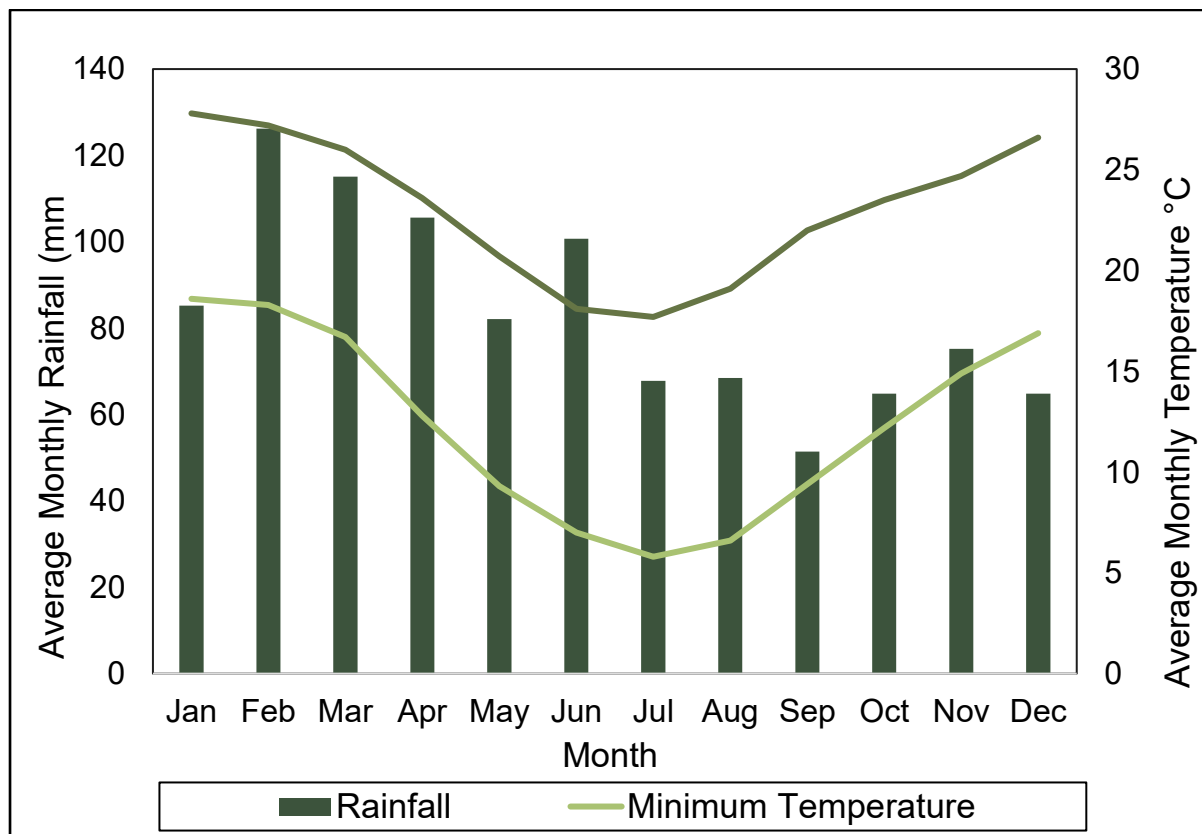
7.4 Climate

The Bureau of Meteorology (BOM) operates a climate data weather stations across Australia. The following climate data weather stations, and their approximate distances from the Site were used in summarising the local climactic conditions at the Site:

- **Rainfall:** Canterbury Racecourse (BOM weather station 066194) approximately 5 km from Chullora.
- **Temperature:** Canterbury Racecourse (BOM weather station 066194) approximately 5 km from Chullora.

Weather stations were selected primarily based on proximity to Site and secondarily based on the volume of available data. SLR has summarised monthly rainfall and minimum and maximum temperatures for the Site, which have been plotted on **Graph 1**.





Graph 1 Summarised Local and Regional Meteorological Data

Based on the meteorological climate data summarised for the Site, the following summaries can be made:

- The average monthly rainfall ranges from 51.4 mm in September to 126.2 mm in February.
- The average minimum temperature ranges from 5.8 °C in July to 18.6 °C in January.
- The average maximum temperature ranges from 17.7 °C in July to 27.8 °C in January.

7.5 Hydrology

The Site was located within the Cooks River Catchment, which flows from Yagoona in Sydney's southwest to Botany Bay. The Cooks River traverses the southern boundary of the Site and is a highly urbanised waterway that has been extensively modified to accommodate residential, commercial, and industrial development along its banks.

The Cooks River Catchment area has been presented in **Appendix D**. The Cooks River catchment covers an area of approximately 100 km² and was inferred to flow generally east and southeast before discharging into the Pacific Ocean at Botany Bay, 15 km southeast of the Site.



7.6 Hydrogeology

SLR completed a review of the Water NSW Realtime Water Data (Water NSW 2025) on 23 October 2025. This review indicated that there were no registered groundwater bores on the Site. However, nine registered bores were identified between 500m and approximately 2 km from the Site, which have been summarised in **Table 4**. Detailed well installation logs have been presented in **Appendix E**.

Typically, nearby groundwater bores were installed for monitoring purposes, and were shallow (i.e., less than 10 m bgs). Groundwater was typically encountered in monitoring bores at depths between 3.97–5.10 m bgs (standing water level). It was noted that all of the proximal groundwater monitoring wells were installed in a cluster southeast of the Site. The clustering of these monitoring bores may indicate the presence of a contamination source near these bores or monitored buried product storage near these off-Site bores.

These off-Site bores were identified to be located southeast of the Cooks River and were inferred to be hydraulically cross-gradient to groundwater underlying the Site. Given the Cooks River was identified to be present between the Site and these bores, while some contamination of an aquifer discharging into the Cooks River may be present, it was not considered likely to pose a significant risk of introducing contamination to groundwater underlying the Site itself.

Given the Site's proximity to Cooks River but relative distance to Botany Bay, groundwater underlying the Site is expected to be relatively shallow and is expected to flow generally east-southeast before discharging into Cooks River or Botany Bay. Other aquifers may be present at greater depth underlying the Site.



Table 4 Nearby Registered Groundwater Bores

Groundwater Bore	Easting / Northing	Distance / Direction from Site ¹	Licence Status	Purpose	Total Depth ²	Water Bearing Zone/S	Standing Water Level
GW115634	320205 / 6248395	0.5 km southeast	Cancelled	Monitoring Bore	12.00 m bgs	-	-
GW103524	319996 / 6248144	0.6 km southeast	Active	Monitoring Bore	2.50 m bgs	-	-
GW103519	319996 / 6248144	0.6 km southeast	Active	Monitoring Bore	3.50 m bgs	-	-
GW103521	319996 / 6248144	0.6 km southeast	Active	Monitoring Bore	6.00 m bgs	-	-
GW103523	319996 / 6248144	0.6 km southeast	Active	Monitoring Bore	6.00 m bgs	-	-
GW103525	319996 / 6248144	0.6 km southeast	Active	Monitoring Bore	3.00 m bgs	-	-
GW103522	319996 / 6248144	0.6 km southeast	Active	Monitoring Bore	3.80 m bgs	-	-
GW103520	319996 / 6248144	0.6 km southeast	Active	Monitoring Bore	5.00 m bgs	-	-
GW103514	319996 / 6248144	0.6 km southeast	Active	Monitoring Bore	5.00 m bgs	-	-
GW111490	320527 / 6248196	0.8 km southeast	Active	Monitoring Bore	6.00 m bgs	5.00-6.00 m bgs	5.10 m bgs
GW111491	320507 / 6248158	0.8 km southeast	Active	Monitoring Bore	6.00 m bgs	5.00-6.00 m bgs	3.97 m bgs
Note: 1. Approximate, estimated from the approximate centre of Site at 308570 / 6263249. 2. Total well installation depth.							

7.7 Acid Sulfate Soils

SLR reviewed the NSW Department of Climate Change, Energy, the Environment and Water (DCCEEW) acid sulfate soil (ASS) Risk map, hosted on the Sharing and Enabling Environmental Data (SEED) (SEED 2024) spatial tool on 23 October 2025. This review indicated that the Site was not located in an area of known ASS occurrence.

Additionally, SLR reviewed the NSW Department of Customer Service (DCS) ePlanning Spatial Viewer on 23 October 2025. This review indicated that the Site was not in an area of ASS Risk under the Canterbury-Bankstown LEP 2023 requiring consent before development.

7.8 Naturally Occurring Asbestos

SLR reviewed the NSW Department of Regional NSW Naturally Occurring Asbestos (NOA) map, hosted on the SEED (SEED 2025) spatial tool on 23 October 2025. The review indicated that the Site was not located in an area of known NOA.



8.0 Historical Setting

8.1 Historical Aerial Review

SLR completed an updated historical aerial imagery review for this PSI. Historical aerial imagery reviewed has been presented in **Appendix F** and a detailed review has been presented in **Appendix G**. SLR reviewed aerial imagery from 1951 to 2025 to summarise the discernible changes to the surface condition over time. The Site appeared to have hectically been used for:

- Historically undeveloped until at least 1965, when railway lines and carriages were observed in aerial imagery.
- Between at least 1965 and 1978 the Site was development for use as support infrastructure for a railway was undertaken at the Site.
- A large warehouse was constructed at the Site by the 1978 aerial image.
- Progressively developed since then, until the large warehouse was demolished between 2002 and 2011 (available images).

From this review, SLR has summarised the discernible changes to the surface condition of the Site in **Table 5**.



Table 5 Historical Aerial Imagery Summary

Aspect Of Site History	Details
Historical Buildings and Demolition	Buildings have been present at the Site since at least 1978. Over time, some buildings at the Site have been demolished and replaced. Notably, SLR identified the following: • A small building adjacent the railway corridor was present at the eastern portion of the Site from at least 1965 to 1978, when it was no longer visible in aerial imagery. • A large warehouse was present at the centre of the Site from 1978 to 2011. This was replaced by a smaller administration building, which was constructed between 2011 to 2017. This smaller administration building may have been a part of the larger (removed) warehouse. • Other smaller buildings were identified in the western portion of the Site from at least 1978, and another from at least 1986. They appeared to remain present to the latest aerial image reviewed from October 2025.
Historical excavation and surface scarification	Surface scarification and excavation was identified overtime at the Site and was generally consistent with progressive development at the Site. No significant excavation or earthworks were identified in any historical aerial image reviewed by SLR, however an area of excavation in the eastern portion of the Site, just south of the Cooks River, was identified from 1978 to 1994. SLR was not supplied or aware of any records relating to the exportation of fill or waste from the Site at any time. It was noted in the Safety Case that bonded asbestos was proposed to be removed from the Site following storage. However, SLR was not aware whether this had occurred at the time of preparing this PSI.
Historical Importation and Placement of Fill	Secondary to the commentary above, no significant earthworks or importation of fill was identified at the Site such that land was clearly reclaimed, built-up or filled for any other purpose. • Some stockpiling was identified in the excavated area identified above in the 2011 aerial image this was then identified to be covered by vegetation since the 2017 aerial image. • An area of mounded fill located at the northwestern corner of the Site has been present since at least 1978. • An area of covered by high-visibility marker material was identified at the southern boundary of the Site in the 2011 aerial image only. SLR was not supplied or aware of any records relating to the importation of fill to the Site at any time.
Summary of Historical Site Activities	The Site use appears to have been very consistent since its development by at least 1978. The Site appears to have been used as a train container receipt / storage facility and appears to be located at the termination of two railway lines used for that purpose. Other storage and commercial / industrial activities have been identified at the Site, which have been located at the western boundary of the Site. These activities generally appeared to comprise road freight storage and maintenance. Given that the Site was primarily used for rail freight activities, these road freight activity appeared to be distinct from the primary use of the Site.



8.2 Heritage

8.2.1 First Nations Heritage

SLR reviewed the Australian Institute of Aboriginal and Torres Strait Islander Studies (AIATSIS) *Map of Indigenous Australia* (AIATSIS 1994) on 23 October 2025. This review identified that the Site was on the traditional lands, waters and skies of the Dharug nation. The Site was located within the Metropolitan Local Aboriginal Land Council.

8.2.2 State Heritage

A review of NSW State Heritage List, conducted on 23 October 2025, indicated that the Site is not of state-significant heritage value. However, the Lidcombe Hospital Precinct was identified approximately 500 m north and Potts Hill Reservoirs 1 & 2 located 450 m west of the Site. The results of this search have been presented in **Appendix H**.

8.2.3 National Heritage

A review of Australia's National Heritage List, conducted on 23 October 2025, indicated that the Site is not of nationally significant heritage value. The results of this search have been presented in **Appendix H**.

8.3 NSW EPA Contaminated Land Registers

The NSW EPA contaminated land public record is a searchable database of:

- Orders made under Part 3 of the Contaminated Land Management Act 1997 (CLM Act).
- Notices available to the public under section 58 of the CLM Act.
- Approved voluntary management proposals under the CLM Act that have not been fully carried out.
- Site audit statements provided to the EPA under section 53B of the CLM Act.
- Where practicable, copies of anything formerly required to be part of the public record.
- Actions taken by EPA (or the previous State Pollution Control Commission) under sections 35 or 36 of the Environmentally Hazardous Chemicals Act 1985 (EHC Act).

Searches of the NSW EPA contaminated land registers were undertaken on 24 October 2025. The Site itself was not listed on any NSW EPA public register. These searches are summarised in **Sections 8.3.1 - 8.3.3** below. Searches of the public registers referenced here are presented in **Appendix I to Appendix K**.

8.3.1 POEO Public Register

SLR reviewed the POEO Public Register on 24 August 2025. The Site was listed as holding an Environmental Protection Licence (EPL) under the POEO Act which has been summarised in **Table 6**. Several sites within Chullora were identified to hold an EPL which have been presented in **Appendix I**.



Table 6 POEO Public Register Summary

Address	Notice	Type	Status	Date
20 Dasea Street, Chullora NSW 2190	21108	POEO Licence – waste storage	Issued	31 Jul 2018
	1630977	s.58 Licence Variation	Issued	24 Jul 2023
	1633062			14 Sep 2023
	1642245			28 Aug 2024

8.3.2 Section 58 CLM Act Regulated Sites

SLR reviewed the record of sites regulated by the NSW EPA under Section 58 of the CLM Act 1997 on 24 October 2025. The Site was not listed as a regulated site under Section 58 of the CLM Act. No other properties located in Chullora were listed as regulated sites under Section 58 of the CLM Act. CLM Act 1997 Section 58 Regulated Sites search results have been presented in **Appendix J**.

8.3.3 Section 60 CLM Act Notified Sites

SLR reviewed the list of sites notified to the NSW EPA under section 60 of the CLM Act on 24 October 2025. The Site was not listed as a notified Site under Section 60 of the CLM Act 1997. However, one site in Chullora was listed as notified sites under section 60 of the CLM Act. CLM Act Section 60 Notified Sites search results have been summarised in **Table 7** and presented in **Appendix K**.

Table 7 Nearby Section 60 CLM Act Notified Sites

Site Name Address	Distance / Direction for Site	Contamination Activity Type	Management Class
Chullora Railway Workshops, Worth Street, Chullora NSW	200 m east	Other Industry	Regulation under CLM Act not required

8.4 NSW EPA PFAS Investigation Program

A review of the NSW EPA per- and poly-fluorinated alkyl substances (PFAS) Investigation Program summary indicated that the Site was not an NSW EPA PFAS Investigation site, and no nearby sites were on the PFAS investigation program. The results of this review have been presented in **Appendix L**.

8.5 Loose Fill Asbestos

The Home Building Act 1989 (Govt. of NSW 1989) requires the NSW Government to maintain a loose-fill asbestos register of properties with known loose fill asbestos insulation. NSW Fair Trading hosts the NSW Government *Loose-fill Asbestos Insulation Register* (NSW Fair Trading 2025). A review undertaken on 24 October 2025 of that register identified that the Site was not listed on the register. Results of that review have been presented in **Appendix M**.

8.6 Underground Services

SLR reviewed mapped underground services identified on freely available Before You Dig Australia (BYDA) plans. While these plans may be partly inaccurate, particularly with respect



to the exact locations of services, they may provide information on potential contamination sources. BYDA plans were:

- Reviewed for the purposes of identifying potential contamination sources at and near the Site, not reviewed for excavation purposes.
- Subject to change at the discretion of the asset owner/s.

As such, BYDA plans have not been appended to this report. **Table 8** summarises the asset owners identified at and near the Site and whether these may have had the potential to introduce potential source/s of contamination.

Table 8 BYDA Asset Owners

OWNER	ASSET TYPE	CONTAMINATION POTENTIAL
Ausgrid	Electricity / Telecommunications	Low
Cumberland City Council	No Asset/s Identified	
Jemena Gas West	Gas	Low
NBN Co NSW/ACT	Electricity / Telecommunications	Low
Sydney Trains Network Maintenance Operation Technology	Public Transport Assets	Low
Sydney Water	Water	Low
Telstra NSW	Electricity / Telecommunications	Low

Sydney Trains assets were considered to present contamination risk due to the potential for waste storage/s to be located along the rail corridor and the known historical use of asbestos-containing materials (ACM) as brake pads. No Sydney Trains assets were identified within the Site boundary, and the contamination potential was considered low as a result. However, the Site was used as a freight terminal, and similar contamination risks may exist as a result. Notwithstanding that, the freight terminal was a key asset in Cleanaway's proposed redevelopment, and associated contamination risks may be amenable to the proposed redevelopment.

Some Sydney Water assets are known to contain asbestos. ACM was historically used for reticulation infrastructure. Where this is known by Sydney Water, it is denoted on BYDA plans as Asbestos Cement (AC). Some Sydney Water assets were identified at or near the Site boundary, including:

- 225 mm Vitrified Clay (VC), partly concrete-encased.
- 225 mm polyvinylchloride (PVC).
- 225 mm polypropylene (PP).
- 600 mm Mild Steel Cement Lined (SCL).
- 2475 SCL Internal Bitumen Lined (IBL).

Those assets identified near the Site boundary may be inaccurately recorded and may be located on- or off-Site. VC, PVC and PP asset types were not considered to pose a contamination risk. There was potential for SCL assets to be lined with an asbestos-cement liner. However, this was not specified by Sydney Water. Given an SCL IBL asset was identified within the Site boundary, it was unlikely that the cement lining contained asbestos.

No liquid fuel or oil reticulation infrastructure was identified on BYDA plans reviewed.



9.0 Desktop Assessment Summary

Cognisant of the known historical assessments (refer **Section 6.0**) and based on the review of available desktop information completed (refer **Section 7.0 and 8.0**), SLR considered that the Site appeared to have historically been used primarily for locomotive and road freight receipt and distribution. This was the primary use of the Site at the time of preparing this PSI. Other uses for vehicle and other storage were also identified.

PN prepared a Safety Case (PN 2024) for the Site which identified dangerous and hazardous goods storage at the Site, including two asbestos storages – one friable and one non-friable. No record of waste receipt or export to / from the Site was supplied to SLR at the time of preparing this PSI. However, it was noted that the Site did hold an EPL for the receipt and storage of waste. A summary of the desktop assessment pursuant to an assessment of Site contamination risk has been made below:

- **Environmental Setting: the environmental setting of the Site and surrounding area was not considered to be a significant source of contamination at the Site.**
 - Some registered groundwater bores were identified 500–800 m from the Site. Some of these bores were identified to be present in a cluster (i.e. close proximity to each other) and all of these bores were identified to be registered for monitoring purposes.
 - However, each registered bore was located south of the Cooks River, which was expected to be the receiving water body from groundwater.
 - Groundwater underlying the Site was considered likely to be of low quality, given the regional setting of the Site and industrial history along the Cooks River.
 - SLR notes that the area surrounding the Site, and the Site itself, were serviced by a reticulated water supply. No beneficial use of groundwater at the Site was identified.
 - ASS and NOA were not identified at the Site.
- **Historical Setting: the historical setting of the Site was considered to pose a risk of contamination at the Site.**
 - The Site appeared to have been historically developed and used for rail and road freight receipt and dispatch since at least 1978.
 - Progressive development was identified to have occurred since then, including the installation of significant hardstand coverage across the surface of the Site.
 - Portions of the Site have remained unsealed since the earliest aerial image reviewed by SLR, and vehicle, machinery and other storage was identified in these areas.
 - Some excavation and scarification of the Site's surface was identified over time. However, no significant bulk earthworks were visible from historical aerial imagery reviewed.
 - Some stockpiling of fill was identified across a number of areas at the Site. Most notably, storage of asbestos was identified in the Safety Case (PN 2024).
 - Also notably, a small area of land covered by high-visibility marker material was identified in 2011 at the southern boundary of the Site.



- No other historical land use was identified at the Site – material receipt, distribution and storage were the only historical land use of the Site. Most storage of materials was conducted on areas of hardstand coverage, but some storage on unsealed land areas was also identified, typically at the southern boundary of the Site.
- The Site did hold an EPL (21108) and several associated variations for the storage of waste.
- No other historical activities were identified to be sources of contamination, and the Site was not listed as notified, regulated, or otherwise under any relevant Act.

SLR understood that due diligence was the primary driver for this assessment, and that the Site would continue to be used for commercial / industrial purposes. Cleanaway proposed to redevelop part of the Site and install additional concrete hardstand and enclose building spaces in areas which were either unsealed or did not have enclosed building spaces at the time of preparing this PSI.

Only part of the Site is proposed to be redeveloped by Cleanaway. Some of the potential contamination, such as the asbestos storages reported in the Safety Case (PN 2024), were considered unlikely to impact the proposed redevelopment. That has been considered in the preliminary CSM presented in **Section 12.0**.



10.0 Site Inspection

A Site walkover and inspection was conducted by one of SLR's suitably trained and experienced environmental consultants on 29 October 2025. A photographic log from the Site inspection has been presented as **Appendix N**. The inspection included a walkover of the Site to assess the presence of notable Site features including:

- **Surface Conditions**, including:
 - Access and egress.
 - Topography.
 - Hardstand coverage.
 - Unsealed ground.
 - Slumping.
 - Scarring.
- **Visual and olfactory indicators of contamination**, including:
 - Visual.
 - Odours.
 - Staining.
- **On-Site infrastructure**, including:
 - Stormwater management.
 - Fill points.
 - Vent pipes.
 - Monitoring wells.
 - Remediation infrastructure.
- **Neighbouring properties**, including:
 - Conditions.
 - Potentially contaminating off-Site activities.
- **Site occupancy interviews** -no relevant representatives available for interview.

SLR completed the Site inspection independently. At the time of the inspection, there was rain. However, all areas of the Site were accessible by foot. A summary of Site observations has been presented in **Table 9**. Additionally, a summary of observable surface features which may indicate the presence of contamination, made during the Site inspection have been presented on **Figure 3** in **Appendix A**.



Table 9 Site Inspection Observations

Assessment Feature	Observation
Surface Conditions	
Access and egress	Access and egress to the Site was via Dasea Street, which was supervised by a weighbridge and gate operator. Lockable gates were identified at the PN primary access point, and at the access point to the two smaller short-term lease areas.
Topography	The topography of the Site was varied but generally sloped east towards the Cooks River. It was noted during the inspection that topographical variation was anthropogenically introduced to the Site, as evidenced by areas of bare fill.
Hardstand Coverage	Areas of concrete hardstand were identified towards the northern boundary of the Site. It was noted that these areas were generally in good condition and free from obvious slumping, scarring or staining. Generally, hardstand was associated with sealed carpark areas, or auxiliary to railway infrastructure. Some poor-condition asphalt was identified near fuel storage areas.
Unsealed Ground	The entire land area occupied by the two short-term lease areas were entirely unsealed, except for in the engine bays (discussed below).
Slumping	None identified.
Scarring	Scarring of hardstand covered areas was not identified during the inspection. However, some limited scarification of unsealed ground areas which appeared to be attributable to heavy vehicle movements across the ground surface in that area.
Visual and Olfactory Indicators of Contamination	
Visual Evidence of Fill	Fill was identified during the Site inspection. This was evidenced by anthropogenic and heterogeneous material visible to the ground surface. Potentially asbestos-containing material (PACM) was not identified during the Site inspection.
Odours	None identified.
Staining	None identified.
Sheens	A sheen was observed east of the engine bays. It was assumed that this sheen was a hydrocarbon sheen, evidenced by a rainbow slick on top of pooled rainwater trailing back to the engine bay. SLR ran a finger through the sheen while wearing a nitrile glove. The sheen remained smoothly consolidated and did not fragment when disturbed. This was consistent with a hydrocarbon sheen.
On-Site Infrastructure	
Stormwater Management	Stormwater management was identified across the Site. This comprised underground stormwater reticulation infrastructure and drains across the Site. Otherwise, stormwater was expected to flow across the Site surface before discharging from the Site.

Assessment Feature	Observation
Fuel Storage and Dispensary	Liquid diesel fuel storage was identified towards the southern boundary of the Site and comprised an above-ground storage tank (AST) with a 67 kilolitre (kL) capacity. An auxiliary intermediate bulk container (IBC) used for the dispensation of Ad Blue diesel fuel conditioner was co-located with the AST. The AST and IBC were placed on asphalt sealed ground surface, and the AST was placed on top of an additional concrete slab. The asphalt was in poor condition, and a number of cracks were visible. The dispensary of the AST was located adjacent a sump / grated area which also had some open and empty fuel cans and IBCs. Two spill kits were identified in this area. The fuel storage identified in the Safety Case (PN 2024) was not able to be safely accessed during the inspection, due to the operational use of that part of the Site. However, SLR has presented its approximate location alongside observations made during the inspection on Figure 3, Appendix A.
Fill Points	Fuel fill points were identified at the AST.
Vent Pipes	Vent pipes were identified at the AST.
Mechanical Maintenance Areas	Two areas for mechanical maintenance were identified at the Site, both in the southwestern corner of the Site: • Ferry Carrig Lease Area – three engine bays were identified. ○ Each was open and covered by an overhead rain and sun shelter. No mechanism by which to lock / restrict access to this area was identified. ○ Several small and medium mechanical products were identified and generally comprised mechanical oils and lubricants. ○ Waste and litter were identified in this area, and some partially- of fully empty storage containers were identified to be open, with some tipped over onto the ground. ○ The engine bays themselves were sealed by concrete hardstand. However, land areas immediately adjacent to these engine bays were either: ▪ Unsealed. ▪ Partially sealed by poor condition asphalt. • Linfox Lease Area – one garage workshop and another building with ACM were identified. ○ Both were closed and locked. ○ The garage workshop appeared to be constructed with sheet metal. ○ The other building (potentially historically used as an office) was identified to contain ACM by an affixed danger sign.
Monitoring Wells	None identified.

Assessment Feature	Observation
Remediation Infrastructure	No remediation infrastructure was identified during the Site inspection. However, SLR was aware that friable asbestos was stored at the northern boundary of the Site, which was documented in the Safety Case (PN 2024). From aerial imagery presented in the Safety Case, SLR understands that the friable asbestos is managed beneath a white marker layer, and vegetation coverage. However, SLR was not aware is another barrier layer was present between the marker layer and the vegetation growth substrate.
Neighbouring Properties	
Conditions	Industrial land parcels surrounding the Site appeared to be generally well-maintained and were free from litter and foul or offensive odours, or noises. The following summarises the condition of the Site's surrounds, and their potential contamination risk to the Site: • North: vacant land. • East: industrial land with warehouses. • South: industrial land with warehouses. • West: industrial land with warehouses.
Potentially Contaminating Off-Site Activities	The area surrounding the Site was industrial and may pose some contamination risk to the Site. It was noted that off-Site environmental monitoring infrastructure (groundwater bores) were present southeast of the Site.
Site Occupancy Interviews	
Discussions with Current Site Occupiers	Limited conversations were held with current Site occupiers. However, SLR was accompanied by both Cleanaway and EME for the Site inspection. No notable disclosures were made by Cleanaway or EME to SLR, and responses for information were provided and documented in SLR's known extent of historical assessments (refer Section 6.0). SLR understood that liquid fuel storage at the Site was planned by Cleanaway.

11.0 Activities of Potential Concern

On the basis of the Desktop Assessment (refer **Sections 7.0–9.0**) and the Site inspection (refer **Section 10.0**), some AOPC were associated with the Site:

- Historical building and demolition at the Site.
- Historical and current commercial / industrial use.
- Historical and current hazardous and dangerous material storage.
- Historical stockpiling of fill.
- Use of chemicals for weed and pest control during both historical agricultural land use and subsequent commercial / industrial land use.
- Vehicular storage and movements.
- Mechanical maintenance areas.

Historical building and demolition, and storage of hazardous building material (asbestos) and fill at areas across the Site may pose a contamination risk to the Site. SLR was not supplied importation or export certification of waste for the Site to prepare this PSI.

Vehicles have historically been observed (evidenced by surface scarification and the placement of fill in aerial imagery) at the Site. There was a possibility for these vehicle movements to have resulted in incidental releases of fuel products. However, these vehicles were expected to have been diesel-fuelled for use in nearby civil works. Additionally, vehicles may have historically used asbestos brake pads.

Broadacre use of pesticides may have occurred during historical use of the northern portion of the Site for agricultural purposes until at least 1978. Since the cessation of agricultural land use at the Site from 1978, some weed and pest control may have occurred for the management of weeds under the commercial / industrial Site use.

Table 10 summarises the identified potentially contaminating activities and the associated AOPC. On the basis of these AOPC, SLR has developed a preliminary Conceptual Site Model in **Section 12.0**. SLR notes that this preliminary CSM has been developed for the entire Site. The proposed redevelopment by Cleanaway is limited to only part of the Site. As such, some SPR linkages considered in **Section 12.0** may not impact Cleanaway's proposed redevelopment.

Table 10 Potentially Contaminating Historical Activities and Areas of Potential Concern

Historical Activity	Area Of Potential Concern
Historical building and demolition	Two historical buildings have been demolished: - Large warehouse at the centre of the Site – - This was developed by at least 1978 and was demolished by at least 2011. - Small building at the southeastern boundary of the Site - This was developed by at least 1965 and demolished by 1978.
	One current building is known to contain asbestos: Small building at the southwestern boundary of the Site, which has a sign on the outside wall identifying that there is ACM present.
Historical and current commercial / industrial use	Entire Site area.
Historical and current hazardous and dangerous material storage	Several known hazardous and dangerous material storage areas were identified: 2 x liquid fuel storage and dispensary areas. 1 x known historical liquid fuel storage and dispensary area. 2 x known asbestos waste storage areas located at the eastern boundary of the Site. Each of the above were identified to be outside the proposed redevelopment area of the Site. As such, they may not pose an immediate risk to the proposed redevelopment.
	Known dangerous material storage, in unspecified locations: - The presence of dangerous materials is known at the Site and was disclosed in the safety case. - However, the exact location of those storages was not disclosed at the time of preparing this PSI. Explosion risk modelling indicated that those materials were stored near the centre of the northern boundary of the Site.
Historical stockpiling of fill	Several areas of known historical stockpile storage at the Site were identified in historical aerial imagery reviewed: - Stockpiling of fill at the northwestern corner of the Site was evident from at least 1978 – outside proposed Cleanaway redevelopment. - Stockpiling of fill at the eastern boundary of the Site was evident from at least 2011 – outside proposed Cleanaway redevelopment. - Stockpiling of fill at the southwestern portion of the Site was evident from at least 2011 – inside proposed Cleanaway redevelopment. SLR notes that there remains the chance that other stockpiling and movement of fill across the Site may have occurred which was not visible in historical aerial imagery. It was considered likely, given the significant historical development at the Site, that fill may be present across the entire area of the Site.
Weed and pest control	Weed and pest control may have occurred across the entire site area.
Vehicular storage and movements	Vehicle storage was observable in aerial imagery and the Site inspection.
	Vehicle movements across the entire Site area was likely, due to the Site's commercial / industrial use. Some movement was serviced by hardstand driveways. However, some vehicle movements across the unsealed ground surface were also evident in aerial imagery and the Site inspection.
Mechanical maintenance areas	Two vehicle maintenance areas were identified at the Site: - Three engine bays in the Ferry Carrig lease area, which were constructed between 2017 and 2025. - A large garage in the Linfox lease area, which was constructed between 1978 and 1986.

12.0 Preliminary Conceptual Site Model

This preliminary CSM has been developed in accordance with the ASC NEPM (NEPC 2013), which draws upon ASTM E1689-20 (2020) Standard Guide for Developing Conceptual Site Models for Contaminated Sites (ASTM 2020). Per ASTM E1689, definitions of the key elements of the complete exposure pathways are as follows:

- **Contaminant** – any substance, including any radiological material, that is potentially hazardous to human health and / or the environment and is present in the environment at concentrations above its background concentrations.
- **Source** – the location from which a contaminant(s) has entered or may enter a physical system.
- **Environmental Receptor** – humans and other living organisms potentially exposed to and adversely affected by contaminants because they are present at the source(s) or along contamination migration pathways.
- **Migration Pathway** – the course through which contaminants in the environment may move away from the source(s) to potential environmental receptors.
- **Exposure Route** – the process by which a contaminant or physical agent in the environment comes into direct contact with the body, tissues, or exchange boundaries of an environmental receptor organism. Examples include (but are not limited to) ingestion, inhalation, dermal absorption, root uptake, and gill uptake.

Descriptions of the key elements of the preliminary CSM associated with the Site and a summary of the identified potentially complete exposure pathways are outlined in the following sections.

12.1 Sources

The primary sources of contamination identified to exist with respect to Site include the AOPC identified in **Section 11.0**.

12.2 Potential Pathways

The primary feasible migration pathways that have been identified include the following:

- **Aerial dispersion of dust** during earthworks disturbance associated with the potential future development of Site.
- **Aerial volatilisation of contaminants** associated with the potential future development of Site.
- **Migration of contaminant** impacted soil, or leachable contaminants via hydraulic surface flow during periods of inclement weather.

For the identified migration pathways, the following exposure routes have been identified:

- **Inhalation of contaminated material**, such as asbestos fibres, dust or vapours, via earthworks disturbance associated with the potential future development of Site.
- **Ingestion/absorption** of contaminated material (all media).
- **Direct contact** (dermal) with and ingestion of contaminated material (all media).

12.3 Potential Receptors

Based upon findings the following key site-specific potential onsite and offsite receptors were considered relevant:

- **Human**
 - Construction workers (future).
 - Employees / visitors (current / future).
 - Maintenance workers (current / future).
- **Ecological receptors:**
 - Soil processes / organisms / fauna in the rhizome (generally top ~2m).
 - Groundwater / soil water underlying the Site.
 - Surface water environment of Cooks River.

On the basis of exposure frequency and duration, the above receptors are considered to represent the highest chronic intake and dose. Note that other receptors may also be present at the Site on a circumstantial basis (e.g., transient exposure to occasional visitors or unauthorised trespassers), however these users are not expected to directly disturb ground surfaces or come into contact with potentially contaminated fill.

12.4 Potential / Complete Exposure Pathways

For a risk to the environment or human health to exist there must a contaminant source and a migration pathway and exposure route to the receptor. **SLR has made two assessments on SPR linkages at the Site:**

- Perceived assessment on SPR linkage completion.
- Perceived risk that an SPR linkage may have to the proposed redevelopment of part of the Site by Cleanaway.

Where a potentially / complete SPR linkage has been identified, the risk has been assessed as follows:

- **LOW RISK** – the potentially complete SPR linkage is unlikely to pose a significant risk to the potential proposed redevelopment of part of the Site.
- **MODERATE RISK** – the potentially-complete SPR linkage is likely to exist and require management at the Site prior to redevelopment. Management of the potentially complete SPR linkage is realistic and achievable but may introduce a resource burden to the redevelopment.
- **HIGH RISK** – potentially-complete SPR linkage is likely to exist and require management at the Site prior to redevelopment. Management of the potentially complete SPR linkage may be realistic but may be prohibitively onerous for the proposed redevelopment.

As this investigation is preliminary in nature, these assessments were both qualitative and may be validated by means of intrusive and / or analytical means. The potentially complete exposure pathways present in relation to the contamination status of the Site the time of this investigation are presented in **Table 11**.

Table 11 Preliminary Conceptual Site Model

Source		Migration Pathway / Exposure Mechanism	Receptor/s	Preliminary SPR Linkage Assessment
Primary Source	COPC			
Historical building and demolition	Asbestos Metals	Inhalation of aerially dispersed dusts and/or vapours	Human: - Construction workers (proposed upgrades) - Site users (employees / visitors) - Maintenance workers	MODERATE RISK - COMPLETE SPR LINKAGE - Historical building and demolition have occurred at the Site, primarily from at least 1978. - At least one building located at the Site is known to contain ACM in building materials and also likely to contain lead-based paints / pigments that might contain lead chromate (i.e., contains a polyatomic species of carcinogenic hexavalent chromium). - SLR understood that the western boundary of the Site would be used for vehicle access and egress, and that the known asbestos-containing building would be redundant and required demolition. - Once risk is quantified / confirmed, instances can be suitably managed on-Site through encapsulation OR disposed off-Site to re-evaluate the risk as LOW. - Initially risk status is assessed to be MODERATE for the Site in its current state. Risks associated with hazardous building materials can be appropriately controlled / mitigated and potentially re-evaluated as LOW RISK through: - Further assessment / quantification of contaminant-exposure route risk evaluation. - Consideration of on / off Site remediation. - Construction / maintenance workers using appropriate PPE controls and following risk mitigation procedures documented in a Safe Work Method Statement (SWMS), Further assessment of potential contamination deriving from historical construction and demolition is recommended to be considered to quantify likely risk(s) prior to redevelopment of part of the Site. Refer to Section 13.0 for consolidated recommendations for further assessment.
		Dermal contact / uptake / Ingestion of contaminants	Human: - Construction workers (proposed upgrades) - Site users (employees / visitors) - Maintenance workers. Ecological: - Soil organisms / fauna / processes	
		Hydraulic migration of contaminants	Ecological: - Groundwater environment. - Receiving surface water (Cooks River)	
Historical and current commercial / industrial use	Asbestos Metals BTEXN TRH PAH PCB PFAS	Inhalation of aerially dispersed dusts and/or vapours	Human: - Construction workers (proposed upgrades) - Site users (employees / visitors) - Maintenance workers	MODERATE RISK - POTENTIALLY COMPLETE SPR LINKAGE - The Site has been used for commercial / industrial purposes since its development by at least 1978. - The specific use of the Site as a rail freight terminal has been the consistent commercial / industrial use over time, and the Site land titles have historically been wholly for rail corporations – both government and private. However, smaller lease areas at the southwestern portion of the Site have been tenanted for other commercial / industrial uses – primarily for vehicle and materials storage. - While the historical Site use for commercial / industrial purposes has existed for over 50 years, this use has been consistent, with information suggesting the Site has not been used for chemical product manufacture. The proposed land use following proposed redevelopment
		Dermal contact / uptake / Ingestion of contaminants	Human: - Construction workers (proposed upgrades) - Site users (employees / visitors) - Maintenance workers. Ecological: - Soil organisms / fauna / processes	



Source		Migration Pathway / Exposure Mechanism	Receptor/s	Preliminary SPR Linkage Assessment
Primary Source	COPC			
		Hydraulic migration of contaminants	Ecological: - Groundwater environment. - Receiving surface water (Cooks River)	and redevelopment is to remain commercial / industrial and Cleanaway was understood to have some tolerance and knowledge of the Site's historical setting. - Only packed goods have been received at the Site. To that end, the SPR linkage for the commercial / industrial use of the Site derives primarily from possible incidental spills or contaminant releases over time. Given that the Site has historically been used as a rail terminal, contamination deposited off locomotives (such as PAH, PCB and asbestos) may have occurred. - SLR has assessed this risk as MODERATE RISK as SLR understood that Cleanaway was aware of the Site's historical and current commercial / industrial land use and that the proposed redevelopment of part of the Site was for the same land use. Further assessment of potential contamination deriving from historical commercial / industrial land use is recommended prior to redevelopment of part of the Site. However, this assessment may not need to cover the entire Site areas and may be targeted for the management of potentially contaminated material during redevelopment works. Refer to Section 13.0 for consolidated recommendations for further assessment.
Historical and current hazardous and dangerous material storage	Asbestos Metals BTEXN TRH PAH PCB PFAS	Inhalation of aerially dispersed dusts and/or vapours	Human: - Construction workers (proposed upgrades) - Site users (employees / visitors) - Maintenance workers	MODERATE RISK - POTENTIALLY COMPLETE SPR LINKAGE - Hazardous and dangerous materials were known to be stored at the Site. This included: - Known liquid fuel storage at the eastern and southern boundaries of the Site – partly within the proposed redevelopment and potentially beneficial. - Known industrial chemical storage at the southern boundary of the Site, and towards the centre of the Site associated with PN's container goods receipt – generally outside of the proposed redevelopment. - Known asbestos storage at the northern boundary of the Site – outside of proposed redevelopment.
		Dermal contact / uptake / Ingestion of contaminants	Human: - Construction workers (proposed upgrades) - Site users (employees / visitors) - Maintenance workers. Ecological: - Soil organisms / fauna / processes	



Source		Migration Pathway / Exposure Mechanism	Receptor/s	Preliminary SPR Linkage Assessment
Primary Source	COPC			
		Hydraulic migration of contaminants	Ecological: - Groundwater environment. - Receiving surface water (Cooks River)	- Accessible areas surrounding hazardous and dangerous material storages were not obviously contaminated or offensive. However, some assessment surrounding the 67 kL AST on the Ferry Carrig lease area is recommended. - SLR has assessed this as MODERATE RISK, given that: - Existing liquid fuel storage is expected to be beneficial to Cleanaway. - Notwithstanding this, the fuel storage observed in the Ferry Carrig lease area was observed to not be within a bund (concrete, earthen or otherwise), was placed above a grated spill sump and had IBC and other wastes present in the dispensary area. - It was noted that no leak detection or loss monitoring procedure/s was supplied to SLR to prepare this PSI. - The fuel storage areas (one historical, one new) at the eastern boundary of the Site were not able to be observed during the Site inspection, however the approximate location of these areas has been presented on Figure 3, Appendix A. - Cleanaway expects to maintain liquid fuel storage at the Site, following redevelopment as these may be beneficial to the redevelopment – both during construction and operation of the resource-recovery facility. - Dangerous goods may continue to be stored at the Site following the proposed Cleanaway redevelopment, and is expected to be maintained pursuant to the Safety Case (PN 2024), at a minimum. - The asbestos storage areas have been identified and are located at the northern boundary of the Site. No development of this area has been proposed by Cleanaway. - However, SLR notes that it was not aware of a Remediation Action Plan (RAP) or Environmental Management Plan (EMP) prepared for the management of the friable asbestos storage area. - Construction of this storage area was observable by historical aerial imagery. However, specifications relating to the cover / marker / barrier layers installed above this friable asbestos storage was not provided to SLR. - It was unclear whether the bonded asbestos storage area had been removed (or otherwise managed) from the Site. Further assessment of potential contamination deriving from some of the hazardous and dangerous materials storages is recommended prior to redevelopment of part of the Site. Refer to Section 13.0 for consolidated recommendations for further assessment.
Historical stockpiling of fill	Asbestos Metals BTEXN TRH PAH PCB OCP / OPP PFAS	Inhalation of aerially dispersed dusts and/or vapours	Human: - Construction workers (proposed upgrades) - Site users (employees / visitors) - Maintenance workers	MODERATE RISK - POTENTIALLY COMPLETE SPR LINKAGE - Historical stockpiling has occurred at the Site. - The nature and extent of stockpiling at the Site was not fully known at the time of preparing this PSI, as no environmental sampling or analysis was undertaken at the Site. - Stockpiling appeared to be consistent to support the commercial / industrial operational demands of the Site. - Management of some material beneath a high-visibility marker layer at the southern boundary of the Site – identified in the 2011 aerial image – was not documented in any information supplied to SLR to prepare this PSI and may pose a contamination risk to the proposed redevelopment in that area.
		Dermal contact / uptake / Ingestion of contaminants	Human: - Construction workers (proposed upgrades) - Site users (employees / visitors) - Maintenance workers. Ecological: - Soil organisms / fauna / processes	



Source		Migration Pathway / Exposure Mechanism	Receptor/s	Preliminary SPR Linkage Assessment
Primary Source	COPC			
		Hydraulic migration of contaminants	Ecological: - Groundwater environment. - Receiving surface water (Cooks River)	- Notwithstanding some unresolved potential contamination risks deriving from historical stockpiling at the Site, the extent of stockpiling historically completed at the Site was limited, especially considering the large size of the Site. - SLR has assessed this risk as MODERATE, as there are potential unknown risks associated with historical stockpiling. However, the limited known extent of stockpiling at the Site may result in only limited fill requiring management during redevelopment. Further assessment of fill within the reposed redevelopment area has been recommended. Refer to Section 13.0 for consolidated recommendations for further assessment.
Weed and pest control	Metals OCP / OPP	Inhalation of aerially dispersed dusts and/or vapours	Human: - Construction workers (proposed upgrades) - Site users (employees / visitors) - Maintenance workers	POTENTIALLY COMPLETE SPR LINKAGE – LOW RISK - Pesticides may have historically been applied to ground surfaces over time, but especially since its commercial / industrial land use. - While the application of weed and pest control may have been broadacre and widespread, the contaminant source load was likely to be low. - SLR has assessed this as LOW RISK, given the proposed commercial / industrial land use of the Site (i.e., majority covered by hardstand), and the proposed use of Personal Protective Equipment (PPE) on a site such as this as standard. - No cultivation of land for arable cropping was proposed by Cleanaway and secondary exposure to historical weed and pest control chemicals was considered unrealistic. Further assessment of potential remaining contamination deriving from potential historical application of pesticides is considered unnecessary.
		Dermal contact / uptake / Ingestion of contaminants	Human: - Construction workers (proposed upgrades) - Site users (employees / visitors) - Maintenance workers. Ecological: - Soil organisms / fauna / processes	
		Hydraulic migration of contaminants	Ecological: - Groundwater environment. - Receiving surface water (Cooks River)	
Vehicular storage and movements	Asbestos Metals BTEXN TRH PAH	Inhalation of aerially dispersed dusts and/or vapours	Human: - Construction workers (proposed upgrades) - Site users (employees / visitors) - Maintenance workers	LOW RISK - POTENTIALLY COMPLETE SPR LINKAGE - Vehicle storage and movements have historically occurred at the Site. - While these have occurred in areas of sealed and unsealed land, they have been consistent with the commercial / industrial use of the Site. - SLR notes that vehicle movements across the Site and storage in parts of the Site may be a contaminant source. However, SLR also notes that these movement and storage activities have not been particularly extensive. - SLR has assessed this as LOW RISK, given the limited extent of vehicle storage and the movement of vehicles at the Site to be consistent with the historical and proposed land use. Further assessment of potential contamination deriving from some of the hazardous and dangerous materials storages is recommended prior to redevelopment of part of the Site. Refer to Section 13.0 for consolidated recommendations for further assessment.
		Dermal contact / uptake / Ingestion of contaminants	Human: - Construction workers (proposed upgrades) - Site users (employees / visitors) - Maintenance workers. Ecological: - Soil organisms / fauna / processes	
		Hydraulic migration of contaminants	Ecological: - Groundwater environment. - Receiving surface water (Cooks River)	
Mechanical maintenance	Asbestos Metals BTEXN TRH	Inhalation of aerially dispersed dusts and/or vapours	Human: - Construction workers (proposed upgrades) - Site users (employees / visitors) - Maintenance workers	MODERATE RISK - POTENTIALLY COMPLETE SPR LINKAGE Mechanical maintenance has historically occurred at the Site and has continued to occur at the time of preparing this PSI.



Source		Migration Pathway / Exposure Mechanism	Receptor/s	Preliminary SPR Linkage Assessment
Primary Source	COPC			
	PAH PCB	Dermal contact / uptake / Ingestion of contaminants	Human: - Construction workers (proposed upgrades) - Site users (employees / visitors) - Maintenance workers. Ecological: - Soil organisms / fauna / processes	- Mechanical maintenance activities were only identified to potentially occur in two locations – in the identified engine bay and locked garage building, both situated in leased areas of the Site. - SLR identified potentially uncontrolled discharges from each of these areas: - Hydrocarbon sheen identified proximal to the engine bays within the Ferry Carrig lease area. Open oil and lubricant containers were observed in this area, located upon areas of unsealed ground. - A large stain was visible in front of the garage building in the 2017 historical aerial image. SLR notes that this may have been associated with vehicle washing, and this was not identified in subsequent aerial images reviewed, or during the Site inspection. However, there remains a risk that this could have been an uncontrolled product release. - SLR has assessed this as MODERATE RISK as the machinery maintenance activities were isolated, inconsistent with the general use of the Site and some potential contaminant releases were identified. Further assessment of potential contamination deriving from mechanical maintenance is recommended prior to redevelopment of part of the Site. Refer to Section 13.0 for consolidated recommendations for further assessment.
		Hydraulic migration of contaminants	Ecological: - Groundwater environment. - Receiving surface water (Cooks River)	
Underground Services	Asbestos	Inhalation of aerially dispersed dusts and/or fibres	Human: - Construction workers (proposed upgrades) - Site users (employees / visitors) - Maintenance workers.	LOW RISK – SPR LINKAGE UNLIKELY TO BE COMPLETE - SLR reviewed BYDA plans for the Site current to the date of this report. - This review identified some buried services located at and proximal to the Site. Most notably, Sydney water assets were identified at the Site, including some redundant water reticulation infrastructure. Most notably: - A 600 mm mild SCL asset was identified at the Site. The composition of the cement liner within this asset was unknown, was not recorded by Sydney Water as asbestos-containing. - No AC assets were identified by Sydney Water on BYDA plans. - Notwithstanding this low-risk potential for asbestos to be present in the 600 mm mild SCL asset, there is potential for ACM to be present in other (potentially un-mapped) buried asset/s located across the Site.
Notes: BTEXN = benzene, toluene, ethylbenzene, xylenes (total) and naphthalene TRH = total recoverable hydrocarbons PAH = polycyclic aromatic hydrocarbons PCB = polychlorinated biphenyl compounds OCP / OPP = organochlorine / organophosphorus pesticides PFAS = per- and poly-fluorinated alkyl substances				



12.5 Preliminary CSM Discussion

Based on observations made in this PSI, and cognisant of the limited proposed redevelopment area of the Site (refer **Appendix B**), SLR have identified the following moderate contamination risks which could adversely impact proposed redevelopment of part of the Site. These have been identified as the following six AOC:

- **AOC-01:** Historical building and demolition.
- **AOC-02:** Historical and current commercial / industrial land use.
- **AOC-03:** Historical and current hazardous and dangerous material storage.
- **AOC-04:** Historical importation and stockpiling of fill.
- **AOC-05:** Vehicular storage and movement.
- **AOC-06:** Mechanical maintenance

Future assessment of each of these risks prior to redevelopment is recommended by SLR. Although the abovementioned risk linkages in the preliminary CSM were noted to be either complete / partially complete, none were evaluated to pose a high degree of risk that would warrant immediate active detailed assessment and/or remediation. SLR notes that other SPR linkages may be complete at the Site, but only those within the proposed redevelopment area have been considered AOC for Cleanaway.

It was understood Cleanaway were aware of the commercial / industrial use of the Site and proposed to redevelop the Site for on-going commercial / industrial purposes. As such, the identified risks posed from contamination could be managed by:

- Further detailed assessment to quantify risk and allow re-evaluation of CSM risk status; and/or
- Passively managed through routing industrial WH&S management (e.g., PPE controls and SWMS); and/or
- Remediation planning for onsite / offsite management of contamination / hazardous materials.

Hazardous and dangerous materials storage, and their presence in buildings, was known at the Site. The health effects of exposure to hazardous and dangerous materials – including hazardous building materials – is well known. However, they can be safely and effectively managed, lowering the overall risk profile. Cognisant of the proposed land use, on-Site management of any contamination identified at the Site may be a suitable and resource efficient. SLR has recommended specific future assessment items for Cleanaway to consider prior to redevelopment of part of the Site in **Section 13.0**.



13.0 Recommended Future Assessment

13.1 Areas for Future Assessment

On the basis of the preliminary CSM, SLR considered that additional assessment, characterisation and quantification of risk associated with contamination at the Site should be completed prior to the proposed redevelopment works at part of the Site. This has been recommended to minimise unexpected finds impacting the progress of redevelopment works.

SLR has recommended assessment in the AOC identified at the Site, cognisant of the extent of the proposed development in **Appendix A**. These AOC have been limited to the area proposed for redevelopment by Cleanaway. Other contamination risks may exist at the Site, but outside the proposed redevelopment area.

To suitably assess the potential contamination within the proposed redevelopment area of the Site, SLR recommends that Sampling and Analysis Quality Plan (SAQP) be prepared with the objective of documenting a procedure to validate the preliminary CSM and quantify potential risks to current and future Site users prior to, during and following the proposed redevelopment works.

SLR notes that some of the AOC identified at the Site share some common area and that assessment of part of one AOC may suitably assess part of another – i.e., there is some overlap. As such, SLR recommends that the SAQP considers the potential to suitably assess one or more AOC concurrently to minimise the resource burden to Cleanaway from over-sampling one or more AOC. The SAQP should consider the relative risks posed by each historical Site activity and AOC to construction and maintenance workers for the proposed Site upgrade works, as well as current and future users.

13.2 Environmental Matrices for Future Assessment

On the basis of this PSI, SLR considered that the following environmental matrices may pose a risk to receptors at the Site:

- Soil, and soil-derived respirable vapours and dusts.
- Groundwater, and groundwater-derived respirable vapours.
- Hazardous materials.

Each of these should be assessed prior to the commencement of and managed prior to completion of the proposed Site redevelopment. While beneficial use of groundwater underlying the Site was not identified, contamination risks deriving from groundwater may still exist. Groundwater assessment recommended here may also be completed to inform dewatering and excavation management at the Site during the proposed redevelopment.

13.3 Specific Recommended Future Assessments

SLR recommended that a SAQP be prepared for the Site with the objective of validating the preliminary CSM by means of intrusive assessment. Following preparation of the SAQP, SLR recommends that a Detailed Site Investigation (DSI) be prepared pursuant to the recommendations of the SAQP with the objective of characterising the nature, extent and risk posed by contamination at the Site. SLR recommends that the SAQP and DSI be prepared at the Site, at a minimum. Following that, and subject to the findings and recommendations of the DSI the following may be necessary at the Site:

- **Remediation Action Plan (RAP)** to suitably manage contamination (if identified).



- **Remediation Validation Report (RVR)** to suitably document the remediation works completed at the Site.
- **Long-Term Environmental Management Plan (LTEMP)** to outline recommendations to maintain efficacy of remediation completed (if any) at the Site.

Table 12 Recommended Future Contamination Assessment Areas

AOC		Risk To Development	Recommended Further Assessment
Ref.	Name		
AOC-01	Historical building and demolition	MODERATE	Completion of a hazardous building material survey (HBMS) for all buildings proposed to be demolished. The HBMS should be included in the DSI.
AOC-02	Historical and current commercial / industrial use	MODERATE	• A Cut-and-fill plan should be prepared for the proposed redevelopment at the Site. The extent of cut-and fill should then be used to inform soil and fill assessment in these areas. • Assessment of soil and fill should be completed following preparation of the cut-and-fill plan.
AOC-03	Historical and current hazardous and dangerous material storage	MODERATE	• Detailed assessment including soil and groundwater testing should be undertaken proximal to known fuel storages at the Site. • Detailed assessment and review of historical asbestos management works completed at the Site should be completed. Consolidation of all known asbestos storage at the Site should be undertaken, if suitable and only if the cohabitation of those materials will not introduce a potentially dangerous chemical mixture. • Detailed assessment of the material managed beneath the high-visibility marker layer identified in the 2011 aerial image should be undertaken.
AOC-04	Historical stockpiling of fill	MODERATE	Stockpiled fill proposed to be disturbed in this assessment should be assessed on a per-domain basis.
AOC-05	Vehicular storage and movements	LOW	• It is likely that assessment of vehicular storage and movement areas would be suitably assessed secondary to another AOC, such as AOC-02. • Detailed assessment of the areas of unsealed land at the southwestern portion of the Site is recommended.
AOC-06	Mechanical maintenance	MODERATE	• Detailed assessment including soil and groundwater testing should be undertaken proximal to known mechanical maintenance areas.



14.0 Conclusions

Cleanaway (c/- EME) engaged SLR to prepare this PSI report for the Site, which was located at 20 Dasea St, Chullora NSW. The Site was formally identified as Lot 35 on DP 1007367 and covered an area of approximately 19.9 ha (199,487 m²). The Site was located within the City of Canterbury Bankstown LGA. At the time of this PSI, the Site was zoned *E4: General Industrial* under the Canterbury-Bankstown LEP 2023.

SLR understood that Cleanaway intended to redevelop part of the Site as a Waste Transfer Station (WTS). It was understood that the WTS would be used to transfer and containerise residual waste and other resource-recovery material/s municipal and other waste streams / feedstock from road containers onto railway carriages for transportation to a future resource recovery facility, which may incorporate Energy-from-Waste (EfW) supporting infrastructure.

14.1 Objectives

SLR understood that as part of its due diligence prior the proposed redevelopment of part of the Site, Cleanaway's objective for this PSI was to identify potential contamination issues (if present) at the Site, which may pose a risk to the proposed redevelopment.

EfW has been identified by the NSW Government as a component of future energy supply for the state. Additionally, WTS facilities were considered State-Significant Development (SSD) under the EP&A Act 1989. While the proposed development is likely to be identified as SSD, this PSI was prepared solely for due diligence. As such, SLR understood that Cleanaway's objectives were wholly driven by due diligence.

The Technical Assessment Objectives of the PSI were to:

- Review supplied documentation and assess the potential for contamination to be present at the Site based on a desktop review of the environmental and historical Site setting.
- Report the potential for contamination to be present at the Site, identifying potential AOC and associated COPC.
- Make recommendations for additional assessment, management, and / or remediation of identified contamination (if required) to render the site suitable for the proposed use.

Secondary to those Technical Assessment Objectives identified above, SLR notes that the conclusions of this PSI may be used to inform future detailed environmental assessment and / or remediation works (if required) prior to redevelopment of part of the Site.

14.2 Scope of Works

SLR completed the following Scope of Works:

- Desktop review of available information pertaining to the Site environmental and historical setting.
- A detailed non-intrusive Site inspection completed 29 October 2025, for ground-truthing of the desktop review and inspection of accessible ground surfaces.
- Development of a preliminary Conceptual Site Model (CSM).
- Preparation of this PSI report.



14.3 Desktop Assessment Results

14.3.1 Environmental Setting

Some registered groundwater bores were identified 500–800 m from the Site. Some of these bores were identified to be present in a cluster (i.e. close proximity to each other) and all of these bores were identified to be registered for monitoring purposes. SLR notes that the area surrounding the Site, and the Site itself, were serviced by a reticulated water supply. No beneficial use of groundwater was identified. Neither ASS nor NOA were identified at the Site.

14.3.2 Historical Setting

The Site appeared to have been historically developed and used for rail and road freight receipt and dispatch since at least 1978. Progressive development was identified to have occurred since then, including the installation of significant hardstand coverage across the surface of the Site. Portions of the Site have remained unsealed since the earliest aerial image reviewed by SLR (1951), and vehicle, machinery and other storage was identified in these areas.

Material receipt, distribution and storage was the only historical land use of the Site. Most storage of materials was conducted on areas of hardstand coverage, but some storage on unsealed land areas was also identified, typically at the southern boundary of the Site. The Site held an EPL (21108) and several associated variations for the storage of waste. No other historical activities were identified to be sources of contamination, and the Site was not listed as notified, regulated, or otherwise under any relevant Act.

14.4 Site Inspection

A Site walkover and inspection was conducted by one of SLR's suitably trained and experienced environmental consultants on 29 October 2025. Access and egress to the Site was available near a security gatehouse located at the end of Dasea Street, at the western boundary of the Site. The topography of the Site was varied but generally sloped east. The following were identified at the Site during the inspection:

- Fill visible to the accessible ground surface along the southern Site boundary.
- An OSD area at the southern boundary of the Site.
- A 67 kL diesel AST and Ad Blue diesel fuel conditioner IBC near the southern boundary of the Site.
- Three engine bays located near the southern boundary of the Site, and a hydrocarbon sheen identified on the unsealed ground surface near these engine bays.
- An asbestos-containing building structure located at the western boundary of the Site.

It was noted that some areas of the Site were unable to be safely accessed due to the operational demands of the Site at the time of the inspection. Notably, the following could not be observed during the Site inspection, but were recorded in the Safety Case (PN 2024):

- Friable asbestos storage area, located near the northeastern Site boundary.
- Bonded asbestos storage area, located near the eastern Site boundary.
- Historical liquid fuel storage area, located near the eastern Site boundary.



- New diesel tank farm and loading facility, located near the eastern site boundary. This was installed and replaced the historical diesel tank farm in the same location.
- However, it was noted each of those areas listed above were not located within the proposed redevelopment area (refer **Appendix B**).

Hardstand was generally in good condition across the Site. However, some cracking was identified near the fuel storage area near the southern Site boundary. The Site was generally free of foul or offensive odours, staining and noises.

14.5 Preliminary CSM

A preliminary CSM was prepared for the Site, which assessed the following complete and potentially completed SPR linkages:

- **MODERATE RISK:**
 - Deriving from the historical demolition.
 - Deriving from historical Stockpiling of fill.
 - Deriving from mechanical maintenance areas.
- **LOW RISK**
 - Deriving from historical and current commercial / industrial use.
 - Deriving from historical and current hazardous and dangerous material storage.
 - Deriving from vehicular movements and storage across the surface of the Site.
 - Deriving from potential application of chemicals for weed and pest control.



15.0 Recommendations

SLR considered that the Site was suitable – or could be made suitable – for the proposed redevelopment as a commercial / industrial WTS.

On the basis of the Preliminary CSM, SLR considered that there were complete and potentially complete SPR linkages at the Site, which have not been fully characterised to date. As such, SLR recommends that a DSI be completed at the Site. SLR expects that the DSI would fully characterise the nature, extent and risk posed by contamination at the Site, and may provide recommendations to prepare a RAP to manage contamination (if identified) at the Site.

Prior to the DSI, SLR recommends that a SAQP be prepared for the purpose of validating the Preliminary CSM and to suitably assess the AOC identified in this PSI. **Table 13** summarises the recommendations of this PSI.

Table 13 PSI Recommendations

Recommendation		Objective
Ref.	Description	
Minimum recommended further assessment		
Recommended to be completed prior to the commencement of the proposed Site redevelopment works.		
1	Prepare SAQP	To provide recommendations to suitably validate the Preliminary CSM by means of intrusive investigation.
2	Conduct DSI	To characterise the nature, extent and risk posed by contamination within the proposed Cleanaway redevelopment area of the Site.
Additional further assessment recommended, if required by Item 2		
Recommended to be completed prior to the commencement of the proposed Site redevelopment works.		
3	Prepare RAP (if required)	To provide recommendations to remediate identified contamination within the proposed Cleanaway redevelopment area of the Site to suitably remove any complete SPR linkages identified by the DSI.
Recommended to be completed prior to the completion of the proposed Site redevelopment works.		
4	Validate remediation works completed and prepare RVR (if required)	To document the remediation works completed at the Site (if any) and to inform the on-going environmental contamination condition within the proposed Cleanaway redevelopment area of the Site.
5	Prepare LTEMP (if required)	To recommend on-going management of the Site in a manner which suitably maintains the efficacy of the remediation actions (if any) completed within the proposed Cleanaway redevelopment area of the Site.

This Preliminary Site Investigation has been prepared for issues pertaining to potential contamination at the Site only. This report may not be reproduced, except in full and is subject to the Limitations outlined in Section 16.0.



16.0 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 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.

SLR accepts no liability for use or interpretation by any person or body other than the client who commissioned the works. This report should not be reproduced without prior approval by the client or amended in any way without prior approval by SLR, and should not be relied upon by other parties, who should make their own enquiries.

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.

This report does not, nor does it intend to, characterise and quantify actual contamination at the Site. This assessment is limited to a review of potential contamination issues at the Site which may impact the Site's intended land use.

Changes to the subsurface conditions may occur after 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, SLR reserves the right to review the report in the context of the additional information.



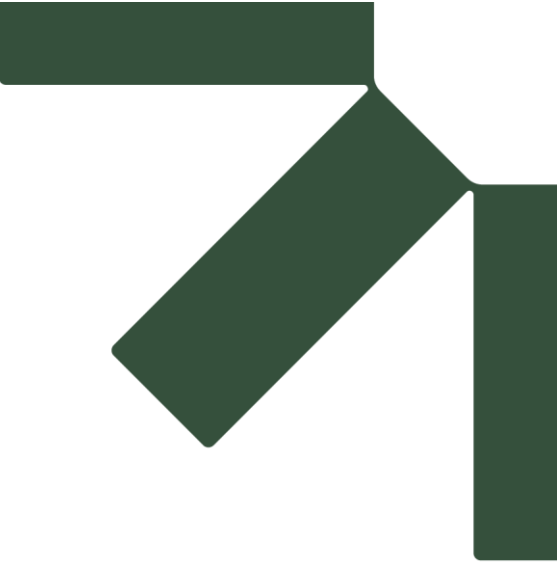
17.0 References

- AIATSIS. 1994. *Map of Indigenous Australia*. Accessed October 23, 2025.
<https://aiatsis.gov.au/explore/map-indigenous-australia>.
- ASTM. 2020. *Standard Guide for Developing Conceptual Site Models for Contaminated Sites (E1689-95)*. Standard, American Society for Testing Materials.
- ASTM. 2020. *Standard Guide for Developing Conceptual Site Models for Contaminated Sites*. Pennsylvania: ASTM International .
- EIS. 2011. *Preliminary Stage 1 Environmental Site Assessment, Proposed Office Building and Carpark At 20 Dasea Street, Chullora (ref.: E2522KHrpt1)*. Report, North Ryde: Environmental Investigation Services.
- Govt of NSW. 2023. *Canterbury-Bankstown Local Environmental Plan 2023*. The Government of NSW: Sydney.
- Govt. of NSW. 1997. *Contaminated Land Management Act 1997*. Legislation, Sydney: Government of NSW.
- Govt. of NSW. 1989. *Home Building Act 1989* . Legislation, Sydney: The Government of NSW.
- Govt. of NSW. 2014. *Protection of the Environment Operations (Waste) Regulation* . Legislation, Sydney: The Government of NSW.
- Govt. of NSW. 1997. *Protection of the Environment Operations Act 1997*. Legislation, Sydney: Governmnet of NSW.
- Govt. of NSW. 2021. *State Environmental Planning Policy (Resilience and Hazards) 2021*. Legislation, Sydney: The Government of NSW.
- NEPC. 2013. *National Enironmental Protection (Assessment of Site Contamination) Measure*. Guideline, Canberra: National Environmnetal Protection Council.
- NSW DMR. 1991. *Geological Series Sheet 9030 (Edition 1)*. Map, Sydney: NSW Government Department of Mineral Resources.
- NSW EPA. 2020. *Consultants reporting on contaminated land*. Guideline, Sydney: NSW Environmental Protection Authority.
- NSW EPA. 2022. *Contaminated Land Guidelines: Sampling design guidelines part 1 - application*. Guideline, Sydney: NSW Environmnetal Protection Authority.
- NSW EPA. 2022. *Contaminated Land Guidelines: Sampling design guidelines part 2 - interpretation*. Guideline, Sydney: NSW Environmental Protection Authority .
- NSW EPA. 2017. *Contaminated Land Management: Guidelines for the NSW Site Auditor Scheme (3rd edition)*. Guideline, Sydney: NSW Environment Protection Authority.
- NSW Fair Trading. 2025. *Loose-fill Asbestos Insulation Register*. Accessed October 24, 2025. <https://www.nsw.gov.au/housing-and-construction/safety-home/loose-fill-asbestos-insulation/loose-fill-asbestos-insulation-register>.
- PN. 2024. *Major Hazard Facility – Safety Case, Sydney freight Terminal*. Safety Case, Sydney: Pacific National.
- SEED. 2024. *Acid Sulfate Soils Risk*. 7 Febraury. Accessed October 23, 2025.
<https://datasets.seed.nsw.gov.au/dataset/acid-sulfate-soils-risk0196c>.
- . 2025. *Naturally Occurring Asbestos*. Accessed October 23, 2025.
<https://datasets.seed.nsw.gov.au/dataset/naturally-occurring-asbestos>.



Water NSW. 2025. *Real Time Water Data: All Groundwater Site Details Greater Sydney Area*. Accessed October 23, 2025. <https://realtimedata.waternsw.com.au/water.stm>.





Appendix A Figures

Preliminary Site Investigation

20 Dasea Street, Chullora NSW 2190

**Cleanaway Waste Management Ltd
c/- EME Advisory Pty Ltd**

SLR Project No.: 630.032708.00001

13 March 2026

SITE LOCATION

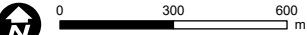
FIGURE 1

LEGEND

- Site Boundary
- Suburb
- Railway
- Major Road
- Watercourse

Data Sources:
NSW SS
Aerial imagery: Nearmap (October 2025)

DISCLAIMER: All information within this document may be based on external sources. SLR Consulting Pty Ltd makes no warranty regarding the data's accuracy or reliability for any purpose.



Coordinate System:	GDA2020 MGA Zone 56
Scale:	1:20,000 at A4
Project Number:	630.032708
Date Drawn:	12-Nov-2025
Drawn by:	JH

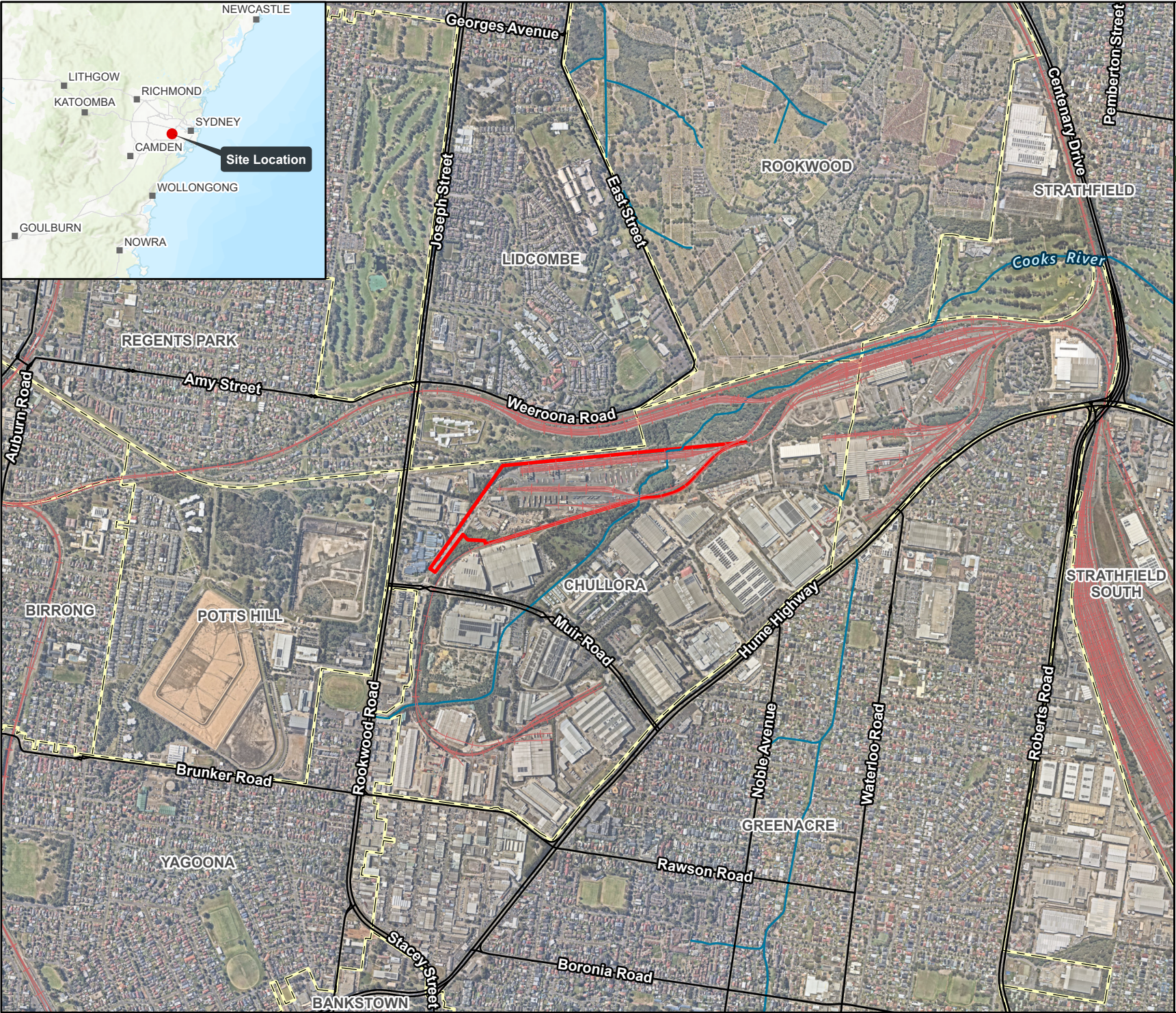


FIGURE 2

LEGEND

- Site Boundary
- Approximate Development Area
- Railway
- Watercourse

Data Sources:
NSW SS
Aerial imagery: Nearmap (October 2025)

DISCLAIMER: All information within this document may be based on external sources. SLR Consulting Pty Ltd makes no warranty regarding the data's accuracy or reliability for any purpose.



0

100

200

m

Coordinate System:

GDA2020 MGA Zone 56

Scale:

1:6,000 at A4

Project Number:

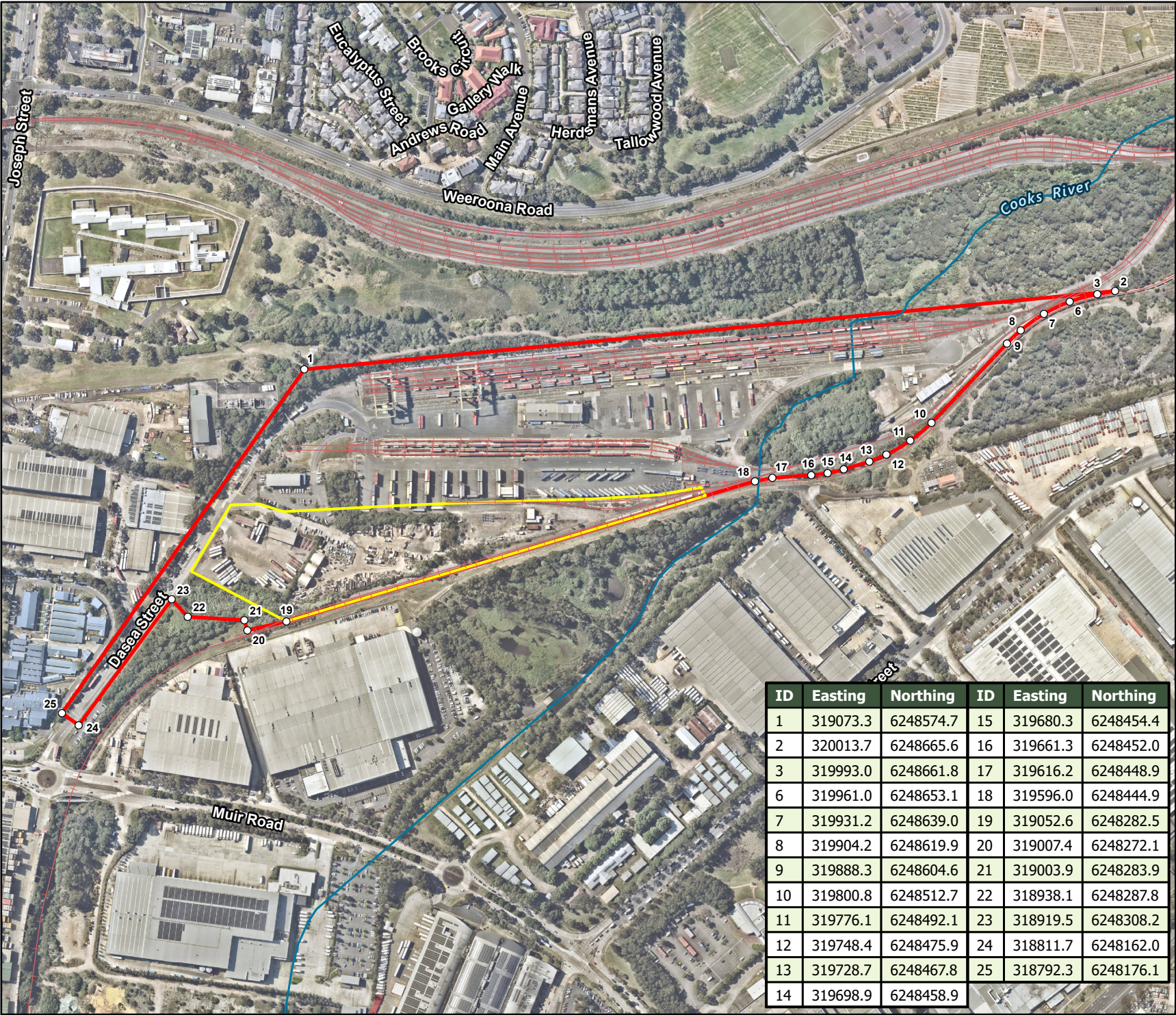
630.032708

Date Drawn:

11-Mar-2026

Drawn by:

JH



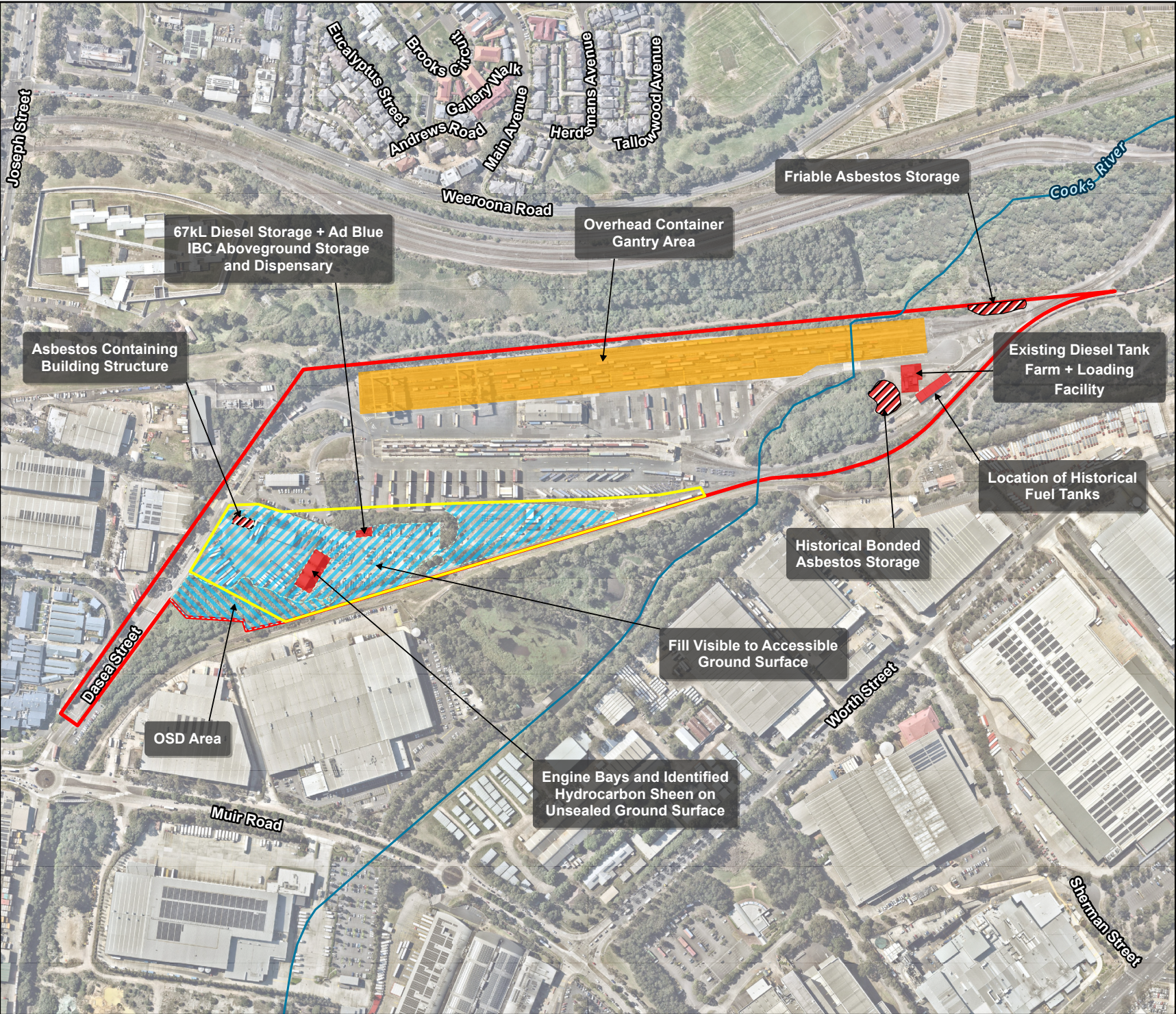
ID	Easting	Northing	ID	Easting	Northing
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2	320013.7	6248665.6	16	319661.3	6248452.0
3	319993.0	6248661.8	17	319616.2	6248448.9
6	319961.0	6248653.1	18	319596.0	6248444.9
7	319931.2	6248639.0	19	319052.6	6248282.5
8	319904.2	6248619.9	20	319007.4	6248272.1
9	319888.3	6248604.6	21	319003.9	6248283.9
10	319800.8	6248512.7	22	318938.1	6248287.8
11	319776.1	6248492.1	23	318919.5	6248308.2
12	319748.4	6248475.9	24	318811.7	6248162.0
13	319728.7	6248467.8	25	318792.3	6248176.1
14	319698.9	6248458.9			

SITE FEATURES

FIGURE 3

LEGEND

- Site Boundary
- Approximate Development Area
- Watercourse



Data Sources:
NSW SS
Aerial imagery: Nearmap (October 2025)

DISCLAIMER: All information within this document may be based on external sources. SLR Consulting Pty Ltd makes no warranty regarding the data's accuracy or reliability for any purpose.

0 100 200 m

Coordinate System: GDA2020 MGA Zone 56

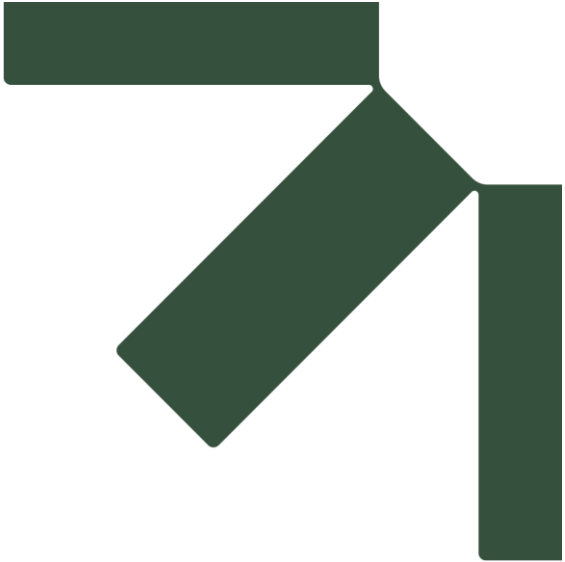
Scale: 1:6,000 at A4

Project Number: 630.032708

Date Drawn: 11-Mar-2026

Drawn by: JH





Appendix B Supplied Site Upgrade Plans

Preliminary Site Investigation

20 Dasea Street, Chullora NSW 2190

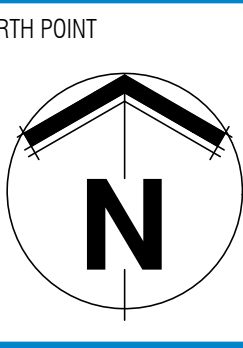
**Cleanaway Waste Management Ltd
c/- EME Advisory Pty Ltd**

SLR Project No.: 630.032708.00001

13 March 2026



PROPOSED SITE PLAN
SCALE: 1:600 @ A1, 1:1200 @ A3

	REF.	ISSUE / REVISION DETAILS		BY	DATE		NICHOLAS HOLDEN ARCHITECTURE nicholas@nh-architecture.com.au (0412 737 949) VBA Registration: DP-AD 43309 NZ LBP Registration: BP130268	PROJECT NAME CLEANAWAY BROOME 18 ARCHER STREET, MINYIRR, WESTERN AUSTRALIA 6725.	DRAWING NAME SKETCH DESIGN DRAWINGS: PROPOSED SITE PLAN	DESIGN	NH	SCALE	AS SHOWN	SK01
										DRAWN	NH	JOB No.	202506	
										REVISION	-	DATE	20.08.2025	



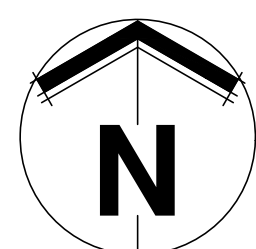
PROPOSED SITE PLAN - GROUND

SCALE: 1:250 @ A1, 1:500 @ A3



Making a sustainable future possible together

REF.	ISSUE / REVISION DETAILS	BY	DATE
-	-	-	-



NORTH POINT

NICHOLAS HOLDEN
ARCHITECTURE

nicholas@nh-architecture.com.au (0412 737 949)
VBA Registration: DP-AD 43309 NZ LBP Registration: BP130268

PROJECT NAME

CLEANAWAY BROOME
18 ARCHER STREET, MINYIRR,
WESTERN AUSTRALIA 6725.

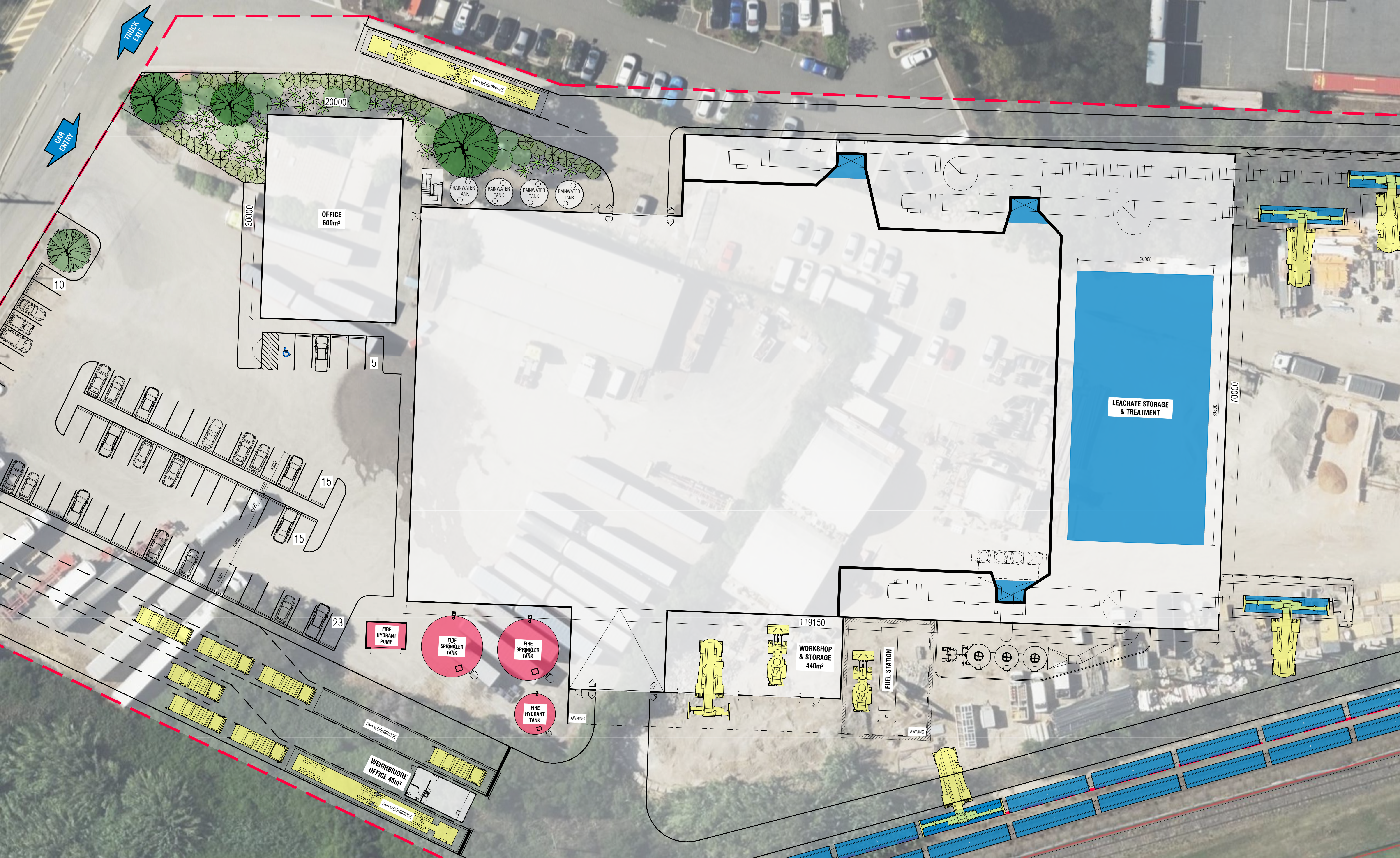
DRAWING NAME

SKETCH DESIGN DRAWINGS:
PROPOSED SITE PLAN - GROUND

DESIGN	NH	SCALE	AS SHOWN
DRAWN	NH <td>JOB No.</td> <td>202506</td>	JOB No.	202506
REVISION	-	DATE	20.08.2025

DRAWING No.

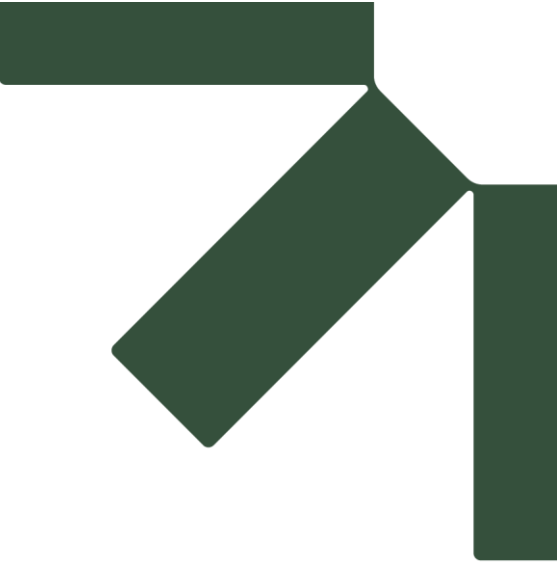
SK02



PROPOSED SITE PLAN - BASEMENT

SCALE: 1:250 @ A1, 1:500 @ A3

CLEANAWAY Making a sustainable future possible together	REF.	ISSUE / REVISION DETAILS	BY	DATE	NORTH POINT	NICHOLAS HOLDEN ARCHITECTURE nicholas@nh-architecture.com.au (0412 737 949) VBA Registration: DP-AD 43309 NZ LBP Registration: BP130268	PROJECT NAME CLEANAWAY BROOME 18 ARCHER STREET, MINYIRR, WESTERN AUSTRALIA 6725.	DRAWING NAME SKETCH DESIGN DRAWINGS: PROPOSED SITE PLAN - BASEMENT	DESIGN	NH	SCALE	AS SHOWN	DRAWING No.
	DRAWN	NH	JOB No.	202506	SK03								
	REVISION	-	DATE	20.08.2025									



Appendix C Soil Landscape

Preliminary Site Investigation

20 Dasea Street, Chullora NSW 2190

**Cleanaway Waste Management Ltd
c/- EME Advisory Pty Ltd**

SLR Project No.: 630.032708.00001

13 March 2026



Landscape—level plain to hummocky terrain, extensively disturbed by human activity, including complete disturbance, removal or burial of soil. Local relief <10 m, slopes <30%. Landfill includes soil, rock, building and waste materials. Original vegetation completely cleared, replaced with turf or grassland.

Soil—turfed fill areas commonly capped with up to 40 cm of sandy loam or up to 60 cm of compacted clay over fill or waste materials.

Limitations—dependent on nature of fill material. Mass movement hazard, unconsolidated low wet strength materials, impermeable soil, poor drainage, localised very low fertility and toxic materials.

LOCATION

Previous swamps, estuaries and wetlands. Previously estuarine shores of Port Jackson, along the lower reaches of the harbour foreshores (Parramatta and Georges Rivers). Large areas also occur on previously swampy areas at Circular Quay, Darling Harbour, Camellia, Silverwater, and Bunnerong power station. Fresh water swamps at Brookvale, Mona Vale, and North Narrabeen have also been filled.

Cut and fill areas. Examples of cut-and-fill for site levelling include Enfield railway marshalling yards and Randwick racecourse. Disused quarries occur in locations such as Ashfield, Homebush and Terrey Hills. Rubbish disposal dumps are located at Frenchs Forest, North Turrumurra and Tempe. Areas levelled for heavy industry occur at Silverwater, Canterbury and Botany.

Numerous areas of disturbed terrain too small to represent at a scale of 1:100 000 are located throughout the Sydney Region.

LANDSCAPE

Geology

Artificial fill. Dredged estuarine sand and mud, demolition rubble, industrial and household waste. Also includes rocks and local soil materials.

Topography

Terrain disturbed by human activity. Local relief is usually <2 m, but occasionally up to 10 m. Most areas of disturbed ground have been levelled to slopes of <3%. In terraced cut and fill areas short rises may be steeper than 30%. Microtopography may be hummocky due to truck dumping of fill material.

Disturbed areas are often landscaped and artificially drained. Landform elements include berms, cut faces, embankments, mounds, pits and trenches.

Vegetation

This unit has been completely cleared. Disturbed terrain may be bare or covered with opportunist weeds such as cobbler's peg *Bidens pilosa*, purple top *Verbena bonariensis* and ribwort *Plantago lanceolata*. Most areas are eventually turned to grassland or lawn. Species typically include kikuyu *Pennisetum clandestinum*, couch *Cynodon dactylon* and paspalum *Paspalum dilatatum*.

Land use

Land use is varied and includes commercial and industrial complexes, sporting and recreational areas, quarries, and waste disposal sites. Commercial and business complexes are located at Circular Quay and Darling Harbour. Pyrmont, Glebe Island, Mortlake, Homebush, Silverwater, Camellia, Tempe, Regents Park and Artarmon have been developed for industry on this soil landscape. Many recreation areas are underlain by compacted waste in both wetland and disused quarry sites.

Former estuaries, swamps and lagoons at Bayview, Cammeray, Manly Vale, Rose Bay, Double Bay, The Spit and Hurstville Grove have been drained and filled for use as recreational areas.

Old quarries are located at Artarmon, Homebush, North Ryde, Tempe and Allawah.

Existing Erosion

Erosion varies markedly according to site characteristics including slope, aspect and exposure. In general, severe sheet and rill erosion often occur at quarries, gravel pits and places where unconsolidated or disturbed material remains without a protective cover of vegetation, asphalt or concrete.

SOILS

Dominant Soil Materials

xx1—Loose black sandy loam. This is black loamy sand to loam-fine-sandy with loose apedal single-grained structure and sandy fabric. It is used for topsoiling turf and often corresponds to the lowland Nepean River alluvium or Elderslie soil series of Walker (1960). Local sands have also been used for topdressing. This material occurs as topsoil (A1 horizon).

The material is brittle when dry and crumbly when moist. The colour ranges from a dark brown to black (10YR 3/3–10YR 2/1) or brown (10YR 4/6). It is often water repellent and a surface crust may

be present. The pH ranges from moderately acid (pH 5.0) to neutral (pH 7.5). Roots are common to abundant when turfed and ironstone nodules are occasionally present.

xx2—Compacted mottled clay. This is a mottled, compacted sandy clay loam to medium clay with an apedal massive to moderately pedal structure. It generally has been compacted to form an impermeable isolating cap over potentially hazardous buried materials.

Peds when present are often platy and smooth-faced. Colour is highly variable, and mottles are common. The pH is also variable, ranging from extremely acid (pH 3.5) to slightly alkaline (pH 8.0). Platy or concretionary ironstones are occasionally present, and roots are absent.

xx3—Variable transported fill. This material is commonly referred to as fill and may consist of any type of soil or regolith material. It often includes demolition rubble and industrial and household wastes. Colour, texture, structure, fabric, degree of compaction, porosity and pH vary markedly.

xx4—Dark dredged muds and sands. This material consists of dark dredged sands, sandy loams to silty clay loams and sandy clays with apedal single-grained to massive structure and sandy fabric. This material occurs as subsoil.

Colour varies from black (10YR 2/1) to a yellowish-brown (2.5Y 5/2). Charcoal, shells or shell fragments are commonly present. This material swells, is highly saline and neutral (pH 7.0) to moderately alkaline (pH 9.0) when first dredged, but with drainage and oxidation the salinity levels drop and acidity may increase dramatically.

Occurrence and Relationships.

Soils have been disturbed to a depth of at least 100 cm. Most of the original soil has either been removed, buried or greatly disturbed. In quarries, bedrock is often exposed. In landfill areas combinations of transported earth, weathered rock, dredged estuarine sediments as well as industrial, building and household wastes occur. Most disturbed areas are eventually artificially topsoiled and revegetated or covered by buildings, concrete or bitumen.

The occurrence and relationship of soil materials is highly variable. Some observed examples are given below.

Landscaped Terrace. Where the dark sandy loam (xx1) occurs it is as a 10–15 cm deep topsoil overlying either 30–80 cm of compacted mottled clay (xx2) or several metres of variable transported fill (xx3) or dark dredged muds and sands (xx4). Multi-layered lenses of compacted xx2 and xx3 can occur. Total soil depth is several metres. Plant roots are often restricted to prepared topsoils.

Truck-dumped hummocks. Several metres of unconsolidated hummocks of xx3 overlie many metres of compacted multi-layered lenses of xx3 and xx4. Near estuaries xx3 and xx4 are occasionally mixed together. Total soil depth is several metres.

Excavated areas. In excavated areas soil materials are usually absent.

LIMITATIONS TO DEVELOPMENT

Urban Capability

Capable of urban development with special restrictive conditions.

Rural Capability

Once grassed and stabilised this unit may be capable of being grazed but is not capable of cultivation.

Landscape Limitations

Mass movement hazard (steep locations)
Seasonal waterlogging (localised)
Erosion hazard (localised)
Steep slopes (localised)
Non-cohesive soil (localised)
Rock outcrop (localised)

Soil Limitations

- xx1** Highly permeable
 Low available water capacity
 Hardsetting surface (localised)
 Low fertility
- xx2** Low wet strength
 Low fertility
 Low available water capacity
 Stoniness
- xx3** Unconsolidated materials
 Low fertility
 Highly toxic (localised)
 High organic matter (localised)
 Strongly acid or alkaline (localised)
- xx4** Unconsolidated materials (localised)
 Saline
 Sodic
 Low available water capacity
 Low fertility
 Erodibility (localised)
 Moderately alkaline
 Acid sulfate potential

Fertility

The fertility of **xx1** is inherently low, but this material is often fertilised. Other soil materials have very low fertility.

Erodibility

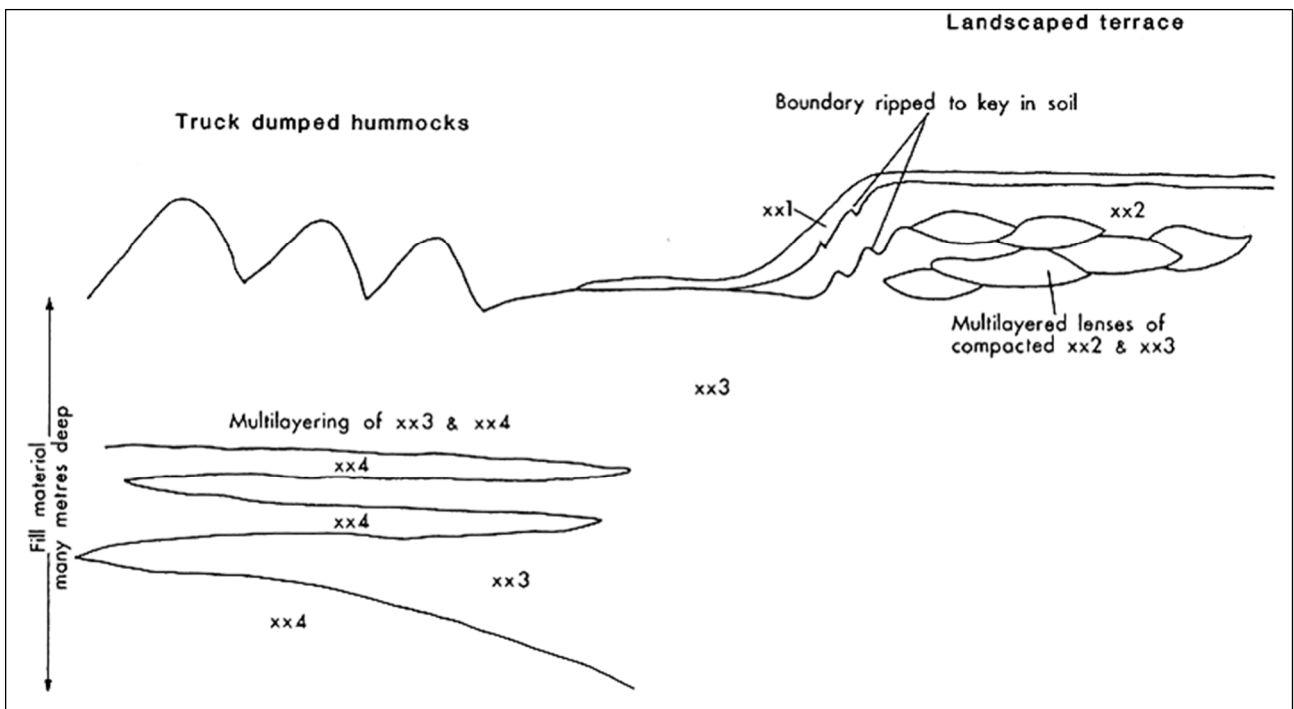
The erodibility of **xx1** is low as it consists dominantly of well drained coarse sand grains. The erodibility of the other soil materials is highly variable. Unconsolidated materials are often extremely erodible.

Erosion hazard

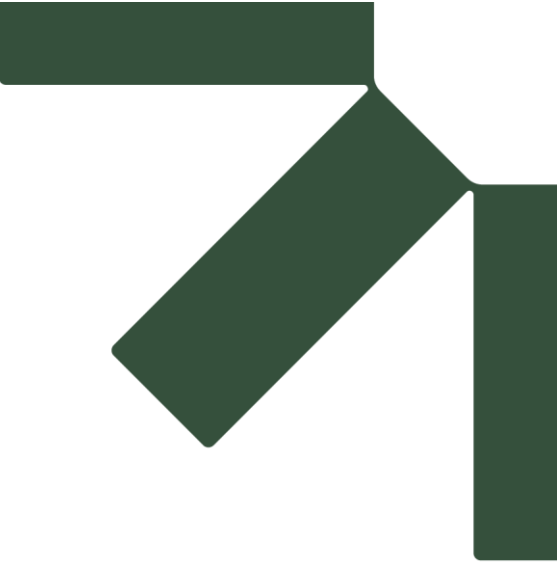
Non-concentrated flows produce highly variable erosion hazard, ranging from low to extreme. Calculated soil loss for the first twelve months of urban development ranges up to 30 t/ha for topsoil. Subsoil losses have not been calculated as they are highly variable. Soil erosion from concentrated flows ranges from low to high.

Surface Movement Potential

Highly variable, depending on materials and degree of compaction.



Schematic cross-section of Disturbed Terrain soil landscape illustrating the occurrence and relationship of the dominant soil materials.



Appendix D Catchment Map

Preliminary Site Investigation

20 Dasea Street, Chullora NSW 2190

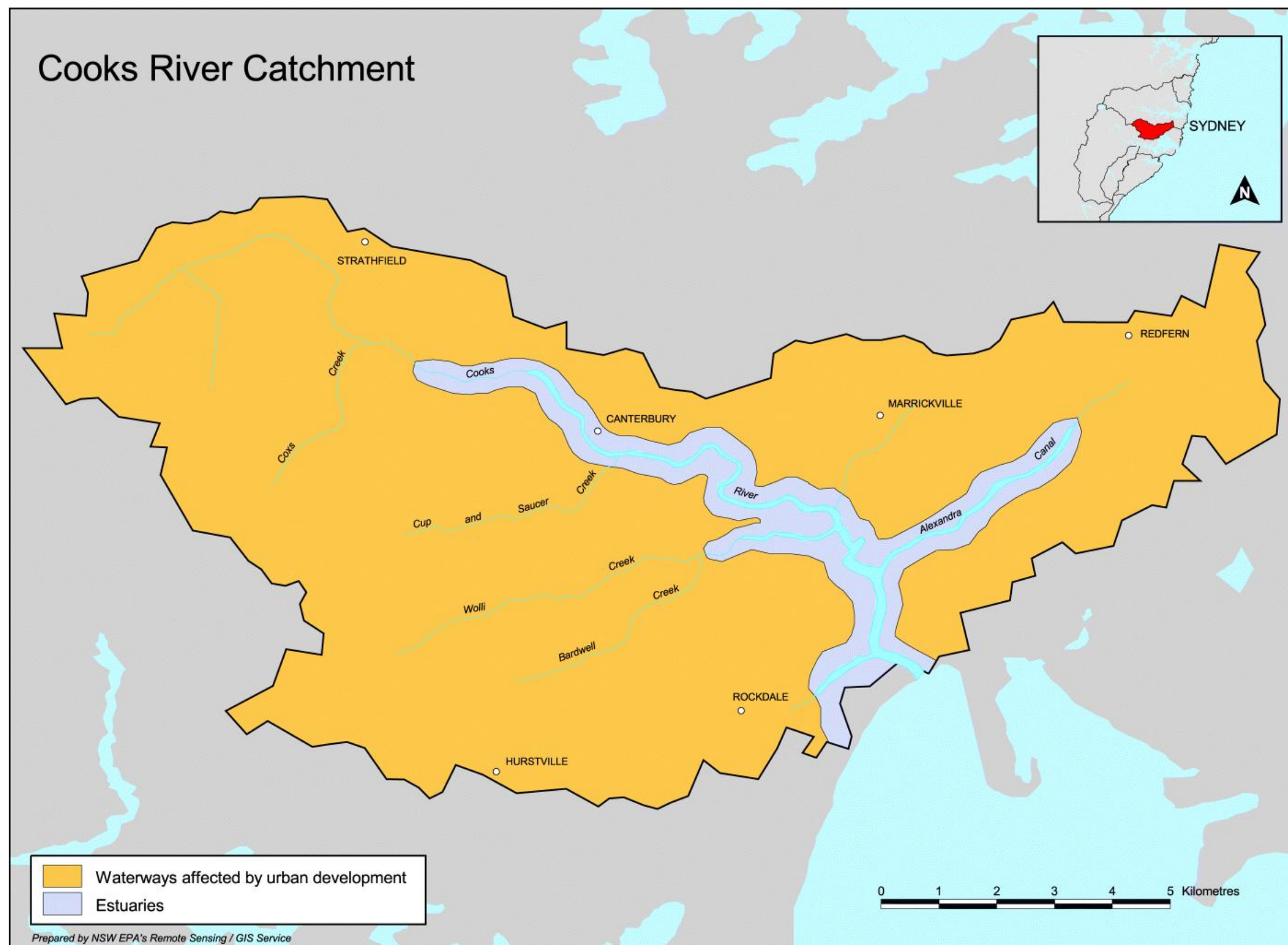
**Cleanaway Waste Management Ltd
c/- EME Advisory Pty Ltd**

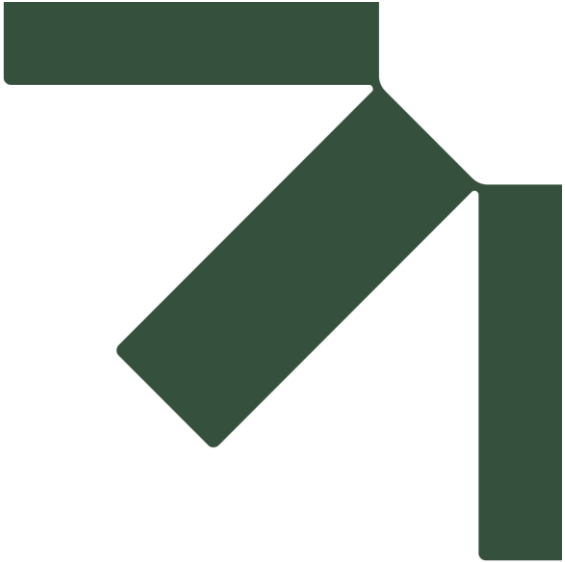
SLR Project No.: 630.032708.00001

13 March 2026

Appendix D – Catchment Map

Cooks River Catchment Map





Appendix E Nearby Registered Groundwater Bores

Preliminary Site Investigation

20 Dasea Street, Chullora NSW 2190

**Cleanaway Waste Management Ltd
c/- EME Advisory Pty Ltd**

SLR Project No.: 630.032708.00001

13 March 2026

WaterNSW

Work Summary

GW103514

Licence: 10BL159972	Licence Status: ACTIVE
Authorised Purpose(s): MONITORING BORE Intended Purpose(s): MONITORING BORE	
Work Type: Bore	
Work Status:	
Construct.Method:	
Owner Type:	
Commenced Date:	Final Depth: 5.00 m
Completion Date: 10/07/2000	Drilled Depth: 5.00 m
Contractor Name: ENGINEERING EXPLORATIONS PTY LTD	
Driller:	
Assistant Driller:	
Property: AUST POST Hume Hwy CHULLORA 2190 NSW	Standing Water Level (m):
GWMA:	Salinity Description:
GW Zone:	Yield (L/s):

Site Details

Site Chosen By:	County Form A: CUMBERLAND Licensed: CUMBERLA	Parish LIBERTY P LIBERTYP	Cadastre 1020//871836 Whole Lot 1020//871836
Region: 10 - Sydney South Coast	CMA Map:	Scale:	
River Basin: - Unknown Area/District:	Grid Zone:		
Elevation: 0.00 m (A.H.D.) Elevation Source: Unknown	Northing: 6248144.000 Easting: 319996.000	Latitude: 33°53'30.2"S Longitude: 151°03'12.3"E	
GS Map: -	MGA Zone: 56	Coordinate Source: Unknown	

Construction

Negative depths indicate Above Ground Level; C-Cemented; SL-Slot Length; A-Aperture; GS-Grain Size; Q-Quantity; PL-Placement of Gravel Pack; PC-Pressure Cemented; S-Sump; CE-Centralisers

Hole	Pipe	Component	Type	From (m)	To (m)	Outside Diameter (mm)	Inside Diameter (mm)	Interval	Details
1		Hole	Hole	0.00	5.00	50			Auger

Drillers Log

From (m)	To (m)	Thickness (m)	Drillers Description	Geological Material	Comments
0.00	1.00	1.00	SILT/SAN/GRAVEL	Silt	
1.00	1.50	0.50	CLAY,BROWN,GREY	Clay	
1.50	5.00	3.50	SILT,DRY,NON PLASTIC,BROWN	Silt	

Remarks

10/07/2000: Form A Remarks:
DATA FROM AG FORM ONLY.

***** End of GW103514 *****

Warning To Clients: This raw data has been supplied to the WaterNSW by drillers, licensees and other sources. WaterNSW does not verify the accuracy of this data. The data is presented for use by you at your own risk. You should consider verifying this data before relying on it. Professional hydrogeological advice should be sought in interpreting and using this data.

WaterNSW

Work Summary

GW103519

Licence: 10BL159972

Licence Status: ACTIVE

Authorised Purpose(s): MONITORING BORE
Intended Purpose(s): MONITORING BORE

Work Type: Bore

Work Status:

Construct.Method: Auger

Owner Type:

Commenced Date:

Completion Date: 10/07/2000

Final Depth: 3.50 m

Drilled Depth: 3.50 m

Contractor Name: ENGINEERING EXPLORATIONS PTY LTD

Driller:

Assistant Driller:

Property: AUST POST Hume Hwy CHULLORA
2190 NSW

GWMA:

GW Zone:

Standing Water Level
(m):

Salinity Description:

Yield (L/s):

Site Details

Site Chosen By:

County
Form A: CUMBERLAND
Licensed: CUMBERLA

Parish
LIBERTY P
LIBERTYP

Cadastre
1020//871836
Whole Lot
1020//871836

Region: 10 - Sydney South Coast

River Basin: - Unknown

Area/District:

CMA Map:

Grid Zone:

Scale:

Elevation: 0.00 m (A.H.D.)

Elevation Source: Unknown

Northing: 6248144.000

Easting: 319996.000

Latitude: 33°53'30.2"S

Longitude: 151°03'12.3"E

GS Map: -

MGA Zone: 56

Coordinate Source: Unknown

Construction

Negative depths indicate Above Ground Level; C-Cemented; SL-Slot Length; A-Aperture; GS-Grain Size; Q-Quantity; PL-Placement of Gravel Pack; PC-Pressure Cemented; S-Sump; CE-Centralisers

Hole	Pipe	Component	Type	From (m)	To (m)	Outside Diameter (mm)	Inside Diameter (mm)	Interval	Details
1		Hole	Hole	0.00	3.50	50			Auger

Drillers Log

From (m)	To (m)	Thickness (m)	Drillers Description	Geological Material	Comments
0.00	2.00	2.00	Clay,moist,dark brown/grey	Clay	
2.00	3.50	1.50	Silt,dry, non plastic,becoming weathered shale	Silt	

***** End of GW103519 *****

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WaterNSW

Work Summary

GW103520

Licence: 10BL159972	Licence Status: ACTIVE
Authorised Purpose(s): MONITORING BORE Intended Purpose(s): MONITORING BORE	
Work Type: Bore	
Work Status:	
Construct.Method: Auger	
Owner Type:	
Commenced Date:	Final Depth: 5.00 m
Completion Date: 10/07/2000	Drilled Depth: 5.00 m
Contractor Name: ENGINEERING EXPLORATIONS PTY LTD	
Driller:	
Assistant Driller:	
Property: AUST POST Hume Hwy CHULLORA 2190 NSW	Standing Water Level (m):
GWMA:	Salinity Description:
GW Zone:	Yield (L/s):

Site Details

Site Chosen By:	County Form A: CUMBERLAND Licensed: CUMBERLA	Parish LIBERTY P LIBERTYP	Cadastre 1020//871836 Whole Lot 1020//871836
Region: 10 - Sydney South Coast	CMA Map:	Scale:	
River Basin: - Unknown Area/District:	Grid Zone:		
Elevation: 0.00 m (A.H.D.) Elevation Source: Unknown	Northing: 6248144.000 Easting: 319996.000	Latitude: 33°53'30.2"S Longitude: 151°03'12.3"E	
GS Map: -	MGA Zone: 56	Coordinate Source: Unknown	

Construction

Negative depths indicate Above Ground Level; C-Cemented; SL-Slot Length; A-Aperture; GS-Grain Size; Q-Quantity; PL-Placement of Gravel Pack; PC-Pressure Cemented; S-Sump; CE-Centralisers

Hole	Pipe	Component	Type	From (m)	To (m)	Outside Diameter (mm)	Inside Diameter (mm)	Interval	Details
1		Hole	Hole	0.00	5.00	50			Auger

Drillers Log

From (m)	To (m)	Thickness (m)	Drillers Description	Geological Material	Comments
0.00	1.00	1.00	SILT/SAND/GRAVEL,FINE,NON PLASTIC	Silt	
1.00	3.00	2.00	CLAY,WET,LOW PLASTICITY	Clay	
3.00	5.00	2.00	SILT,DRY,PALE BROWN,GREY/WET SHALE	Silt	

***** End of GW103520 *****

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WaterNSW

Work Summary

GW103521

Licence: 10BL159972

Licence Status: ACTIVE

Authorised Purpose(s): MONITORING BORE
Intended Purpose(s): MONITORING BORE

Work Type: Bore

Work Status:

Construct.Method: Auger

Owner Type:

Commenced Date:
Completion Date: 09/01/2001

Final Depth: 6.00 m
Drilled Depth: 6.00 m

Contractor Name: ENGINEERING EXPLORATIONS PTY
LTD

Driller:

Assistant Driller:

Property: AUST POST Hume Hwy CHULLORA
2190 NSW

GWMA:
GW Zone:

Standing Water Level
(m):
Salinity Description:
Yield (L/s):

Site Details

Site Chosen By:

County
Form A: CUMBERLAND
Licensed: CUMBERLA

Parish
LIBERTY P
LIBERTYP

Cadastre
1020//871836
Whole Lot
1020//871836

Region: 10 - Sydney South Coast

River Basin: - Unknown
Area/District:

CMA Map:

Grid Zone:

Scale:

Elevation: 0.00 m (A.H.D.)
Elevation Source: Unknown

Northing: 6248144.000
Easting: 319996.000

Latitude: 33°53'30.2"S
Longitude: 151°03'12.3"E

GS Map: -

MGA Zone: 56

Coordinate Source: Unknown

Construction

Negative depths indicate Above Ground Level; C-Cemented; SL-Slot Length; A-Aperture; GS-Grain Size; Q-Quantity; PL-Placement of Gravel Pack; PC-Pressure Cemented; S-Sump; CE-Centralisers

Hole	Pipe	Component	Type	From (m)	To (m)	Outside Diameter (mm)	Inside Diameter (mm)	Interval	Details
1		Hole	Hole	0.00	6.00	100			Auger
1	1	Casing	Pvc Class 18	0.00	4.20	50	49		
1	1	Opening	Screen	0.00	4.20	50		0	PVC Class 18

Drillers Log

From (m)	To (m)	Thickness (m)	Drillers Description	Geological Material	Comments
0.00	1.50	1.50	FILL,SANDSTONE/SILT/GRAVEL	Fill	
1.50	4.50	3.00	FILL/SILTY CLAY,BROWN,MINOR GRAVEL	Fill	
4.50	5.30	0.80	SILTY CLAY	Silty Clay	
5.30	5.40	0.10	WEATHERED SHALE,BROWN	Shale	
5.40	6.00	0.60	SILTY CLAY	Silty Clay	

***** End of GW103521 *****

Warning To Clients: This raw data has been supplied to the WaterNSW by drillers, licensees and other sources. WaterNSW does not verify the accuracy of this data. The data is presented for use by you at your own risk. You should consider verifying this data before relying on it. Professional hydrogeological advice should be sought in interpreting and using this data.

WaterNSW

Work Summary

GW103522

Licence: 10BL159972

Licence Status: ACTIVE

Authorised Purpose(s): MONITORING BORE
Intended Purpose(s): MONITORING BORE

Work Type: Bore

Work Status:

Construct.Method: Auger

Owner Type:

Commenced Date:

Completion Date: 09/01/2001

Final Depth: 3.80 m

Drilled Depth: 3.80 m

Contractor Name: ENGINEERING EXPLORATIONS PTY LTD

Driller:

Assistant Driller:

Property: AUST POST Hume Hwy CHULLORA
2190 NSW

GWMA:

GW Zone:

Standing Water Level
(m):

Salinity Description:

Yield (L/s):

Site Details

Site Chosen By:

County
Form A: CUMBERLAND
Licensed: CUMBERLA

Parish
LIBERTY P
LIBERTYP

Cadastre
1020//871836
Whole Lot
1020//871836

Region: 10 - Sydney South Coast

River Basin: - Unknown

Area/District:

CMA Map:

Grid Zone:

Scale:

Elevation: 0.00 m (A.H.D.)

Elevation Source: Unknown

Northing: 6248144.000

Easting: 319996.000

Latitude: 33°53'30.2"S

Longitude: 151°03'12.3"E

GS Map: -

MGA Zone: 56

Coordinate Source: Unknown

Construction

Negative depths indicate Above Ground Level; C-Cemented; SL-Slot Length; A-Aperture; GS-Grain Size; Q-Quantity; PL-Placement of Gravel Pack; PC-Pressure Cemented; S-Sump; CE-Centralisers

Hole	Pipe	Component	Type	From (m)	To (m)	Outside Diameter (mm)	Inside Diameter (mm)	Interval	Details
1		Hole	Hole	0.00	3.80	100			Auger
1	1	Casing	Pvc Class 18	0.00	0.70	50			

Drillers Log

From (m)	To (m)	Thickness (m)	Drillers Description	Geological Material	Comments
0.00	1.50	1.50	FILL,ASH,BLACK,SOME FINE GRAVEL	Fill	
1.50	3.80	2.30	SILTY CLAY,ORANGE,BROWN,SOFT	Invalid Code	

***** End of GW103522 *****

Warning To Clients: This raw data has been supplied to the WaterNSW by drillers, licensees and other sources. WaterNSW does not verify the accuracy of this data. The data is presented for use by you at your own risk. You should consider verifying this data before relying on it. Professional hydrogeological advice should be sought in interpreting and using this data.

WaterNSW

Work Summary

GW103523

Licence: 10BL159972

Licence Status: ACTIVE

Authorised Purpose(s): MONITORING BORE
Intended Purpose(s): MONITORING BORE

Work Type: Bore

Work Status:

Construct.Method: Auger

Owner Type:

Commenced Date:

Completion Date: 09/01/2001

Final Depth: 6.00 m

Drilled Depth: 6.00 m

Contractor Name: ENGINEERING EXPLORATIONS PTY LTD

Driller:

Assistant Driller:

Property: AUST POST Hume Hwy CHULLORA
2190 NSW

GWMA:

GW Zone:

Standing Water Level
(m):

Salinity Description:

Yield (L/s):

Site Details

Site Chosen By:

County
Form A: CUMBERLAND
Licensed: CUMBERLA

Parish
LIBERTY P
LIBERTYP

Cadastre
1020//871836
Whole Lot
1020//871836

Region: 10 - Sydney South Coast

River Basin: - Unknown

Area/District:

CMA Map:

Grid Zone:

Scale:

Elevation: 0.00 m (A.H.D.)

Elevation Source: Unknown

Northing: 6248144.000

Easting: 319996.000

Latitude: 33°53'30.2"S

Longitude: 151°03'12.3"E

GS Map: -

MGA Zone: 56

Coordinate Source: Unknown

Construction

Negative depths indicate Above Ground Level; C-Cemented; SL-Slot Length; A-Aperture; GS-Grain Size; Q-Quantity; PL-Placement of Gravel Pack; PC-Pressure Cemented; S-Sump; CE-Centralisers

Hole	Pipe	Component	Type	From (m)	To (m)	Outside Diameter (mm)	Inside Diameter (mm)	Interval	Details
1		Hole	Hole	0.00	6.00	100			Auger
1	1	Casing	Pvc Class 18	0.00	0.90	50			

Drillers Log

From (m)	To (m)	Thickness (m)	Drillers Description	Geological Material	Comments
0.00	4.50	4.50	FILL, GRAVEL, SAND, SILT: BROWN/GREY	Fill	
4.50	6.00	1.50	SILTY CLAY, ORANGE/BROWN/FIRM	Invalid Code	

***** End of GW103523 *****

Warning To Clients: This raw data has been supplied to the WaterNSW by drillers, licensees and other sources. WaterNSW does not verify the accuracy of this data. The data is presented for use by you at your own risk. You should consider verifying this data before relying on it. Professional hydrogeological advice should be sought in interpreting and using this data.

WaterNSW

Work Summary

GW103524

Licence: 10BL159972	Licence Status: ACTIVE
Authorised Purpose(s): MONITORING BORE Intended Purpose(s): MONITORING BORE	
Work Type: Bore	
Work Status:	
Construct.Method: Auger	
Owner Type:	
Commenced Date:	Final Depth: 2.50 m
Completion Date: 09/01/2001	Drilled Depth: 2.50 m
Contractor Name: ENGINEERING EXPLORATIONS PTY LTD	
Driller:	
Assistant Driller:	
Property: AUST POST Hume Hwy CHULLORA 2190 NSW	Standing Water Level (m):
GWMA:	Salinity Description:
GW Zone:	Yield (L/s):

Site Details

Site Chosen By:	County Form A: CUMBERLAND Licensed: CUMBERLA	Parish LIBERTY P LIBERTYP	Cadastre 1020//871836 Whole Lot 1020//871836
Region: 10 - Sydney South Coast	CMA Map:	Scale:	
River Basin: - Unknown Area/District:	Grid Zone:		
Elevation: 0.00 m (A.H.D.) Elevation Source: Unknown	Northing: 6248144.000 Easting: 319996.000	Latitude: 33°53'30.2"S Longitude: 151°03'12.3"E	
GS Map: -	MGA Zone: 56	Coordinate Source: Unknown	

Construction

Negative depths indicate Above Ground Level; C-Cemented; SL-Slot Length; A-Aperture; GS-Grain Size; Q-Quantity; PL-Placement of Gravel Pack; PC-Pressure Cemented; S-Sump; CE-Centralisers

Hole	Pipe	Component	Type	From (m)	To (m)	Outside Diameter (mm)	Inside Diameter (mm)	Interval	Details
1		Hole	Hole	0.00	2.50	100			Auger
1	1	Casing	Pvc Class 18	0.00	0.60	50			

Drillers Log

From (m)	To (m)	Thickness (m)	Drillers Description	Geological Material	Comments
0.00	0.30	0.30	FILL: CLAY/GRAVEL/SILT	Fill	
0.30	2.50	2.20	SILTY CLAY,ORANGE/BROWN	Invalid Code	

***** End of GW103524 *****

Warning To Clients: This raw data has been supplied to the WaterNSW by drillers, licensees and other sources. WaterNSW does not verify the accuracy of this data. The data is presented for use by you at your own risk. You should consider verifying this data before relying on it. Professional hydrogeological advice should be sought in interpreting and using this data.

WaterNSW

Work Summary

GW103525

Licence: 10BL159972

Licence Status: ACTIVE

Authorised Purpose(s): MONITORING BORE
Intended Purpose(s): MONITORING BORE

Work Type: Bore

Work Status:

Construct.Method: Auger

Owner Type:

Commenced Date:

Completion Date: 09/01/2001

Final Depth: 3.00 m

Drilled Depth: 3.00 m

Contractor Name: ENGINEERING EXPLORATIONS PTY
LTD

Driller:

Assistant Driller:

Property: AUST POST Hume Hwy CHULLORA
2190 NSW

GWMA:

GW Zone:

Standing Water Level
(m):

Salinity Description:

Yield (L/s):

Site Details

Site Chosen By:

County
Form A: CUMBERLAND
Licensed: CUMBERLA

Parish
LIBERTY P
LIBERTYP

Cadastre
1020//871836
Whole Lot
1020//871836

Region: 10 - Sydney South Coast

River Basin: - Unknown

Area/District:

CMA Map:

Grid Zone:

Scale:

Elevation: 0.00 m (A.H.D.)

Elevation Source: Unknown

Northing: 6248144.000

Easting: 319996.000

Latitude: 33°53'30.2"S

Longitude: 151°03'12.3"E

GS Map: -

MGA Zone: 56

Coordinate Source: Unknown

Construction

Negative depths indicate Above Ground Level; C-Cemented; SL-Slot Length; A-Aperture; GS-Grain Size; Q-Quantity; PL-Placement of Gravel Pack; PC-Pressure Cemented; S-Sump; CE-Centralisers

Hole	Pipe	Component	Type	From (m)	To (m)	Outside Diameter (mm)	Inside Diameter (mm)	Interval	Details
1		Hole	Hole	0.00	3.00	100			Auger
1	1	Casing	Pvc Class 18	0.00	1.00	50	49		

Drillers Log

From (m)	To (m)	Thickness (m)	Drillers Description	Geological Material	Comments
0.00	0.90	0.90	FILL:SAND/SILT/GRAVEL	Fill	
0.90	3.00	2.10	SILTY CLAY,BROWN,MEDIUM GRAVEL	Invalid Code	

***** End of GW103525 *****

Warning To Clients: This raw data has been supplied to the WaterNSW by drillers, licensees and other sources. WaterNSW does not verify the accuracy of this data. The data is presented for use by you at your own risk. You should consider verifying this data before relying on it. Professional hydrogeological advice should be sought in interpreting and using this data.

WaterNSW

Work Summary

GW111490

Licence: 10BL604479

Licence Status: ACTIVE

Authorised Purpose(s): MONITORING BORE
Intended Purpose(s): MONITORING BORE

Work Type: Bore

Work Status: Equipped

Construct.Method: Auger - Solid

Owner Type: Private

Commenced Date:

Completion Date: 07/02/2011

Final Depth: 6.00 m

Drilled Depth: 6.00 m

Contractor Name: (None)

Driller: Daniel Giles Fox

Assistant Driller:

Property: SYDNEY HOLDINGS P / L 93 Hume
Hwy GREENACRE 2190 NSW

GWMA:
GW Zone:

Standing Water Level 5.110
(m):

Salinity Description:
Yield (L/s): 0.200

Site Details

Site Chosen By:

County
Form A: CUMBERLAND
Licensed: CUMBERLA

Parish
BANKSTOWN
BANKSTOW

Cadastre
500//1161478
Whole Lot 1//241656

Region: 10 - Sydney South Coast

River Basin: - Unknown
Area/District:

CMA Map:

Grid Zone:

Scale:

Elevation: 0.00 m (A.H.D.)
Elevation Source: Unknown

Northing: 6248196.000
Easting: 320527.000

Latitude: 33°53'28.8"S
Longitude: 151°03'33.0"E

GS Map: -

MGA Zone: 56

Coordinate Source: Unknown

Construction

Negative depths indicate Above Ground Level; C-Cemented; SL-Slot Length; A-Aperture; GS-Grain Size; Q-Quantity; PL-Placement of Gravel Pack; PC-Pressure Cemented; S-Sump; CE-Centralisers

Hole	Pipe	Component	Type	From (m)	To (m)	Outside Diameter (mm)	Inside Diameter (mm)	Interval	Details
1		Hole	Hole	0.00	6.00	0			Auger - Solid Flight
1		Annulus	Bentonite/Grout	1.50	2.50				
1		Annulus	Waterworn/Rounded	2.50	6.00				Graded
1	1	Casing	Pvc Class 18	0.00	3.00	50			Cemented, Screwed
1	1	Opening	Slots - Horizontal	3.00	6.00	50		0	Casing - Machine Slotted, PVC Class 18, Screwed

Water Bearing Zones

From (m)	To (m)	Thickness (m)	WBZ Type	S.W.L. (m)	D.D.L. (m)	Yield (L/s)	Hole Depth (m)	Duration (hr)	Salinity (mg/L)
5.00	6.00	1.00	Unknown	5.11		0.20		00:10:00	

Drillers Log

From (m)	To (m)	Thickness (m)	Drillers Description	Geological Material	Comments
0.00	0.20	0.20	FILL CONCRETE CORE	Fill	
0.20	0.70	0.50	CLAY RED MOIST,GREY MOTTLES,PLASTIC	Clay	
0.70	1.30	0.60	CLAY NATURAL.MOIST,BROWN,PLASTIC	Clay	
1.30	2.10	0.80	CLAY RED DRY,MINOR PLASTICITY	Clay	
2.10	2.80	0.70	CLAY GREY DRY HARD NON PLASTIC	Clay	
2.80	3.50	0.70	CLAY GREY DRY HARD NON PLASTIC	Clay	
3.50	6.00	2.50	SHALE WEATHERED,BROWN,DRY	Shale	

*** End of GW111490 ***

Warning To Clients: This raw data has been supplied to the WaterNSW by drillers, licensees and other sources. WaterNSW does not verify the accuracy of this data. The data is presented for use by you at your own risk. You should consider verifying this data before relying on it. Professional hydrogeological advice should be sought in interpreting and using this data.

WaterNSW

Work Summary

GW111491

Licence: 10BL604479

Licence Status: ACTIVE

Authorised Purpose(s): MONITORING BORE
Intended Purpose(s): MONITORING BORE

Work Type: Bore

Work Status: Equipped

Construct.Method: Auger - Solid

Owner Type: Private

Commenced Date:

Completion Date: 07/02/2011

Final Depth: 6.00 m

Drilled Depth: 6.00 m

Contractor Name: (None)

Driller: Daniel Giles Fox

Assistant Driller:

Property: SYDNEY HOLDINGS P / L 93 Hume
Hwy GREENACRE 2190 NSW

GWMA:
GW Zone:

Standing Water Level 3.970
(m):

Salinity Description:
Yield (L/s): 0.100

Site Details

Site Chosen By:

County
Form A: CUMBERLAND
Licensed: CUMBERLA

Parish
BANKSTOWN
BANKSTOW

Cadastre
500//1161478
Whole Lot 1//241656

Region: 10 - Sydney South Coast

River Basin: - Unknown
Area/District:

CMA Map:

Grid Zone:

Scale:

Elevation: 0.00 m (A.H.D.)
Elevation Source: Unknown

Northing: 6248158.000
Easting: 320507.000

Latitude: 33°53'30.1"S
Longitude: 151°03'32.2"E

GS Map: -

MGA Zone: 56

Coordinate Source: Unknown

Construction

Negative depths indicate Above Ground Level; C-Cemented; SL-Slot Length; A-Aperture; GS-Grain Size; Q-Quantity; PL-Placement of Gravel Pack; PC-Pressure Cemented; S-Sump; CE-Centralisers

Hole	Pipe	Component	Type	From (m)	To (m)	Outside Diameter (mm)	Inside Diameter (mm)	Interval	Details
1		Hole	Hole	0.00	6.00	0			Auger - Solid Flight
1		Annulus	Bentonite/Grout	1.50	2.50				
1		Annulus	Waterworn/Rounded	2.50	3.00				Graded
1	1	Casing	Pvc Class 18	0.00	3.00	50	46		Cemented, Screwed
1	1	Opening	Slots - Horizontal	3.00	6.00	50		0	Casing - Machine Slotted, PVC Class 18, Screwed

Water Bearing Zones

From (m)	To (m)	Thickness (m)	WBZ Type	S.W.L. (m)	D.D.L. (m)	Yield (L/s)	Hole Depth (m)	Duration (hr)	Salinity (mg/L)
5.00	6.00	1.00	Unknown	3.97		0.10		00:10:00	

Drillers Log

From (m)	To (m)	Thickness (m)	Drillers Description	Geological Material	Comments
0.00	0.20	0.20	FILL, CONCRETE CORE	Fill	
0.20	0.70	0.50	CLAY RED MOIST, GREY MOTTLES, PLASTIC	Clay	
0.70	1.30	0.60	CLAY NATURAL MOIST, BROWN, PLASTIC	Clay	
1.30	2.10	0.80	CLAY RED DRY MINOR PLASTICITY	Clay	
2.10	2.80	0.70	CLAY GREY DRY, HARD, NON PLASTIC	Clay	
2.80	3.50	0.70	CLAY GREY DRY, HARD, NON PLASTIC. ORANGE MOTTLES	Clay	
3.50	6.00	2.50	SHALE WEATHERED, BROWN, DRY, BECOMING GREY AND WET	Shale	

*** End of GW111491 ***

Warning To Clients: This raw data has been supplied to the WaterNSW by drillers, licensees and other sources. WaterNSW does not verify the accuracy of this data. The data is presented for use by you at your own risk. You should consider verifying this data before relying on it. Professional hydrogeological advice should be sought in interpreting and using this data.

WaterNSW

Work Summary

GW115634

Licence: 10BL605374

Licence Status: CANCELLED

Authorised Purpose(s): MONITORING BORE
Intended Purpose(s): MONITORING BORE

Work Type: Bore

Work Status: Equipped

Construct.Method:

Owner Type: Private

Commenced Date:

Completion Date: 11/06/2013

Final Depth: 12.00 m

Drilled Depth:

Contractor Name: Brad Nicholas CANNON

Driller: Unknown Unknown

Assistant Driller:

Property: FAIRFAX PRINT HOLDINGS 2 Hume
Hwy CHULLORA 2190 NSW

GWMA:
GW Zone:

Standing Water Level
(m):

Salinity Description:
Yield (L/s):

Site Details

Site Chosen By:

County
Form A: CUMBERLAND
Licensed: CUMBERLA

Parish
Unknown
LIBERTYP

Cadastre
12//834734
Whole Lot 12//834734

Region: - (Not set)

River Basin: - Unknown
Area/District:

CMA Map:

Grid Zone:

Scale:

Elevation: 0.00 m (A.H.D.)
Elevation Source: Unknown

Northing: 6248395.000
Easting: 320205.000

Latitude: 33°53'22.2"S
Longitude: 151°03'20.6"E

GS Map: -

MGA Zone: 56

Coordinate Source: GPS - Global

Construction

Negative depths indicate Above Ground Level; C-Cemented; SL-Slot Length; A-Aperture; GS-Grain Size; Q-Quantity; PL-Placement of Gravel Pack; PC-Pressure Cemented; S-Sump; CE-Centralisers

Hole	Pipe	Component	Type	From (m)	To (m)	Outside Diameter (mm)	Inside Diameter (mm)	Interval	Details
1		Hole	Hole	0.00	12.00	0			Auger - Solid Flight
1		Backfill	(Not Set)	0.00	0.00				
1		Annulus	(Not Set)	0.00	0.20				
1		Annulus	(Not Set)	0.20	8.50				
1		Annulus	(Not Set)	8.50	8.80				
1		Annulus	(Not Set)	8.80	12.00				

Water Bearing Zones

From (m)	To (m)	Thickness (m)	WBZ Type	S.W.L. (m)	D.D.L. (m)	Yield (L/s)	Hole Depth (m)	Duration (hr)	Salinity (mg/L)
0.00	0.00	0.00	Unknown						

Drillers Log

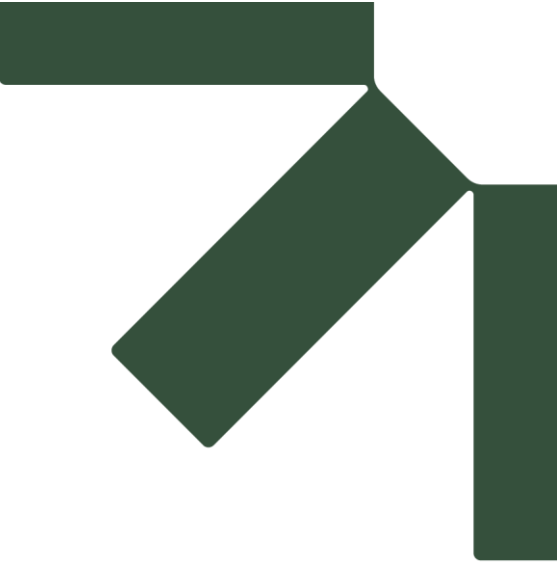
From (m)	To (m)	Thickness (m)	Drillers Description	Geological Material	Comments
0.00	0.20	0.20	Topsoil; silty clay, brown, moist	Topsoil	
0.20	1.20	1.00	Fill; Gravelly Clay, black/dark brown, very hard, crushed sandstone @ 0.3m, dry	Fill	
1.20	2.00	0.80	Fill; Clay, light grey, very compacted, moist	Fill	
2.00	12.00	10.00	Shale; light brown to dark grey, moist	Shale	

Remarks

11/06/2013: Nat Carling, 15-Sept-2016; All details were provided by client on consultants log.

*** End of GW115634 ***

Warning To Clients: This raw data has been supplied to the WaterNSW by drillers, licensees and other sources. WaterNSW does not verify the accuracy of this data. The data is presented for use by you at your own risk. You should consider verifying this data before relying on it. Professional hydrogeological advice should be sought in interpreting and using this data.



Appendix F Historical Aerial Imagery

Preliminary Site Investigation

20 Dasea Street, Chullora NSW 2190

**Cleanaway Waste Management Ltd
c/- EME Advisory Pty Ltd**

SLR Project No.: 630.032708.00001

13 March 2026

HISTORICAL AERIAL IMAGERY
1 MAY 1951

APPENDIX F

LEGEND

 Site Boundary Watercourse

Data Sources:
NSW SS
Aerial imagery obtained from NSW Historical Imagery
Viewer under Creative Commons Attribution 4.0 licence

DISCLAIMER: All information within this document may be based on external sources. SLR Consulting Pty Ltd makes no warranty regarding the data's accuracy or reliability for any purpose.



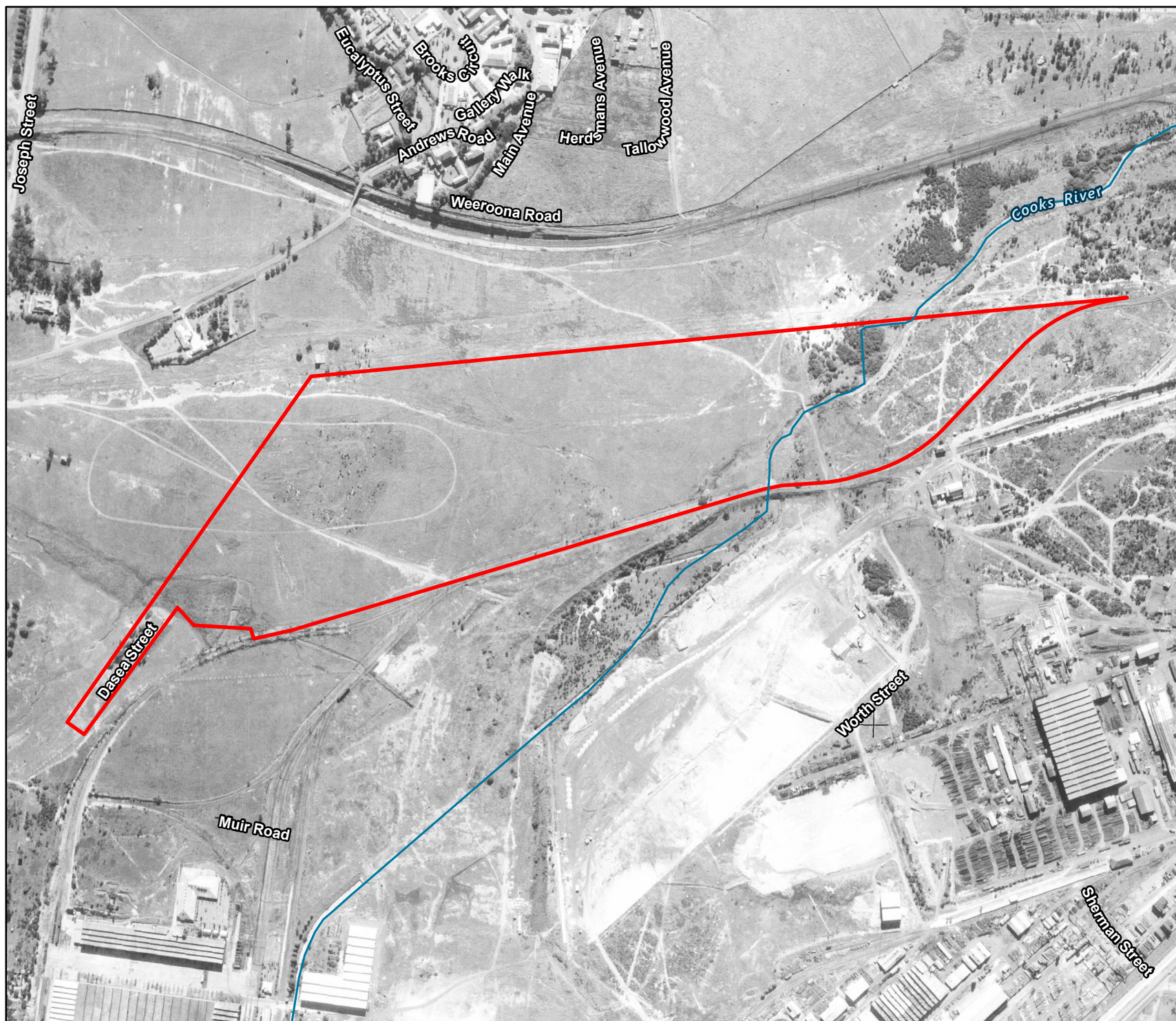
Coordinate System: GDA2020 MGA Zone 56

Scale: 1:6,000 at A4

Project Number: 630.032708

Date Drawn: 13-Nov-2025

Drawn by: JH



APPENDIX F

LEGEND

 Site Boundary Watercourse

Data Sources:

NSW SS

Aerial imagery obtained from NSW Historical Imagery
Viewer under Creative Commons Attribution 4.0 licence

DISCLAIMER: All information within this document may be based on external sources. SLR Consulting Pty Ltd makes no warranty regarding the data's accuracy or reliability for any purpose.

0 100 200
m

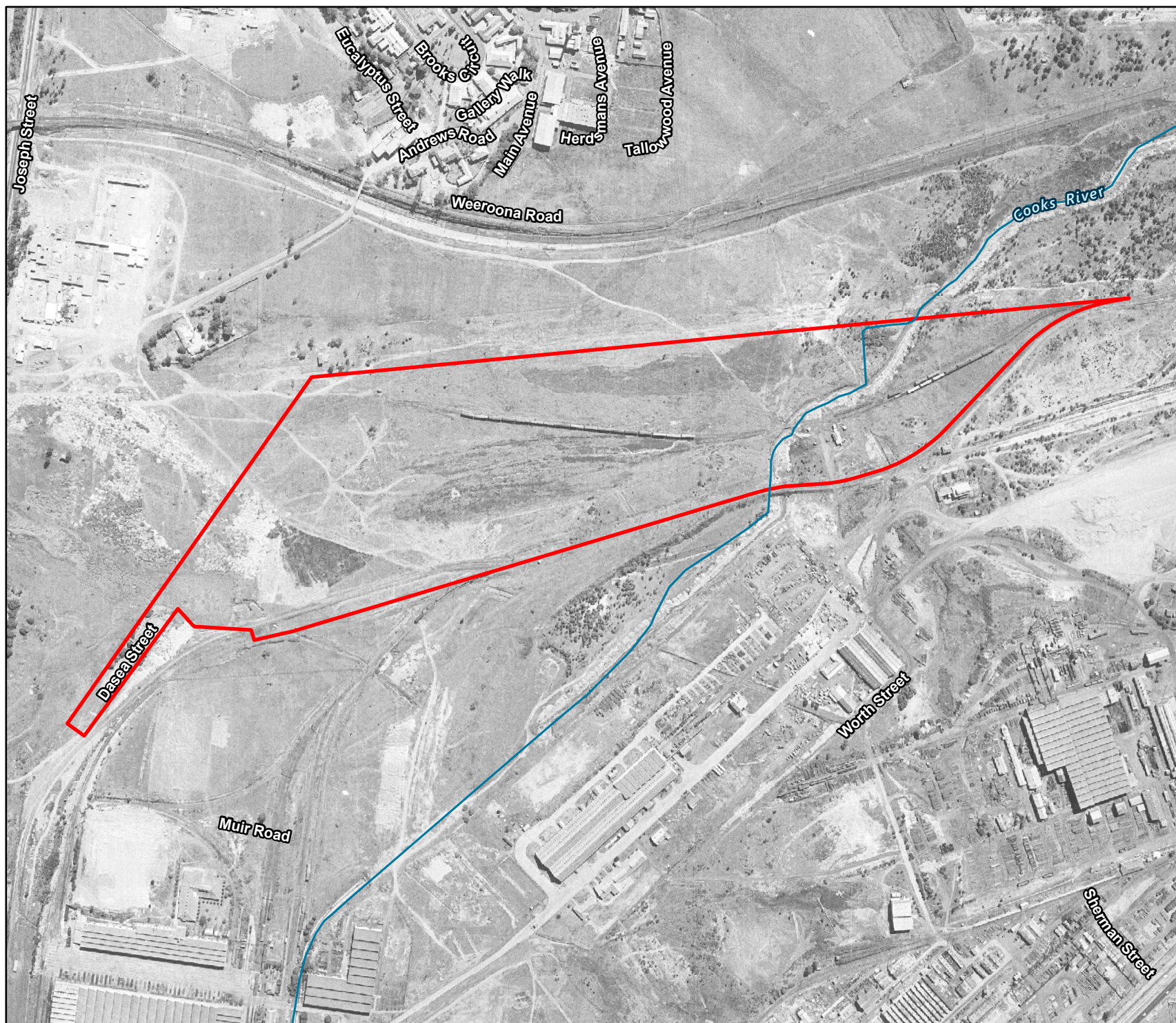
Coordinate System: GDA2020 MGA Zone 56

Scale: 1:6,000 at A4

Project Number: 630.032708

Date Drawn: 13-Nov-2025

Drawn by: JH



APPENDIX F

LEGEND

-  Site Boundary
-  Watercourse

Data Sources:
NSW SS
Aerial imagery obtained from NSW Historical Imagery
Viewer under Creative Commons Attribution 4.0 licence

DISCLAIMER: All information within this document may be based on external sources. SLR Consulting Pty Ltd makes no warranty regarding the data's accuracy or reliability for any purpose.



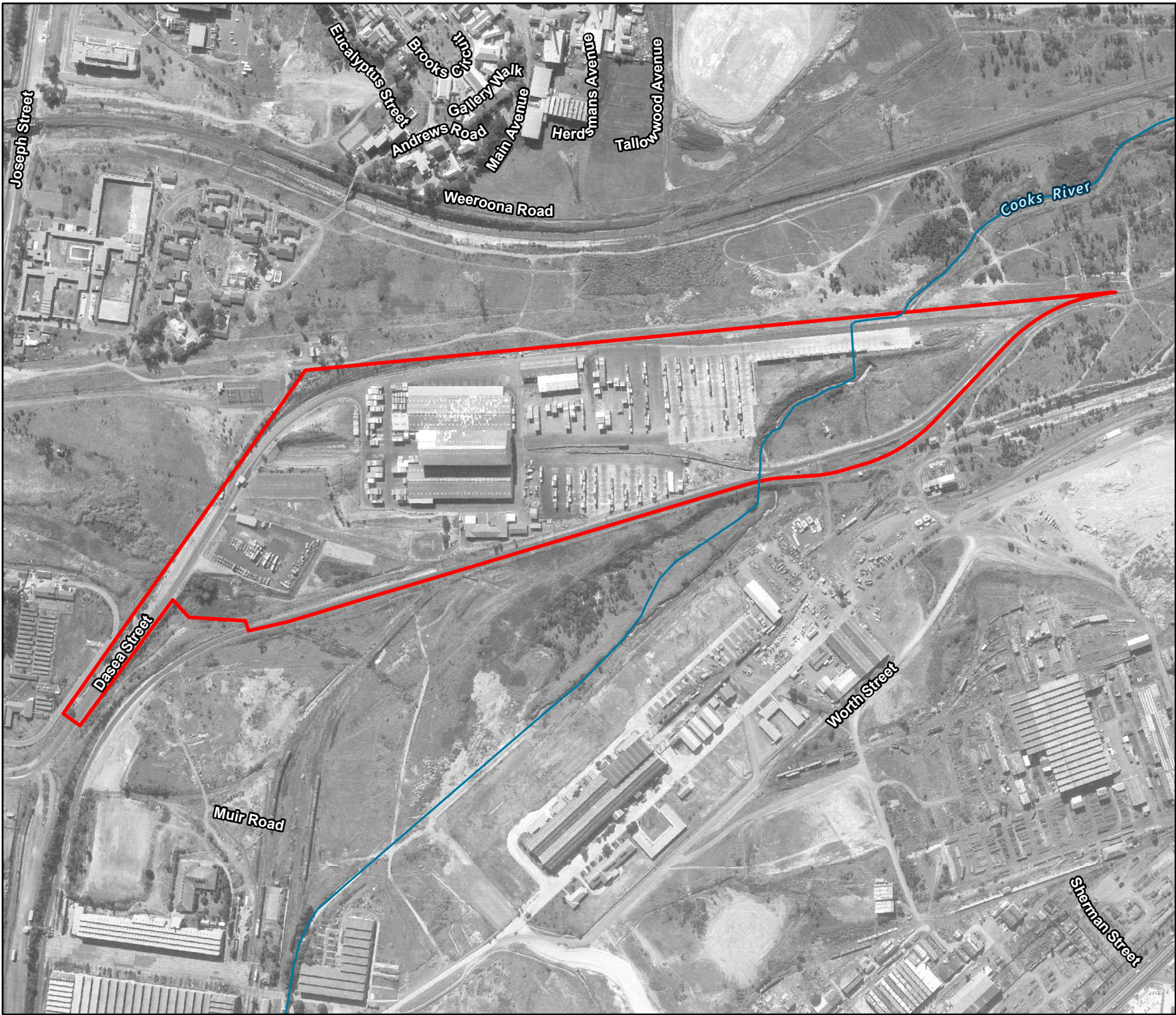
Coordinate System: GDA2020 MGA Zone 56

Scale: 1:6,000 at A4

Project Number: 630.032708

Date Drawn: 13-Nov-2025

Drawn by: JH



HISTORICAL AERIAL IMAGERY
2 AUGUST 1986

APPENDIX F

LEGEND

 Site Boundary Watercourse

Data Sources:

NSW SS

Aerial imagery obtained from NSW Historical Imagery
Viewer under Creative Commons Attribution 4.0 licence

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0 100 200
m

Coordinate System: GDA2020 MGA Zone 56

Scale: 1:6,000 at A4

Project Number: 630.032708

Date Drawn: 13-Nov-2025

Drawn by: JH



HISTORICAL AERIAL IMAGERY
4 OCTOBER 1994

APPENDIX F

LEGEND

 Site Boundary

 Watercourse

Data Sources:
NSW SS
Aerial imagery obtained from NSW Historical Imagery
Viewer under Creative Commons Attribution 4.0 licence

DISCLAIMER: All information within this document may be based on external sources. SLR Consulting Pty Ltd makes no warranty regarding the data's accuracy or reliability for any purpose.



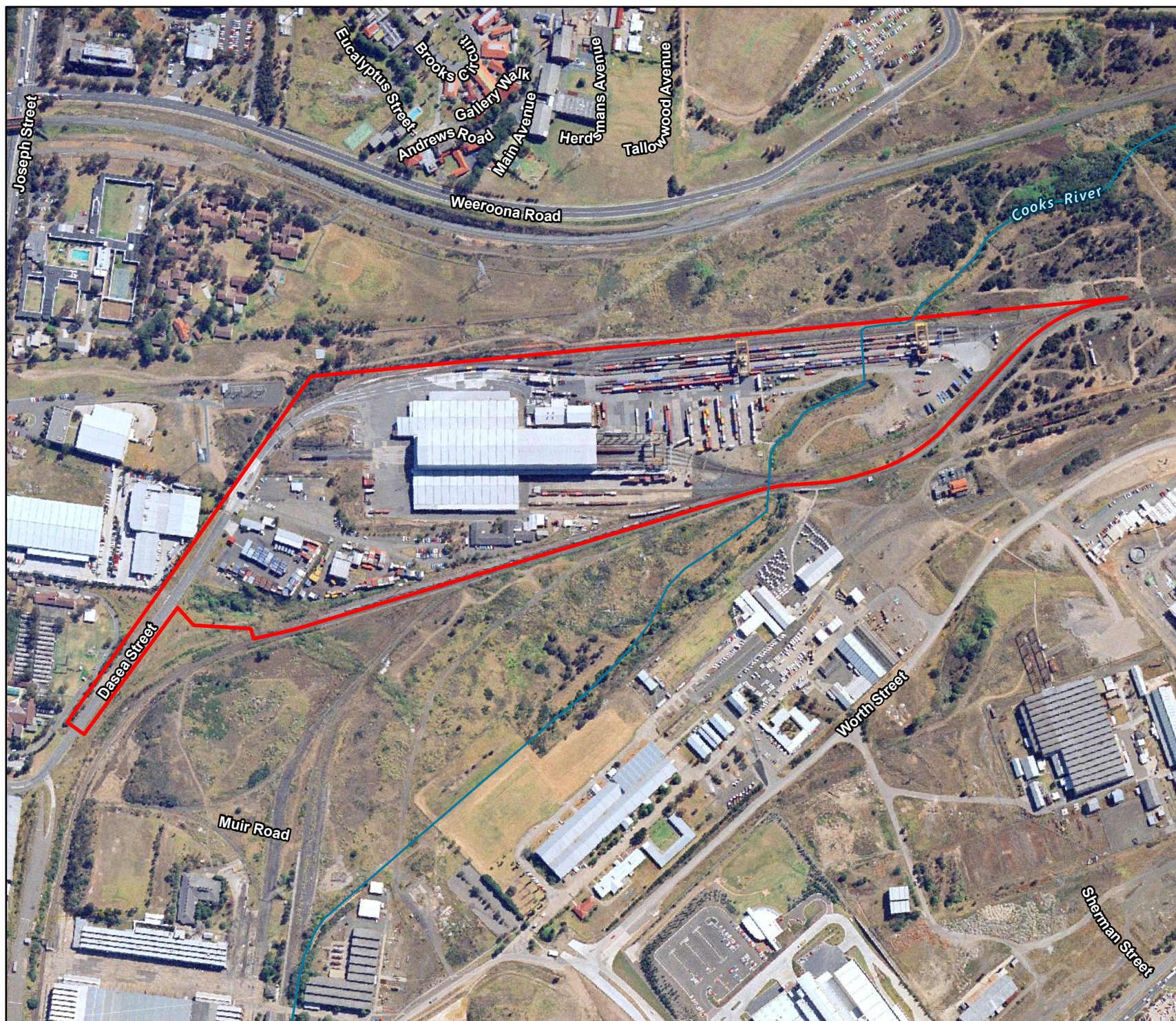
Coordinate System: GDA2020 MGA Zone 56

Scale: 1:6,000 at A4

Project Number: 630.032708

Date Drawn: 13-Nov-2025

Drawn by: JH



APPENDIX F

LEGEND

 Site Boundary

 Watercourse

Data Sources:

NSW SS

Aerial imagery obtained from NSW Historical Imagery

Viewer under Creative Commons Attribution 4.0 licence

DISCLAIMER: All information within this document may be based on external sources. SLR Consulting Pty Ltd makes no warranty regarding the data's accuracy or reliability for any purpose.



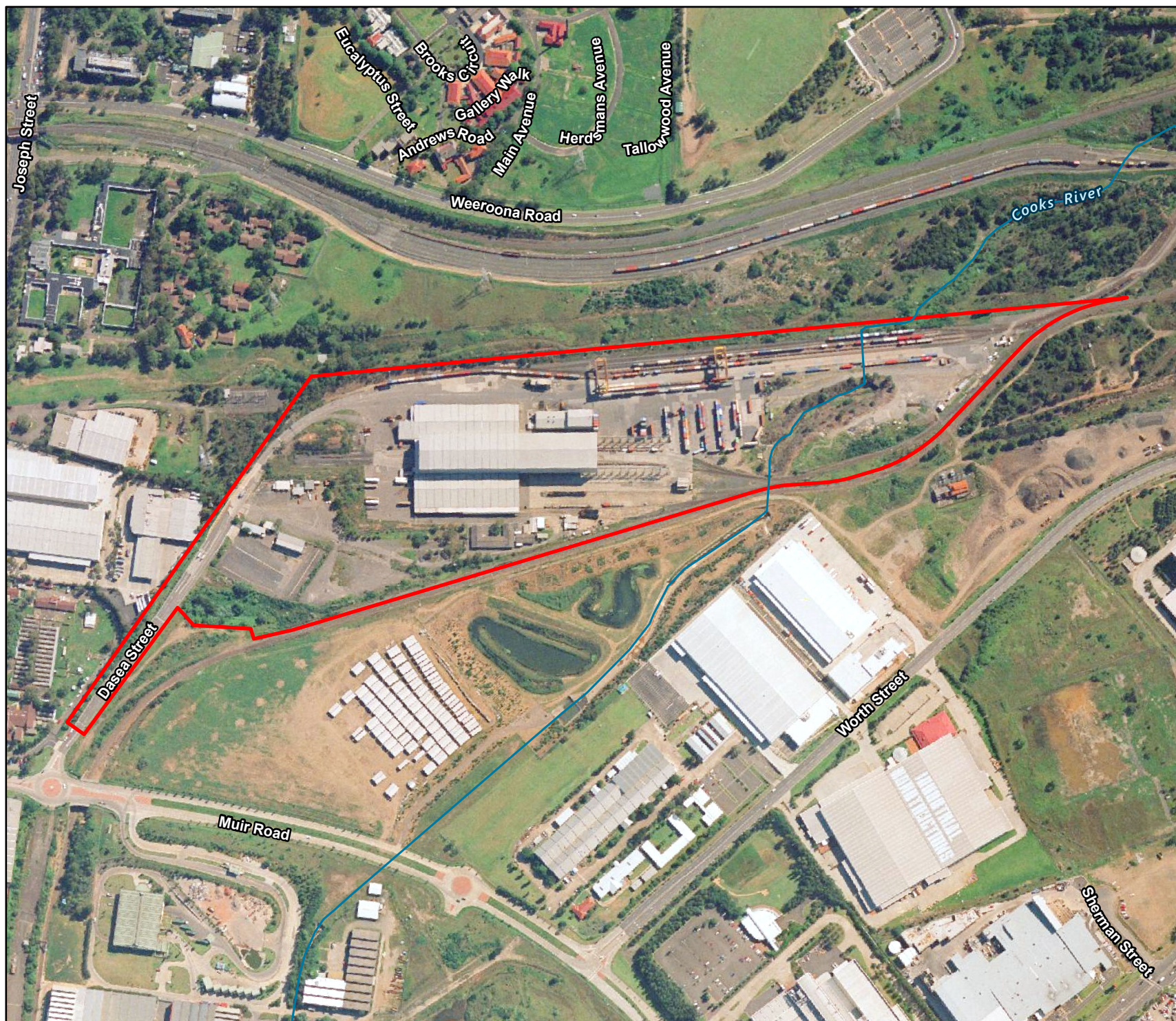

Coordinate System: GDA2020 MGA Zone 56

Scale: 1:6,000 at A4

Project Number: 630.032708

Date Drawn: 13-Nov-2025

Drawn by: JH



HISTORICAL AERIAL IMAGERY
16 MAY 2011

APPENDIX F

LEGEND

 Site Boundary

 Watercourse

Data Sources:
NSW SS
Aerial imagery: Nearmap (May 2011)

DISCLAIMER: All information within this document may be based on external sources. SLR Consulting Pty Ltd makes no warranty regarding the data's accuracy or reliability for any purpose.



Coordinate System: GDA2020 MGA Zone 56

Scale: 1:6,000 at A4

Project Number: 630.032708

Date Drawn: 13-Nov-2025

Drawn by: JH



APPENDIX F

LEGEND

 Site Boundary Watercourse

Data Sources:
NSW SS
Aerial imagery: Nearmap (May 2017)

DISCLAIMER: All information within this document may be based on external sources. SLR Consulting Pty Ltd makes no warranty regarding the data's accuracy or reliability for any purpose.



Coordinate System: GDA2020 MGA Zone 56

Scale: 1:6,000 at A4

Project Number: 630.032708

Date Drawn: 13-Nov-2025

Drawn by: JH



HISTORICAL AERIAL IMAGERY
10 OCTOBER 2025

APPENDIX F

LEGEND

 Site Boundary Watercourse

Data Sources:
NSW SS
Aerial imagery: Nearmap (October 2025)

DISCLAIMER: All information within this document may be based on external sources. SLR Consulting Pty Ltd makes no warranty regarding the data's accuracy or reliability for any purpose.



Coordinate System: GDA2020 MGA Zone 56

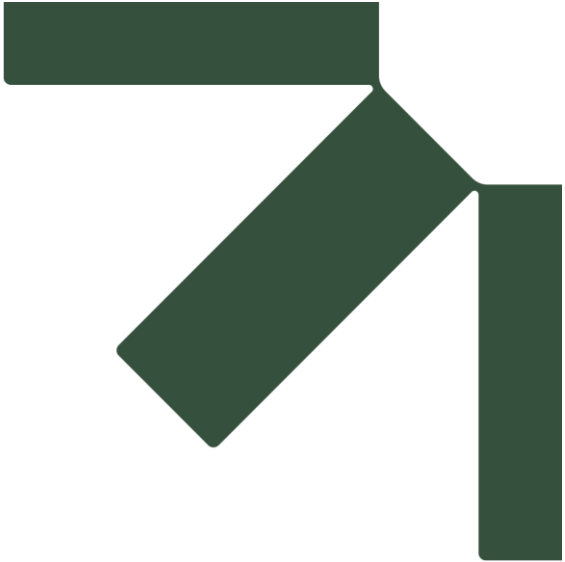
Scale: 1:6,000 at A4

Project Number: 630.032708

Date Drawn: 13-Nov-2025

Drawn by: JH





Appendix G Historical Aerial Imagery Review

Preliminary Site Investigation

20 Dasea Street, Chullora NSW 2190

**Cleanaway Waste Management Ltd
c/- EME Advisory Pty Ltd**

SLR Project No.: 630.032708.00001

13 March 2026

Table G-1 Historical Aerial Imagery Review

Date	On-Site	Off-Site
1 May 1951	<i>Black and white aerial image, good quality</i>	
	The Site appears to be undeveloped and unsealed land. Some surface scarification of the ground surface at the western and eastern boundaries is observable from this aerial image, and appears to be consistent with vehicle / machinery movements across land in these areas. These tracks appear to be generally informal, unsealed roads leading to / from off-Site properties and formal roadways. The natural path of the Cooks River is visible from aerial imagery, and can be seen to pass through the eastern portion of the Site. The land use for the Site appears consistent with either undeveloped virgin land, or undeveloped agricultural land. No fencing within the Site boundary is observable, and so it has been assumed that the Site may simply be unsealed / undeveloped land. The buildings identified by EIS (2011) were not identified in this aerial image.	The Site surrounds appear to be partially developed land used for residential and pastoral agriculture purposes. The land areas surrounding the Site are described as follows: • North undeveloped land immediately north of the Site, and Weeroona Road further afield. Some low-density residential development north of Weeroona Road was identified. • East: undeveloped land. • South: partially developed land with an apparent warehousing / commercial use. At the southern Site boundary, a large area of scarified land was identified, which was yet to be developed. Further afield, two commercial precincts were observable. • West: generally undeveloped land. Two detached dwellings were located to the west / northwest of the Site.
29 August 1965	<i>Black and white aerial image, good quality</i>	
	Limited development has occurred at the Site. The Site still remains to be entirely unsealed land and generally undeveloped. However, a railway line leading from the eastern boundary of the Site through the central portion of the Site has been installed since the 1951 aerial image. A single, detached building was identified at the southeastern portion of the Site. This building appeared to be used as a railway administration / support building and was located immediately south of the newly installed railway line. Surface scarification is observable in the western portion of the Site, tracks associated with that's scarification appear to extend off-Site to the west and lead to an area of development northwest of the Site.	The Site surrounds appear to be partially developed land used for residential and commercial / industrial purposes. The land areas surrounding the Site are described as follows: • North additional residential development north of Weeroona Road. • East: surface scarification of land immediately east of the Site is observable. However, this area appears undeveloped. The railway line on-Site extends past the eastern Site boundary. • South: additional commercial / industrial development to the South of the Site. The land area historically identified to be cleared has now been partially-developed for use as a warehouse. Some hardstand coverage is visible in the area. The commercial / industrial precinct to the southeast of the Site appears similar to the 1951 aerial image. Notably, the warehouse in this area appears smaller. The commercial / industrial precinct to the southwest of the Site appears similar to the 1951 aerial image. However, an area north of this precinct has been cleared and surface scarification is visible. • West: an area of surface scarification / development is observable northwest of the Site. Some buildings / building footings are observable in this area. However, the presence of hardstand coverage is not clearly observable.
16 May 1978	<i>Black and white aerial image, good quality</i>	
	Significant development has occurred at the Site since the 1965 aerial image. A summary of this development is made below: • Installation of hardstand: hardstand is now present across approximately 60 % of the observable land area of the Site. • Installation of another railway line at the northern boundary of the Site. This leads to the same line as observed in the 1965 aerial image at the eastern boundary • An area of mounded fill: present at the northwestern corner of the Site. • Installation of several medium-large warehouse buildings located towards the centre of the Site. • Demolition of the historical building (from 1965 aerial image) has occurred, and some limited surface debris is observable in this area.	The Site surrounds appear to further be developed for residential and commercial / industrial purposes. The land areas surrounding the Site are described as follows: • North limited change since the 1978 aerial image. A large area of scarified / cleared land was observable east of the existing residential development. • East: no changes to the observable surface condition of the Site since the 1978 aerial image. • South: limited change since the 1978 aerial image. The area of scarified land near the commercial / industrial facility to the southwest of the Site appears to have been excavated for conversion as a surface water retention basin. • West: limited change since the 1978 aerial image. The development area to the northwest of the Site appears to have been developed for medium-density residential with several detached and low-rise apartment buildings visible.
2 August 1986	<i>Colour aerial image, good quality.</i>	
	The Site condition appears similar to the 1978 aerial image. However, at the northern boundary of the Site, an overhead operable container handling gantry which runs parallel to the newly-installed railway line along the northern boundary of the Site. Significant excavation and stockpiling has occurred at the southeastern boundary of the Site. This excavation has occurred south of the Cooks River.	The Site surround appear similar to the 1978 aerial image. Some development has progressed surrounding the Site. However, this appears to be auxiliary to existing infrastructure proximal to the Site. The area of scarification to the north of the Site has been developed for use as a public recreation / sporting facility.
	<i>Colour aerial image, good quality.</i>	

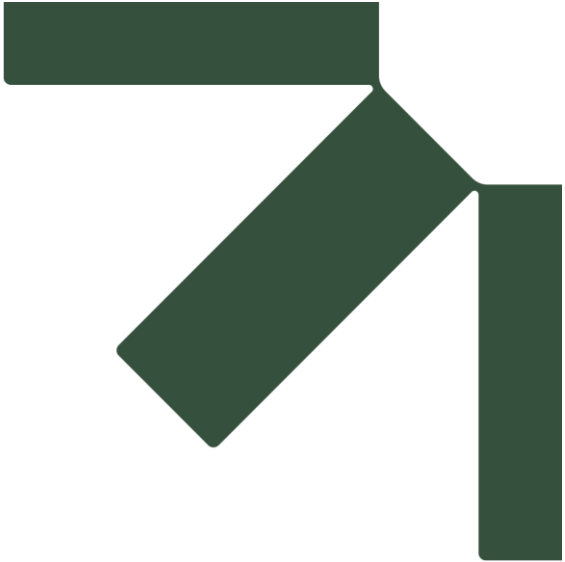


4 October 1994	The Site appears similar to the 1986 aerial image. The area of stockpiled fill in the south eastern portion of the Site now appears to be level and vegetated, with some placed aggregate for storage of containers at the eastern-most boundary of the Site. At the southern boundary of the Site, an area of the Site which was historically vacant now appears to be used for <i>ad hoc</i> storage, with several containers and a demountable visible in this area.	The Site surrounds appear similar to the 1986. The land areas to the north and south of the Site appear unchanged. However, Weeroona Road to the north is now a dual carriage way. Additional commercial / industrial development to the east and west has occurred: • East: additional hard stand and storage to the southeast of the Site is visible from aerial imagery. This appears to be auxiliary to a development outside the frame of aerial imagery reviewed. • West: a commercial development has been erected immediately west of the Site, fronting Dasea Street. This development comprises one small, one medium and one large warehouse, with concrete hardstand servicing the land areas adjacent these warehouses.
16 March 2002	The observable surface condition of the Site appears similar to the 1994 aerial image. However, observable storage and ground-surface litter appears to have reduced, and the condition of the Site appears cleaner and clearer than in the 1994 aerial image. The area of <i>ad hoc</i> storage identified in 1994 is now clear again.	<i>Colour aerial image, good quality.</i> The Site surrounds have changed since the 1994 aerial image: • North four residential buildings (which appeared to be multi-level flats) fronting Main Avenue have been demolished and appear that land area is now clear. • East: surface scarification and land clearing east of the Site is visible from aerial imagery. • South: extensive changes since the 1994 aerial image – ○ Muir road has been formally constructed and sealed. It is a dual carriageway. ○ One of the first commercial / industrial precincts to the southeast of the Site has been demolished. A larger warehouse has been constructed to the west of that historical precinct, with some sealed and unsealed roads providing access and egress. ○ Two large warehouses have been constructed near the southern boundary of the Site, just south of the Cooks River. ○ Another area just south of the Site has been cleared and appears to be used for storage. That area is serviced by unsealed road access leading off Muir Road. Within that area there are two excavated surface water features which are north of the Cooks River and do not appear to be connected to the Cooks River. ○ The other original commercial / industrial precinct to the southwest of the Site has also been redeveloped, with the original warehouse demolished and replaced by one smaller one. • West: limited change since the 1994 aerial image. The commercial / industrial development immediately east of the Site.
16 May 2011	The observable surface condition of the Site has changed since the 2002 aerial image. The large warehouse at the centre of the Site has now been removed, with that area now covered only by hardstand and used for container storage. Some stockpiling of fill is evident at the eastern and western boundaries of the Site. These stockpiles are uncovered and placed on unsealed land. At the southern boundary of the Site, an area of unsealed land historically used for storage, before being cleared again in 2002. In this area there are several heavy machines / trucks as well as four-five observable stockpiles of fill. These stockpiles are all distinct colours and appear to be used to service the operational demands of this part of the Site. Near the southern Site boundary, there is an area of land which is covered by high-visibility orange cover.	<i>Colour aerial image, good quality.</i> The Site surrounds have changed since the 2002 aerial image: • North the residential area north of Weeroona Road is now being re-developed. Many of the historically undeveloped land areas here have now been cleared and stockpiling of excavated soil is visible. Similarly, a large area of land fronting Weeroona Road has also been cleared for development. • South: additional development since the 2002 aerial image – ○ A large warehouse has been developed southwest of the Site, in place of one of the original commercial / industrial precincts in that area. ○ A large warehouse has been constructed at the southern boundary of the Site, south of the surface water features identified in 2002. ○ A large warehouse has been constructed south of the roundabout on Muir Road, which extends south of the frame of the aerial image. ○ A smaller warehouse has been constructed near one of the existing warehouse buildings fronting Muir Road. Access to this building have been serviced by a sealed driveway leading off Muir Road. • West: some additional commercial / industrial warehousing development has occurred at the western Site boundary. However, most notably, the residential land area northwest of the Site has been redeveloped and now appears to be used for justice purposes as the Mary Wade Correctional Centre.
6 May 2017		<i>Colour aerial image, good quality.</i>



	The Site appears in a similar condition to the 2011 aerial image. A new administration building has been constructed at the western Site boundary, at the end of Dasea Street. This building is serviced by a sealed driveway and an extended area of hardstand cover in this area. At the western boundary of the Site, an area of the Site which is unsealed has a large stain on the unsealed ground surface, adjacent to a building and several parked trucks. The land area immediately east of that stain has again been partly cleared. Some mounded fill is observable from aerial imagery.	The Site surrounds have changed since the 2002 aerial image: • North the residential area north of Weeroona Road has had additional development, with a number of detached dwellings having been constructed in this area since the 2011 aerial imagery. The area of cleared land fronting Weeroona Avenue has which was cleared, and has been partially developed. • East: limited change since the 2011 aerial image • South: additional development since the 2002 aerial image – ○ A large warehouse and hardstand area used for container storage has been developed immediately south of the Site. ○ One of the large warehouses constructed by 2011 has been extended north, which is approximately double the size of what it was. ○ Another new large warehouse has been constructed immediately south of the Site, which is co-located with one warehouse which was constructed by the 2001 aerial image. ○ Another warehouse further south has been demolished. • West: some additional commercial / industrial warehousing development has occurred at the western Site boundary. However, most notably, the residential land area northwest of the Site has been redeveloped and now appears to be used for justice purposes as the Mary Wade Correctional Centre.
10 October 2025	The Site layout appears consistent with the 2017 aerial image, and the condition appears generally the same. Most notably, a hardstand-covered area at the southern Site boundary has been removed, and some vegetation has been cleared. In this area, a number of machines and heavy vehicles have been stored, as well as some stockpiled fill, and container storage. Three large shade structures have also been erected in this area.	<i>Colour aerial image, good quality.</i> The Site surrounds have changed since the 2017 aerial image: • North limited change since the 2017 aerial image. • East: limited change since the 2017 aerial image • South: additional development since the 2002 aerial image – ○ One of the large warehouses at the southern Site boundary, which had an extension visible by the 2017 aerial image has had another extension placed to the east of it. ○ One large warehouse has been constructed south of the Site. ○ Another large warehouse has been constructed southeast of the Site. West: limited change since the 2017 aerial image.





Appendix H Heritage Register Searches

Preliminary Site Investigation

20 Dasea Street, Chullora NSW 2190

**Cleanaway Waste Management Ltd
c/- EME Advisory Pty Ltd**

SLR Project No.: 630.032708.00001

13 March 2026

Appendix H _ Heritage Register Search Results



Australian Government
Department of Climate Change, Energy, the Environment and Water

Heritage

Australian Heritage Database



You are here: [Environment home](#) » [Heritage](#) » [Australian Heritage Database](#)

Search Results

No results found.

Enter at least one search criterion.

[Search Hints](#)

Search

Reset form

Place name

Street name

20 Dasea Street

Town or suburb

Chullora

State/Territory

--All--

Country

Australia

Advanced search options

List

All Lists

Different lists will provide different status and class options

Local Government Area

Place ID number

[Legal status](#)

--All--

Class

--All--

Keyword Search

☒ Description

☒ Statement of Significance

☒ Place history

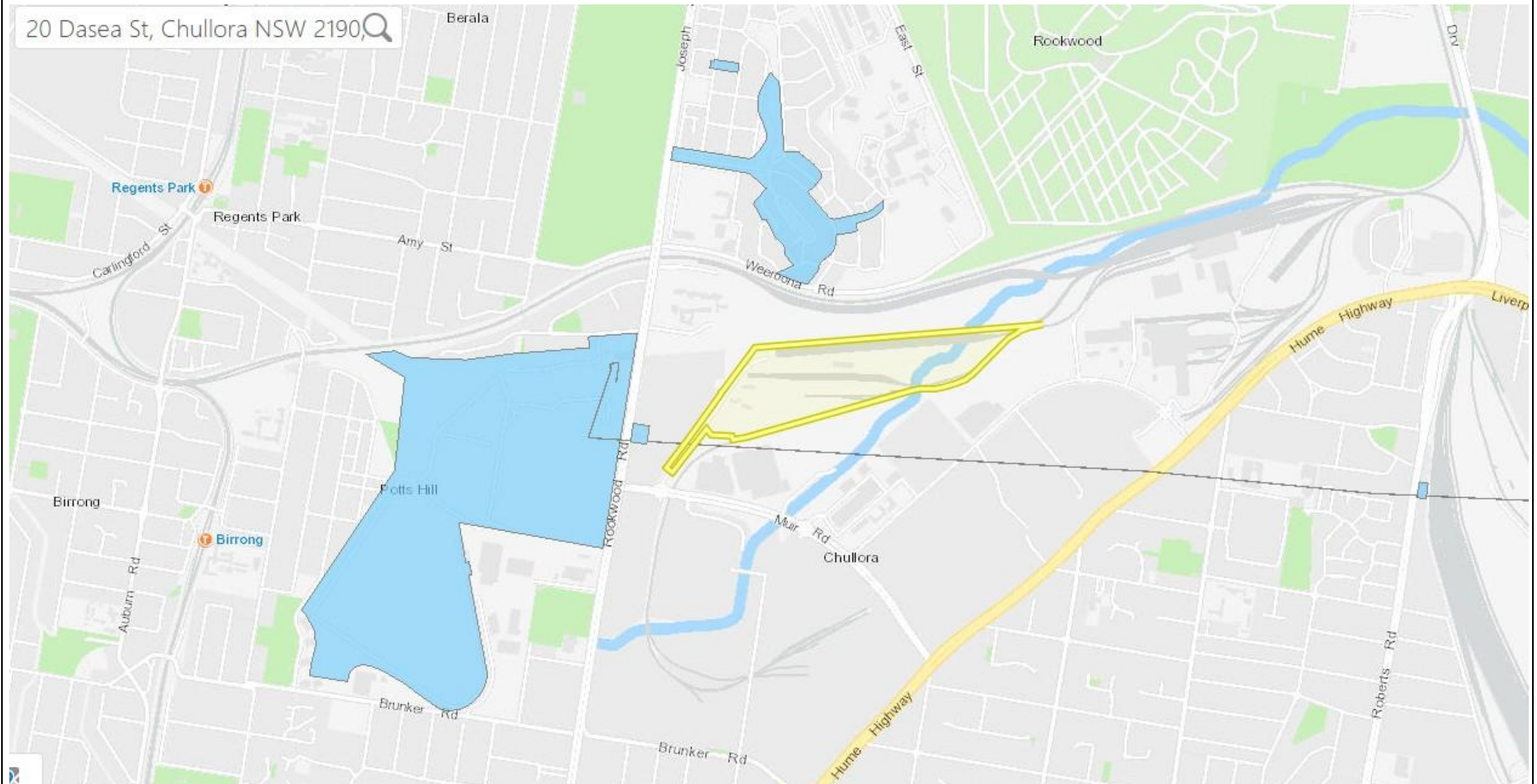
Map Ref No

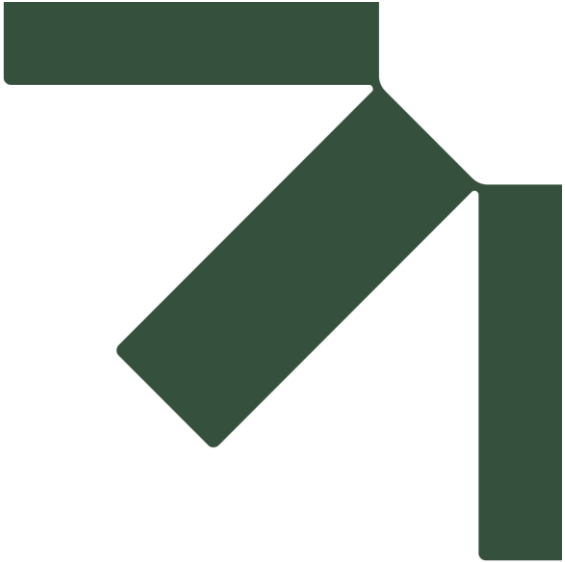
1:100,000 eg 2357

1:250,000 eg SF-50-01



State Heritage Register Search Results





Appendix I POEO Public Register

Preliminary Site Investigation

20 Dasea Street, Chullora NSW 2190

**Cleanaway Waste Management Ltd
c/- EME Advisory Pty Ltd**

SLR Project No.: 630.032708.00001

13 March 2026

Appendix I – POEO Public Register

POEO Public Register Search Results					
Your search for: General Search with the following criteria					
Suburb - Chullora					
returned 67 results					
Export to excel		1 of 4 Pages		Search Again	
Number	Name	Location	Type	Status	Issued date
1599372		2 FORD STREET, CHULLORA, NSW 2190	s.58 Licence Variation	Issued	27 Oct 2020
1630977		20 DASEA STREET, CHULLORA, NSW 2190	s.58 Licence Variation	Issued	24 Jul 2023
2920	BLUESCOPE STEEL LIMITED	73 ANZAC STREET, CHULLORA, NSW 2190	POEO licence	No longer in force	17 Apr 2001
1040182	BLUESCOPE STEEL LIMITED	73 ANZAC STREET, CHULLORA, NSW 2190	s.58 Licence Variation	Issued	01 Sep 2004
1044259	BLUESCOPE STEEL LIMITED	73 ANZAC STREET, CHULLORA, NSW 2190	s.58 Licence Variation	Issued	06 Feb 2005
703	BORAL RESOURCES (NSW) PTY LTD	1-5 NORFOLK RD, CHULLORA, NSW 2190	POEO licence	No longer in force	22 Aug 2000
5233	FAIRFAX PRINTERS PTY LIMITED	1 WORTH STREET , CHULLORA, NSW 2190	POEO licence	Surrendered	17 Apr 2001
1044102	FAIRFAX PRINTERS PTY LIMITED	1 WORTH STREET , CHULLORA, NSW 2190	s.58 Licence Variation	Issued	31 Jan 2005
1096095	FAIRFAX PRINTERS PTY LIMITED	1 WORTH STREET , CHULLORA, NSW 2190	s.58 Licence Variation	Issued	17 Apr 2009
1526060	FAIRFAX PRINTERS PTY LIMITED	1 WORTH STREET , CHULLORA, NSW 2190	s.58 Licence Variation	Issued	11 Nov 2014
1528240	FAIRFAX PRINTERS PTY LIMITED	1 WORTH STREET , CHULLORA, NSW 2190	s.80 Surrender of a Licence	Issued	02 Jun 2015
11219	G.P.P. EXCAVATION & DEMOLITION CONTRACTORS PTY LIMITED	2 FORD STREET, CHULLORA, NSW 2190	POEO licence	Issued	08 Sep 2000
1034998	G.P.P. EXCAVATION & DEMOLITION CONTRACTORS PTY LIMITED	2 FORD STREET, CHULLORA, NSW 2190	s.58 Licence Variation	Issued	01 Mar 2004
1096631	G.P.P. EXCAVATION & DEMOLITION CONTRACTORS PTY LIMITED	2 FORD STREET, CHULLORA, NSW 2190	s.58 Licence Variation	Issued	15 May 2009
1533391	G.P.P. EXCAVATION & DEMOLITION CONTRACTORS PTY LIMITED	2 FORD STREET, CHULLORA, NSW 2190	s.58 Licence Variation	Issued	18 Nov 2015
1550548	G.P.P. EXCAVATION & DEMOLITION CONTRACTORS PTY LIMITED	2 FORD STREET, CHULLORA, NSW 2190	s.58 Licence Variation	Issued	12 Apr 2017
3923	NATIONWIDE NEWS PTY. LIMITED	26-52 HUME HIGHWAY, CHULLORA, NSW 2190	POEO licence	No longer in force	15 Aug 2000
1044247	NATIONWIDE NEWS PTY. LIMITED	26-52 HUME HIGHWAY, CHULLORA, NSW 2190	s.58 Licence Variation	Issued	08 Feb 2005
21108	PACIFIC NATIONAL SERVICES PTY LTD	20 DASEA STREET, CHULLORA, NSW 2190	POEO licence	Issued	31 Jul 2018
1633062	PACIFIC NATIONAL SERVICES PTY LTD	20 DASEA STREET, CHULLORA, NSW 2190	s.58 Licence Variation	Issued	14 Sep 2023
					1234



Your search for: **General Search** with the following criteria

Suburb - Chullora
returned 67 results

[Export to excel](#)

2 of 4 Pages

[Search Again](#)

Number	Name	Location	Type	Status	Issued date
1642245	PACIFIC NATIONAL SERVICES PTY LTD	20 DASEA STREET, CHULLORA, NSW 2190	s.58 Licence Variation	Issued	28 Aug 2024
6252	PRIMO FOODS PTY LTD	18 HUME HIGHWAY, CHULLORA, NSW 2190	POEO licence	Issued	17 Aug 2000
1014671	PRIMO FOODS PTY LTD	18 HUME HIGHWAY, CHULLORA, NSW 2190	s.58 Licence Variation	Issued	26 Feb 2002
1528433	PRIMO FOODS PTY LTD	18 HUME HIGHWAY, CHULLORA, NSW 2190	s.58 Licence Variation	Issued	23 Apr 2015
3501714	PRIMO FOODS PTY LTD	18 HUME HIGHWAY, CHULLORA, NSW 2190	s.91 Clean Up Notice	Issued	05 Jan 2022
3504147	PRIMO FOODS PTY LTD	18 HUME HIGHWAY, CHULLORA, NSW 2190	s.91 Clean Up Notice	Issued	11 Nov 2022
1037710	RAIL CORPORATION NEW SOUTH WALES	WORTH STREET GATE 1, CHULLORA, NSW 2190	s.58 Licence Variation	Issued	18 Oct 2004
1096254	RAIL CORPORATION NEW SOUTH WALES	WORTH STREET GATE 1, CHULLORA, NSW 2190	s.58 Licence Variation	Issued	15 Jan 2009
1105900	RAIL CORPORATION NEW SOUTH WALES	WORTH STREET GATE 1, CHULLORA, NSW 2190	s.58 Licence Variation	Issued	27 Nov 2009
1515074	RAIL CORPORATION NEW SOUTH WALES	WORTH STREET GATE 1, CHULLORA, NSW 2190	s.58 Licence Variation	Issued	20 Jun 2013
1526061	RAIL CORPORATION NEW SOUTH WALES	WORTH STREET GATE 1, CHULLORA, NSW 2190	s.58 Licence Variation	Issued	10 Dec 2014
1533241	RAIL CORPORATION NEW SOUTH WALES	WORTH STREET GATE 1, CHULLORA, NSW 2190	s.58 Licence Variation	Issued	24 Sep 2015
1562534	RAIL CORPORATION NEW SOUTH WALES	WORTH STREET GATE 1, CHULLORA, NSW 2190	s.58 Licence Variation	Issued	24 Apr 2018
97	RAIL SERVICES AUSTRALIA	WORTH STREET, CHULLORA, NSW 2190	POEO licence	Surrendered	06 Jun 2000
1004852	RAIL SERVICES AUSTRALIA	WORTH STREET, CHULLORA, NSW 2190	s.80 Surrender of a Licence	Issued	15 Mar 2001
7515	SYDNEY TRAINS	WORTH STREET GATE 1, CHULLORA, NSW 2190	POEO licence	Issued	22 Sep 2000
1646299	SYDNEY TRAINS	WORTH STREET GATE 1, CHULLORA, NSW 2190	s.58 Licence Variation	Issued	10 Jan 2025
1651446	SYDNEY TRAINS	WORTH STREET GATE 1, CHULLORA, NSW 2190	s.58 Licence Variation	Issued	02 Oct 2025
11880	UNITED GROUP RAIL FLEET SERVICES LIMITED	2 WORTH STREET, CHULLORA, NSW 2190	POEO licence	No longer in force	18 Feb 2004
1041955	UNITED GROUP RAIL FLEET SERVICES LIMITED	2 WORTH STREET, CHULLORA, NSW 2190	s.58 Licence Variation	Issued	13 Jan 2005

[1234](#)



Your search for: **General Search** with the following criteria

Suburb - Chullora

returned 67 results

[Export to excel](#)

3 of 4 Pages

[Search Again](#)

Number	Name	Location	Type	Status	Issued date
1050502	UNITED GROUP RAIL FLEET SERVICES LIMITED	2 WORTH STREET, CHULLORA, NSW 2190	s.58 Licence Variation	Issued	28 Feb 2007
1076641	UNITED GROUP RAIL FLEET SERVICES LIMITED	2 WORTH STREET, CHULLORA, NSW 2190	s.58 Licence Variation	Issued	13 Aug 2007
3928	VENTIA AUSTRALIA PTY LTD	2 WORTH STREET, CHULLORA, NSW 2190	POEO licence	No longer in force	09 Jun 2000
1027008	VENTIA AUSTRALIA PTY LTD	2 WORTH STREET, CHULLORA, NSW 2190	s.58 Licence Variation	Issued	10 Sep 2003
1036496	VENTIA AUSTRALIA PTY LTD	2 WORTH STREET, CHULLORA, NSW 2190	s.58 Licence Variation	Issued	01 Jun 2004
1057186	VENTIA AUSTRALIA PTY LTD	2 WORTH STREET, CHULLORA, NSW 2190	s.58 Licence Variation	Issued	13 Jul 2006
1070042	VENTIA AUSTRALIA PTY LTD	2 WORTH STREET, CHULLORA, NSW 2190	s.58 Licence Variation	Issued	27 Feb 2007
5893	VEOLIA RECYCLING & RECOVERY PTY LTD	MUIR ROAD, CHULLORA, NSW 2190	POEO licence	Suspended	23 Jun 2000
1501876	VEOLIA RECYCLING & RECOVERY PTY LTD	MUIR ROAD, CHULLORA, NSW 2190	s.58 Licence Variation	Issued	03 Nov 2011
1517417	VEOLIA RECYCLING & RECOVERY PTY LTD	MUIR ROAD, CHULLORA, NSW 2190	s.58 Licence Variation	Issued	12 Nov 2013
1532548	VEOLIA RECYCLING & RECOVERY PTY LTD	MUIR ROAD, CHULLORA, NSW 2190	s.58 Licence Variation	Issued	17 Aug 2015
1533220	VEOLIA RECYCLING & RECOVERY PTY LTD	MUIR ROAD, CHULLORA, NSW 2190	s.58 Licence Variation	Issued	31 Aug 2015
1533860	VEOLIA RECYCLING & RECOVERY PTY LTD	MUIR ROAD, CHULLORA, NSW 2190	s.58 Licence Variation	Issued	25 Nov 2015
1550265	VEOLIA RECYCLING & RECOVERY PTY LTD	MUIR ROAD, CHULLORA, NSW 2190	s.91 Clean Up Notice	Issued	16 Mar 2017
3173523751	VEOLIA RECYCLING & RECOVERY PTY LTD	MUIR ROAD, CHULLORA, NSW 2190	Penalty Notice	Issued	15 Nov 2017
3173523742	VEOLIA RECYCLING & RECOVERY PTY LTD	MUIR ROAD, CHULLORA, NSW 2190	Penalty Notice	Issued	15 Nov 2017
1598998	VEOLIA RECYCLING & RECOVERY PTY LTD	MUIR ROAD, CHULLORA, NSW 2190	s.79 Suspension of a Licence	Issued	04 Nov 2020
22011	WESTERN TANK SERVICES PTY LTD	25 MUIR ROAD, CHULLORA, NSW 2190	POEO licence	Pending	
3510026	WESTERN TANK SERVICES PTY LTD	25 MUIR ROAD, CHULLORA, NSW 2190	s.91 Clean Up Notice	Issued	16 Aug 2024
3510218	WESTERN TANK SERVICES PTY LTD	25 MUIR ROAD, CHULLORA, NSW 2190	s.110 Variation of Clean Up Notice	Issued	03 Sep 2024

[1234](#)



Your search for: **General Search** with the following criteria

Suburb - Chullora
returned 67 results

[Export to excel](#)

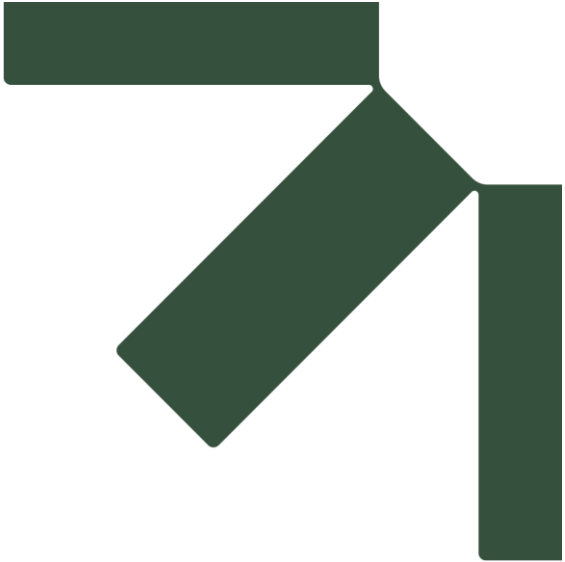
4 of 4 Pages

[Search Again](#)

Number	Name	Location	Type	Status	Issued date
3510469	WESTERN TANK SERVICES PTY LTD	25 MUIR ROAD, CHULLORA, NSW 2190	s.110 Variation of Clean Up Notice	Issued	01 Oct 2024
1017947	WSN ENVIRONMENTAL SOLUTIONS PTY LIMITED	MUIR ROAD, CHULLORA, NSW 2190	s.58 Licence Variation	Issued	06 Nov 2002
1034139	WSN ENVIRONMENTAL SOLUTIONS PTY LIMITED	MUIR ROAD, CHULLORA, NSW 2190	s.58 Licence Variation	Issued	01 Feb 2004
1051955	WSN ENVIRONMENTAL SOLUTIONS PTY LIMITED	MUIR ROAD, CHULLORA, NSW 2190	s.58 Licence Variation	Issued	24 Oct 2005
1053532	WSN ENVIRONMENTAL SOLUTIONS PTY LIMITED	MUIR ROAD, CHULLORA, NSW 2190	s.58 Licence Variation	Issued	15 Nov 2005
1093223	WSN ENVIRONMENTAL SOLUTIONS PTY LIMITED	MUIR ROAD, CHULLORA, NSW 2190	s.58 Licence Variation	Issued	11 Nov 2008
1106002	WSN ENVIRONMENTAL SOLUTIONS PTY LIMITED	MUIR ROAD, CHULLORA, NSW 2190	s.58 Licence Variation	Issued	19 Nov 2009

[1234](#)





Appendix J Section 58 CLM Act Regulated Sites

Preliminary Site Investigation

20 Dasea Street, Chullora NSW 2190

**Cleanaway Waste Management Ltd
c/- EME Advisory Pty Ltd**

SLR Project No.: 630.032708.00001

13 March 2026

Appendix J – Section 58 CLM Act 1997 Search Results

Public registers

+ POEO Public Register

– Contaminated land record of notices

About the record of notices

List of notified sites

Tips for searching

Disclaimer

Dangerous goods licences

Pesticide licences

Radiation licences

[Home](#) [Public registers](#) [Contaminated land record of notices](#)

Search results

Your search for: Suburb: CHULLORA

Search Again Refine Search

did not find any records in our database.

If a site does not appear on the record it may still be affected by contamination. For example:

- Contamination may be present but the site has not been regulated by the EPA under the Contaminated Land Management Act 1997 or the Environmentally Hazardous Chemicals Act 1985.
- The EPA may be regulating contamination at the site through a licence or notice under the Protection of the Environment Operations Act 1997 (POEO Act).
- Contamination at the site may be being managed under the [planning process](#).

More information about particular sites may be available from:

- The [POEO public register](#)
- The appropriate planning authority: for example, on a planning certificate issued by the local council under [section 149 of the Environmental Planning and Assessment Act](#).

See [What's in the record and What's not in the record](#).

If you want to know whether a specific site has been the subject of notices issued by the EPA under the CLM Act, we suggest that you search by Local Government Area only and carefully review the sites that are listed. This public record provides information about sites regulated by the EPA under the Contaminated Land Management Act 1997, including sites currently and previously regulated under the Environmentally Hazardous Chemicals Act 1985. Your inquiry using the above search criteria has not matched any record of current or former regulation. You should consider searching again using different criteria. The fact that a site does not appear on the record does not necessarily mean that it is not affected by contamination. The site may have been notified to the EPA but not yet assessed, or contamination may be present but the site is not yet being regulated by the EPA. Further information about particular sites may be available from the appropriate planning authority, for example, on a planning certificate issued by the local council under section 149 of the Environmental Planning and Assessment Act. In addition the EPA may be regulating contamination at the site through a licence under the Protection of the Environment Operations Act 1997. You may wish to search the POEO public register.[POEO public register](#)

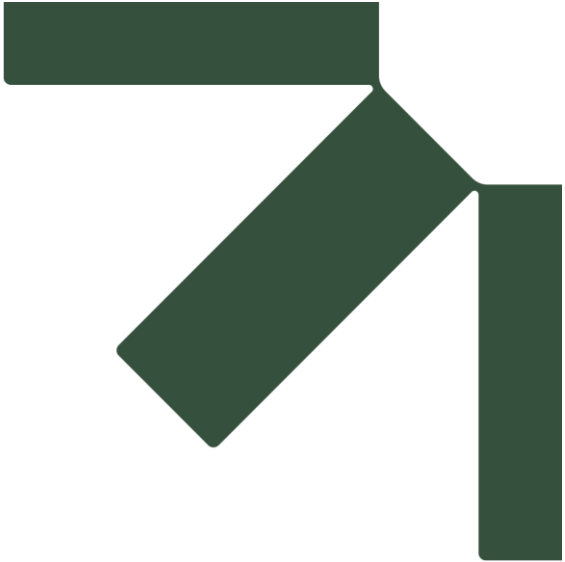
Search TIP

To search for a specific site, search by LGA (local government area) and carefully review all sites listed.

... [more search tips](#)

24 October 2025





Appendix K Section 60 CLM Act Notified Sites

Preliminary Site Investigation

20 Dasea Street, Chullora NSW 2190

**Cleanaway Waste Management Ltd
c/- EME Advisory Pty Ltd**

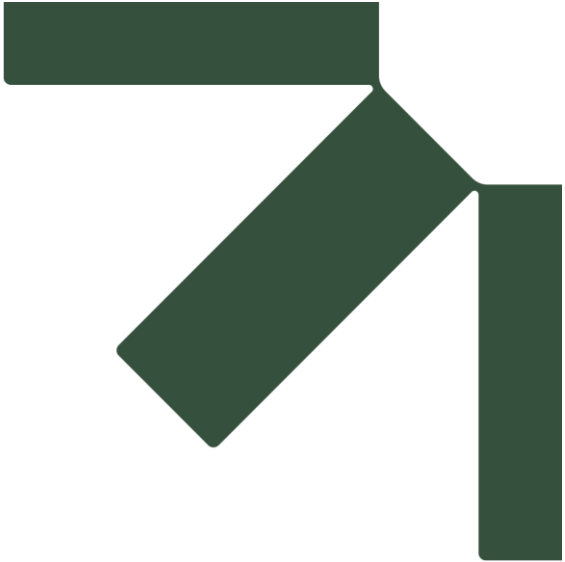
SLR Project No.: 630.032708.00001

13 March 2026

Appendix K – Section 60 CLM Act 1997 Search Results

404	CHISWICK	9 -17 Bibby Street, Chiswick	9 -17 Bibby STREET	Other Industry	Regulation under CLM Act not required	-33.85131849	151.1369131
405	CHITTAWAY BAY	Former Caltex Chittaway Point	100 Chittaway ROAD	Service Station	Regulation under CLM Act not required	-33.32707555	151.4293546
406	CHULLORA	Chullora Railway Workshops	Worth STREET	Other Industry	Regulation under CLM Act not required	-33.88639388	151.0598201
407	CLANDULLA	Brogans Creek Quarry	Brogans Creek ROAD	Other Industry	Contamination currently regulated under POEO Act	-32.9851278	149.9587005
408	CLARENCE	Clarence Colliery	Chifley ROAD	Other Industry	Regulation under CLM Act not required	-33.46450217	150.2522729





Appendix L NSW EPA PFAS Investigation Program

Preliminary Site Investigation

20 Dasea Street, Chullora NSW 2190

**Cleanaway Waste Management Ltd
c/- EME Advisory Pty Ltd**

SLR Project No.: 630.032708.00001

13 March 2026

Appendix L – NSW PFAS Investigation Program

The NSW Government PFAS Investigation Program

View a map of the sites in NSW that may be contaminated with PFAS, learn how to reduce your exposure to these chemicals, and read about our investigation of the issue.

The EPA is leading an investigation program to assess the legacy of PFAS use across NSW. With the assistance of the NSW PFAS Technical Advisory Group, which includes NSW Health, Department of Primary Industries and the Office of Environment and Heritage, we provide impacted residents with tailored, precautionary dietary advice to help them reduce any exposure to PFAS.

Current investigations are focused on sites where it is likely that large quantities of PFAS have been used. The EPA is currently investigating PFAS at these sites:

Search by Postcode

2190

Organisation

Select filter

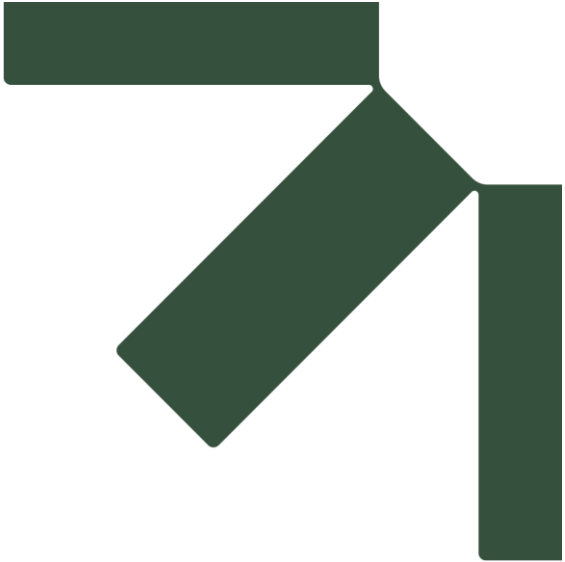
Search

Map view

List view

There are no results matching your query.





Appendix M Loose Fill Asbestos Register

Preliminary Site Investigation

20 Dasea Street, Chullora NSW 2190

**Cleanaway Waste Management Ltd
c/- EME Advisory Pty Ltd**

SLR Project No.: 630.032708.00001

13 March 2026

Appendix M – NSW Fair Trading Loose Fill Asbestos Register

Search the register

Search by address

Start typing and select an option

20 Dasea St, Chullora NSW 2190, Australia



No match found

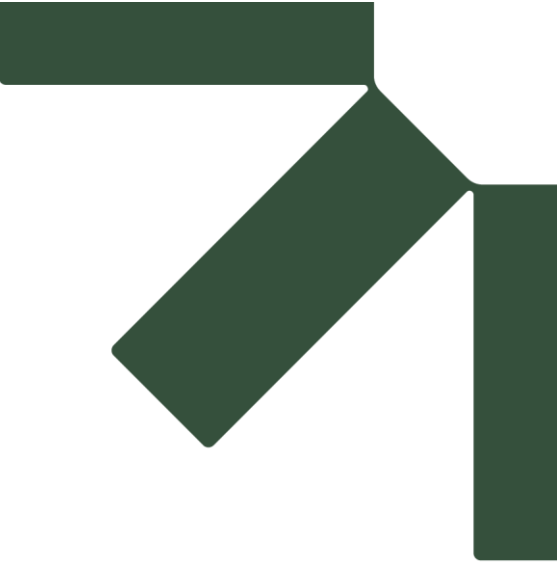
A search match was not found in the Loose-fill Asbestos Insulation Register.

This information is correct at the time of the search.

Address searched

20 Dasea St, Chullora NSW 2190, Australia





Appendix N Photographic Log

Preliminary Site Investigation

20 Dasea Street, Chullora NSW 2190

**Cleanaway Waste Management Ltd
c/- EME Advisory Pty Ltd**

SLR Project No.: 630.032708.00001

13 March 2026

Appendix N – Photographic Record

Photo 1: Carparking near Site access, facing south (29/10/2025) 	Photo 2: 67 kL diesel AST, Ad Blue IBC and waste in Ferry Carrig lease area, facing east (29/10/2025) 	Photo 3: Fuel dispensary area and spill management collection grate in Ferry Carrig lease area (29/10/2025) 
Photo 4: Equipment storage in Ferry Carrig lease area (29/10/2025) 	Photo 5: Waste and fill storage in Ferry Carrig lease area , facing northeast (29/10/2025) 	Photo 6: Fill storage in Ferry Carrig lease area, facing northeast (29/10/2025) 



Photo 7: Internal access to PN container storage in the centre of the Site, facing northeast (29/10/2025)	Photo 8: Internal access to PN container storage in the centre of the Site, facing southwest (29/10/2025)	Photo 9: Railway line on-Site, facing west(29/10/2025)
		
Photo 10: Stockpiled waste bitumen hardstand located within central portion of PN container storage, facing north (29/10/2025)	Photo 11: Stockpiled timber railway ballast and ballast rock located within central portion of PN container storage (29/10/2025)	Photo 12: Stockpiled concrete railway ballast and waste drums (29/10/2025)
		



Photo 13: Stockpiled ballast gravel partially obstruction
stormwater pit (29/10/2025)



Photo 14: Sediment control near stormwater pit (29/10/2025)



Photo 15: Skip bin and excavator in Ferry Carrig lease area
(29/10/2025)



Photo 16: Engine bays in Ferry Carrig lease area, facing west
(29/10/2025)



Photo 17: Hydrocarbon sheen on unsealed ground surface east of
engine bays in Ferry Carrig lease area (29/10/2025)

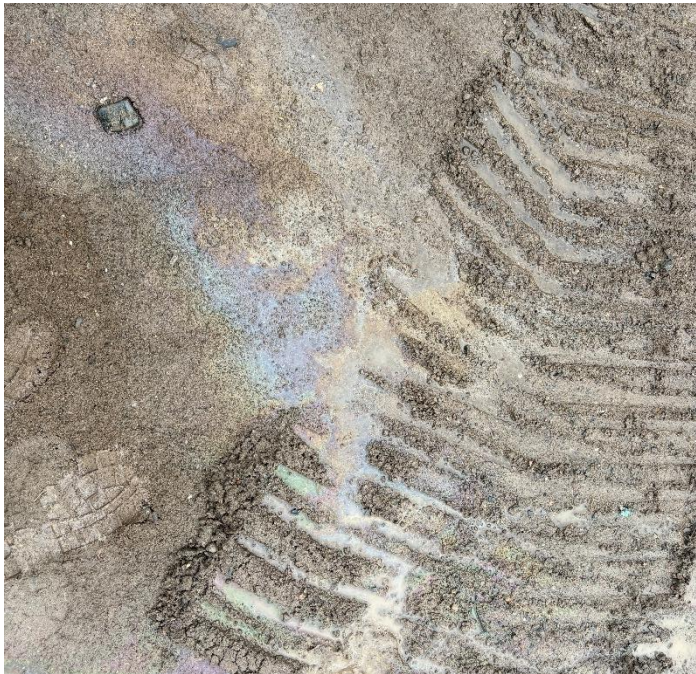
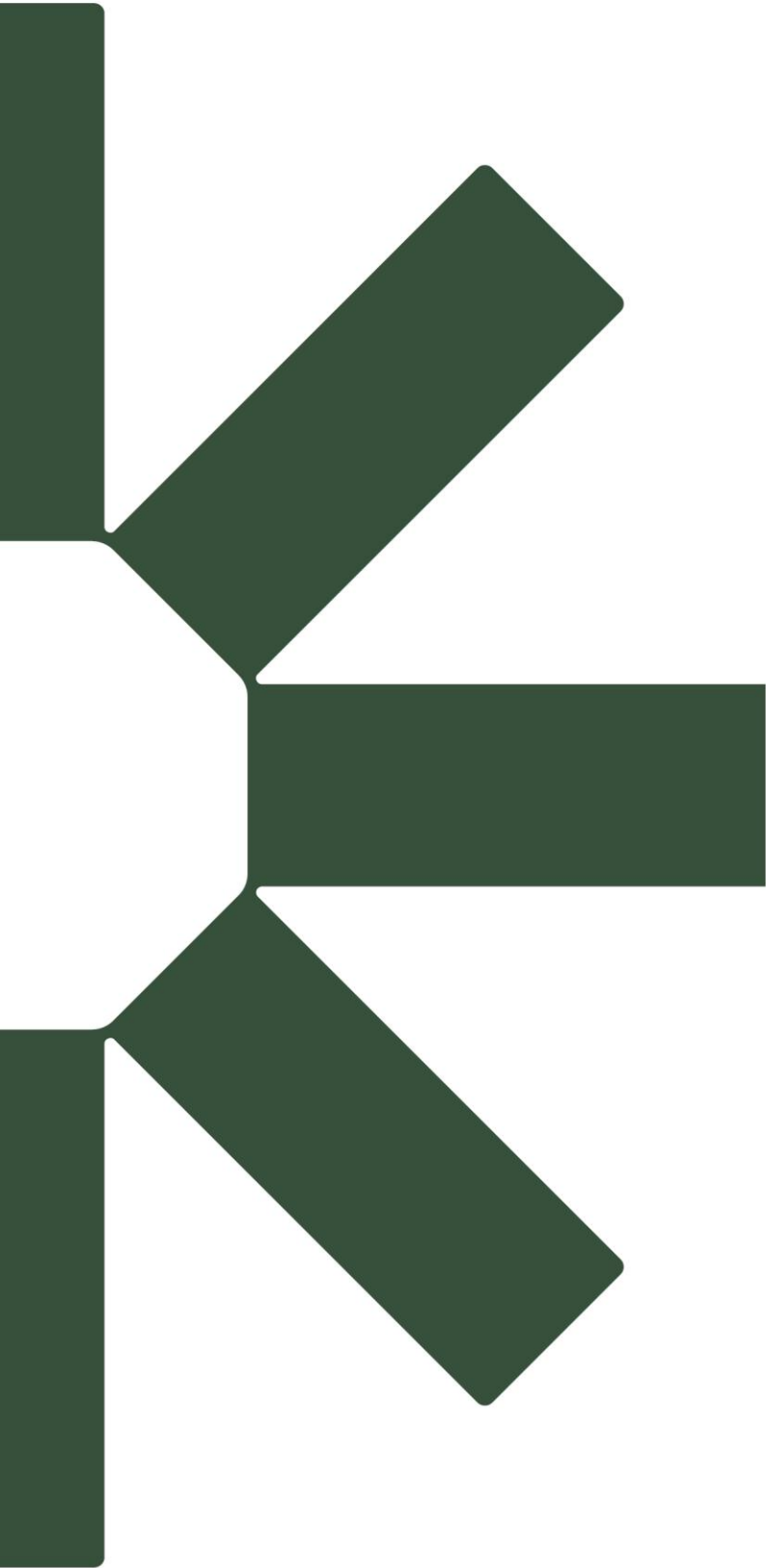


Photo 18: Stockpiled waste batteries located south of engine
bays in Ferry Carrig lease area (29/10/2025)



Photo 19: Engine bay (29/10/2025) 	Photo 20: Fill, visible to the ground surface (29/10/2025) 	Photo 21: Mechanical lubricant stored in unsealed buckets on concrete hardstand in engine bays (29/10/2025) 
Photo 22: Storage in engine bays (29/10/2025) 	Photo 23: Asbestos-containing building located at the western Site boundary, within the Linfox lease area (29/10/2025) 	Photo 24: View overlooking OSD, taken from the Linfox lease area looking southwest (29/10/2025) 





Appendix H – BDAR Waiver



Habitat

Innovation & Management

Cleanaway Chullora Waste to Rail Transfer Station - BDAR Waiver Application

20 Dasea Street, Chullora, NSW 2190

Prepared for: Arup

June 2026

Document Tracking

Project Number	2026-32		
Project Name	Cleanaway Chullora Waste to Rail Transfer Station - BDAR Waiver Application		
Project Address	20 Dasea Street, Chullora, NSW 2190		
Prepared for	Arup		
Author	James Taylor, Joel Little		
Review	Technical	QA	Approval / Review
	Joel Little	Carl Tippler	Charlie Sammoun (Arup)
Version	FINAL V2	11 June 2026	

This report should be cited as Habitat Innovation and Management (2026) Cleanaway Chullora Waste to Rail Transfer Station – BDAR Waiver Application. Prepared for Arup. June 2026

Disclaimer

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Background

Cleanaway is proposing to develop a waste to rail transfer station at Lot 35 // DP 1007367, 20 Dasea Street, Chullora, NSW 2190. Due to the scale of the proposed development, it is considered a State Significant Development (SSD) under the *NSW Environmental Planning and Assessment Act 1979*.

As a result of the project being considered an SSD, section 7.9(2) of the *NSW Biodiversity Conservation Act 2016* (BC Act) states that:

"Any such application is to be accompanied by a Biodiversity Development Assessment Report (BDAR) unless the Planning Agency Head and the Environment Agency Head determine that the proposed development is not likely to have any significant impact on biodiversity values."

A proposed development could be considered as unlikely to have any significant impact on biodiversity values and not require a BDAR if it (O&H 2026):

- Will not clear or remove native vegetation, other than a few single-standing trees with no native understorey in an urban area.
- Will not clear or remove native vegetation, other than planted native vegetation that is not consistent with a plant community type known to occur in the same Interim Biogeographic Regionalisation of Australia (IBRA) subregion, such as street trees, trees in a car park, or landscaping.
- Will have negligible adverse impact on threatened species and ecological communities, considering habitat suitability, abundance, habitat connectivity, movement of species, water sustainability, and non-natural features such as non-native vegetation and human-built structures.
- Will have negligible adverse impact on protected animals because of impacts on flight path integrity.

Habitat Innovation and Management was commissioned to undertake a targeted assessment within the proposed development footprint to determine the floristic composition, vegetation structure, and whether the proposed development is likely to have a significant impact on biodiversity values.

This report follows the BDAR waiver framework published by NSW Department of Planning, Industry and Environment (2019) and provides results of the desktop and field assessment at 20 Dasea Street, Chullora.

This assessment provides a definitive statement regarding the ecological status of the vegetation and whether Biodiversity Development Assessment Report (BDAR) is required or a waiver can be granted.

Administrative

Requirement	Details
Proponent Name	Cleanaway
Contact Details	Henry Gundry Senior Project Manager Henry.Gundry@cleanaway.com.au
Project/SSD ID	PDA-118799488
Name and qualifications	James Taylor, Ecologist/Botanist, BSc (Environment), GradCertSc (Biodiversity) Joel Little, Senior Ecologist, BEnvSci (Mgmt), Cert.IV Project Mgmt, CEnvP #1493 Carl Tippler, Director/Principal Ecologist, BSc (Environment), CEnvP #1734, Accounting for Nature Accredited Expert

Site Details

The proposed development is located within the Sydney Freight Terminal (SFT), which is operated and owned by Pacific National at Lot 35 // DP 1007367, 20 Dasea Street, Chullora, situated in the northeast of Chullora, within the northern sector of the Bankstown Local Government Area (Figure 1). The site is zoned E4 General Industrial under the Canterbury-Bankstown Local Environmental Plan.

The proposed development footprint covers 3.35 ha (Figure 2) and is within land excluded from *the NSW Local Land Services Act 2013* so prescribed impacts under section 6.1 of the NSW Biodiversity Conservation (BC) Regulation 2017 are to be considered.

The site is comprised of an industrial allotment and is categorised by a disturbed landscape associated with historical and current urban and industrial use. The landform is generally flat with an elevation ranging from approximately 34 m to 44 m above sea level, a median slope of 0.5° and a maximum slope of 4.3°. The site slopes generally from west to east with onsite stormwater draining to the urban stormwater network, which then discharges to the nearby Cooks River.

The site is predominantly cleared and under active use by current businesses. The site has/is being used for the storage of trucks, cars and other equipment with multiple structures in the centre and western portions of the site.

Vegetation on the site is limited to planted garden beds on the outer edge of storage yards and the site perimeter, as well as vegetation that has established in drainage depressions in the centre of the site and along the rail corridor edge. Most of the vegetation on the site is exotic with only limited planted native trees and shrubs. Some native trees and shrubs are local species that have grown in areas outside the disturbance footprint. In the southeastern boundary of the site a shallow drainage depression is located between the batter and railway line, with limited native wetland species.

The broader landscape is characterised by a predominantly commercial and industrial zoning to the west and south, with a rail corridor to the north and south. Rookwood Road and Weeroona Road are the main arterial roads to the west and north. The wider landscape includes the suburbs of Potts Hill (west) and Regents Park (northwest) with residential developments, parklands and golf clubs.

Significant environmental features include the Cooks River and Yana Badu Wetlands to the south and vegetation in the northern and southern sections.

Proposed Development

The proposed Chullora Waste Transfer Station (WTS) comprises a two-level, fully enclosed facility designed to receive, sort, compact and transfer waste for export by road or rail. The full physical footprint would be constructed during Phase 1, with staging relating to the operational mode and throughput rather than the built form.

The upper level will include a 6,600 m² enclosed transfer shed and 300 m² office, with waste bunkers providing more than 4,650 m³ of stockpiling capacity. Waste would be received, sorted for recoverable materials and stockpiled prior to compaction. The facility would operate under negative air pressure, with fast-acting roller doors and an odour management system to control emissions.

The lower level will house compactors to load waste into intermodal containers for export. A container hardstand and rail interface would support loading of containers onto rail wagons via the Southern Sydney Freight Line, using container handlers and potentially an overhead gantry system. Supporting infrastructure will include weighbridges, fire protection systems, leachate treatment, stormwater controls, traffic management systems, fuel storage and fire-rated walls facing the Sydney Freight Terminal.

The proposal would operate in two phases. Phase 1 would involve waste-to-road operations from around 2028 to 2030, handling approximately 150,000 tonnes per annum. Phase 2 would commence around 2030/31 and involve full waste-to-rail operations, handling up to approximately 800,000 tonnes per annum, with residual waste exported by rail using up to two train services per day, seven days per week. Phase 1 throughput is included within the Phase 2 total.

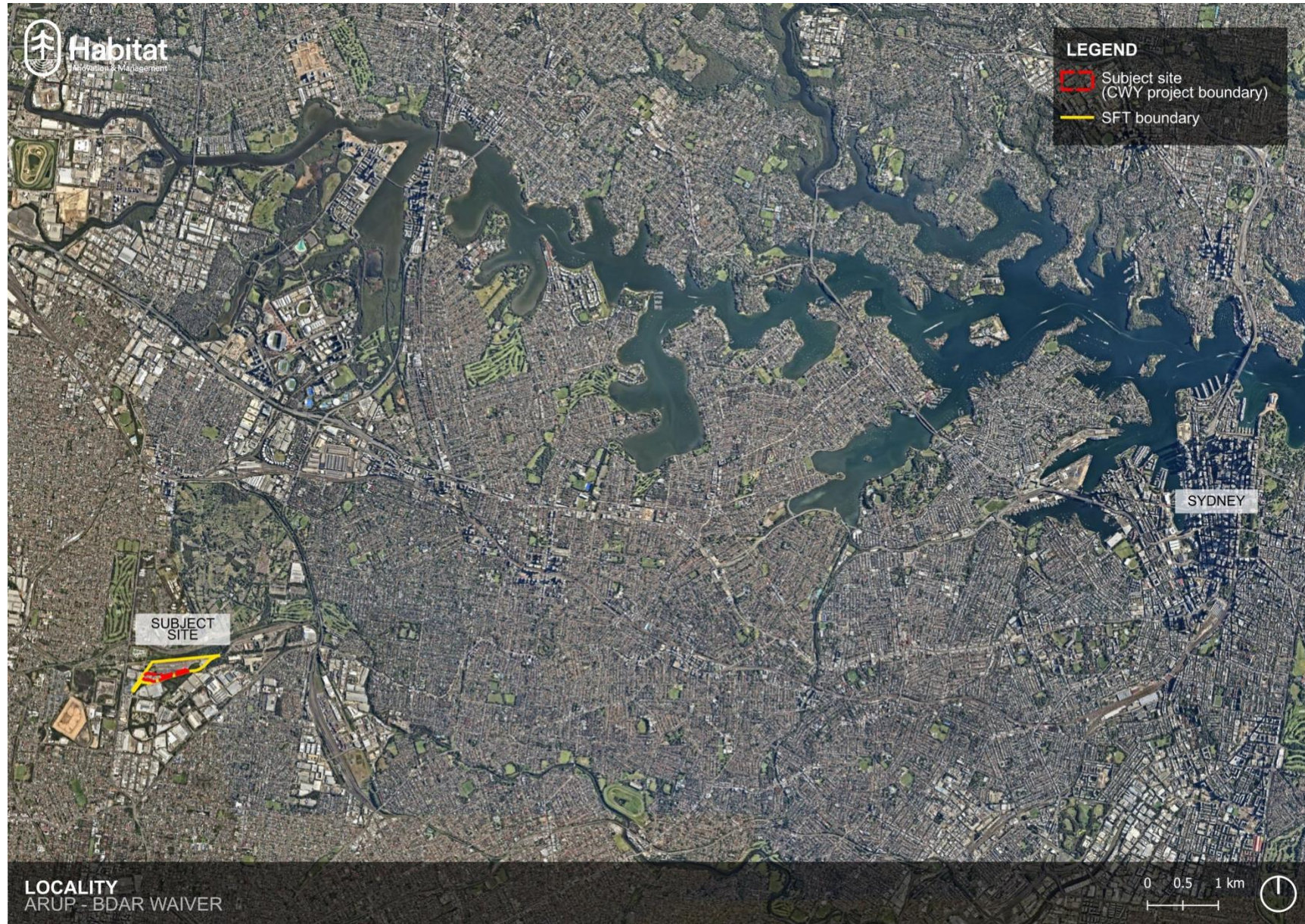


Figure 1. Locality map for 20 Dasea Street, Chullora, NSW 2190.



Figure 2. Subject site (project boundary) and SFT boundary.

Impact Assessment

Method

A desktop review was undertaken prior to field surveys to determine Areas of High Biodiversity Value and mapped Plant Community Types (PCT) and their associated Threatened Ecological Communities' (TEC) conservation status.

This review included access to the following resources:

- The Biodiversity Values Map and Threshold Tool, (NSW Department of Customer Service 2020)
- State Vegetation Type Mapping, NSW Extant PCT (2024 DCCEEW)
- BioNet Vegetation Classification, (NSW Office of Environment and Heritage accessed February 2026)
- SIX Maps (Spatial Information Exchange) spatial services, (NSW Government, February 2026)
- Historic Aerial Imagery (NSW Government, Department of Customer Service, 2006).

A field survey was undertaken on 28 April 2026 by James Taylor, Habitat Innovation and Management Ecologist and Botanist. A vegetation survey was conducted in accordance with the BioNet Vegetation Survey Module: Vegetation Plot Protocol (OEH, 2017).

One vegetation plot was established within the subject site. The plot was assessed for floristic composition, groundcover structure, total native cover, and dominant species presence. Assessment methods were in accordance with the NSW Biodiversity Assessment Method (BAM) (DPIE, 2020). Native versus exotic cover percentages were calculated using the point-intercept method, and all native taxa were cross-referenced with the NSW Plant Community Type (PCT) database for regional vegetation classification. Vegetation condition and structure were also evaluated against NSW Vegetation Classification and Assessment (VCA) and BC Act definitions and mapped PCT was validated.

The subject site was also traversed through a meander survey, and a flora species list, as well as habitat features such as the presence of hollow bearing trees, roosting trees, fence posts, fallen timber, and foraging trees and shrubs were recorded.

In addition to flora survey of the potential wetland areas, the substrate profile across five locations was observed to a depth of up to 200 mm to determine the likelihood of the area being a natural wetland or artificial waterbody.

Results

Desktop Assessment

The NSW Biodiversity Values Mapping (NSW Department of Customer Service 2020) shows that two areas within the boundary of Lot 35 // DP 1007367, 20 Dasea Street is considered to contain Biodiversity Values (BV) as per the definition under Part 7 of the *NSW Biodiversity Conservation Regulation 2017*.

The mapped BV on the northern boundary is mapped as “*Threatened species or communities with potential for serious and irreversible impacts*”, while the BV mapped along the southern boundary is mapped as Coastal Management Act – Wetlands.

A review of the current NSW State Vegetation Type Mapping (SVTM) (DCCEEW) shows the following Plant Community Type (PCT) is mapped along the northern and southern boundaries of the subject site (**Error! Reference source not found.**):

- PCT 3448 – Castlereagh Ironbark Forest
- PCT 3972 – Sydney Creekflat Wetland

A threatened ecological community may be listed as vulnerable, endangered, or critically endangered under the *NSW Biodiversity Conservation Act 2016* (BC Act) or the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). Threatened Ecological Communities (TECs) associated with PCTs mapped within the subject site are listed below:

- Cooks River/Castlereagh Ironbark Forest in the Sydney Basin Bioregion (TEC Profile ID 10174) which occurs within PCT 3448: BC Act - Endangered Ecological Community
- Shale Gravel Transition Forest in the Sydney Basin Bioregion (TEC Profile ID 10754) which occurs in PCT 3448 EEC State: BC Act - Endangered Ecological Community
- Cooks River/Castlereagh Ironbark Forest of the Sydney Basin Bioregion (TEC Profile ID 20386) which occurs in PCT 3448: EPBC Act listing – Critically Endangered
- Cumberland Plain Shale Woodlands and Shale-Gravel Transition Forest (TEC Profile ID 20403) which occurs in PCT 3448: EPBC Act listing – Critically Endangered
- Sydney Freshwater Wetlands in the Sydney Basin Bioregion (TEC Profile ID 10788) which occurs in PCT 3972: BC Act - Endangered Ecological Community

A review of historic aerial imagery was conducted to compare the site conditions over time to the current site conditions. The 1950 aerial imagery included environmental features, such as the northern and southern rail lines that could be readily georeferenced with the present site. This image was then overlaid with the known sensitive environments of the Cooks River and Yana Badu Wetlands to the south of the site (Figure 4). No vegetation is present in the area currently mapped as PCT 3448, and the PCT 3972 wetland in the southwestern corner is already modified and does not extend into the site as mapped (Figure 4).

The Cooks River follows roughly the same path through lot 35 as at present but does not intersect the proposed development footprint. Yana Badu Wetlands appears to be largely a constructed wetland in the general vicinity of the historic Cooks River flow path.

This indicates that the mapped biodiversity values of PCT 3448 – Castlereagh Ironbark Forest, and PCT 3972 – Sydney Creekflat Wetland, are not remnant communities and have either established since the 1950 aerial was taken, are artificial (planted) or are not accurately mapped. This will be validated through the field assessment.

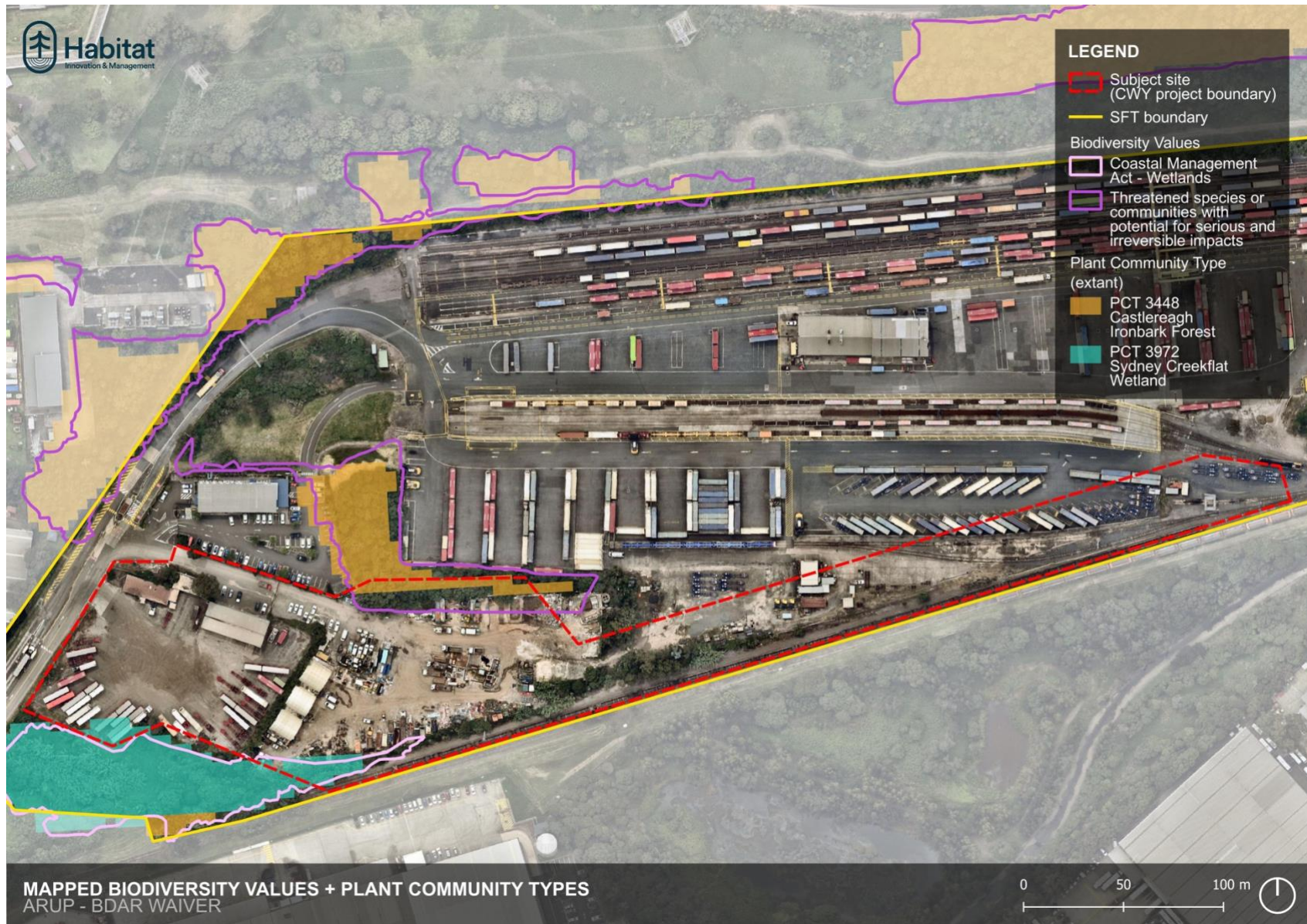


Figure 3. Mapped PCTs and BV within the subject site.

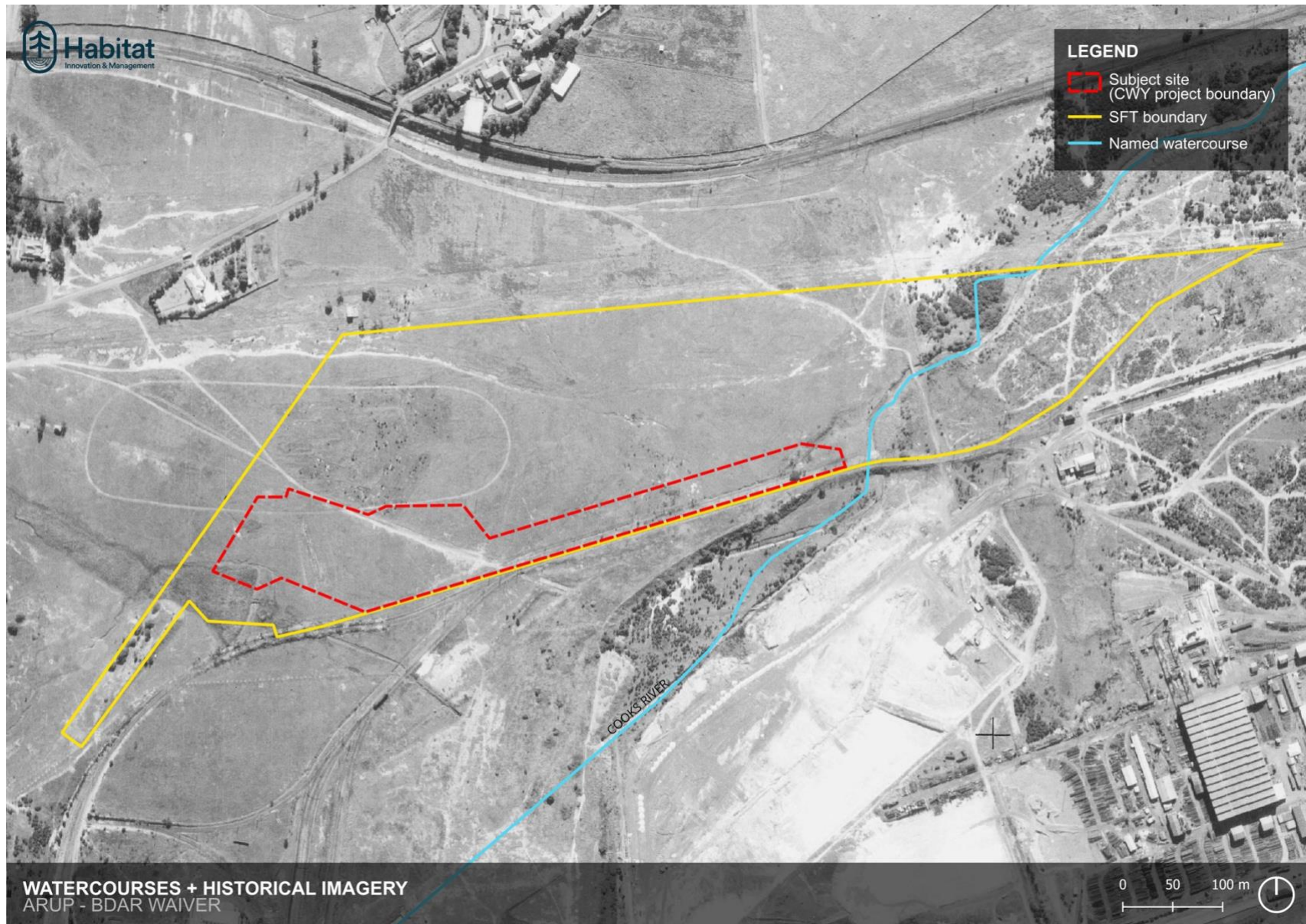


Figure 4. Historical imagery overlaid with the proposed development footprint and watercourses.

Field Assessment

The floristic survey was used to determine the likelihood of the vegetation on site meeting the criteria to be classified as a native PCT, to have biodiversity values or to be considered fauna habitat. See Appendix 1 for results of the floristic survey.

The outcomes of the surveys and assessment are detailed below and displayed in Figure 13.

Northern Boundary Vegetation and Mapped PCT 3448

Field assessment to validate PCT 3448 determined that this patch of vegetation contained some native species including *Melaleuca quinquenervia*, *Cassinia sifton*, a mix of *Acacia* species, *Dianella caerulea*, *Lomandra longifolia*. The *Eucalyptus* species that were found in this patch of vegetation are *Eucalyptus botryoides* which are not typically characteristic of PCT 3448, and most of this vegetation patch was dominated by *Lantana* (*Lantana camara*) (Figure 5).



Figure 5. Patch of mapped PCT 3448 dominated by Lantana.

Based on the field assessment, this vegetation does not conform to PCT 3448 in floristic composition, structure, or condition. It is therefore unlikely to constitute a native plant community consistent with PCT 3448 or any associated threatened ecological community.

Additional Native Vegetation Patch on Northern Boundary

A patch of native vegetation (Figure 6) was identified on the northern boundary, southeast of the mapped PCT 3448 area. This patch is located within the subject site boundary but is not mapped as a PCT. Native species recorded in this area included *Callistemon viminalis*, *Lomandra longifolia*, *Bursaria spinosa*, *Glycine tabacina*, and *Acacia longifolia*.

One eucalypt, possibly Scribbly Gum (*Eucalyptus haemastoma*), was also recorded within the subject site boundary. While *Eucalyptus haemastoma* is not a common species of PCT 3448, it is known to occur within that PCT. However, the broader vegetation composition and condition do not support classification of this area as PCT 3448.



Figure 6. Additional native vegetation patch on northern boundary.

Native Tree and Threatened Flora

Scattered native trees occur within the subject site, including eucalypts and other native species. These trees are isolated or occur in small, fragmented patches within a highly modified industrial landscape. They are not associated with a native understorey, do not form part of a coherent remnant vegetation patch, and do not support the structural or floristic attributes required to assign the vegetation to PCT 3448 or any other native PCT.

The stand of eucalypts shown in Figure 7 includes species that are not characteristic of the mapped PCT 3448 community in this location, including *Corymbia citriodora*, *Eucalyptus punctata*, *Eucalyptus pulverulenta* and *Eucalyptus nicholii*. The understorey is dominated by exotic and invasive species, particularly *Arundo donax*,

and the area lacks the native groundcover, shrub diversity and natural regeneration expected of a remnant native vegetation community.

One *Eucalyptus nicholii* was recorded within the subject site. *Eucalyptus nicholii* is listed as vulnerable; however, the species is outside its natural distribution in the Sydney Basin and is considered to occur on site as a planted or cultivated landscape specimen within a highly modified industrial setting. The individual does not represent a naturally occurring population of the species and does not indicate the presence of habitat critical to the survival of the species. Its occurrence does not alter the assessment that the proposed development is unlikely to significantly impact threatened flora or biodiversity values.

No hollow-bearing trees, nests, significant fissures, decorticated bark habitat, large woody debris, natural rock habitat or other important fauna habitat features were recorded within the proposed development footprint. The scattered native trees and shrubs provide limited opportunistic foraging or shelter habitat only and are not considered likely to support threatened species breeding, roosting or refuge habitat.



Figure 7. Stand of eucalypts in the northern section of the development site.

Mapped Wetland Area and PCT 3972

Onsite PCT validation of the mapped wetland area was conducted via the floristic survey plot. This determined that PCT 3972 was not present and the area of mapped PCT was a batter and drainage ditch dominated by exotic weeds including *Arundo donax*, *Ageratina Adenophora* (Crofton Weed) and *Cenchrus clandestinus* (Kikuyu) and did not contain vegetation consistent with PCT 3972.

One small patch of wetland vegetation containing two native species was recorded further east of the mapped wetland area and mapped PCT 3972. This patch contained *Typha orientalis* and *Schoenoplectus tabernaemontani* (Figure 9) however it was very small in extent measuring approximately 2x7 m² or 14 m².

This small area of wetland vegetation is not considered sufficient in extent, condition, or floristic composition to constitute a native wetland PCT or an endangered ecological community. The broader mapped PCT 3972 area within the subject site does not support the mapped PCT and is instead dominated by exotic weeds.

Analysis of the floristic composition of vegetation recorded within the vegetation survey plot is best described as highly modified urban and industrial land with minimal native species representation and no remnant structural layers.

The small patch of *Typha orientalis* and *Schoenoplectus tabernaemontani* recorded east of the mapped PCT 3972 area is approximately 14 m² in extent and occurs within a modified drainage depression adjoining the rail corridor. The patch is isolated, very small, and occurs in association with disturbed substrates and exotic-dominated vegetation. It does not contain sufficient native species richness, structural complexity, hydrological integrity or landscape context to constitute PCT 3972 Sydney Creekflat Wetland or Sydney Freshwater Wetlands in the Sydney Basin Bioregion.

The broader mapped PCT 3972 area within the subject site was not confirmed by field assessment. The mapped area is dominated by exotic species including *Arundo donax*, *Ageratina adenophora* and *Cenchrus clandestinus* and occurs on a modified batter and drainage ditch associated with rail and industrial infrastructure. Substrate inspection also indicated compacted clays, fill, road base and/or railway ballast rather than natural wetland soils.

On this basis, the mapped wetland vegetation within the subject site is not considered to represent a natural wetland PCT or an endangered ecological community. Any impact to this area would be limited to highly modified drainage-line vegetation with negligible biodiversity value and would not result in a significant impact on wetland biodiversity values.



Figure 8. Mapped PCT 3972 which is dominated by the exotic *Arundo donax*.



Figure 9. Small patch of *Typha orientalis* and *Schoenoplectus tabernaemontani*.

This was determined by the following:

- Native grass cover was recorded at 5%.
- The only native grass species recorded within the plot was *Cynodon dactylon* (Native Couch).
- Exotic species such as *Arundo donax* (Giant Reed), *Cenchrus clandestinus* (Kikuyu), *Ageratina adenophora* (Crofton Weed), *Ligustrum lucidum* (Large-leaved Privet) and *Olea europaea subsp. cuspidata* (African Olive) collectively comprised 65% of total cover.
- No native forbs or regenerating trees were recorded.
- Native shrub cover was minimal, recorded at 1.5%.

In addition to flora survey of the wetland areas, the substrate profile across five locations was observed to a depth of up to 200 mm. This was completed via digging down to the required depth and exposing the subsurface soil profile.

Observations show that across the mapped wetland area the substrate is dominated by highly compact clays, likely originating from fill and road base/railway ballast. This profile does not align with the silts, muds or humic loams typical of EEC - Freshwater wetlands on coastal floodplains of the NSW North Coast, Sydney Basin and Southeast Corner Bioregions.



Figure 10. Surface soil sample profiles. Left to right sample 1-5.

The field assessment to validate the patch of PCT 3972 that encroaches on the southwestern boundary within the Linfox yard determined that PCT 3972 was not present in this location. The mapped PCT 3972 was ground-truthed where a clearing for truck storage (Figure 11) and dense exotic weeds including *Ipomoea cairica* (Coastal Morning Glory), *Rubus fruticosus* (Blackberry), *Olea europaea subsp. cuspidata* (African Olive) and *Anredera cordifolia* (Madeira Vine) (Figure 12) were observed along and outside of the boundary.



Figure 11. View of the Linfox yard showing an exotic vegetation patch including African Olive.



Figure 12. Dense exotic weeds next to the Linfox truck yard.



Figure 13. Mapped native vegetation and survey plot locations.

Impacts on Biodiversity Values

The following application for a BDAR waiver applies the results of the desktop review and field assessment to the framework outlines in Table 1 – Impacts of the proposed development on biodiversity values (NSW and Department of Planning, Industry and Environment 2019).

Table 1: Biodiversity Development Assessment Report Waiver request information requirements

Biodiversity Value	Meaning	Impacts (including additional impacts prescribed under the Biodiversity Conservation Regulation) and Impact Avoidance
Vegetation abundance – 1.4(b) <i>Biodiversity Conservation Regulation 2017</i>	Occurrence and extent or coverage of vegetation at a particular site	The development footprint is located within a highly modified urban and industrial landscape and this land use has resulted in a history of clearing, invasion of exotic weeds, and planting of vegetation that is not native to the area. Some native ground and mid stratum species have regenerated within the northern boundaries of the subject site however, <i>the broader vegetation composition and condition do not support classification of this area as PCT.</i> Vegetation assessment of the mapped wetland area showed that native species representation was very limited, and the area was dominated by exotic species. The small native wetland patch recorded nearby was approximately 14 m² and was not sufficient in extent, condition or floristic composition to constitute PCT 3972 or a wetland endangered ecological community. In addition, field validation showed that there are no native plant community types within the proposed development footprint and therefore no areas contain habitat features such as hollow bearing trees, fallen timber, native understorey or riparian vegetation. Because of this, the likelihood of biodiversity impacts in terms of vegetation abundance is considered negligible.
Vegetation integrity - 1.5(2)(a) <i>NSW Biodiversity Conservation Act 2016</i>	Degree to which the composition, structure and function of vegetation at a particular site and the surrounding landscape has been altered from a near natural state	The development footprint occurs within a highly modified and historically cleared industrial landscape with pockets of fragmented vegetation containing a mix of exotic and native species. No intact PCTs are present, and canopy cover is limited to trees that are mostly not native to the area. Vegetation condition within the subject area is considered poor due to the high abundance of exotic species and evidence of ongoing industrial disturbance. The proposed development footprint is approximately 3.35 ha. Vegetation disturbance within this footprint is limited to highly modified exotic-dominated vegetation, planted or non-remnant native vegetation, and isolated native species that do not form part of a native PCT or threatened ecological community. There are no native plant communities within the development footprint, the proposed development will result in no loss of PCT or change the landscape scale vegetation connectivity.
Habitat suitability - 1.5(2)(b) <i>NSW Biodiversity</i>	Degree to which the habitat needs of threatened species are	One threatened species (<i>Eucalyptus nicholii</i> listed as vulnerable) was recorded within the subject site; however, this species is endemic to the New England Tablelands, and the greater Sydney area is outside of its natural distribution. This individual is a planted or cultivated landscape specimen outside the species' natural distribution and does not represent a naturally occurring threatened flora population. No naturally occurring threatened flora populations, threatened ecological

Conservation Act 2016	present at a particular site	communities, hollow-bearing trees, or important threatened species breeding, roosting or refuge habitat were recorded within the proposed development footprint No karst systems, caves, cliffs, rock escarpments, or geological formations of ecological significance occur within the proposed disturbance footprint. The development footprint does not contain rock outcrops, significant surface rock habitat, or rock piles. No threatened species habitat within exotic vegetation was recorded on site. The exotic trees that were found did not contain hollows. Therefore, the habitat suitability of vegetation across the site is considered poor and the likelihood of threatened species using the site is considered unlikely.
Threatened species abundance - 1.4(a) Biodiversity Conservation Regulation	Occurrence and abundance of threatened species or threatened ecological communities, or their habitat, at a particular site	The likelihood of increased vehicle strike impacts of threatened fauna is low as this proposal will not substantially increase traffic volume in the area. No evidence of threatened species or TECs was found on site. The likelihood of impacting threatened fauna while removing human made structures is low No threatened species habitat within non-native vegetation was observed within the development footprint. The removal of the non-native vegetation poses a low likelihood of impact on threatened species abundance. Sightings of <i>Litoria aurea</i> (Green and Gold Bell Frog) have been recorded within a 10 km radius of the development footprint with the closest sightings being recorded in the mid-1960, and the most recent sightings (2023) being located over 3 km away. Based on the desktop and field assessment the subject site does not appear to directly connect to hydrologically to the Yana Badu Wetlands No dams are present within the development footprint which could be used as foraging habitat for <i>Myotis Macropus</i> (southern Myotis). Given the absence of habitat features within the development footprint and presences of surrounding suitable foraging habitat outside of the development footprint, it is unlikely that this species will be affected by the proposed development. <i>Wahlenbergia multicaulis</i> (Tadgell's Bluebell) was not found within the subject site, however there is a record of this species occurring just outside of the SFT site from 2025. Considering the history and landuse of the subject site, it is unlikely that this species would occur within the subject site, however a targeted survey should be undertaken to exclude it from further assessment. The targeted survey needs to be conducted two months after 20 mm or more of a rainfall event and the local reference population at Rookwood cemetery is also flowering.
Habitat connectivity - 1.4(c) Biodiversity Conservation Regulation	Degree to which a particular site connects different areas of habitat of threatened species to facilitate the	The development footprint contains only small areas of fragmented vegetation and does not function as a habitat corridor for threatened fauna as it is not part of a continuous native vegetation linkage and does not connect areas of remnant habitat. The development footprint makes a negligible contribution to habitat connectivity at a local and landscape level.

	movement of those species across their range	
Threatened species movement - 1.4(d) Biodiversity Conservation Regulation	Degree to which a particular site contributes to the movement of threatened species to maintain their lifecycle	As the development footprint occurs in a highly modified industrial landscape and was previously cleared of vegetation, there are only small pockets of fragmented vegetation, that has been modified and degraded and does not conform to a PCT. The proposed development will not create new barriers between remnant vegetation patches, interrupt an established fauna corridor or isolate habitat areas, which will not result in fragmentation that would disrupt lifecycles of threatened species.
Flight path integrity - 1.4(e) Biodiversity Conservation Regulation 1.4(d) Biodiversity Conservation Regulation	Degree to which the flight paths of protected animals over a particular site are free from interference	The site on which the development is proposed lacks native vegetation or suitable habitat for migratory species and therefore the likelihood that the site is used as habitat is considered low. In addition, the proposed development will not disrupt flight paths of migratory species as structures have a maximum height of approximately 20 m which is not considered high enough to cause impediment to threatened species such as Flying Foxes and migratory birds included on the various migratory bird conventions. Therefore, the proposed development will not interfere with the flight path of protected animals.
Water sustainability 1.4(f) Biodiversity Conservation Regulation	Degree to which water quality, water bodies and hydrological processes sustain threatened species and threatened ecological communities at a particular site	No threatened aquatic or terrestrial species or ecological communities have been recorded on site. Therefore, the proposed development will not impact water quality, water bodies and hydrological processes sustain threatened species and threatened ecological communities. The proposed development may modify and formalise onsite stormwater flows that discharge to the existing stormwater network. This is likely to result in less discharge of sediment and other pollutants. As a result, no impact to water quality, water bodies and hydrological processes that sustain threatened species and threatened ecological communities will occur due to the proposed development.

Conclusion

The desktop review and field assessment determined that the vegetation and aquatic features within the proposed development footprint at the Chullora Waste Transfer Station do not meet the criteria to be classified as native Plant Community Types or threatened ecological communities.

Field assessment confirmed that the area mapped as PCT 3972 Sydney Creekflat Wetland within the subject site does not conform to PCT 3972. The mapped area occurs within a modified drainage/batter environment associated with rail and industrial infrastructure and is dominated by exotic weed species, rather than the native wetland species assemblage characteristic of Sydney Creekflat Wetland.

The only native wetland vegetation recorded was a small, isolated patch of *Typha orientalis* and *Schoenoplectus tabernaemontani*, approximately 14 m² in extent, located east of the mapped wetland area. Due to its very small extent, isolation, degraded condition, limited floristic diversity and modified hydrological context, this patch is not considered sufficient to constitute a wetland PCT or an endangered ecological community.

The area mapped as PCT 3448 Castlereagh Ironbark Forest contains some native species but is highly degraded, fragmented and dominated by exotic vegetation, particularly *Lantana camara*. The vegetation does not conform to the floristic composition, structure or condition of PCT 3448 and does not constitute Cooks River/Castlereagh Ironbark Forest, Shale Gravel Transition Forest, Cumberland Plain Shale Woodlands and Shale-Gravel Transition Forest, or any other associated threatened ecological community.

Other native vegetation patches within the subject site are also highly modified and occur as planted, isolated or non-remnant vegetation within an industrial landscape. These areas do not support a native understorey, natural regeneration, intact vegetation structure or diagnostic species assemblage consistent with a native PCT. The presence of scattered native trees and shrubs does not alter the conclusion that no native vegetation community or threatened ecological community occurs within the proposed development footprint.

One *Eucalyptus nicholii* was recorded within the subject site. This individual is a planted or cultivated landscape specimen outside the species' natural distribution and does not represent a naturally occurring threatened flora population. No other threatened flora species, threatened ecological communities, hollow-bearing trees, important fauna habitat features, or threatened species breeding, roosting or refuge habitat were recorded within the proposed development footprint.

The habitat present within the proposed development footprint is of low ecological value and occurs within a highly disturbed industrial landscape. Although threatened species and biodiversity values occur in the broader locality, particularly in association with the nearby Yana Badu Wetlands and Cooks River corridor, the proposed development footprint does not support habitat likely to be important for threatened species or ecological communities.

Based on the desktop review, field validation and impact assessment, the proposed development is unlikely to have a significant impact on biodiversity values. The proposed development will not remove a confirmed native PCT, will not remove a threatened ecological community, will not significantly affect threatened species habitat, and will not result in a material reduction in biodiversity connectivity, habitat integrity or ecological function.

Accordingly, the proposed development satisfies the basis for a BDAR waiver under section 7.9(2) of the Biodiversity Conservation Act 2016, as it is not likely to have any significant impact on biodiversity values. On this basis, the preparation of a Biodiversity Development Assessment Report is not required, and a BDAR waiver is requested.

Kind regards



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References

Department of Climate Change, Energy, the Environment and Water (2025). *State Vegetation Type Mapping – NSW Extant PCT*. Accessed February 2026).

<https://geo.seed.nsw.gov.au/vertigisstudio/web/?app=cabd04d595ec43c1aaf4298e80e83ec2>

Department of Customer Service (2020). *The Biodiversity Values Map and Threshold Tool*. Accessed February 2026. <https://www.lmbc.nsw.gov.au/Maps/index.html?viewer=BOSETMap>

Department of Planning, Industry & Environment (2019). *How to apply for a biodiversity development assessment report waiver for a Major Project Application*.

<https://www.environment.nsw.gov.au/sites/default/files/apply-biodiversity-development-assessment-report-waiver-190593.pdf>

Department of Planning, Industry & Environment (2020). *Biodiversity Assessment Method 2020*.

<https://www.environment.nsw.gov.au/sites/default/files/biodiversity-assessment-method-2020-200438.pdf>

Department of Customer Service (2026). *Historical Imagery*. Accessed 11 May 2026.

<https://portal.spatial.nsw.gov.au/portal/apps/webappviewer/index.html?id=f7c215b873864d44bccdda8075238cb>

Land & Property Information (2026), SIX Maps (Spatial Information Exchange) spatial services (NSW Government, February 2026. <https://maps.six.nsw.gov.au/apps/3.5/>

Office of Environment and Heritage (2026). *BioNet Vegetation Classification*. Accessed February 2026)

https://atlas.bionet.nsw.gov.au/UI_Modules/ATLAS /AtlasSearch.aspx

Appendix 1 – Floristic Survey Results

Wetland Survey BAM Plot Results

Plot 1	Development Footprint, Mapped PCT 3972					Structure		Composition	
GF Code	Common Name	Scientific Name	N, HTW or Non-HTW	Foliage Cover	Abundance		SumValue		SumValue
FG	Giant Reed	<i>Arundo donax</i>	HTW	30	700	Trees (TG)		Trees (TG)	
SG	Lantana	<i>Lantana camara</i>	HTW	1	10	Shrubs (SG)	2	Shrubs (SG)	1.5
SG	African Olive	<i>Olea europaea subsp. cuspidata</i>	Non-HTW	5	12	Grasses (GG)	1	Grasses (GG)	5
FG	Jelly Leaf	<i>Sida rhombifolia</i>	Non-HTW	1	30	Forbs (FG)		Forbs (FG)	
FG	Twiggy Turnip	<i>Brassica fruticulosa</i>	Non-HTW	1	20	Ferns (EG)		Ferns (EG)	
FG	Mistflower	<i>Ageratina riparia</i>	HTW	1	40	Other (OG)		Other (OG)	
SG	Large-leaved Privet	<i>Ligustrum lucidum</i>	HTW	5	100				
SG	Sweet Pittosporum	<i>Pittosporum undulatum</i>	N	0.5	2				
SG	Small-leaved Privet	<i>Ligustrum sinense</i>	HTW	1	20				
FG	Crofton Weed	<i>Ageratina adenophora</i>	HTW	10	500				
FG	Black Nightshade	<i>Solanum nigrum</i>	Non-HTW	0.1	2				
FG	Balloon Cotton-bush	<i>Gomphocarpus physocarpus</i>	Non-HTW	1	40				
FG	Purpletop	<i>Verbena bonariensis</i>	Non-HTW	1	30				
FG	Bunchy Flat-sedge	<i>Cyperus polystachyos</i>	Non-HTW	4	120				
GG	Kikuyu	<i>Cenchrus clandestinus</i>	HTW	15	1000				
SG	Montpellier Broom	<i>Genista monspessulana</i>	HTW	1	20				
FG	Common Sow-thistle	<i>Sonchus oleraceus</i>	Non-HTW	1	90				
SG	Sallow Wattle	<i>Acacia longifolia</i>	N	1	4				
FG	Cancer Weed	<i>Euphorbia peplus</i>	Non-HTW	1	20				
FG	Sticky Nightshade	<i>Solanum sisymbriifolium</i>	Non-HTW	0.1	3				
SG	Green Poison-berry	<i>Cestrum parqui</i>	HTW	4	8				
OG	White Bladder-flower	<i>Araujia sericifera</i>	HTW	1	30				
GG	Johnson Grass	<i>Sorghum halepense</i>	HTW	1	40				
FG	Fennel	<i>Foeniculum vulgare</i>	Non-HTW	1	5				
FG	Cobbler's Pegs	<i>Bidens pilosa</i>	HTW	0.1	10				
GG	Pampas Grass	<i>Cortaderia selloana</i>	HTW	4	30				
GG	Couch	<i>Cynodon dactylon</i>	N	5	1000				
GG	Slender Pigeon Grass	<i>Setaria parviflora</i>	Non-HTW	1	30				
FG	Ribwort	<i>Plantago lanceolata</i>	Non-HTW	0.5	15				
SG	Bitou Bush	<i>Chrysanthemoides monilifera subsp. rotundata</i>	HTW	0.1	1				
SG	Tuckeroo	<i>Cupaniopsis anacardioides</i>	Non-HTW	0.1	1				
SG	Chinese Tallowood	<i>Triadica sebifera</i>	HTW	0.1	1				
GG	Rhodes Grass	<i>Chloris gayana</i>	HTW	3	50				

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Vegetated Area Survey Results

Survey area	Common Name	Scientific Name	Notes	Exotic / Native
Vegetated Area 1	<i>Acacia longifolia</i>	Sallow Wattle		Native
	<i>Ageratina adenophora</i>	Crofton Weed		Exotic
	<i>Asparagus aethiopicus</i>	Asparagus Fern		Exotic
	<i>Asparagus africanus</i>	Ornamental Asparagus		Exotic
	<i>Asparagus asparagoides</i>	Bridal Creeper		Exotic
	<i>Bidens pilosa</i>	Cobbler's Pegs		Exotic
	<i>Bursaria spinosa</i>	Sweet Native Blackthorn		Native
	<i>Callistemon viminalis</i>	Weeping Bottlebrush		Native
	<i>Celtis occidentalis</i>	North American Hackberry		Exotic
	<i>Chloris gayana</i>	Rhodes Grass		Exotic
	<i>Corymbia citriodora</i>	Lemon-scented Gum		Native
	<i>Cupaniopsis anacardioides</i>	Tuckeroo		Native
	<i>Ehrharta erecta</i>	Panic Veldt-grass		Exotic
	<i>Eragrostis curvula</i>	African Love-grass		Exotic
	<i>Erigeron bonariensis</i>	Flaxleaf Fleabane		Exotic
	<i>Eucalyptus haemastoma</i>	Broad-leaved Scribbly Gum	Likely	Native
	<i>Eucalyptus sp.</i>	juvenile eucalypt species	Likely Corymbia citriodora	Native
	<i>Genista monspessulana</i>	Montpellier Broom		Exotic
	<i>Glycine tabacina</i>	Variable Glycine		Native
	<i>Lantana camara</i>	Lantana		Exotic
<i>Ligustrum sinense</i>	Small-leaved Privet		Exotic	
<i>Lomandra longifolia</i>	Spiny-headed Mat-rush		Native	
<i>Olea europaea subsp. cuspidata</i>	African Olive		Exotic	
<i>Paspalum dilatatum</i>	Paspalum		Exotic	
<i>Phoenix canariensis</i>	Canary Island Palm		Exotic	
<i>Pittosporum undulatum</i>	Sweet Pittosporum		Native	
<i>Plantago lanceolata</i>	Ribwort		Exotic	
<i>Sida rhombifolia</i>	Jelly Leaf		Exotic	
<i>Verbena bonariensis</i>	Purpletop		Exotic	
AREA 2	<i>Acacia falcata</i>	Sickle Wattle		Native
	<i>Acacia implexa</i>	Hickory Wattle		Native
	<i>Acacia longifolia</i>	Sallow Wattle		Native
	<i>Acacia parramattensis</i>	Parramatta Wattle		Native
	<i>Acacia saligna</i>	Golden Wreath Wattle		Native
	<i>Asparagus aethiopicus</i>	Asparagus Fern		Exotic
	<i>Asparagus africanus</i>	Ornamental Asparagus		Exotic
	<i>Asparagus asparagoides</i>	Bridal Creeper		Exotic
	<i>Bryophyllum delagoense</i>	Mother Of Millions		Exotic
<i>Cassinia sifton</i>	Drooping Sifton Bush		Native	

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	<i>Chrysanthemoides monilifera subsp. rotundata</i>	Bitou Bush		Exotic
	<i>Cortaderia selloana</i>	Pampas Grass		Exotic
	<i>Cupaniopsis anacardioides</i>	Tuckeroo		Native
	<i>Dianella caerulea</i>	Paroo Lily		Native
	<i>Eragrostis curvula</i>	African Love-grass		Exotic
	<i>Eucalyptus botryoides</i>	Bangalay		Native
	<i>Genista monspessulana</i>	Montpellier Broom		Exotic
	<i>Lantana camara</i>	Lantana		Exotic
	<i>Ligustrum sinense</i>	Small-leaved Privet		Exotic
	<i>Lomandra longifolia</i>	Spiny-headed Mat-rush		Native
	<i>Melaleuca armillaris subsp. armillaris</i>	Bracelet Honey-myrtle		Native
	<i>Melaleuca quinquenervia</i>	Swamp Paperbark		Native
	<i>Olea europaea subsp. cuspidata</i>	African Olive		Exotic
	<i>Phoenix canariensis</i>	Canary Island Palm		Exotic
				Exotic
AREA 3	<i>Acacia implexa</i>	Hickory Wattle		Native
	<i>Acacia saligna</i>	Golden Wreath Wattle		Native
	<i>Asparagus aethiopicus</i>	Asparagus Fern		Exotic
	<i>Chloris gayana</i>	Rhodes Grass		Exotic
	<i>Chrysanthemoides monilifera subsp. rotundata</i>	Bitou Bush		Exotic
	<i>Cortaderia selloana</i>	Pampas Grass		Exotic
	<i>Cotoneaster glaucophyllus</i>	Large-leaf Cotoneaster		Exotic
	<i>Hedera helix</i>	English Ivy		Exotic
	<i>Ipomoea cairica</i>	Coastal Morning Glory		Exotic
	<i>Lantana camara</i>	Lantana		Exotic
	<i>Olea europaea subsp. cuspidata</i>	African Olive		Exotic
	<i>Pittosporum undulatum</i>	Sweet Pittosporum		Native
	<i>Rhamnus alaternus</i>	Mediterranean Buckthorn		Exotic
AREA 4	<i>Acacia implexa</i>	Hickory Wattle		Native
	<i>Anredera cordifolia</i>	Madeira Vine		Exotic
	<i>Arundo donax</i>	Giant Reed		Exotic
	<i>Bidens pilosa</i>	Cobbler's Pegs		Exotic
	<i>Cestrum parqui</i>	Green Poison-berry		Exotic
	<i>Chloris gayana</i>	Rhodes Grass		Exotic
	<i>Foeniculum vulgare</i>	Fennel		Exotic
	<i>Ipomoea cairica</i>	Coastal Morning Glory		Exotic
	<i>Lantana camara</i>	Lantana		Exotic
	<i>Lonicera japonica</i>	Japanese Honeysuckle		Exotic
	<i>Olea europaea subsp. cuspidata</i>	African Olive		Exotic

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	<i>Pavonia hastata</i>	Pink Pavonia		Exotic
	<i>Ricinus communis</i>	Castor Oil Plant		Exotic
	<i>Solanum nigrum</i>	Black Nightshade		Exotic
AREA 5	<i>Araujia sericifera</i>	White Bladder-flower		Exotic
	<i>Asparagus aethiopicus</i>	Asparagus Fern		Exotic
	<i>Chloris gayana</i>	Rhodes Grass		Exotic
	<i>Jacaranda mimosifolia</i>	Jacaranda		Exotic
	<i>Olea europaea subsp. cuspidata</i>	African Olive		Exotic
	<i>Ricinus communis</i>	Castor Oil Plant		Exotic
	<i>Schinus molle var. areira</i>	Pepper Tree		Exotic
	<i>Triadica sebifera</i>	Chinese Tallowood		Exotic
Wetland Area	<i>Acacia implexa</i>	Hickory Wattle		Native
	<i>Acacia longifolia</i>	Sallow Wattle		Native
	<i>Acacia podalyriifolia</i>	Mount Morgan Wattle		Native
	<i>Ageratina adenophora</i>	Crofton Weed		Exotic
	<i>Ageratina riparia</i>	Mistflower		Exotic
	<i>Araujia sericifera</i>	White Bladder-flower		Exotic
	<i>Arundo donax</i>	Giant Reed		Exotic
	<i>Bidens pilosa</i>	Cobbler's Pegs		Exotic
	<i>Brassica fruticulosa</i>	Twiggy Turnip		Exotic
	<i>Cenchrus clandestinus</i>	Kikuyu		Exotic
	<i>Cestrum parqui</i>	Green Poison-berry		Exotic
	<i>Chloris gayana</i>	Rhodes Grass		Exotic
	<i>Chrysanthemoides monilifera subsp. rotundata</i>	Bitou Bush		Exotic
	<i>Cortaderia selloana</i>	Pampas Grass		Exotic
	<i>Cupaniopsis anacardioides</i>	Tuckeroo		Native
	<i>Cynodon dactylon</i>	Couch		Native
	<i>Cyperus polystachyos</i>	Bunchy Flat-sedge		Exotic
	<i>Euphorbia peplus</i>	Cancer Weed		Exotic
	<i>Foeniculum vulgare</i>	Fennel		Exotic
	<i>Genista monspessulana</i>	Montpellier Broom		Exotic
	<i>Gomphocarpus physocarpus</i>	Balloon Cotton-bush		Exotic
	<i>Lantana camara</i>	Lantana		Exotic
	<i>Ligustrum lucidum</i>	Large-leaved Privet		Exotic
	<i>Ligustrum sinense</i>	Small-leaved Privet		Exotic
	<i>Nerium oleander</i>	Oleander		Exotic
	<i>Olea europaea subsp. cuspidata</i>	African Olive		Exotic
	<i>orange daisy on baths rd</i>	orange daisy on baths rd		Exotic
	<i>Phoenix canariensis</i>	Canary Island Palm		Exotic
	<i>Pittosporum undulatum</i>	Sweet Pittosporum		Native
	<i>Plantago lanceolata</i>	Ribwort		Exotic

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	<i>Schoenoplectus tabernaemontani</i>	Soft-stemmed Bulrush	Small isolated patch	Native
	<i>Setaria parviflora</i>	Slender Pigeon Grass		Exotic
	<i>Sida rhombifolia</i>	Jelly Leaf		Exotic
	<i>Solanum nigrum</i>	Black Nightshade		Exotic
	<i>Solanum sisymbriifolium</i>	Sticky Nightshade		Exotic
	<i>Sonchus oleraceus</i>	Common Sow-thistle		Exotic
	<i>Sorghum halepense</i>	Johnson Grass		Exotic
	<i>Triadica sebifera</i>	Chinese Tallowood		Exotic
	<i>Typha orientalis</i>	Bullrush	Small isolated patch	Native
	<i>Verbena bonariensis</i>	Purpletop		Exotic
Stand of Eucalyptus	<i>Acacia falcata</i>	Sickle Wattle		Native
	<i>Acacia saligna</i>	Golden Wreath Wattle		Native
	<i>Corymbia citriodora</i>	Lemon-scented Gum		Native
	<i>Eucalyptus nicholii</i>	Narrow-leaved Black Peppermint		Native
	<i>Eucalyptus pulverulenta</i>	Silver-leaved Mountain Gum		Native
	<i>Eucalyptus punctata</i>	Grey Gum	Likely	Native
	<i>Syzygium smithii</i>	Lilly Pilly		Native
North of Stand of Eucalyptus along tracks	<i>Acacia implexa</i>	Hickory Wattle		Native
	<i>Acacia longifolia</i>	Sallow Wattle		Native
	<i>Asparagus asparagoides</i>	Bridal Creeper		Exotic
	<i>Casuarina glauca</i>	Swamp Oak		Native
	<i>Chloris gayana</i>	Rhodes Grass		Exotic
	<i>Chloris truncata</i>	Windmill Grass		Native
	<i>Cyperus eragrostis</i>	Drain Flat-sedge		Exotic
	<i>Einadia nutans</i>	Climbin Saltbush		Native
	<i>Eragrostis curvula</i>	African Love-grass		Exotic
	<i>Euphorbia hirta</i>	Hairy Spurge		Exotic
	<i>Euphorbia maculata</i>	Eyebane		Exotic
	<i>Homalanthus populifolius</i>	Bleeding-heart Tree		Native
	<i>Juncus usitatus</i>	Common Rush		Exotic
	<i>Ligustrum lucidum</i>	Large-leaved Privet		Exotic
	<i>Rhamnus alaternus</i>	Mediterranean Buckthorn		Exotic
	<i>Rubus fruticosus</i>	Blackberry		Exotic
Linfox Yard	<i>Abelia chinensis</i>	Chinese Abelia		Exotic
	<i>Acacia saligna</i>	Golden Wreath Wattle		Native
	<i>Agapanthus praecox subsp. orientalis</i>	Agapanthus		Exotic

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	<i>Araujia sericifera</i>	White Bladder-flower		Exotic
	<i>Chloris gayana</i>	Rhodes Grass		Exotic
	<i>Chlorophytum comosum</i>	Spider Plant		Exotic
	<i>Eucalyptus tereticornis</i>	Forest Red Gum	Isolated	Native
	<i>Nerium oleander</i>	Oleander		Exotic
	<i>Pavonia hastata</i>	Pink Pavonia		Exotic
	<i>Phoenix canariensis</i>	Canary Island Palm		Exotic
	<i>Pittosporum undulatum</i>	Sweet Pittosporum		Native
	<i>Rhamnus alaternus</i>	Mediterranean Buckthorn		Exotic
	<i>Ricinus communis</i>	Castor Oil Plant		Exotic
	<i>Sida rhombifolia</i>	Jelly Leaf		Exotic
	<i>Solanum nigrum</i>	Black Nightshade		Exotic
	<i>Sonchus oleraceus</i>	Common Sow-thistle		Exotic
	<i>Ipomoea cairica</i>	Coastal Morning Glory		Exotic