Amendment Report

Application for Licence Amendment

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

Licence Number	L9326/2022/1
Licence Holder	Covalent Lithium Pty Ltd
ACN	623 090 139
File Number	DER2022/000016
Premises	Earl Grey Lithium Project Marvel Loch – Forrestania Road Legal description – Mining Tenements G77/129, G77/137, M77/1066 and M77/1080 MOUNT HOLLAND WA 6426 As defined by the Premises maps attached to the amended Licence
Date of Report	21 August 2025
Decision	Revised licence granted

Cathie Derrington

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Date: 2025.08.21 11:13:02 +08'00'

SENIOR ENVIRONMENTAL OFFICER,
GREEN ENERGY
an officer delegated under section 20 of the Environmental Protection Act 1986 (WA)

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1. Decision summary

Licence L9326/2022/1 is held by Covalent Lithium Pty Ltd (Licence Holder) for the Earl Grey Lithium Project (the Premises, EGLP), located at G77/129, G77/137, M77/1066 and M77/1080 MOUNT HOLLAND WA 6426.

This Amendment Report documents the assessment of potential risks to the environment and public health from proposed changes to the emissions and discharges during the construction and operation of the Premises. As a result of this assessment, Revised Licence L9326/2022/1 has been granted.

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 Application summary

On 21 May 2025, the Licence Holder submitted an application to the department to amend Licence L9326/2022/1 under section 59 and 59B of the *Environmental Protection Act 1986* (EP Act). The following amendments are being sought is the construction of a Category 5 Class I landfill (inert landfill site), where the applicant proposes to use the South Waste Rock Landform for the disposal of process derived waste from their Kwinana Refinery (Covalent Lithium Hydroxide Refinery).

This amendment is limited only to changes to Category 5 activities from the Existing Licence. No changes to the aspects of the existing Licence relating to Category 12, 54, 57 and 64 have been requested by the Licence Holder.

The Licence Holder applied for the addition of a Category 63 – Class 1 inert landfill site, however the department considers the process derived waste as tailings that can be considered for landfill under Category 5.

Table 1 below outlines the proposed changes to the existing Licence.

Table 1: Proposed design capacity changes

Category	Current throughput capacity	Proposed design capacity	Description of proposed amendment
5	3 million tonnes per annual period 1.2 million tonnes of tailings per annual period into IWL/TSF	NA	NA
	NA	500 000 tonnes per annum	Process Derived Waste from the Kwinana Refinery is to be stockpiled and hauled to the South Waste Rock Landform (proposed inert landfill).
12	1 million tonnes per annual period	NA	NA
54	180 cubic metres per day	NA	NA
57	300 tyres	NA	NA
64	700 tonnes per annual period	NA	NA

2.3 Summary of proposal

Covalent Lithium Pty Ltd submitted a licence amendment application to dispose of tailings waste material into the South Waste Rock Landform. The tailings waste material is produced in the Covalent Lithium Hydroxide Refinery (CLHR) that is under construction and operating under environmental commissioning within works approval W6499/2021/1.

The proposed amendment to L9326/2022/1 includes the disposal of Process Derived Waste that includes De-lithiated Beta Spodumene (DBS), Polishing Filter Material (PFM) and Mixed Salts Material (MSM). This tailing material is to be disposed of the South Waste Rock Landform being constructed at Earl Grey Lithium Project on mining tenement G77/132.

During the assessment of works approval W6499/2021/1, Covalent determined that the DBS combined tailings waste material was a class III landfill material. Covalent now proposes that the Refinery Process Derived Waste is a Class 1 landfill material.

The Refinery Process Derived Waste is proposed to be transported from CLHR by road haulage with engineered covers, transporting 70 tonnes of material (wet basis) per trip. The proposed containers are engineered to prevent water ingress/egress and prevent dust generation. The Licence Holder has conferred that the transported tailings material will have a moisture level of 24 percentage by weight (wt%), where the Transportable Moisture Limit (TML) through test work is 26.9 wt%, however, the former moisture is not considered dusty.

2.4 Other relevant approvals

2.4.1 Mining Act 1978

Mining Proposal

Under the Mining Act 1978, regulatory oversight is provided by the Department of Mines, Petroleum and Exploration (DMPE). The premises was historically associated with the Bounty TSF2 gold operation and registered under Mining Proposal Register No. 121883.

The Mining Proposal outlines that the South Waste Rock Landform (SWRL) will be the designated repository for both Refinery Process Derived Waste and concentrator process waste. It is specified that the deposited process waste will be placed at a depth exceeding 2 metres below the final landform surface, ensuring containment and environmental safety.

The South Waste Rock Landform was constructed over a historic gold tailings storage facility (TSF) associated with the Bounty gold operations. The initial construction of the South Waste Rock Landform was undertaken in a manner to ensure structural integrity of the historic TSF was maintained. Requirements were outlined in Mining Proposal 121883 and reported to DMPE through the 2023-24 Annual Environmental Report.

Mining Closure plan

The Mine Closure Plan provides detailed strategies for the rehabilitation and long-term stability of the proposed landfill area. The Licence Holder has identified that materials such as oxide waste, Refinery Process Derived Waste, and DMS waste exhibit high fines content and are dispersive in nature, with elevated sodicity, making them susceptible to erosion from wind and surface water.

To mitigate erosion risks, the Licence Holder proposes to maintain coverage over these materials using transitional and fresh waste rock.

For rehabilitation purposes, mineralised waste and laterite have been identified as suitable subsoil materials. These are considered chemically and physically stable, free of fibrous content, and appropriate for use as capping material and within the root zone to support revegetation efforts.

2.5 Part IV of the EP Act

The Licence Holder holds the Ministerial Statement 1199 (MS1199) for the Earl Grey Lithium Project (EGLP) and Ministerial Statement 1170 (MS1170) for the CLHR.

MS1170 regulates the process derived waste, and the following ministerial conditions are relevant and are considered within the context of the licence amendment.

Condition 3-1 The proponent shall ensure the following outcomes are achieved:

(1) no contamination of soil through the handling and transport of refinery process derived waste as a result of the implementation of the proposal.

(2) no disposal of any refinery process derived waste to landfill on the Swan Coastal Plain.

Condition 4-1 During operation of the Covalent Lithium Hydroxide Refinery, the proponent shall, within twelve (12) months of any production of refinery process derived waste, or ensuring storage does not exceed the capacity of any dedicated storage infrastructure, remove that waste to:

(1) an approved waste facility located at the Earl Grey Lithium - Mount Holland Mine; or;

(2) an alternate location, as agreed by the CEO in writing, where the proponent has identified the process derived waste as a secondary coproduct which is able to be reused for a beneficial purpose.

Ministerial Statement 1199 (MS1199) governs the clearing of native vegetation and the management of terrestrial flora and fauna within the designated development envelope.

- Flora Management: MS1199 specifies the maximum number of individuals of *Microcorys elatoides* and *Banksia sphaerocarpa var. dolichostyla* that may be directly impacted by clearing activities. These thresholds are set to ensure the conservation of significant flora species within the project area.
- Fauna Protection: The statement includes conditions aimed at safeguarding key fauna species, particularly the malleefowl (*Leipoa ocellata*) and chuditch (*Dasyurus geoffroii*). Measures must be implemented to avoid or minimise impacts on these species during all phases of development

3. Geochemical characterisation

3.1.1 Geochemical assessment report

The Licence Holder provided supporting document "*Kwinana Lithium Refinery Process Residues Geochemical Assessment 2019*" by MBS Environmental (MBS 2019) that outlined the geochemical characterisation of the comingled tailings waste material. The following tests on the material were undertaken:

- Australian Standards Leaching Procedure (ASLP) 4439.3 Class 1 specification (Standards Australia 1997)
- Kinetic leaching column test data
- X-Ray Diffraction analysis (QXRD) of the crystalline mineral constituents
- Sulfur Analysis
- Ratio Analysis
- Procedures recommended by AMIRA International (AMIRA 2002), which take into consideration measured values provided by the Net Acid Generation (NAG) test and calculated NAPP values

- Acid-Base Accounting (ABA)

The Licence Holder concluded the following results from the tests, they area:

- Aluminosilicate by-products were significantly enriched (geochemical abundance index (GAI) of three of more) in arsenic, beryllium, boron, caesium, lithium, sulfur, tin and tantalum.
- Chromium and nickel concentrations in the aluminosilicate by-products, although not geochemically enriched, were elevated in comparison to the feed spodumene concentrate.
- Overall, naturally occurring radiation levels in the solid refinery process residues are extremely low and do not exceed any classification criteria for handling, transport or storage purposes.
- Results for water soluble metals (including hexavalent chromium (Cr(VI)), metalloids and fluoride in extracts collected at variable liquid to solids (L/S)) ratio (between 0.2 and 10 L/kg).
- Overall, seepage produced by the aluminosilicate by-products is expected to be circum-neutral and contain low to very low levels of environmentally significant metals and metalloids.

The Licence Holder has indicated that the DBS comingled tailings waste material does not classify as uncontaminated fill due to the source type and exceedances of various species in the 1:20 water ASLP extracts. Indicating that the tailings material may be classified as Class I material subject to further site specific/direct toxicity assessment for lithium. Alternatively, Class III is considered a suitably conservative general classification for the disposal of aluminosilicate by-products based on consideration of comparable landfill acceptance criteria for lithium and general lithium toxicity levels.

3.1.2 DWER review of DBS material geochemical characterisation

The department reviewed the methodology and outcomes of the DBS derived waste material geochemical characterisation reported by MBS 2019. The following assessment and advice were determined.

Suitability of the geochemical test-work and information gaps

The geochemical testing outlined in MBS 2019 report is technically sound, and the suite of tests that were undertaken are suitable for assessing the risk of contaminants being transported from the proposed waste materials by leaching. The tests indicated that the overall risk of environmental harm being caused by leachate from the proposed waste material was low.

This is especially the case given the limited number of groundwater-dependent environmental receptors that are likely to be present in the area due to the naturally high salinity of the groundwater. Based on the results of the leaching tests that were carried out on the waste materials, the department agrees with the report's conclusion that the proposed waste disposal facility on the decommissioned TSF would be broadly equivalent to a Class 1 landfill facility.

However, the testing that was undertaken is only suitable for assessing the risks of environmental harm being caused during the operation of the proposed waste disposal facility. The MBS report did not consider post-closure environmental risks. Key issues that were not considered are:

- **Uptake and bioaccumulation of metals by vegetation, and their potential for trophic transfer into terrestrial food-webs.**

  Many native Australian plants (especially Acacia species) have the potential to produce root exudates that contain large amounts of organic acids (predominantly citric acid).

This enables these plants to leach metals from otherwise geochemically benign mine wastes and to bioaccumulate them in leaves and in other tissue (see e.g., Kabas et al., 2017). The metals could then be transferred into local food-webs by insect attack on the vegetation or by grazing livestock and wildlife.

This is a significant risk for the proposed waste disposal site after closure and after the site has been rehabilitated and revegetated. Particularly due to the high level of readily released potential of the metals nickel and molybdenum in the DBS waste material, and would therefore have the potential to be bioaccumulated by vegetation that is grown over the waste material after closure of the landfill facility. Future poisoning of grazing cattle is likely when molybdenum concentrations exceed 100 mg/kg in forage material (refer to Majak et al., 2004).

Consequently, to manage these risks, it is recommended that the proponent commits to capping the waste materials after closure of the landfill to reduce the ability of the roots of re-established vegetation to access these materials.

- **Potential mobilisation of hexavalent chromium from waste materials by bushfires**

  The Goldfields region experiences frequent bushfires, and it is predicted that both the frequency and intensity of these will increase with rising temperatures in the region associated with climate change. Recent research (see e.g., Burton et al. 2019; Murphy et al., 2024) has shown that intense heat from bushfires can cause the release of some metals and metalloids from mine wastes. This is especially the case for the release of highly soluble and mobile hexavalent chromium caused by the heat-induced oxidation of trivalent chromium in mineral processing wastes.

  This would be of concern after the closure of the proposed landfill site due to the high levels of readily accessible chromium that is present in the DBS waste material.

  This risk could be managed by covering the capped landfill on closure with waste rock material that has a low chromium content.

Groundwater monitoring program

Limited information was provided about the hydrogeological setting of the decommissioned TSF in the documents that were provided to the department as supporting material. Although some information was provided about the regional depth of the water table in the vicinity of the Mt. Holland mine site (about 70 metres below ground level). The limited groundwater monitoring data from existing monitoring bores TSF MB-01, MB-02, MB-03, MB-04, MB-06 and MB-07, EGH01, EGH08, EGH09 suggests the possibility that seepage is taking place from the southwestern corner of the TSF and is flowing to the mine pit where existing dewatering is taking place. This is shown by greatly increasing groundwater salinity values in bore EGH09, and rising water levels in this bore. Some seepage from the saline water pond is being detected in bore EGH01. Currently, this seepage is towards the mine pit due to the cone of depression caused by dewatering, so at present, it does not pose an immediate environmental problem.

Additional monitoring or requirements to install further monitoring bores is not required unless seepage is detected in monitoring bores on the other side of the TSF where environmental impacts could take place.

Based on the above recommendations, the Delegated Officer has determined to:

- **Under category 5 include the co-disposal of inert refinery waste generated from the CLHR to be disposed into the South Waste Rock Landform (formerly Bounty TSF 2), and**
- **Advise the Licence Holder to consider the recommendations for the Mine Closure Plan, which includes to cap the landfill with low chromium content clear fill to reduce the risk of fauna consuming vegetation with elevated content on metals**

that could be detrimental for animals and to reduce the risk of hexavalent chromium to be released by bushfires.

4. 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.

4.1 Source-pathways and receptors

4.1.1 Emissions and controls

The key emissions and associated actual or likely pathway during premises construction and 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

Emission	Sources	Potential pathways	Proposed controls
Construction			
Dust	Earthworks for surface water management system and vehicle movements	Air/windborne pathway	Sprinklers or dust suppressants to be considered if determined necessary via inspections.
Operation			
Dust	Temporary stockpile at materials handling area Unloading and loading of Refinery Process Derived Waste at materials handling area. Unloading of Refinery Process Derived Waste at South WRL Disposal of Refinery Process Derived Waste at South WRL	Air/windborne pathway	Temporary stockpile at materials handling area and unloading and loading of Refinery Process Derived Waste at materials handling area: Moisture content during transport of approximately 24 wt% Volume of Refinery Process Derived Waste stockpiled at any one time to be minimized and kept under 4m height. Sprinklers or dust suppressants to be considered if determined necessary via inspections. Unloading and disposal of Refinery Process Derived Waste at South WRL: Refinery Process Derived Waste to be placed in pre-determined and delineated areas. Sprinklers or dust suppressants to be

Emission	Sources	Potential pathways	Proposed controls
			considered if determined necessary via inspections. Refinery Process Derived Waste to be covered by other waste materials monthly or as soon as practicable.
Contaminated storm water		Overland runoff	<u>Mining proposal:</u> Drainage design, permeable subsoil materials placed in the upper profile and consideration given to the size and shape of the landform design. Placement of a minimum 1 metre mineralised waste (primarily sloped surfaces), and in some areas laterite (primarily on flat surfaces), which both have water holding capacity that will allow infiltration vertically through the soil profile and reduce the volume of surface water to be managed. The concave profile on top of the SWRL will be undulating and broken into small catchments to prevent the potential for water overtopping and flowing down the slope. Non-saline water to be used for washing material from trucks. Minimise volumes of water used in washdown and recirculate where possible. Water run-off to be directed to the concentrator sediment basin. <u>Temporary stockpile at materials handling area and washing out trucks during unloading of Refinery Process Derived Waste at materials handling area</u>: Non-saline water to be used for washing material from trucks. Minimise volumes of water used in washdown and recirculate where possible. Water run-off to be directed to the concentrator sediment basin. <u>Disposal of Refinery Process Derived Waste at South WRL</u>: Drainage to be internal to WRL
Contaminated water with heavy metals or other pollutant		Seepage to soils and groundwater	The distance between the Earl Grey Lithium pit crest and the SWRL is 80 metres.

4.1.2 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 because 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

<table>
<tr><th>Human receptors</th><th>Distance from prescribed activity</th></tr>
<tr><td>Residential Premises/ Homesteads/ Hospitals</td><td>No human receptors within >10 km of the premises.</td></tr>
<tr><th>Environmental receptors</th><th>Distance from prescribed activity</th></tr>
<tr><td>Threatened fauna</td><td>Several significant fauna species have been found recently (last 5 years) at the site. Leipoa ocellate (Malleefowl) and Dasyurus geoffroii (Chuditch) have been sited within the premises boundary.

Malleefowl mounds exist near the processing area. Exclusion zones exist around mounds which is managed under ministerial statement This is managed under the ministerial statement MS1199 (Fauna Management Plan).</td></tr>
<tr><td>Threatened and Priority Flora</td><td>Classified threatened (under the WA Biodiversity Conservation Act 2016) and vulnerable (under the EPBC Act) species Banksia sphaerocarpa var. dolichostyla are reported to be present at the site Exclusion zones exist around threatened or priority flora present within the premise's boundary.

This is managed under the ministerial statement MS1199 (Flora management plan).

One threatened flora taxa Banksia dolichostyla (EPBC-V, BC-V) and 10 Priority flora have been recorded within the Earl Grey Mine Development Envelope.</td></tr>
<tr><td>Threatened Ecological Communities</td><td>Premises is located within Ironcap Hills banded ironstone formation (overlaps premises premises boundary) Priority 3.</td></tr>
<tr><td>Groundwater</td><td>Summary groundwater parameters 2021 – 2025 (monitoring locations in Error! Reference source not found.)
<table>
<tr><th>Parameter</th><th>WTDM10</th><th>EGH01, EGH08, EGH09</th><th>South Ventilation Raise (SVR)</th><th>TSF MB1-7</th><th>Dewatering (Earl Grey Lithium Pit)</th></tr>
<tr><td>Monitoring Data</td><td>2021- 2023</td><td>2020 – 2023</td><td>2020 – 2025</td><td>2021 - 2025</td><td>2024 -2025</td></tr>
<tr><td>Surface Water Level (m bgl)</td><td>45.18 (2021) – 45.66 (2022)</td><td>58.04 (EGH09 2020) – 72.82 (EGH01</td><td>61.52 (2025) – 65.97 (2023)</td><td>49.94 (MB5 2021) to 77.89</td><td>N/A</td></tr>
</table>
</td></tr>
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			2021)		(MB4 2025)	
	pH	5.88 (2023) – 6.89 (2022)	6.63 (EGH01 2021) – 8.63 (EGH09 2022)	5.77 (2020) – 8.06 (2022)	6.44 (MB4 2025) to 8.53 (MB1 2022)	6.27 (2025) – 7.40 (2024)
	Electrical Conductivity (µS/cm)	6,800 (2021) – 12,293 (2021)	10,940 (EGH01 2021) - 47,000 (EGH01 2021)	38,039 (2020) – 143,200 (2024)	22,200 (MB7 2025) – 89,151 (MB2 2021)	26,400 (2024) – 74,700 (2025)
	Metals concentration	Consistent elevated dissolved metals over ANZG (2018) guidelines: As, B, Co, Li, Mn, Ni, U, Zn				

Figure 1: Existing groundwater monitoring locations

4.2 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 4.1. Where linkages are in-complete they have not been considered further in the risk assessment.

Where the Licence Holder has proposed mitigation measures/controls (as detailed in Section 4.1), 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 L9326/2022/1 that accompanies this Amendment Report authorises emissions associated with the operation of the Premises i.e. category 5 activities.

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	Licence Holder's controls	Justification for additional regulatory controls	Conditions[2] of licence
Source/Activities	**Potential emission**	**Potential pathways and impact**	**Receptors**	**Licence Holder's controls**				
Construction								
Earthworks for surface water management system and vehicle movements	Dust	Pathway: Air/windborne pathway causing impacts to flora and fauna Impact: Smothering vegetation impacting photosynthesis	Threatened and Priority Flora within premises boundary Threatened Ecological community within premises boundary	Dust suppression activities include use of sprinkles or dust suppressants	Minimal onsite impacts to flora and fauna species and Threatened Ecological Community C = Slight The risk event will probably not occur in most circumstances L = Unlikely **Low risk**	Y	Ground disturbance and vehicle movements associated with the earthworks could generate dust emissions which, based on separation distance to the closest sensitive receptors is determined by the delegated officer to be a low risk.	No new controls
Operation								
Source: Landfill operation Activities: Temporary stockpile at materials handling area Unloading and loading of DBS at materials handling area. Unloading of DBS at South WRL Disposal of DBS at	Dust	Pathway: Air/windborne pathway causing impacts to flora and threatened ecological community Impact: Smothering vegetation impacting photosynthesis	Threatened and Priority Flora Threatened Ecological community	Dust suppression activities include covering waste material, use of sprinkles or dust suppressants. Refer to section 4.1.	Low level onsite impacts to species and Threatened Ecological Community C = Minor The risk event could occur at some time. L = Possible **Medium risk**	Y	The delegated officer considered the applicants controls including dust suppression activities including covering waste material, use of sprinkles or dust suppressants and determined the risk to flora and fauna to be medium. The delegated officer considered the Licence Holders controls to be sufficient to manage the risk and were conditioned within the licence.	**Condition 1**: Operational requirements including landfill covering frequency and dust suppression activities.

Risk Event					Risk rating[1] C = consequence L = likelihood	Licence Holder's controls	Justification for additional regulatory controls	Conditions[2] of licence
Source/Activities	**Potential emission**	**Potential pathways and impact**	**Receptors**	**Licence Holder's controls**				
South WRL	Contaminated stormwater with heavy metals or other pollutant	Pathway: Direct discharge and path of flow causing reduced Impact: reduced viability of vegetation from inundation	Threatened and Priority Flora Threatened Ecological community	Drainage design, concave design on top of the landform, redirection of run-off to a sediment basin the addition of 1 metre mineralized waste that water holding capacity, Refer to section 4.1.	Onsite impacts to flora and fauna C = Minor The risk event could occur at some time. L = Possible **Medium risk**	Y	The delegated officer considered the applicant's proposed controls including the landform design/maintenance which will redirect run-off and the addition of mineralised waste with water holding capacity and determined the risk to risk of impacting fauna to be medium. The delegated officer considered the Licence Holders controls to be sufficient to manage the risk and were conditioned within the licence.	**Operational Condition 1**: Operational requirements including landfill covering frequency and management of stormwater and maintenance of landform design. **Condition 2**: Waste acceptance requirements

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.

5. 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 30 June 2025	No comments have been received to date.	The department notes this information.
Department of Energy, Mines, Petroleum and Exploration (formerly DEMIRS) advised of proposal 30 June 2025	DMPE provided advice on 20 August 2025 as follows: •DPME is currently assessing a Mining Proposal for the Covalent Earl Grey Lithium mine, which includes a proposal to dispose of DBS within the Waste Rock Landforms (WRL) and historic pits. •Assessment of the Mining Proposal is ongoing. Based on the initial review, the need for significant alterations to the Mining Proposal are considered unlikely however, given the early stage of the assessment this may change. •As part of the Mining Proposal assessment, Geotechnical advice from the Department of Local Government, Industry Regulation and Safety is being sought for the TSF. This advice has not yet been received.	The Delegated Officer noted this information and determined to place a condition, where DMPE approval is required before using the waste landform for the disposal of process derived waste.
Licence Holder was provided with draft amendment on 6 August 2025	Comments received on 11 August 2025. Refer to Appendix 1	Refer to Appendix 1

6. Decision

The Delegated Officer has determined to grant the amendment to licence L9326/2022/1. Including:

- changes to category 5 to construct and operate the south waste rock landform (formerly Bounty TSF 2) to receive and dispose of inert De-lithiated Beta Spodumene process derived waste.
- The Licence Holder must have DMPE approval before any disposal of inert De-lithiated Beta Spodumene process derived waste of the into the South Waste Rock Landform.

The Delegated Officer considered the keys risks were associated with dust and contaminated stormwater, where the Delegated Officer determined that construction and operational Licence Holders controls were sufficient to manage the risk.

The delegated officer determined to advise the Licence Holder of future mine closure risks for the post closure and rehabilitation of the SWRL including:

- the uptake and bioaccumulation of metals by vegetation, and their potential for trophic transfer into terrestrial food-webs and
- the potential mobilisation of hexavalent chromium from waste materials by bushfires, regulated under the *Mining Act 1978* with DMPE.

7. 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.

7.1 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
Front page	Through put fields updated under category 5 to received DBS process derived waste
1 – Table 1	Operational conditions for SWRL and temporal stockpiles
2 – Table 2	Waste acceptance criteria for SWRL
24 – Table 8	Monitoring inputs/outputs for SWRL
29 – Table 9	Reporting condition for the landfill
Figure 2	Updated

References

1. Covalent Lithium Pty Ltd (Covalent) 2019, Kwinana lithium refinery process residues geochemical assessment, West Perth, Western Australia.
2. Covalent 2023, Earl Grey Lithium Project Mining Proposal – Stage 2, Reg ID 121883, Perth, Western Australia.
3. Covalent 2024, Covalent Lithium Hydroxide Refinery - Process Derived Waste Management Plan.
4. Department of Environment Regulation (DER) 2015, *Guidance Statement: Setting Conditions*, Perth, Western Australia.
5. Department of Water and Environmental Regulation (DWER) 2020, *Guideline: Environmental Siting*, Perth, Western Australia.
6. DWER 2020, *Guideline: Risk Assessments*, Perth, Western Australia.
7. Burton, E.D., Choppala, G., Karimian, N. and Johnston, S,G. 2019, *A new pathway for hexavalent chromium formation in soil: fire-induced alteration of iron oxides*. *Environmental Pollution*, **247**, 618-625. The paper is available from the following website: www.academia.edu.
8. Kabas, S., Saavendra-Mella, F., Huynh, T., Kopittke, P.M., Carter, S. and Huang, L. 2017, *Metal uptake and organic acid exudation of native Acacia species in mine tailings*. *Australian Journal of Botany*, **65(4)**, 357-367. The paper is available from the

following website: www.researchgate.net.

9. Majak, W., Steinke, D., McGillivray, J. and Lysyk, T. 2004, *Clinical signs of cattle grazing high molybdenum forage*. *Journal of Range Management*, **57(3)**, 269-274. The paper is available from the following website: www.arizona.edu.
10. Murphy, S.F., Blake, J.M., Ebel, B.A. and Martin, D.A. 2024, *Intersection of wildfire and legacy mining poses risks to water quality*. *Environmental Science and Technology*, **59**, 35-44. The paper is available from the following website: https://pubs.acs.org/doi/full/10.1021/acs.est.4c09489.

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

Condition	Summary of Licence Holder's comment	Department's response
Licence	Request to remove construction requirements conditions for the proposed landfill as is an ongoing process.	The department agreed, the operational requirements reflect the construction requirements. The reporting for the progress on the construction can be captured in the Annual Environmental Report.
Licence, Schedule 1, Figure 2	Provided an updated map.	Map updated.
Licence and report.	Request to align terminology for Refinery Process Derived Waste as per Refinery Ministerial Statement (MS1170). Request to remove Bounty TSF reference.	The department agreed and changed terminology.
Report – section 2.4.1	Request to amend Mine Closure Plan.	The department updated section accordingly.
Report – section 3.1.1	Request to amend summary regarding Naturally occurring radioactive material.	The department updated section accordingly.
Report – section 3.1.2	(a) Post-Closure Risks, Licence Holder mention that capping with waste rock in accordance with DMPE Mining Proposal commitments will address these potential issues. (b) Monitoring data provided was ranges (lower and upper) over the monitoring data periods (Table provided is in Table 3). Covalent cannot see how the data suggests seepage from the TSF to the mine pit or from a saline water pond to EGH01. Dewatering of the pit is natural groundwater not seepage from other facilities. Given groundwater does not feature in remainder of report or licence conditions it is suggested this section could be removed. Alternatively Covalent can provide a full report of all groundwater results for a more thorough review.	(a) The department noticed the information provided regarding the post-closure risk. (b) The department stated in the decision report that the limited groundwater information provided suggest the possible presence of seepage. The department will keep this section for future reference, given that no further conditions were added to the licence.