Government of Western Australia
Department of Water and Environmental Regulation

Decision Report

Application for Works Approval

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

Works Approval Number	W2889/2025/1
Applicant	Covalent Lithium Pty Ltd
ACN	623 090 139
File number	INS-0002889
Premises	Earl Grey Lithium Project Legal description Mining tenement M77/1066 As defined by the coordinates in Schedule 1 of the works approval
Date of report	26 March 2025
Decision	Works approval granted

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Adam Green
A/MANAGER, WASTE INDUSTRIES
an officer delegated under section 20 of the *Environmental Protection Act 1986* (WA)

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1. Decision summary

This decision report documents the assessment of potential risks to the environment and public health from emissions and discharges during the construction and operation of the premises. As a result of this assessment, works approval W2889/2025/1 has been granted.

2. Scope of assessment

2.1 Regulatory framework

In completing the assessment documented in this decision report, the Department of Water and Environmental Regulation (the department; DWER) 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 Application summary and overview of premises

On 28 November 2024, the applicant (Covalent Lithium Pty Ltd) submitted an application for a works approval to the department under section 54 of the *Environmental Protection Act 1986* (EP Act).

The application is to undertake construction works relating to new putrescible landfill cells at the premises. The premises is approximately 71 km south-east of Town of Marvel Loch.

The premises relates to the category and assessed design capacity under Schedule 1 of the *Environmental Protection Regulations 1987* (EP Regulations) which are defined in works approval W2889/2025/1. The infrastructure and equipment relating to the premises category and any associated activities which the department has considered in line with *Guideline: Risk Assessments* (DWER 2020) are outlined in works approval W2889/2025/1.

The applicant proposes to develop five additional landfill cells at the existing putrescible landfill. Similar to the approved annual throughput of the current licence L9326/2022/1), the maximum annual throughput of waste at the proposed landfill extension will continue to be 700 tonnes.

The applicant also proposes to construct a concrete bunded hydrocarbon waste storage area at the premises. The quantity of hydrocarbon waste does not currently meet the category 61 threshold limit, however the department has assessed this infrastructure as an associated activity. If the volumes of waste increase, Covalent Lithium Pty Ltd may be required to add Category 61 to their operational licence (L9326/2022/1).

Covalent Lithium Pty Ltd has proposed to decommission the existing stormwater detention basin in the northern portion of the putrescible landfill area. The applicant states that the detention basin has collected limited stormwater since the operation of the landfill. The applicant advises that the facility's perimeter bund will adequately collect and retain all stormwater once the detention basin is decommissioned.

2.3 Part IV of the EP Act

The Earl Grey Lithium Project was granted environmental approval under Part IV of the *Environmental Protection Act 1986* (the EP Act) via Ministerial Statement 1118 on 21 November 2019. MS 1118 was amended to incorporate changes to the Earl Grey Lithium Project footprint and various conditions relating to rehabilitation on 14 May 2021 via Ministerial Statement 1167.

The Earl Grey Lithium Project was granted another environmental approval under Part IV of the EP Act via Ministerial Statement 1199 on 23 November 2022. It related to the construction and operation of a solar plant to provide renewable energy, changes to the tailings disposal method

from a dry to a wet tailings, co-disposal of inert refinery waste generated from the Kwinana Lithium Refinery, and modification of existing flora and vegetation, and fauna exclusion areas.

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 construction which have been considered in this decision report are detailed in Table 1 below. Table 1 also details the control measures the applicant has proposed to assist in controlling these emissions, where necessary.

Table 1: Proposed applicant controls

Emission	Sources	Potential pathways	Proposed controls
Construction			
Dust	Construction of new five landfill cells, concrete hardstand for hydrocarbon waste storage Decommissioning of stormwater detention pond Vehicle movement	Air / windborne pathway	Water carts as needed to wet down dust generating surfaces.
Noise		Air / windborne pathway	Noise will be minimised through standard site noise controls including; • Mobile equipment used for the construction will be operated and serviced in line with the manufacturer's specifications; and • Maximum sound power levels are specified for equipment (if required)
Operation			
Dust	Disposal of putrescible waste to landfill cells	Air / windborne pathway	Water carts as needed to wet down dust generating surfaces.
Noise		Air / windborne pathway	Noise will be minimised through standard site noise controls including; • Mobile equipment will be operated and serviced in line with the manufacturer's specification; and • Maximum sound power levels are specified for equipment (if required)
Odour		Air / windborne	Waste will be compacted and covered fortnightly.

Emission	Sources	Potential pathways	Proposed controls
		pathway	Site induction will provide all site based personnel with information and education on permitted waste disposal and recycling.
Windblown waste		Air / windborne pathway	Premise will be fully fenced. Putrescible waste will be covered on a fortnightly basis. Waste material from the Project accommodation village will generally be in bags.
Leachate		Overland runoff into surface water Infiltration into soil and groundwater	Upslope undisturbed runoff will be diverted around the putrescible landfills via clean water diversion bunds. The cell floors have been designed with gentle gradients toward centralised sumps.
Firewater			A 3 m firebreak will be maintained around the boundary of each premises.
Contaminated stormwater			Minimise surface water runoff entering the landfill cells with bunds around perimeter of cells with exception of active tipping face. Perimeter drainage bund to be maintained to hold all stormwater within putrescible landfill boundary.
Landfill gas		Air / windborne pathway	None proposed
Fire		Air / windborne pathway	A 3 m firebreak will be maintained around the boundary of each premises. Lithium batteries to be disposed of offsite. Security fence with a lockable gate to surround the boundary of the landfill.
Pest and vermin		Air / windborne pathway	None proposed
Spill of hydrocarbon	Storage of hydrocarbon waste	Overland runoff	Hydrocarbons will be stored within secondary containment (i.e. bunding) which meets the requirements of Australian Standard (AS) 1940:2017. Spill kits will be available. If a hydrocarbon release occurs it will be controlled, contained and removed using spill kit materials or other absorbent material. Contaminated soils will be collected and disposed to an appropriately licenced waste

Emission	Sources	Potential pathways	Proposed controls
			facility or managed at on-site bioremediation facility once established.

3.1.2 Receptors

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

Table 2 and Figure 1 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 2: Sensitive human and environmental receptors and distance from prescribed activity

Human receptors	**Distance from prescribed activity**
None nearby	
Environmental receptors	**Distance from activity / prescribed premises**
Priority ecological community	Priority 3 - Ironcap Hills vegetation assemblages (Mt Holland, Middle, North and South Ironcap Hills, Digger Rock and Hatter Hill) (greenstone ranges) – within and surrounding of the premises area
Minor surface water line	1.1 km south from the landfill area
Proclaimed RIWI groundwater area	Premises mapped within Westonia Groundwater Area
Threatened Fauna	The following species recorded within 1 km of the landfilling areas • chuditch, western quoll– *Dasyurus geoffroii* -Mammal • malleefowl - *Leipoa ocellata* – Bird • peregrine falcon - *Falco peregrinus* – Bird
Threatened Flora	The following species mapped within a 2 km radius of the landfilling areas • *Banksia sphaerocarpa var. dolichostyla* • *Daviesia newbeyi* • *Eutaxia lasiocalyx*

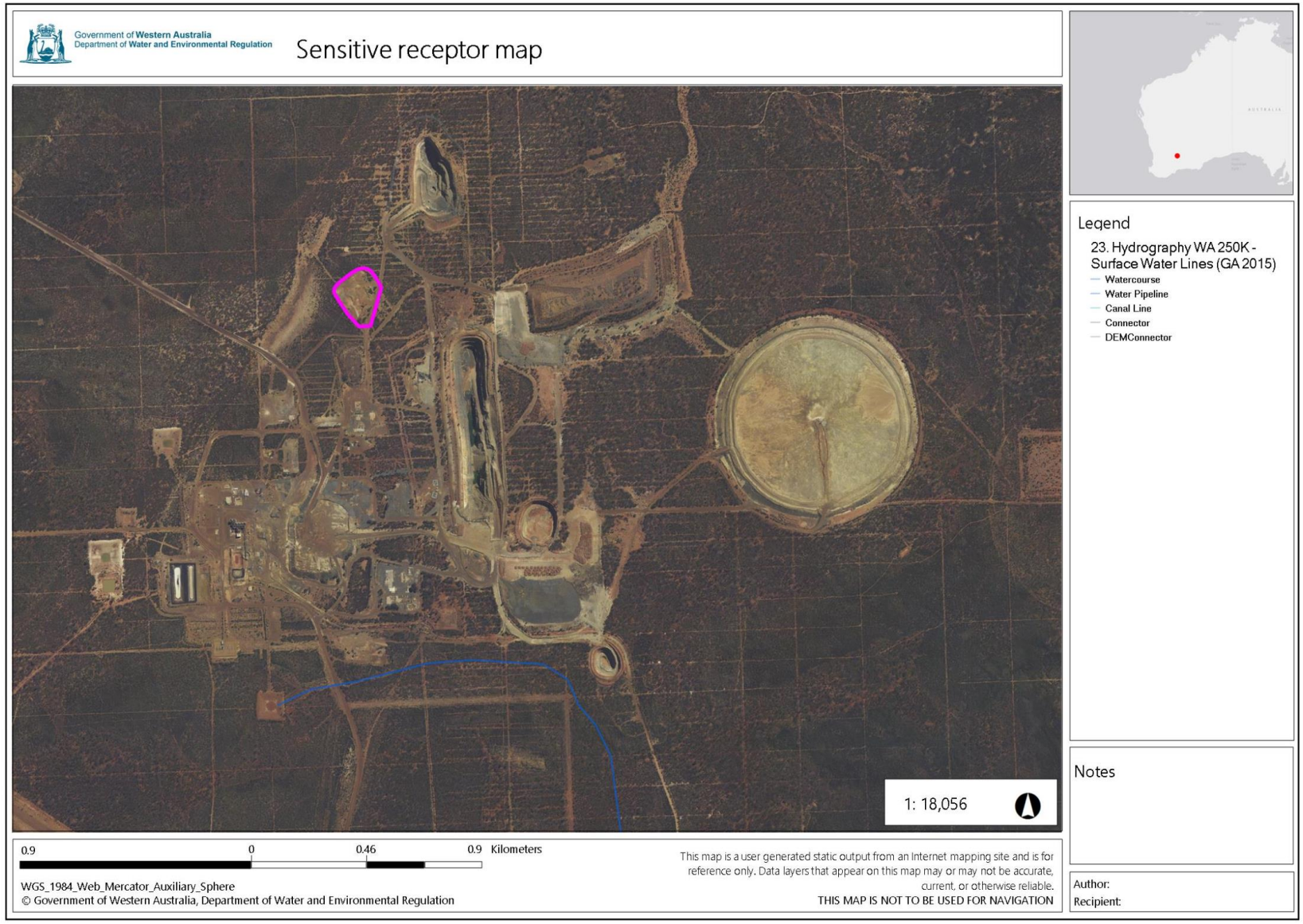

Figure 1: Distance to sensitive receptors

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3.2 Risk ratings

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

Where the applicant 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 applicant's proposed controls to be critical to maintaining an acceptable level of risk, these will be incorporated into the works approval as regulatory controls.

Additional regulatory controls may be imposed where the applicant's controls are not deemed sufficient. Where this is the case the need for additional controls will be documented and justified in Table 3.

Works approval W2889/2025/1 that accompanies this decision report authorises construction. The conditions in the issued works approval, as outlined in Table 3 have been determined in accordance with *Guidance Statement: Setting Conditions* (DER 2015).

A licence is required to authorise emissions associated with the ongoing operation of the premises. A risk assessment for the operational phase has been included in this decision report, however licence conditions will not be finalised until the department assesses the licence application.

Table 3: Risk assessment of potential emissions and discharges from the premises during construction and operations

Risk events					Risk rating [1] C = consequence L = likelihood	Applicant controls sufficient?	Conditions [2] of works approval	Justification for additional regulatory controls
Sources / activities	**Potential emission**	**Potential pathways and impact**	**Receptors**	**Applicant controls**				
Construction								
Construction of new five landfill cells, concrete hardstand for hydrocarbon waste storage Decommissioning of stormwater detention pond Vehicle movement	Dust	Air / windborne pathway causing impacts to health and amenity	Surrounding Vegetation and threatened flora / fauna species	Refer to Section 3.1	C = Slight L = Unlikely **Low Risk**	Y	Condition 4	Emission to be regulated under the general provisions of the EP Act
	Noise			Refer to Section 3.1	C = Slight L = Unlikely **Low Risk**	Y	Condition 4	Emission to be regulated under the Environmental Protection (Noise) Regulations 1997
Operation								
Disposal of putrescible waste to landfill cells	Dust	Air / windborne pathway causing impacts to health and amenity	Surrounding Vegetation and threatened flora / fauna species	Refer to Section 3.1	C = Slight L = Unlikely **Low Risk**	Y	Condition 4	Emission to be regulated under the general provisions of the EP Act
	Noise			Refer to Section 3.1	C = Slight L = Unlikely **Low Risk**	Y	Condition 4	Emission to be regulated under the Environmental Protection (Noise) Regulations 1997
	Odour			Refer to Section 3.1	C = Slight L = Unlikely **Low Risk**	Y	Condition 4	The Delegated Officer considers that the Applicant's proposed controls and the current conditions within the existing licence L9326/2022/1 are likely to be sufficient at mitigating odour emissions

Risk events					Risk rating [1] C = consequence L = likelihood	Applicant controls sufficient?	Conditions [2] of works approval	Justification for additional regulatory controls
Sources / activities	**Potential emission**	**Potential pathways and impact**	**Receptors**	**Applicant controls**				
	Windblown waste			Refer to Section 3.1	C = Slight L = Possible **Low Risk**	Y	Condition 4	The Delegated Officer considers that the Applicant's proposed controls and the current conditions within the existing licence L9326/2022/1 are likely to be sufficient at mitigating risk of windblown waste
	Fire			Refer to Section 3.1	C = Major L = Unlikely **Medium Risk**	Y	Condition 1 and 4	The Delegated Officer considers that the Applicant's proposed controls and the current conditions within the existing licence L9326/2022/1 are likely to be sufficient at mitigating fire related emissions
	Pest and vermin			Refer to Section 3.1	C = Slight L = Possible **Low Risk**	Y	Condition 4	The Delegated Officer considers that the current conditions within the existing licence L9326/2022/1 are likely to be sufficient at mitigating risk of pest and vermin.
	Landfill gas			Refer to Section 3.1	C = Minor L = Unlikely **Medium Risk**	Y	Condition 4	Due to the relatively low annual throughput of waste, the delegated officer determined that any landfill gas generated within the cells will passively vent.
	Leachate	Overland runoff potentially causing	Underlying groundwater	Refer to Section 3.1	C = Moderate L = Unlikely	Y	Condition 1 and 4	The Delegated Officer considers that the Applicant's proposed

Risk events					Risk rating [1] C = consequence L = likelihood	Applicant controls sufficient?	Conditions [2] of works approval	Justification for additional regulatory controls
Sources / activities	**Potential emission**	**Potential pathways and impact**	**Receptors**	**Applicant controls**				
		ecosystem disturbance or impacting surface water quality Seepage to groundwater	Surrounding threatened flora and fauna species Nearby surface water courses		**Medium Risk**			controls and the current conditions within the existing licence L9326/2022/1 are likely to be sufficient at mitigating emissions of leachate, firewater and contaminated stormwater.
	Firewater			Refer to Section 3.1	C = Moderate L = Unlikely **Medium Risk**	Y	Condition 1 and 4	
	Contaminated stormwater			Refer to Section 3.1	C = Moderate L = Unlikely **Medium Risk**	Y	Condition 1 and 4	
Storage of hydrocarbon waste	Spill of hydrocarbon			Refer to Section 3.1	C = Slight L = Unlikely **Low Risk**	Y	Condition 1 and 4	The Delegated Officer considers that the Applicant's proposed controls are likely to be sufficient at mitigating emissions from spill of hydrocarbon.

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

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

4. Consultation

Table 4 provides a summary of the consultation undertaken by the department.

Table 4: Consultation

Consultation method	Comments received	Department response
Application advertised on the department's website on 24 January 2025	None received	N/A
Local Government Authority advised of proposal on 26 February 2025	None received	N/A
Department of Mines, Industry Regulation and Safety (DEMIRS) advised of proposal 3 February 2025	DEMIRS replied on 3 February 2025, stating the proposed landfill is compatible with the Mining Lease on M 77/1066 and that the construction of a putrescible landfill up to 84.18 ha was approved under the *Mining Act 1978* via Mining Proposal Registration ID 121883. Also, DEMIRS stated that the construction of additional landfill cells and operation of the landfill must be compliant with tenement conditions on M 77/1066, and the rehabilitation and closure of the landfill must be undertaken in accordance with the latest relevant approved Mine Closure Plan.	Noted.
Applicant was provided with draft documents on 24 March 2025	Refer to appendix 1	Refer to appendix 1

5. Conclusion

Based on the assessment in this decision report, the delegated officer has determined that a works approval will be granted, subject to conditions commensurate with the determined controls and necessary for administration and reporting requirements.

The delegated officer acknowledges that the applicant applied to remove the stormwater detention basin as part of this works approval, however this will have to be done via a licence amendment. The delegated officers has granted this works approval acknowledging that the perimeter bund is sufficient to retain stormwater on the premises and has advised the works approval holder that a licence amendment should be made to officially remove the detention basin from Table 1 of licence L9326/2022/1.

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.

Appendix 1: Summary of applicant's comments on risk assessment and draft conditions

Condition	Summary of applicant's comment	Department's response
Condition 1 Table 1	The applicant confirmed the construction of the proposed hydrocarbon waste storage area several months ago. Therefore, the applicant requested that the item be either removed from Table 1 or from the requirement for a compliance report under condition 2.	The construction requirements have been removed from the works approval. Please note that you are required to submit a licence amendment application for L9326/2022/1 to authorise the ongoing operation of the hydrocarbon waste storage area.
Condition 2	The applicant stated that the five cells proposed for construction and operation will be constructed and operated individually, with ECR reports submitted upon the conclusion of each cell, rather than a single report for all 5 cells.	The works approval has been updated to list each cell as an item of infrastructure in the works approval, thus allowing the applicant to submit an ECR for each individual cell.