Erskine Park Landfill –MSE Wall Fill Material Temporary Onsite Processing

Section 4.55(2) Modification

Statement of Environmental Effects

Prepared for:

Enviroguard Pty Ltd

Prepared by:

EME advisory

November 2020

Erskine Park Landfill – MSE Wall Fill Material Temporary Onsite Processing

Section 4.55(2) Modification – Statement of Environmental Effects

PREPARED BY

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Address:	[redacted]

APPLICANT

Company:	Enviroguard Pty Ltd
Address:	4 Quarry Road, Erskine Park NSW 2759 (accessed via 85-87 Quarry Road)

MODIFICATION

Title:	Erskine Park Landfill – MSE Wall Fill Material Temporary Onsite Processing
Description:	Proposed modification of Development Consent DA 05/1740 for temporary processing of material to make suitable as engineered fill for the approved Mechanically Stabilised Earth (MSE) Wall.
Site:	Lot 4 DP 1094504 4 Quarry Road, Erskine Park NSW 2759 (accessed via 85-87 Quarry Road)
Local Government Area:	Penrith

STATEMENT

This Statement of Environmental Effects has been prepared by EME Advisory in accordance with the brief provided by Enviroguard Pty Ltd and is for the sole use of Enviroguard Pty Ltd. EME Advisory confirms that this Statement of Environment Effects:

- Contains all available information that is relevant to the environmental assessment of the proposal; and
- Is true in all material particulars and does not materially mislead by its presentation or omission of information.

EME Advisory

[redacted]

Brian Cullinane
15 November 2020

TABLE OF CONTENTS

TABLES

FIGURES

APPENDICES

1 INTRODUCTION

1.1 Overview

Enviroguard Pty Ltd (Enviroguard) owns and operates the Erskine Park Landfill (non-putrescible landfill) at Erskine Park in the Penrith Local Government Area (LGA) in western Sydney, New South Wales (NSW).

The landfill was originally granted Development Consent DA 163/92 by Penrith City Council (Council) in 1992 under Part 4 of the Environmental Planning and Assessment Act 1979 (EP&A Act). This consent permitted the rehabilitation of a former quarry via the disposal of non-putrescible waste materials, along with site rehabilitation and cessation of landfilling. Council subsequently issued Development Consent DA 05/1740 in 2006 under Part 4 of the EP&A Act for on-going landfilling with non-putrescible waste and site rehabilitation to a revised landform, with no changes to the previously approved landfilling rates.

In October 2020, Council approved an application to modify DA 05/1740 for the construction of a mechanically stabilised earth (MSE) wall to achieve an increase in landfill airspace and changes to the compliance regime for leachate monitoring and management.

Construction of the wall requires the importation of approximately 300,000 tonnes of fill material. Enviroguard have been investigations options to source the material, which was not finalised at the time of the MSE wall application. Enviroguard have now identified a preferred source of fill material, however, the material will require processing to make it suitable as an engineered fill that meets the construction specifications for the MSE wall.

Enviroguard propose to undertake the material processing on site to improve the quality control of fill material, minimise the costs and environmental impacts of double handling of the material.

This Statement of Environmental Effects (SEE) has been prepared by EME Advisory (EME) to accompany an application from Enviroguard seeking to modify Development Consent DA 05/1740 under section 4.55(2) of the EP&A Act to allow the temporary processing of fill material on the landfill site to support the construction of the MSE Wall. Processing of the engineered fill involves crushing, screening, and stockpiling the material onsite, and internal haulage to the MSE Wall construction areas.

This SEE presents a focussed evaluation of the modification, including relevant environmental considerations, and input from specialist consultants.

1.2 The Applicant

Enviroguard Pty Ltd is a subsidiary of Cleanaway Waste Management Pty Ltd (Cleanaway), Australia's leading total waste management solutions company employing over 5,500 people across Australia. The company services customers ranging from councils, residences and small businesses to large multi-national commercial and industrial organisations across a range of different industries.

Cleanaway operates over 200 facilities across Australia, including more than 50 technical treatment and processing plants and more than 45 resource recovery, recycling, and baling plants. The company works with over 80 municipal councils to facilitate best practice recycling and waste management outcomes.

1.3 Approval Pathway

Enviroguard is seeking to modify Development Consent DA 05/1740 under section 4.55(2) of the EP&A Act. This SEE demonstrates that the project, as proposed to be modified, will be substantially the same development for which consent was originally granted and the associated environmental impacts are expected to be negligible or minor.

The section 4.55(2) pathway is considered further in Section 5.

2 SITE DESCRIPTION

2.1 Regional Context

The Erskine Park Landfill is located within the broader Western Sydney Employment Area (WSEA) (Precinct 7 Erskine Park Lands) approximately 50 km from the Sydney central business district. The WSEA was established by the NSW government to provide businesses in the region with new land for industry and employment, including transport and logistics, warehousing and office space. The WSEA is now the largest employment area in NSW covering approximately 2,450 hectares across four LGAs, these being Penrith, Blacktown, Fairfield and Holroyd.

2.2 Site Overview

As shown on Figures 1, 2 and 3, the site for the proposed modification comprises one land parcel in the Penrith LGA, being Lot 4 Deposited Plan (DP) 1094504, addressed to 4 Quarry Road, Erskine Park. This lot comprises approximately 21.94 ha and is occupied by the existing Erskine Park Landfill.

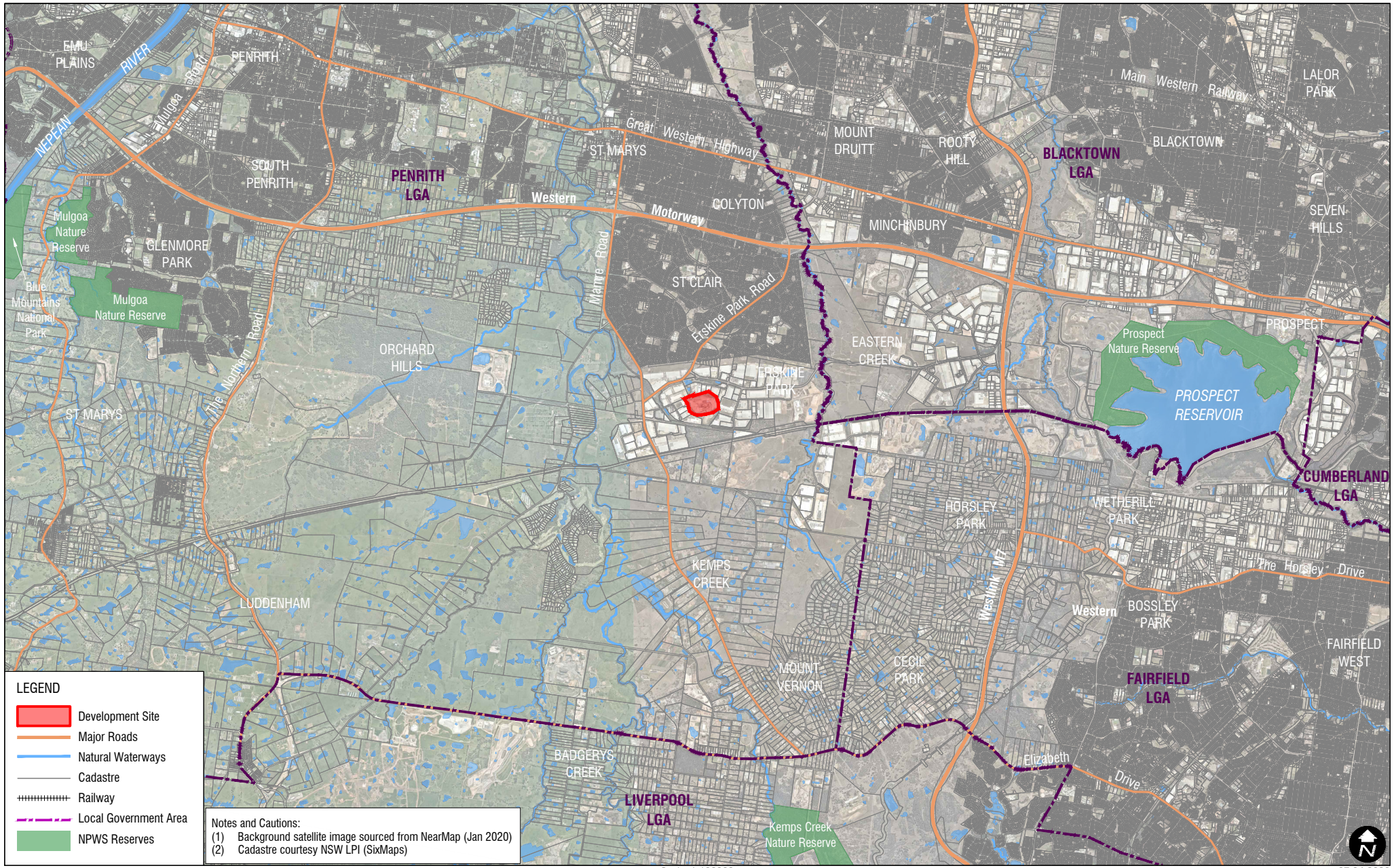
While the landfill site does not have frontage to a public road, it gains vehicular access from Quarry Road via a shared access through the adjoining Lot 1 DP 1140063 (85-87 Quarry Road), which encompasses Cleanaway's Erskine Park Waste and Resource Management Facility. Quarry Road provides connection to Mamre Road and on to the Erskine Park Link Road, which provide connections to the M4 Western Motorway to the north, Elizabeth Drive at Kemps Creek in the south and the M7 Motorway to the east.

There are no natural surface water features within the landfill site or adjoining lots. A tributary of South Creek is located to the south and west of the site, flowing in a north-westerly direction and discharging in to South Creek around 1.5 km to the northwest of the landfill. The site forms an elevated position compared to the surrounding topography due to the landfilling operation, with runoff draining down the slopes of the landfill area and collecting in a drainage system at the perimeter of the Site. It is then collected and conveyed to two sediment basins, which, during an overflow event, discharge to the South Creek tributary via open channels.

Disturbance of the natural environment has occurred as a result of historic clearing and agricultural production activities, development and operation of a quarry and the subsequent development and operation of the existing landfill and associated activities. It is primarily devoid of vegetation as a result. There are no known threatened species, populations or communities or their habitats present on the subject site and none are likely to occur. There is also no identified heritage item or conservation area within the site.

2.3 Land Use Zonings

Zoning in the WSEA is administered under the *State Environmental Planning Policy (Western Sydney Employment Area) 2009* (WSEA SEPP). As evident on **Figure 4**, the majority of the site is zoned E2 Environmental Conservation, with a small section in the north-west corner of Lot 4 DP 1094504 zoned IN1 General Industrial.



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SLR

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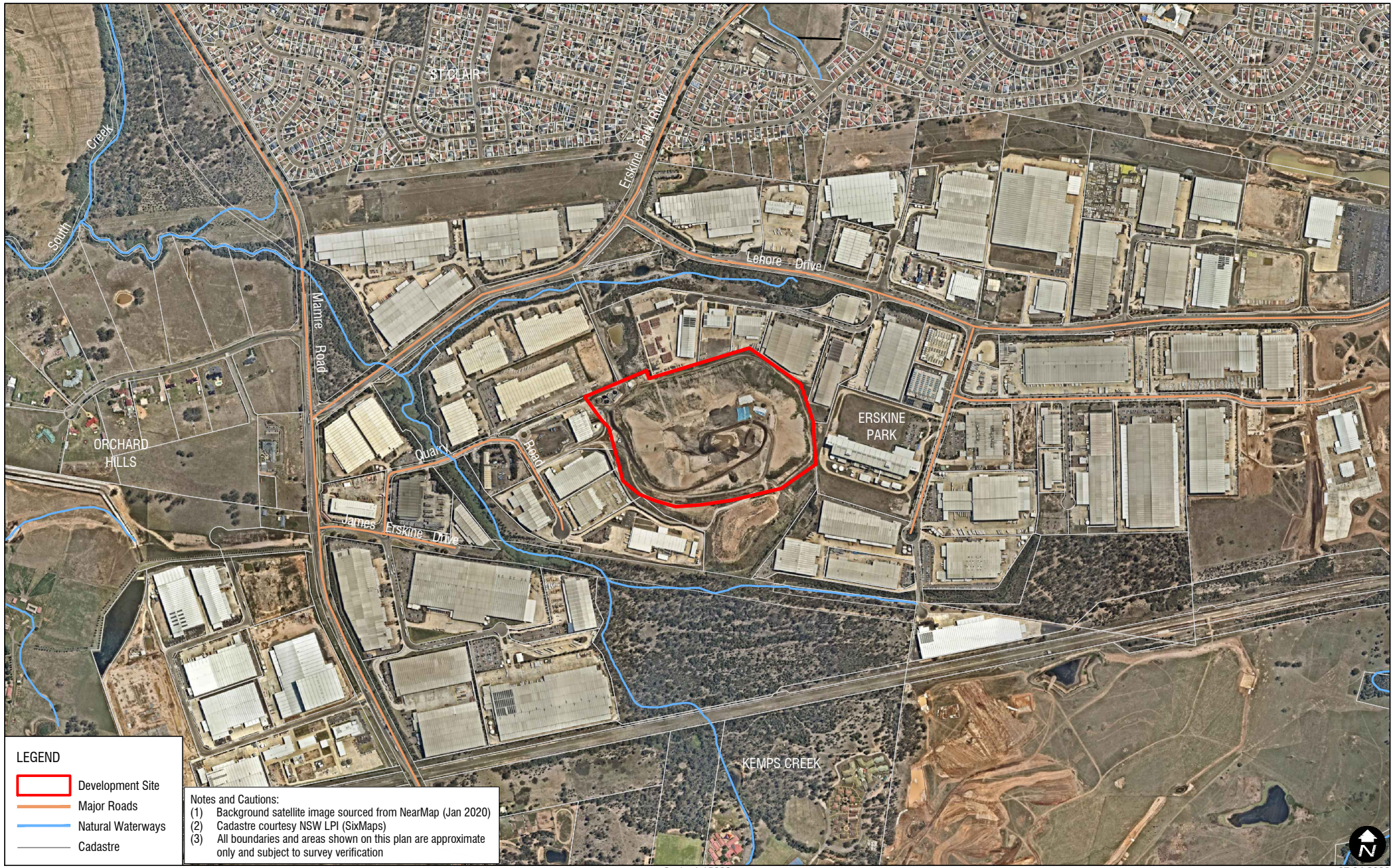
REGIONAL LOCALITY

FIGURE 1



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SITE LOCATION AND SURROUNDS

FIGURE 2

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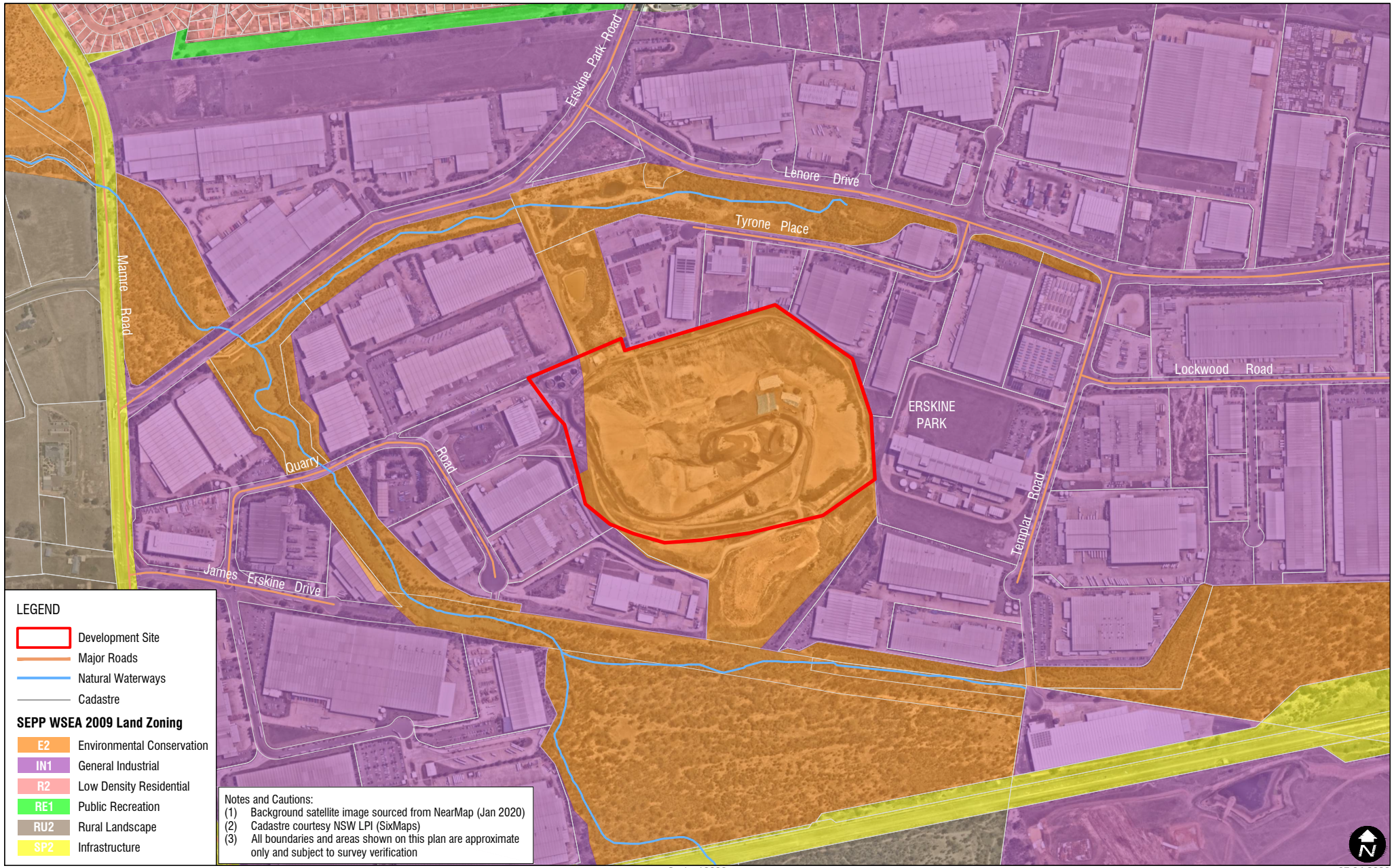
DEVELOPMENT SITE

FIGURE 3



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LAND USE ZONINGS

FIGURE 4

2.4 Land Ownership

The registered owner of Lot 4 DP 1094504 is Enviroguard Pty Ltd.

2.5 Surrounding Land Uses and Receptors

The Erskine Park Landfill commenced operations in 1994 in accordance with Development Consent DA 163/92 (see Section 3). Industrial development commenced in later years within the surrounding area and built up very close to the landfill site boundary. Today, the landfill sits within the Erskine Business Park, which is characterised by a range of industrial land uses, including warehousing, logistics and manufacturing operations. As evident on Figures 2 and 3, the site is largely surrounded and screened by established large-scale industrial buildings. There are some vegetated areas along the surrounding public road corridors and the drainage reserve to the south and west of the site, which are part of a biodiversity conservation corridor.

The nearest residential dwellings are located within the suburbs of St Clair and Erskine Park approximately 650 m to the north of the landfill, with other developed industrial land parcels and a transmission line corridor between these residences and the landfill. There are also some residences and a children's day care facility over 820 m to the west of the landfill on the western side of Mamre Road. Residential development is prohibited within the WSEA.

3 APPROVED DEVELOPMENT

3.1 Development Consent History

The below provides a summary of the development consents issued for the Erskine Park Landfill since the cessation of quarrying.

Development Consent DA 163/92

Development Consent DA 163/92 was issued by Council on 11 November 1992 under Part 4 of the EP&A Act permitting rehabilitation of a former quarry via the disposal of non-putrescible waste materials, along with site rehabilitation and cessation of landfilling.

Development Consent DA 05/1740

Council subsequently issued Development Consent DA 05/1740 on 25 May 2006 under Part 4 of the EP&A Act for on-going landfilling with non-putrescible waste (no change to landfilling rates), with the landfill to be filled in stages and site rehabilitation to a specific top-of-waste landform. The final landform was designed as a twin peak arrangement to 87 m Australian Height Datum (AHD) and 92 m AHD to reflect the original pre-quarrying landform. Following completion of landfilling the site is to be vegetated to form part of a biodiversity conservation corridor providing connectivity between ecological corridors to the north and south.

Development Consent DA 05/1740.01 – Modification 1

Council issued an approval under section 4.55(2) of the EP&A Act in August 2019 to modify Development Consent DA 05/1740 allowing the approved final landform to be altered from the two-peak arrangement to a single ridgeline at 92 m AHD. This enabled improved stormwater management and waste placement ability resulting in an additional landfill airspace of approximately 140,000 m^3, which increased the lifespan of the landfill by around 9 months.

Development Consent DA 20/0189 – Modification 2

Council issued an approved under section 4.55(2) of the EP&A Act in October 2020 to modify Development Consent DA 05/1740 allowing the construction of a MSE wall for the expansion of landfill airspace by approximately 420,000 m^3. The approval also made changes to the compliance regime for leachate monitoring and management.

Development Consent DA 10/0429

Council issued Development Consent DA 10/0429 on 23 December 2010 under Part 4 of the EP&A Act permitting the capture of landfill gas for either flaring or off-site transfer, which provided significant safety and environmental benefits.

Development Consent DA 11/063

Council issued Development Consent DA 11/063 on 2 June 2011 under Part 4 of the EP&A Act for the construction and operation of a leachate treatment plant, which provided a treatment solution for landfill leachate during both the operational and post-closure periods.

Development Consent DA 13/0655

In July 2014, Council issued Development Consent DA 13/0655 to construct and operate a pipeline measuring 4.7 km from the landfill to a brick manufacturing plant owned and operated by the Austral Bricks in Horsley Park. As the pipeline route also extends across the adjoining Fairfield LGA, Fairfield City Council issued Development Consent 301.1/2013 in July 2014 for the section of pipeline within its LGA. The pipeline transfers the landfill gas to fire kilns at the brick manufacturing plant.

Development Consent DA 13/0655 – Modification 1

Council issued an approval to modify Development Consent DA13 / 0655 in July 2020 to relocate part of the existing landfill gas pipeline to enable the construction of the MSE Wall.

3.2 Overview of approved development

Erskine Park Landfill is a non-putrescible landfill servicing the waste disposal needs of the growing western Sydney region. Landfill operations commenced in 1993 as a means of rehabilitating the Erskine Park Quarry previously occupying the site, with approved landfilling rates of up to 1 million tonnes per annum.

Landfilling is currently undertaken pursuant to Development Consent DA 05/1740 (as modified). Up to 1 million tonnes of non-putrescible waste per annum has been accepted for landfilling during peak times, although this has declined in recent years as offsite recycling activity increased. Approximately 14 million tonnes of non-putrescible waste have been placed within the landfill to date.

The landfill currently accepts commercial and industrial waste, general solid waste, low level contaminated soils, construction and demolition waste and clean fill. Incoming waste is screened to ensure only waste materials compliant with Development Consent DA 05/1740 and EPL 4865 are accepted for landfilling. Waste volumes are tracked and recorded via weighbridge data and regular surveys of the landfill confirm waste emplacement and remaining landfill airspace. The waste is compacted in accordance with EPA landfilling guidelines to maximise the airspace and minimise void spaces to reduce landfill fire risk. The exposed tip face is covered daily and wind-blown litter is controlled using a combination of permanent litter nets, mobile litter nets and manual litter picking.

Rainfall-runoff is diverted and captured in sediment basins under the EPA licence. Recovered landfill leachate is treated within the on-site leachate treatment plant and treated leachate is discharged into Sydney Water sewer in compliance with a trade waste discharge agreement.

Landfill gas is extracted and piped to Austral Bricks in nearby Horsley Park. This provides both a safety benefit to the landfill and a dual environmental benefit by managing migration and enabling a beneficial re-use through use of landfill gas generated from the waste material as a fuel source, which would otherwise be vented to atmosphere. The supplied landfill gas is utilised by Austral Brick to supplement conventional gas supply used in the kilns. A gas flare is also in use on-site as needed to offset any disruption to Austral Brick's gas intake.

Erskine Park Landfill is recognised within the industry as a best practice landfill. It operates under an approved Landfill Environmental Management Plan (LEMP) that sets out operational management and monitoring procedures for waste control, surface water and groundwater management, leachate management, landfill gas management, fire management and control of odour, dust, litter, noise and vermin. Monitoring and reporting of a range of environmental parameters is undertaken in accordance with EPL 4865.

The approved final landform comprises a single ridgeline at 92 m AHD in general harmony with the original pre-quarry landform. Following completion of landfilling the site is to be vegetated to form part of a biodiversity conservation corridor providing connectivity between ecological corridors to the north and south. The landform is expected to settle by approximately 5m during the post closure period.

The original consent has been modified twice, first in 2019 to revised the final landform design followed by a second modification in October 2020 to allow construction of the MSE wall.

Stockpiling activities have been profound with the historical and current landfilling activities such as:

- Maintaining daily cover stockpile to allow placement of cover over waste at the end of each day
- Processed clay stockpile during sub-division around 2005, to allow for final capping of landfill. Now stored on Lot 103 pending placement on the final landform to form an impermeable cap
- Temporary stockpiling of incoming waste on landfill to ensure appropriate mixing with different types of wastes are undertaken for improving waste compaction and creating wet weather pads to manage tip face
- Temporary stockpile of construction materials during creation of internal haul roads, construction of impermeable clay liner on the batters of the quarry wall and landfill gas well installation works
- Temporary stockpiling of onsite won rocks pending use in stormwater drains on the final capped landform and for landscape purpose.

3.3 Environment Protection Licence

The Erskine Park Landfill operates under the provisions of Environment Protection Licence EPL 4865 administered by the Environment Protection Authority (EPA) under Chapter 3 of the *Protection of the Environment Operations Act 1997* (POEO Act). This licence covers the fee-based activity of "waste disposal by application to land" (any capacity).

The licence will be varied to reflect the approved MSE wall application and the EPA's General Terms of Approval in relation to that application.

4 PROPOSED MODIFICATION

4.1 Introduction

Enviroguard is seeking to modify Development Consent DA 05/1740 to allow temporary processing of fill material on the landfill site to support the construction of the approved MSE wall. Enviroguard has been investigating sources of suitable fill material and has recently identified a preferred source. However, the material requires further processing to make it suitable for use as an engineered fill in the MSE wall. Enviroguard consulted with EPA on 13 October 2020 to discuss the need for onsite processing. The key issues raised by the EPA were potential noise and dust impacts.

The preferred option for temporary fill material processing is on the landfill site which will minimise double handling of the material, improve quality control and allows the process to be undertaken under well-established environmental controls.

4.2 Relationship to approved MSE wall modification

In October 2020, Council approved a modification application to allow the construction of a mechanically stabilised earth (MSE) wall along the southern permitter of the landfill to increase landfill airspace. The scope of the modification included the importation of fill material and assumed that the material would be brought to site in a form suitable for use as an engineered fill, stockpiled onsite prior to being placed in the MSE wall.

Subsequent investigations have confirmed a preferred source of available fill material, however, the material requires processing to make it suitable as an engineered fill and to meet the construction specifications for the wall.

The scope of the MSE wall application included the transport of the fill material to site, internal haulage and stockpiling and placement of fill. The current proposed application does not include any additional traffic movements above those already assessed in the approved MSE wall application.

As the temporary material processing is an integral part of the construction of the MSE Wall, potential construction environmental impacts for the temporary processing would be managed through the approved Construction Environmental Management Plan (CEMP) (Golder, 2020) prepared for the approved MSE Wall application. The CEMP is attached as Appendix A.

4.3 Proposal description

4.3.1 Overview

The processing would be located on the landfill crown at around 92 m AHD with an anticipated footprint of around 10,000 m^2 to accommodate the plant, stockpiling and traffic. The process involves:

- Delivery of fresh material
- Loading fresh material into either a crusher or a screen
- Moving crushed or screened material to a nearby stockpile pending material testing
- Loading approved material onto dump trucks to haul the material onsite to the MSE Wall construction area.

Multiple stockpiles will be maintained onsite during the processing activity. The stockpile heights are anticipated to be no more than 98 m AHD, which is 6 m above the current landform.

The indicative processing area, stockpile locations and internal haul routes are shown in Figure 5.

The construction works require around 300,000 tonnes of material over an 8-month period. The processing is anticipated to start in early December 2020 subject to approval timeframes.

4.3.2 Material

The fill material for the works are anticipated to be sandstone sourced from infrastructure projects in the Sydney region. The fresh materials are expected to be moist. Additional wetting using water cart will be undertaken as needed to condition the material and the stockpile to prevent dust generation. The haul roads are always maintained and kept moist using water cart as part of existing landfill operations.

The dust control measures and monitoring regime stated in Section 3.8 of the Landfill Environmental Management Plan (LEMP) and Section 3.1 of the Construction Environmental Management Plan, part of the approved MSE wall application, will be in place during the processing period.

The stockpile will also act as a windbreak and assist with dust minimisation.

4.3.3 Construction hours and equipment

All works associated with onsite material processing would be undertaken during standard daytime construction hours (7 am to 6 pm Monday to Friday, and 8 am to 1 pm Saturday). Construction duration is anticipated to be 8 months.

The plant and equipment required for the processing is:

- Crusher (1 No.)
- Screen (1 No.)
- Wheel Loader (2 No.)
- Excavator (1 No.)

No additional vehicle movements are anticipated as part of the onsite material processing. Material deliveries to the site and internal haulage of materials associated with construction of the MSE Wall were included approved MSE wall application.

Access for vehicles, plant and equipment will be via the landfill's existing site access from Quarry Road via a shared access through the adjoining Lot 1 DP 1140063 (85-87 Quarry Road), which encompasses Cleanaway's Erskine Park Waste and Resource Management Facility.

4.3.4 Workforce

It is anticipated that four workers will be engaged for the material processing, in addition to 40 workers anticipated to be engaged for the construction of the approved MSE wall. Construction workers will be suitably inducted and all COVID-19 measures will be complied with.

Figure 5: Processing area, stockpile locations and haul routes

4.3.5 Environmental Management

Environmental management of the temporary material processing will be in accordance with the CEMP for the approved MSE wall application, attached as Appendix A.

4.3.6 Landfill Activities

The processing will be undertaken on the area that has reached top of approved landform, towards the eastern part of the landfill. Ongoing landfilling will occur on the western crown and batters of the landfill, as a result there is no interaction between the material processing and landfilling activities except for the entry and exit ramps to the landfill. The landfill activity is expected to slow down from December 2020 due to limited volume of available airspace until the additional airspace from MSE Wall becomes available.

4.3.7 Rehabilitation

The completion of the processing activity and consumption of the engineered fill material during the build of the MSE Wall will see the onsite processing footprint brought back to the approved peak landform at RL92. Any excess processed material will be taken offsite or stockpiled along with the existing clay stockpile on the adjacent Lot 103 for use as infiltration layer on the final capped profile. All the plant used for onsite processing will be demobilised offsite upon completion.

5 ASSESSMENT PATHWAY AND PLANNING CONSIDERATIONS

5.1 Assessment Pathway

Enviroguard is seeking to modify Development Consent DA 05 / 1740 under Section 4.55(2) of the EP&A Act. The requirements of section 4.55(2) are listed in Table 1, with commentary provided as to how each requirement is addressed by the proposal.

Table 1: Section 4.55(2) Modification Requirements

Section 4.55(2)	Proposed Modification
A consent authority may, on application being made by the applicant or any other person entitled to act on a consent granted by the consent authority and subject to and in accordance with the regulations, modify the consent if -	Penrith City Council issued the original development and is the consent authority for the purposes of the modification application.
(a) it is satisfied that the development to which the consent as modified relates is substantially the same development as the development for which consent was originally granted and before that consent as originally granted was modified (if at all), and	The term substantially the same development has been interpreted by the NSW Land and Environment Court: • the meaning of 'modify' is to alter without radical transformation (Transport Action Group Against Motorway Inc v Roads and Traffic Authority 1999) • the term "substantially" means "essentially or materially having the same essence" (Moto Projects (No 2) Pty Ltd v North Sydney Council 1999). The reference point for substantially the same development is the project as approved in the original consent 05/1740. The approved project is described in Section 3 and includes landfilling of commercial and industrial waste, general solid waste, low level contaminated soils, construction and demolition waste and clean fill. The proposal is substantially the same development as it supports the construction of the MSE wall, the purpose of which is increase landfill airspace to allow the continued use of the site as a landfill. The proposed temporary material process would not involve any change to the overall approved landfill rates, type of waste or final landform. The modification application should be referred to the EPA as an approval authority whose general terms of approval are required, and should therefore be assessed under Section 4.55 (2) which provides the appropriate mechanism for such referral.
(b) it has consulted with the relevant Minister, public authority or approval body (within the meaning of Division 4.8) in respect of a condition imposed as a requirement of a concurrence to the consent or in accordance with the general terms of an approval proposed to be granted by the approval body and that Minister, authority or body has not, within 21 days after being	The original application identified the proposal was integrated development as it may require approvals under other legislation, being: • The Protection of the Environment Operations Act 1997 • The Water Act 1912 The proposed modification should be referred to: • The EPA, because of their responsibility for regulating waste and landfills and the need to vary the EPL under the Protection of the Environment Operations Act 1997. Section 4.55(2)(b) provides the mechanism for such a referral to be made.

Section 4.55(2)	Proposed Modification
consulted, objected to the modification of that consent, and	
(c) it has notified the application in accordance with - *(i) the regulations, if the regulations so require, or* (ii) *a development control plan, if the consent authority is a council that has made a development control plan that requires the notification or advertising of applications for modification of a development consent, and*	As the proposal is an integral part of the recently approved modification for the MSE wall, with minimal additional impacts, the application may not need to be notified.
(d) it has considered any submissions made concerning the proposed modification within the period prescribed by the regulations or provided by the development control plan, as the case may be.	Submissions may be provided in response to the notification of the application.

In conclusion, a modification under section 4.55(2) of the EP&A Act appears to be a suitable and lawful consent pathway for the proposal. The consent authority for the modification is Council, who we understand intend to refer the application to other relevant government agencies.

Part 2 of Schedule 3 of the Environmental Planning and Assessment Regulation 2000

Schedule 3 of the EP&A Regulation identifies categories of development that would be designated development and therefore require an EIS. The proposal may be categorised as crushing, grinding or separating works as defined in clause 16 of Schedule 3:

> *16 Crushing, grinding or separating works*
>
> *(1) Crushing, grinding or separating works, being works that process materials (such as sand, gravel, rock or minerals) or materials for recycling or reuse (such as slag, road base, concrete, bricks, tiles, bituminous material, metal or timber) by crushing, grinding or separating into different sizes—*
>
> *(a) that have an intended processing capacity of more than 150 tonnes per day or 30,000 tonnes per year, or*
>
> *(b) that are located—*
>
> *(i) within 40 metres of a natural waterbody or wetland, or*
>
> *(ii) within 250 metres of a residential zone or dwelling not associated with the development.*

The proposal is not located within 40 metres of a natural waterbody or wetland and is not within 250 metres of a residential area, but it would involve a processing capacity of more than 30,000 tonnes per year (noting that it would be temporary and operation for approximately 8 months).

However, Part 2 of Schedule 3 of the *Environmental Planning and Assessment Regulation 2000* addresses whether alterations or additions to an approved development can be "designated development". Clause 35 states:

Development involving alterations or additions to development (whether existing or approved) is not designated development if, in the opinion of the consent authority, the alterations or additions do not significantly increase the environmental impacts of the total development (that is the development together with the additions or alterations) compared with the existing or approved development.

In forming its opinion as to whether development is designated development, a consent authority is to consider the factors in Clause 36 of the Schedule 3. These are reproduced in Table 2 below including an assessment of how the proposed modification would address these factors.

Table 2: Clause 36 factors

Clause 36 Factors	Proposed modification
(a) the impact of the existing development having regard to factors including—	
(i) previous environmental management performance, including compliance with the conditions of any consents, licences, leases or authorisations by a public authority and compliance with any relevant codes of practice, and	The existing landfill has been operating since the mid-1990's and is regarded as a best practice landfill with respect to environmental management. The landfill operates pursuant to EPL 4865 and has operated in compliance with the EPL since it was issued in 2001. The landfill operates in accordance with the EPA's Solid Waste Landfill Environmental Guidelines which specify minimum standards for environmental performance.
(ii) rehabilitation or restoration of any disturbed land, and	The existing development consent provides conditions for the rehabilitation of the landfill following closure. Closure and rehabilitation of the site will involve the planting of native vegetation and grasses which will ameliorate any visual impacts of the past use as a landfill and consolidate the site with the surrounding biodiversity corridor. The Rehabilitation is not expected to commence until June 2024.

Clause 36 Factors		Proposed modification
(iii)	the number and nature of all past changes and their cumulative effects, and	The existing consent has been modified twice. The first modification involved alteration to the final landform from two peaks (87m AHD and 92m AHD) to a single ridgeline at 92m AHD. The modification was developed to enhance environmental management outcomes on the site and reduce operational and maintenance risks post closure. The modification provides for improved conditions to surface water and soil management and reduce risks of infiltration, leachate generation and erosion potential. The modification also provided for an additional air space capacity of 140,000 m^3 over an approximately nine-month extension to the operational life of the landfill. The second modification involved the construction of a mechanically stabilised earth wall to provide additional landfill airspace capacity (420,000m^3) and amend the compliance regime for leachate management. In both cases, the modifications did not alter approved landfilling rates and introduced new measures to manage surface water and leachate.
(b)	the likely impact of the proposed alterations or additions having regard to factors including—	
(i)	the scale, character or nature of the proposal in relation to the development, and	The proposed alterations involve temporary material processing to support the approved MSE wall construction would have a negligible impact. The alterations do not change the final landform or overall landfilling rates and do not change the scale, character of the landfill.
(ii)	the existing vegetation, air, noise and water quality, scenic character and special features of the land on which the development is or is to be carried out and the surrounding locality, and	The landfill operates in accordance with approved environmental management plans pursuant to the conditions of consent and EPL and the Solid Waste Landfill Environment Guidelines. The landfill is a disturbed site but will be rehabilitated in accordance with the conditions of consent which requires revegetation and integration with the Biodiversity Corridor. The proposed modification would not alter rehabilitation plans. Air quality on site is managed through a series of

Clause 36 Factors		Proposed modification
		measures to suppress dust associated with landfilling operations. The main noise sources relate to the operation of landfill machinery. However, given the significant distance to residential areas – approximately 700m – noise impacts are negligible. Recent noise monitoring results indicate ongoing compliance with the approved levels. Water is managed on site in accordance with an approved water management plan to avoid any impact on water quality. Leachate is captured and diverted to a leachate treatment plant, where it is treated prior to discharge to sewer. A recent hydrogeological assessment study confirms no offsite impact on groundwater due to ongoing landfill operations. The landfill is located in an industrial area which has been extensively developed since the commencement of landfill operations in the 1990's. Despite this, the rehabilitation plans for the landfill involve revegetation and integration with the Biodiversity Corridor. The proposed modification would not impact on the rehabilitation plans.
(iii)	the degree to which the potential environmental impacts can be predicted with adequate certainty, and	The key environmental issue associated with the proposal is potential noise impacts from the operation of processing plant and equipment. A detailed noise impact assessment has been undertaken which used an industry recognised model to predict impacts. The model adopts a conservative approach which overestimates potential impacts to manage any uncertainties associated with the assessment. See Section 6 for further details.
(iv)	the capacity of the receiving environment to accommodate changes in environmental impacts, and	The receiving environment consists primarily of the existing landfill. The landfill is designed to contain environmental impacts within the site as much as possible through a series of environmental management measures. Where environmental impacts have the potential to extend off-site, the distance between the landfill and residential areas avoids or minimises the impacts.
(c)	any proposals—	

Clause 36 Factors		Proposed modification
(i)	to mitigate the environmental impacts and manage any residual risk, and	The CEMP included as part of the approved MSE wall application would be applied to the proposal to management environmental impacts. The CEMP is summarised in Section 6 and attached as Appendix A. These measures will provide a robust framework to manage and mitigate environmental risk.
(ii)	to facilitate compliance with relevant standards, codes of practice or guidelines published by the Department or other public authorities.	The proposal will be undertaken on an operational landfill which will continue to comply with the conditions of the existing consent and EPL. The landfill will also continue to comply with the Solid Waste Landfill Environmental Guidelines. The modification application would be referred to the EPA. If the EPA support the application, they would be required to issue General Terms of Approval.

Based on the above assessment, the proposed modification should not be considered designated development as it is not anticipated to significantly increase the environmental impacts of the development.

5.2 Permissibility

The underlying use of the approved development, being a landfill, and the lots within which it is located, will not change as a result of the proposal. Therefore, the proposal is permissible as a modification to the existing development consent.

5.3 Key Legislation

5.3.1 Commonwealth Environment Protection and Biodiversity Conservation Act 1999

The *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) is administered by the Commonwealth Department of Agriculture, Water and the Environment and provides a legal framework to protect and manage nationally important flora, fauna, ecological communities, water resources and heritage places defined as matters of "national environmental significance" (MNES). An action that will have, or is likely to have, a significant impact on a MNES or a significant impact on the environment of Commonwealth land must be referred to the Commonwealth Minister for a decision on whether assessment and approval is required under the EPBC Act.

Significant disturbance of the natural environment within the proposed disturbance footprint has occurred as a result of historic clearing and agricultural production activities, development and operation of a quarry and the subsequent development and operation of the existing landfill and associated activities. It is primarily devoid of vegetation as a result. There are no known threatened species, populations or communities or their habitats present and none are likely to occur. There is also no identified heritage items or conservation areas within the site.

The modification will not have a significant impact on any MNES or on the environment of Commonwealth land and referral to the Minister is not necessary.

5.3.2 NSW Environmental Planning and Assessment Act 1979

The EP&A Act is the principal piece of legislation overseeing the assessment and determination of development proposals in NSW. The objects of the Act generally seek to promote management and conservation of natural and artificial resources, while also permitting appropriate development to occur. Enviroguard is seeking to modify Development Consent DA 05 / 1750 under section 4.55(2) of the EP&A Act. The matters listed in section 4.15(1), as are of relevance to the modification, have been addressed within this SEE to enable consideration by Council during the assessment and determination of the application.

5.3.3 NSW Protection of the Environment Operations Act 1997

The POEO Act is administered by the EPA and establishes the State's environmental regulatory framework and includes licensing requirements for certain activities. The Erskine Park Landfill operates under the provisions of EPL 4865 administered by the EPA under section 43 of the POEO Act. It is understood that Council referred the original development application to the EPA and will likely also refer the proposed modification to assess any implication for EPL 4865 granted for operation of the landfill.

Subject to approval of the modification application, the EPL would be varied in accordance with any General Terms of Approval issued by the EPA.

5.4 Environmental Planning Instruments

The below sub-sections address the environmental planning instruments (EPIs) relevant to the proposed modification.

5.4.1 State Environmental Planning Policy (Western Sydney Employment Area) 2009

The WSEA SEPP is the principal statutory EPI applying to the site. It aims to promote economic development and the creation of employment in the WSEA by providing for development, including major warehousing, distribution, freight transport, industrial, high technology and research facilities.

The majority of the site is zoned E2 Environmental Conservation, with a small section in the north-west corner zoned IN1 General Industrial, under the WSEA SEPP. The objectives of the E2 zone are:

- *To protect, manage and restore areas of high ecological, scientific, cultural or aesthetic values.*
- *To prevent development that could destroy, damage or otherwise have an adverse effect on those values.*

The proposed modification to does not pose any conflict to the objectives of the E2 zone. The proposal is temporary in nature, with the landfilling becoming part of the Biodiversity corridor following closure and rehabilitation.

Once the landfill ceases operation, it will be decommissioned and rehabilitated to a stable and safe end landform as part of the surrounding biodiversity conservation corridor. The proposal for temporary processing does not alter the decommissioning and rehabilitation plans for the landfill.

The objectives of the IN1 zone are:

- *To facilitate a wide range of employment-generating development including industrial, manufacturing, warehousing, storage and research uses and ancillary office space.*
- *To encourage employment opportunities along motorway corridors, including the M7 and M4.*

- *To minimise any adverse effect of industry on other land uses.*
- *To facilitate road network links to the M7 and M4 Motorways.*
- *To encourage a high standard of development that does not prejudice the sustainability of other enterprises or the environment.*
- *To provide for small-scale local services such as commercial, retail and community facilities (including child care facilities) that service or support the needs of employment-generating uses in the zone.*

The proposal is consistent with the IN1 objectives as it supports the continuation of an employment-generating activity, being the Erskine Park Landfill, and is in an existing industrial area. The temporary processing facility is necessary for the MSE wall which will extend its lifespan. Providing additional capacity enables the continued use of the existing development site and the existing approved landfill facility, as opposed to developing a new landfill site, which would be difficult to find in the Sydney region. Ongoing landfill capacity at Erskine Park will help to maintain competition in the Sydney dry landfill market, benefitting businesses and government who need to access landfill capacity at competitive rates.

Development Standards

Part 5 of the WSEA SEPP sets out principal development standards. The only standard considered relevant to the proposal is "ecologically sustainable development", as addressed below.

20 Ecologically Sustainable Development

The consent authority must not grant consent to development on land to which this Policy applies unless it is satisfied that the development contains measures designed to minimise: (a) the consumption of potable water, and (b) greenhouse gas emissions.

The proposal will not change the consumption of potable water on site. Additional landfill gas generated as a result of additional waste placement made possible by the proposed MSE wall will be captured and transferred to the Austral Bricks facility, via the realigned pipeline, where it is used as an alternative fuel to fire the kilns. As such, the safety and environmental benefits will continue.

Material processing onsite reduces the need for double handling of material which has associated environmental benefits through reduced transport and greenhouse gas emissions along with increased quality control.

5.4.2 State Environmental Planning Policy No. 55 - Remediation of Land

The *State Environmental Planning Policy No. 55 – Remediation of Land* (SEPP 55) aims to provide a State-wide approach to the remediation of contaminated land. In accordance with EPL 4865 granted for operation of the landfill, on-going groundwater, surface water, landfill gas, dust and noise monitoring is undertaken at the site to assess potential impacts on and off site. Any event of exceedances to the trigger levels specified in the EPL (for groundwater, noise, dust, stormwater or landfill gas) recorded at nominated on-site locations are reported and managed appropriately by Enviroguard in consultation with EPA.

The proposed modification would not involve any disturbance to existing landform or alter current monitoring arrangements on site.

5.4.3 Sydney Regional Environmental Plan No. 20 - Hawkesbury-Nepean River

The *Sydney Regional Environmental Plan No. 20 - Hawkesbury-Nepean River (No. 2 - 1997)* (SREP 20) aims to protect the environment of the Hawkesbury-Nepean River system by ensuring that the impacts of future land uses are considered in a regional context. The proposal is within the South Creek catchment of the Hawkesbury-Nepean River.

Part 3 of the SREP 20 contains specific controls for development related to primary production, residential land use, industry, water related uses, land filling, stormwater, waste management and works impacting on the river or areas of significance to the region. In relation to the proposal appropriate ESC measures will be installed in accordance with the CEMP provided in Appendix A.

As such, the proposal will not adversely impact on the hydrology or water quality of the South Creek catchment and is consistent with the requirements of SREP 20.

5.5 Penrith Development Control Plan 2014

Part E6 of the *Penrith Development Control Plan 2014* (DCP) applies specifically to the Erskine Business Park, in which the site is located. The DCP has limited applicability to the proposed modification. The proposal appears compatible with the intent of the DCP, along with the objectives and relevant environmental quality controls for the Erskine Business Park precinct. The works would be temporary and limited to the landfill site itself. The limited environmental impacts anticipated will be effectively managed via the standard environmental management practices.

Refer to Section 6 for information in relation to the key environmental considerations.

6 IMPACT ASSESSMENT

This section addresses the potential environmental impacts associated with the proposal. Impacts associated with transport of fill to the site and internal haulage, stockpiling and placement of fill have been assessed under the approved MSE wall application.

The key issue associated with the temporary processing is noise from the plant and equipment. All other issues are minor and capable of being managed through the Construction Environmental Management Plan (CEMP) developed for the approved MSE wall and provided as Appendix A.

6.1 Noise

An Addendum to MSE wall Noise Impact Assessment (NIA) was undertaken to assess the impacts of the proposed temporary material processing, and is provided as Appendix B and summarised here.

Proposal

The components of the proposal relevant to the NIA are:

- Temporary processing over an anticipated 8 month period
- All works associated with temporary onsite material processing would be undertaken during standard daytime construction hours (7 am to 6 pm Monday to Friday, and 8 am to 1 pm Saturday).
- The equipment and indicative operating hours assumed for the purposes of the noise assessment are shown in Table 3.

Table 3: Plant and equipment

Plant type / quantity	Sound power level per item[1]	Weekday operating hours between 7am and 6pm	Weekend operating hours between 8am and 1pm
Crusher / 1 No	119 dBA	4 hours	2 hours
Screen / 1 No	111 dBA	10 hours	4 hours
Cat 980k wheel loader / 2 No	109 dBA	10 hours	4 hours
30 tonne excavator / 1 No	105 dBA	10 hours	4 hours

[1]Sound power level from manufacturers specification or SLR database

No additional vehicle movements are anticipated as part of the onsite material processing. Material deliveries to the site and internal haulage of materials associated with construction of the MSE Wall were included in the approved modification application, which included a noise impact assessment. As such, vehicle movements are accounted for in the cumulative assessment (see below) of construction noise from the onsite material processing and the approved MSE Wall construction works assessed in the noise impact assessment.

The nearest residential dwellings are located within the suburbs of St Clair and Erskine Park approximately 650 m to the north of the landfill. Noise sensitive receivers are shown in the noise impact assessment in Appendix B.

Construction Noise Assessment Method

Noise management levels (NMLs) were derived for the nearest noise sensitive receivers, based on the existing background levels, in accordance with the EPA's Interim Construction Noise Guidelines (ICNG). NMLs are provided in full in Appendix B.

Computer noise modelling was used to predict construction noise emissions from the temporary onsite material processing. The assessment conservatively assumed that no shielding would be provided by the stockpiles either side of the processing area.

Construction Noise Assessment Results

Predicted noise levels from the proposed onsite material processing are provided in full in Appendix B. In summary, the assessment found:

- Noise emissions from temporary onsite material processing are generally predicted to be below the NMLs at the nearest receivers.

- Noise levels from the operation of all processing plant during standard weather conditions are predicted to be below the NMLs at all receivers. Minor exceedances of the NMLs of up to 2 dB are predicted at two receiver locations (one residential, one educational) to south of the site during noise-enhancing weather.

Indicative modelling of the stockpiles indicates that noise levels would be reduced by up to 8 dB at the most-affected receivers due to the shielding provided by the stockpiles when they are at their largest size. The actual level of reduction would vary depending on the location and size of the stockpiles, the location of the plant and equipment, and the amount of shielding provided to each receiver location.

The noise impact assessment also assessed the cumulative construction noise impacts of the MSE wall and the temporary processing. In summary, the assessment found:

- Cumulative noise emissions from temporary onsite material processing and construction of the MSE Wall are generally predicted to be below the NMLs at the nearest receivers.

- Cumulative noise levels from the MSE Wall and all processing plant are predicted to be below the NMLs at all receivers during standard weather conditions. Minor exceedances of the NMLs of up to 3 dB are predicted at three receiver locations (one residential, two educational) to the south of the site during noise-enhancing weather conditions with no stockpile shielding.

- Cumulative noise levels from the MSE Wall and all processing plant except the crusher are predicted to be below the NMLs at all receivers during both standard and noise-enhancing weather conditions.

Similar to the processing plant alone, the predicted cumulative exceedances of the NMLs are considered minor in magnitude and are predicted only during noise-enhancing weather conditions with all equipment operating concurrently. It is anticipated that these impacts would occur infrequently and would be easily manageable with typical best-practice noise management measures such as regular equipment maintenance. Additionally, the stockpiles would typically provide some shielding from the processing

plant, further minimising potential noise impacts. It is anticipated that the noise impacts would be negligible at the most-affected receivers.

6.2 Soil and Water

Stormwater management infrastructure at the landfill comprises two stormwater / sedimentation basins located on the north west and south east corners of the site. Water is collected at the base of landform and transported to the basins via swales.

The potential soils and water impacts of relevance to the proposal are sedimentation of water as a result of runoff from stockpiles and work areas.

Potential for soil and water impacts from the proposal will be managed in accordance with the measures described in the MSE wall Construction Environmental Management Plan (Golder, 2020) (Appendix A), part of the approved MSE wall application. These include:

- Control and management of stormwater with an emphasis on separation of clean and dirty water
- Erosion and sedimentation controls around work areas / stockpiles, including erection of silt fences to control migration of fines
- Bunding of areas where fuels, oils and chemicals may be used or stored

6.3 Air quality and dust management

Management of air quality and dust during temporary processing will be in accordance with the Construction Environmental Management Plan (Golder, 2020) prepared as part of the approved MSE wall application.

The potential air quality and dust impacts of relevance to the proposal are:

- Dust from the handling, processing and stockpiling of fill material
- Emissions from plant and equipment.

Measures to manage and minimise air quality and dust impacts include:

- Watering of haul roads and active work areas to suppress dust.
- Limiting works during unfavourable weather conditions.
- Restricting the speed of site traffic to minimise dust generation.
- All plant and equipment to comply with EPA licence conditions.

An updated dust management plan specific to the material processing activity will be provided prior to commencement of construction and will include regular monitoring of dust and management actions to respond to excessive dust levels if required.

6.4 Other issues

Traffic

As discussed earlier, traffic impacts related to the transport of fill material to the site and the internal haulage of material have been assessed as part of the approved MSE wall application.

Visual Amenity

The temporary stockpiles would be located on top of the landfill at a height of approximately 98m AHD, 6m above the level of the current landform. The stockpiles would be visible from Erskine Park Road to the north for the duration of processing however the view is not expected to be significantly different from the current situation at this location.

Biodiversity

The landfill site is highly disturbed reflecting its previous use as a quarry followed by rehabilitation by landfilling. There are no known threatened species, populations or communities or their habitats present and none are likely to occur. The proposal is unlikely to impact on biodiversity.

7 CONCLUSION

This SEE has been prepared to accompany an application by Enviroguard seeking to modify Development Consent DA 05 / 1740 under section 4.55(2) of the EP&A Act to allow the temporary processing of fill material on the landfill site to support the construction of the approved MSE wall.

The temporary processing of material is an integral part of the MSE wall construction, however, details on the type and source of fill material was not known at the time of the MSE wall application. The construction environmental management measures recommended for the approved MSE wall would also apply to the temporary material processing.

Noise impacts were identified as the key issue requiring further assessment, with a detailed cumulative noise impact assessment prepared by SLR consulting. The noise impact assessment assessed the impacts of the temporary material processing on its own and in combination with the approved MSE wall construction. The assessment predicted minor exceedances of noise management levels at a small number of receiver locations but noted that these would reduce when standard mitigation measures and the shielding effects of the stockpiles were taken into account.

The proposal has been assessed in this SEE in accordance with the context of the relevant environmental legislation and planning instruments, including the EP&A Act and WSEA SEPP, and concludes the following:

- The projects, as proposed to be modified, will be substantially the same development for which consent was originally granted;
- The associated environmental impacts are expected to be negligible or minor; and
- A modification under section 4.55(2) of the EP&A Act appears to be a suitable and lawful consent pathway for the proposal.

Envirogaurd will implement the environmental mitigation and management practices listed in **Section 6**, in addition to the standard management practices already in place at the landfill, to effectively mitigate and manage the very limited environmental risks.

The temporary material processing is required to support the construction of the approved MSE wall, which will provide ongoing landfill capacity in the Sydney region, helping to maintain competition in the Sydney dry landfill market, benefitting businesses and government who need to access landfill capacity at competitive rates.

8 REFERENCES

Department of Environment and Climate Change (2009), *Interim Construction Noise Guideline*

Golder (2020), *Erskine Park Landfill Construction Environmental Management Plan*

EME Advisory (2020), *Statement of Environmental Effects Erskine Park Landfill Proposed MSE Wall*

9 ABBREVIATIONS

AHD	Australian Height Datum
Austral Bricks	Austral Bricks Company Pty Ltd
Cleanaway	Cleanaway Waste Management Pty Ltd
Council	Penrith City Council
DCP	*Penrith Development Control Plan 2014*
DP	Deposited Plan
DPIE	Department of Planning, Industry and Environment
EME	EME Advisory
Enviroguard	Enviroguard Pty Ltd
EPA	Environment Protection Authority
EPBC Act	*Environment Protection and Biodiversity Conservation Act 1999*
EPI	environmental planning instrument
EPL	Environment Protection Licence
EP&A Act	*Environmental Planning and Assessment Act 1979*
ESC	erosion and sediment control
ESCP	Erosion and Sediment Control Plan
HDPE	high density polyethylene
ICNG	*Interim Construction Noise Guideline*
km	kilometre
LGA	local government area
m	metre
mm	millimetres
m^3	cubic metres
MNES	matters of national environmental significance
MSE	mechanically stabilised earth
NSW	New South Wales
POEO Act	*Protection of the Environment Operations Act 1997*
SEE	Statement of Environmental Effects
SEPP	State Environmental Planning Policy
SEPP 55	*State Environmental Planning Policy No. 55 – Remediation of Land*
SREP 20	*Sydney Regional Environmental Plan No. 20 - Hawkesbury-Nepean River (No. 2 – 1997)*
WM Act	*Water Management Act 2000*
WSEA SEPP	*State Environmental Planning Policy (Western Sydney Employment Area) 2009*

Appendix A: Erskine Park Landfill (MSE Wall) Construction Environmental Management Plan (CEMP)

Appendix B: Addendum Noise Impact Assessment