Amendment Report

Application for Licence Amendment

Part V Division 3 of the *Environmental Protection Act 1986*

Licence Number	L7060/1997/13
Licence Holder	Peel Resource Recovery Pty Ltd
ACN	149 428 697
File Number	DER2014/001334-1
Premises	Cross Resource Management 70 Stanley Road WELLESLEY WA 6233 Legal description – Part of Lot 601 on Deposited Plan 417253
Date of Report	4 July 2022
Decision	Revised licence granted

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Abbie Crawford
A/Manager, Waste Industries

an officer delegated under section 20 of the *Environmental Protection Act 1986* (WA)

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1. Decision summary

Licence L7060/1997/13 is held by Peel Resource Recovery Pty Ltd (Licence Holder) at Cross Resource Management (the Premises), located at 70 Stanley Road, Wellesley.

This Amendment Report documents the assessment of potential risks to the environment and public health from proposed changes to the emissions and discharges during operation of a new inert landfill cell and a new clean fill cell at the Premises. As a result of this assessment, Revised Licence L7060/1997/13 has been granted.

The Revised Licence issued as a result of this amendment supersedes the existing Licence previously granted in relation to the Premises.

2. Scope of assessment

2.1 Regulatory framework

In completing the assessment documented in this Amendment Report, the department has considered and given due regard to its Regulatory Framework and relevant policy documents which are available at https://dwer.wa.gov.au/regulatory-documents.

2.2 Background

The site was originally one large property owned by J.W. Cross & Sons that was sub-divided in the late 1980s to facilitate sand extraction companies and the Bunbury-Harvey Regional Council landfill. The site itself was established in the early 1990s as a sand quarry and in 1992, excavated voids were backfilled with demolition wastes generated by associated businesses. In 1995, the site was opened to the general public as a registered inert landfill site.

The site was first licensed in 1997 as an inert landfill site, accepting and disposing of waste that has been classified as clean fill, Type 1 inert waste, Type 1 special waste, and contaminated solid waste meeting waste acceptance criteria specified for Class I landfills, as determined by reference to the document entitled “Landfill Waste Classification and Waste Definitions 1996” (As amended).

Over the years the level of waste management services provided has increased at the site, and now includes the disposal of used tyres, crushing and screening of construction and demolition wastes and the implementation of a waste sorting station in 2011 for builder’s skip bins.

The majority of in-coming waste is demolition waste from J.W. Cross & Sons operations, local skip bin operators and the general public. Incoming trucks are screened at the gatehouse, prior to driving to the relevant area on the site for unloading. Most of the incoming waste from skip bins is segregated and processed for reuse and resale (brick and concrete) or recycling (sand, cardboard, paper, wood, steel). Cement bonded asbestos is accepted for burial where it is disposed of in a designated cell and covered with inert wastes and clean fill. Putrescible wastes are not accepted, rather are transferred to the adjacent landfill for disposal.

2.3 Amendment summary

On 23 December 2021, the Licence Holder submitted an application to the department to amend Licence L7060/1997/13 under section 59 and 59B of the *Environmental Protection Act 1986* (EP Act). The Licence Holder seeks to construct and operate a new inert landfill cell and a new clean fill cell at the Premises.

The new clean fill cell will be approximately 0.8 hectares, to be located within an exhausted sand quarry pit. Extractive operations ceased in early 2021. Only clean fill and uncontaminated fill will be accepted for landfilling at the clean fill cell, which is separate from the landfill areas.

The new inert landfill cell will be approximately 3.5 hectares. This area currently contains the concrete crusher and associated stockpiles which will be relocated to allow landfilling of Inert Waste type 1 once it has been crushed. Landfilling is planned to occur in a west to east direction, in 2 metre lifts and will only accept wastes and operate as per current licence conditions.

A front-end loader and landfill compactor will be utilised as required.

The concrete crushing plant was previously located in the bottom of the sand quarry pit, whereby the pit landform and sand walls mitigated noise emissions. As the intention is for the sand quarry pit to become the clean fill cell, the crushing plant will be relocated further along the bottom of the pit, approx. 70 m west of its original location where the existing elevated quarry pit walls will continue to mitigate noise emissions (Figure 1).

There are no proposed changes to the volumes of concrete to be crushed under Category 13. The crushing plant will continue to crush inert waste prior to disposal of the waste into the inert landfill cell. The Licence Holder does not intend on crushing any inert waste that may contain asbestos and will continue to conduct operations in accordance with existing licence condition 9 and the Assessment Report for Management of Asbestos at Lot 43 Stanley Road (February 2013). Raw inert wastes such as gravel, rocks, bitumen, asphalt, concrete and bricks are crushed and screened and sold where possible for road base, drainage aggregate or landscaping products, or disposed of to the inert landfill cell.

It should be noted asbestos is disposed of at the Premises, however this is limited to cement bonded asbestos only, no fibrous asbestos will be accepted, and is to be disposed of by landfilling into a designated asbestos disposal cell. This amendment does not propose any changes to the acceptance or landfilling practices for cement bonded asbestos.

Clearing of native vegetation is not required as the landfill cell and clean fill cell will be within previously cleared areas.

This amendment does not change the existing assessed production and/or design capacities of the prescribed activities occurring at the Premises, as specified in Table 1 below. Only emissions and discharges relating to the amendment have been assessed in this Amendment Document.

Table 1: Assessed production / design capacity

Category	Current production / design capacity
Category 13: Crushing of building material: premises on which waste building or demolition material	65,000 tonnes per annual period
Category 62: Solid waste depot: premises on which waste is stored or sorted, pending final disposal or re-use, other than in the course of operating — (a) a refund point (as defined in the Waste Avoidance and Resource Recovery Act 2007 section 47C(1)) (a refund point); or (b) a facility or other place (an aggregation point) for the aggregation of containers that have been returned to refund points until those containers are accepted for processing or disposal.	300,000 tonnes per annual period
Category 63: Class I inert landfill site: premises (other than clean fill premises) on which waste of a type permitted for disposal for this category of prescribed premises, in accordance with the Landfill Waste Classification and Waste Definitions 1996, is accepted for burial.	115,000 tonnes per annual period

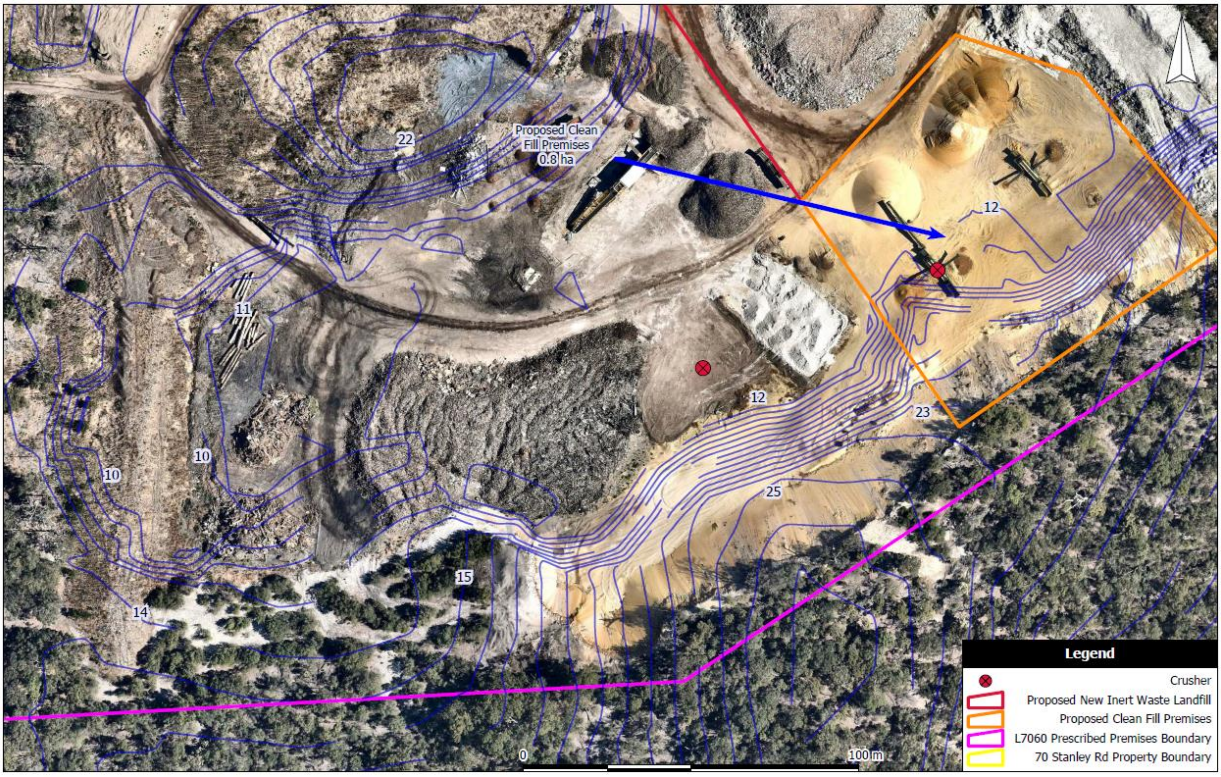

Figure 1: Pit wall elevations

3. Risk assessment

The department assesses the risks of emissions from prescribed Premises and identifies the potential source, pathway and impact to receptors in accordance with the *Guideline: Risk assessments* (DWER 2020).

To establish a Risk Event there must be an emission, a receptor which may be exposed to that emission through an identified actual or likely pathway, and a potential adverse effect to the receptor from exposure to that emission.

3.1 Source-pathways and receptors

3.1.1 Emissions and controls

The key emissions and associated actual or likely pathway during Premises operation which have been considered in this Amendment Report are detailed in Table 2 below. Table 2 also details the proposed control measures the Licence Holder has proposed to assist in controlling these emissions, where necessary.

Table 2: Licence Holder controls

Source Activities	Potential Emission	Potential pathways	Proposed controls
Operation of clean fill cell and inert waste landfill cell Operation of crushing plant Vehicle and equipment movements	Dust	Air / wind dispersion	Adherence to existing licence conditions including: • Preventing visible dust emissions being discharged from the Premises, • Wetting down unsealed roads and exposed areas with a water truck, • limiting vehicle speeds to less than 10 km/hr, • ceasing operations during strong wind conditions.
	Noise	Air / wind dispersion and ground vibrations	• No change to current operational activities, throughputs and landfilling quantities. • Operations only take place within regular working hours and often only one day per week. • The positioning of the crushing and screening area in the sand quarry pit, below natural ground level, suppresses noise emissions.
Operation of inert waste landfill cell	Leachate	Subsurface leachate	• No change to current operational activities, throughputs and landfilling quantities. • Adherence to existing licence conditions including monitoring of ambient groundwater quality.
	Contaminated stormwater runoff	Overland flow	• All runoff from the Premises is presently managed with a series of open surface drains and soak ponds.
	Windblown wastes	Air / wind dispersion	Adherence to existing licence conditions including: • ensuring that no wind-blown waste escapes from the Premises and that • wind-blown waste is collected on at least a weekly basis and returned to the tipping area.

Source Activities	Potential Emission	Potential pathways	Proposed controls
	Asbestos fibers from non-conforming wastes	Air / wind dispersion	• No change to current operational activities, throughputs and landfilling quantities. • Adherence to existing licence conditions including: ○ Waste acceptance criteria including inert waste type 1 containing visible asbestos or ACM shall not be accepted. ○ No works to occur on the landfill that could lead to a release of asbestos fibres. ○ Management of asbestos and asbestos containing material to be in accordance with the Asbestos Management Plan *Assessment Report for Management of Asbestos at Lot 43 Stanley Road* (February 2013).
Operation of clean fill cell	Leachate from non-conforming wastes	Subsurface leachate Impacting groundwater	None

3.1.2 Receptors

In accordance with the *Guideline: Risk assessments* (DWER 2020), the Delegated Officer has excluded employees, visitors and contractors of the Licence Holder's from its assessment. Protection of these parties often involves different exposure risks and prevention strategies, and is provided for under other state legislation.

Table 3 below provides a summary of potential human and environmental receptors that may be impacted as a result of activities upon or emission and discharges from the prescribed Premises *(Guideline: Environmental siting* (DWER 2020)).

Table 3: Sensitive human and environmental receptors and distance from prescribed activity

Human receptors	Distance from prescribed activity
Residential development	• 380 m to the west of the Premises boundary • 650 m to the south of the Premises boundary • 75 m to the west of the Premises boundary The certificate of title for this Premises includes a covenant that this property is unable to be used as a residential Premises. The Delegated Officer does not consider it a sensitive receptor for the purposes of this assessment.
Environmental receptors	**Distance from prescribed activity**
Shallow groundwater	Sandy soils – shallow aquifer (2 – 4 mBGL)
Beneficial users of groundwater –	28 privately owned bores are located within 1 km of the Premises boundary (DWER GIS – WIN Groundwater

predominantly non potable[1] potential drinking water[2] use in semi-rural dwellings to the south agricultural irrigation stock watering industrial uses	Sites) The closest bore is located 70 m west of the Premises boundary.
Rights in water and Irrigation Act 1914 Proclaimed Groundwater Area	Within the Bunbury Groundwater Area
Rights in water and Irrigation Act 1914 Proclaimed Surface Water Area	Within the Brunswick River and Tributaries surface water area
Waterways Conservation Act 1976	Leschenault Inlet Management Area
Rivers and Tributaries	Brunswick River 200 m south of the Premises boundary.
Conservation category geomorphic wetlands	Damplands 90 m west, 620 m north and 170 m south of the Premises boundary. Floodplains 170 m south of the Premises boundary.
Threatened Ecological Community	Priority 3 Banksia Dominated Woodlands of the Swan Coastal Plain immediately surrounding the Premises boundary to the north, south, east and west.
Threatened and Priority Flora	One threatened flora *Drakaea elastica* has been located within 1 km of the Premises boundary.
Threatened and Priority Fauna	One critically endangered mammal species, one mammal species of special conservation interest and two mammal species listed as Priority 4 have been located within 1 km of the Premises boundary. Three critically endangered bird species, five endangered bird species, two vulnerable bird species, 15 migratory bird species and one bird species listed as Priority 4 have been located within 1 km of the Premises boundary.
Department of Biodiversity Conservation and Attractions Legislated Land, conservation of flora and fauna and or historical features.	As close as 580 m to the north, north-east and north-west of the Premises boundary.

Note 1. Irrigation of gardens or parks and reserves, washing cars and clothes, flushing toilets.
Note 2. Direct consumption but also applicable to bathing, filling swimming pools, food preparation or cooking.

Figure 2: Premises boundary and distance to sensitive receptors

3.2 Risk ratings

Risk ratings have been assessed in accordance with the *Guideline: Risk Assessments* (DWER 2020) for those emission sources which are proposed to change and takes into account potential source-pathway and receptor linkages as identified in Section 3.1. Where linkages are incomplete they have not been considered further in the risk assessment.

Where the Licence Holder has proposed mitigation measures/controls (as detailed in Section 3.1), these have been considered when determining the final risk rating. Where the Delegated Officer considers the Licence Holder's proposed controls to be critical to maintaining an acceptable level of risk, these will be incorporated into the licence as regulatory controls.

Additional regulatory controls may be imposed where the Licence Holder's controls are not deemed sufficient. Where this is the case the need for additional controls will be documented and justified in Table 4.

The Revised Licence L7060/1997/13 that accompanies this Amendment Report authorises emissions associated with the operation of the Premises. The conditions in the Revised Licence have been determined in accordance with *Guidance Statement: Setting Conditions* (DER 2015).

Table 4. Risk assessment of potential emissions and discharges from the Premises during construction and operation

Risk Event					**Risk rating[1]** **C = consequence** **L = likelihood**	**Applicant controls sufficient?**	**Conditions[2] of licence**	**Justification for additional regulatory controls**
Sources / Activities	**Potential emission**	**Potential pathways and impact**	**Receptors**	**Applicant controls**				
Operation								
Operation of clean fill cell and inert waste landfill cell Operation of crushing plant Vehicle and equipment movements	Dust	Air / wind dispersion Impacting human health and amenity	Residential Premises	Refer to Section 3.1	C: Major L: Unlikely **Medium Risk**	Yes	Conditions 22 and 23 **Condition 11**	Condition 2 of the existing licence defers management of asbestos to a secondary document, the Asbestos Management Plan (AMP). This method of compliance is outdated, therefore the Delegated Officer has taken the opportunity to incorporate the requirements of the AMP into licence conditions. The AMP includes practices to manage asbestos dust emissions from crushing of Inert Waste Type 1 which have been incorporated into licence conditions.

Risk Event					Risk rating[1] C = consequence L = likelihood	Applicant controls sufficient?	Conditions[2] of licence	Justification for additional regulatory controls
Sources / Activities	**Potential emission**	**Potential pathways and impact**	**Receptors**	**Applicant controls**				
	Noise			Refer to Section 3.1	C: Minor L: Unlikely **Medium Risk**	Yes	None	N/A
Operation of inert waste landfill cell	Leachate	Subsurface leachate Impacting groundwater	Beneficial users of groundwater	Refer to Section 3.1	C: Slight L: Unlikely **Low Risk**	Yes	Condition 31	N/A
	Contaminated stormwater runoff	Overland flow Impacting surface waters	Beneficial use of surface waters	Refer to Section 3.1	C: Slight L: Unlikely **Low Risk**	Yes	**Condition 21**	The Delegated Officer considers that appropriate stormwater management practices occurring at the Premises adequately mitigate the potential risk from contaminated stormwater sources. However, there are no licence conditions requiring prevention of stormwater run-off becoming contaminated. This has been incorporated into the amended licence.
	Windblown wastes	Discharges to land Impacting amenity	Adjacent native vegetation. Residential Premises	Refer to Section 3.1	C: Minor L: Unlikely **Medium Risk**	Yes	Condition 20	N/A
	Asbestos fibers from non-conforming wastes	Air / wind dispersion Impacting human health	Residential Premises	Refer to Section 3.1	C: Major L: Unlikely **Medium Risk**	No	**Conditions 3 to 14, 33, 34, 37**	Condition 2 of the existing licence defers management of asbestos to a secondary document, the AMP. This method of compliance is outdated, therefore the Delegated Officer has taken the opportunity to incorporate the requirements of the AMP into licence conditions. The Delegated Officer notes the AMP does

Risk Event					Risk rating[1] C = consequence L = likelihood	Applicant controls sufficient?	Conditions[2] of licence	Justification for additional regulatory controls
Sources / Activities	**Potential emission**	**Potential pathways and impact**	**Receptors**	**Applicant controls**				
								not specify separate stockpiling of tested and untested inert waste type 1, minimum separation distances between stockpiles and for all stockpiles to be clearly signposted. The Delegated Officer has incorporated these conditions into the licence to provide adequate management practices preventing cross-contamination of stockpiles. The Delegated Officer has added record keeping and reporting of the asbestos inspection and sampling regime to the Annual Environmental Report.
Operation of clean fill cell	Leachate from non-conforming wastes	Subsurface leachate Impacting groundwater	Beneficial use of groundwater	Refer to Section 3.1	C: Moderate L: Possible **Medium Risk**	No	**Conditions 1, 15, 18, 28**	Each load of clean fill must be accompanied by certification that it meets specifications to ensure it is clean. Each load of uncontaminated fill must be accompanied by certification that the maximum concentrations of relevant chemical substances have not been exceeded. The Delegated Officer has applied conditions to ensure this occurs. The Delegated Officer has amended the licence to ensure clean fill and uncontaminated fill are able to be processed at the Premises, to enable uncontaminated fill to be used as cover material, and to ensure monitoring of inputs of uncontaminated fill occurs for each load arriving at the Premises, and for waste landfilled at the Premises. Clean fill inputs are already monitored by existing licence conditions.

Note 1: Consequence ratings, likelihood ratings and risk descriptions are detailed in the *Guideline: Risk assessments* (DWER 2020).

Note 2: Proposed Licence Holder's controls are depicted by standard text. **Bold and underline text** depicts additional regulatory controls imposed by department.

4. Consultation

Table 5 provides a summary of the consultation undertaken by the department.

Table 5: Consultation

Consultation method	Comments received	Department response
Local Government Authority advised of proposal 2 March 2022	On 30/03/2022 the Shire of Harvey advised the new location of the inert landfill cell is not consistent with the current planning approval. An amendment is required to alter the planning approval to encompass the new inert landfill cell.	DWER will proceed with the environmental assessment within this Amendment Report. It is the Licence Holder's responsibility to ensure that the relevant planning approval are in place prior to commencing operation of the new cells.
Licence Holder was provided with draft amendment 15 June 2022	The Licence Holder queried condition 14 that prevents a reduced sampling criteria for asbestos monitoring and testing. The Licence Holder has reviewed a site layout map and confirmed all landfilling activities are depicted.	DWER has advised condition 14 currently prevents a reduced sampling criteria for asbestos monitoring and testing. However, once the Licence Holder can demonstrate that their procedures are able to consistently produce recycled product that meets the product specification and undertake their activities to a high standard, DWER may authorise a reduced product testing rate DWER has incorporated the updated site layout map into the Licence as Figure 2.

5. Conclusion

Based on the assessment in this Amendment Report, the Delegated Officer has determined that a Revised Licence will be granted, subject to conditions commensurate with the determined controls and necessary for administration and reporting requirements.

5.1 Summary of amendments

Table 6 provides a summary of the proposed amendments and will act as record of implemented changes. All proposed changes have been incorporated into the Revised Licence as part of the amendment process.

Table 6: Summary of licence amendments

Condition no.	Proposed amendments
Condition 1	Addition of clean fill and uncontaminated fill specifications
Conditions 3 to 14	Addition of Inert Waste Type 1 inspections, stockpile management and product testing
Condition 15	Addition of clean fill and uncontaminated fill process limits.

Condition 18	Addition of uncontaminated fill as a cover material
Condition 21	Addition of stormwater management and infrastructure maintenance.
Condition 28	Addition of monitoring of waste inputs for uncontaminated fill.
Condition 33	Addition of record keeping for Inert Waste Type 1 found to contain asbestos and/or ACM.
Condition 34	Addition of record keeping for Inert Waste Type 1 product testing.
Condition 37	Addition of reporting on conditions 34 and 35.
Condition 38	Deletion of condition 38 (a) and incorporation into condition 37 table 8.
Definitions	Updated to include new definitions relating to additional conditions.
Schedule 1	Updated Figure 2 site layout map
Schedule 3	Addition of schedule specifying maximum concentrations and minimum testing standards for uncontaminated fill.
Schedule 4	Addition of schedule specifying Inert Waste Type 1 risk classification procedure.
Schedule 5	Addition of schedule specifying high risk asbestos load procedure.
Schedule 6	Addition of schedule specifying asbestos monitoring and testing procedure.

References

1. Department of Environment Regulation (DER) 2015, *Guidance Statement: Setting Conditions*, Perth, Western Australia.
2. Department of Water and Environmental Regulation (DWER) 2020, *Guideline: Environmental Siting*, Perth, Western Australia.
3. DWER 2020, *Guideline: Risk Assessments*, Perth, Western Australia.
4. Peel Resource Recover Pty Ltd 2013, *Assessment Report for Management of Asbestos at Lot 43 Stanley Road*.

Appendix 1: Application validation summary

SECTION 1: APPLICATION SUMMARY					
Application type					
Works approval	☐				
Licence	☐	Relevant works approval number:		None	☐
		Has the works approval been complied with?		Yes ☐ No ☐	
		Has time limited operations under the works approval demonstrated acceptable operations?		Yes ☐ No ☐ N/A ☐	
		Environmental Compliance Report / Critical Containment Infrastructure Report submitted?		Yes ☐ No ☐	
		Date Report received:			
Renewal	☐	Current licence number:			
Amendment to works approval	☐	Current works approval number:			
Amendment to licence	☒	Current licence number:	L7060/1997/13		
		Relevant works approval number:		N/A	☐
Registration	☐	Current works approval number:		None	☐
Date application received		23/12/2021			
Applicant and Premises details					
Applicant name/s (full legal name/s)		Peel Resource Recovery Pty Ltd			
Premises name		Cross Resource Management			
Premises location		70 Stanley Road Wellesley			
Local Government Authority		Shire of Harvey			
Application documents					
HPCM file reference number:		DER2014/001334-1			
Key application documents (additional to application form):		Letter of authority Shire of Harvey planning consent 28/10/2014 Premises aerial map			
Scope of application/assessment					
Summary of proposed activities or changes to existing operations.		Licence amendment Operation of landfill – addition of new cell for inert waste and new cell for clean fill/uncontaminated fill			

Category number/s (activities that cause the premises to become prescribed premises)

Table 1: Prescribed premises categories

Prescribed premises category and description	Assessed production or design capacity	Proposed changes to the production or design capacity (amendments only)
Category 13: Crushing of building material: premises on which waste building or demolition material	65,000 tonnes per annual period	No change
Category 62: Solid waste depot: premises on which waste is stored or sorted, pending final disposal or re-use, other than in the course of operating — (a) a refund point (as defined in the Waste Avoidance and Resource Recovery Act 2007 section 47C(1)) (a refund point); or a facility or other place (an aggregation point) for the aggregation of containers that have been returned to refund points until those containers are accepted for processing or disposal.	300,000 tonnes per annual period	No change
Category 63 Class I inert landfill site: premise (other than clean fill premises) on which waste of a type permitted for disposal for this category of prescribed premises, in accordance with the *Landfill Waste Classification and Waste Definitions 1996*, is accepted for burial.	115,000 tonnes per annual period	No change

Legislative context and other approvals

Has the applicant referred, or do they intend to refer, their proposal to the EPA under Part IV of the EP Act as a significant proposal?	Yes ☐ No ☒	
Does the applicant hold any existing Part IV Ministerial Statements relevant to the application?	Yes ☐ No ☒	
Has the proposal been referred and/or assessed under the EPBC Act?	Yes ☐ No ☒	
Has the applicant demonstrated occupancy (proof of occupier status)?	Yes ☒ No ☐	Other evidence ☒ letter of consent from owners
Has the applicant obtained all relevant planning approvals?	Yes ☒ No ☐ N/A ☐	Approval: 13/25061; 14/11312
Has the applicant applied for, or have an existing EP Act clearing permit in relation to this proposal?	Yes ☐ No ☒	No clearing is proposed.
Has the applicant applied for, or have an existing CAWS Act clearing licence in relation to this proposal?	Yes ☐ No ☒	No clearing is proposed.

Has the applicant applied for, or have an existing RIWI Act licence or permit in relation to this proposal?	Yes ☐ No ☒	Licence / permit not required.
Does the proposal involve a discharge of waste into a designated area (as defined in section 57 of the EP Act)?	Yes ☐ No ☒	
Is the Premises situated in a Public Drinking Water Source Area (PDWSA)?	Yes ☐ No ☒	
Is the Premises subject to any other Acts or subsidiary regulations (e.g. *Dangerous Goods Safety Act 2004, Environmental Protection (Controlled Waste) Regulations 2004, State Agreement Act xxxx*)	Yes ☐ No ☒	
Is the Premises within an Environmental Protection Policy (EPP) Area?	Yes ☒ No ☐	Peel Harvey Environmental Protection Policy
Is the Premises subject to any EPP requirements?	Yes ☐ No ☒	
Is the Premises a known or suspected contaminated site under the *Contaminated Sites Act 2003*?	Yes ☐ No ☒	