



Application for Licence Amendment

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

Licence Number	L8578/2011/1
Licence Holder	Regis Resources Limited
ACN	009 174 761
File Number	APP-0031793
Premises	Duketon Gold Project Mining Leases and Miscellaneous Licences M38/114, M38/160, M38/237, M38/250, M38/283, M38/292, M38/302, M38/303, M38/341, M38/343, M38/352, M38/354, M38/407, M38/498, M38/499, M38/500, M38/589, M38/630, M38/802, M38/943, M38/1091, M38/1249, M38/1250, M38/1251, M38/1257, M38/1258, M38/1259, M38/1260, M38/1261, M38/1262, M38/1263, M38/1268, M38/1277, M38/1297, M38/1304, L38/201, L38/202, L38/203, L38/204, L38/216, L38/242 and L38/365 As defined by the Premises maps attached to the Revised Licence
Date of Report	12/03/2026
Decision	Revised licence granted

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1. Decision summary

Licence L8578/2011/1 is held by Regis Resources Limited (licence holder) for the Duketon Gold Project (the Premises), located within the Shire of Laverton.

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 at the Premises. As a result of this assessment, Revised L8578/2011/1 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 Premises background

The Duketon Gold Project is located 70kms north of the town of Laverton and is within the Eristoun and Banjarn Pastoral leases. The premises is large and is separated into two regions (Figure 1):

- The northern Moolart Well operations – which includes the Moolart Well processing plant, two tailings storage facilities (TSF's) and various open pit mining areas; and
- The southern Garden Well and Rosemont operations – which includes the Garden Well processing plant, the Rosemont crushing and screening plant, three TSF's, the Garden Well underground mine, Rosemont open pit and other, smaller, open pit mining areas.

These regions operated under separate licences (L8578/2011/1 and L8412/2010/2) until 2021, when the licences were amalgamated under one licence L8578/2011/1).

2.3 Application summary

On 8 October 2025, the licence holder applied to the department to amend Licence L8578/2011/1 under section 59 and 59B of the *Environmental Protection Act 1986* (EP Act). The following amendments are being sought:

Category 5 - Ore processing:

- Change of filling strategy for the approved Moolart Well Tailings Storage Facility 4 (MW TSF4)
- Change to the construction of embankment raises stages 4 and 5 for Garden Well TSF1 (GDW TSF 1). Combining the two 3-meter (m) stages into one 6 m stage.
- Additional secondary crushing unit at Moolart Well Processing Plant (no change to approved throughput)
- Construction and operation of a Paste Fill Plant and tailings storage area at Garden Well.

Category 52 – Power generation:

- New power station (30 megawatt (MW)) at either Garden Well or Rosemont operating area.

Category 54 – Sewage treatment:

- Garden Well Wastewater Treatment Plant Expansion

Category 64 – Putrescible landfill:

- Moolart Well Landfill Expansion to maintain the existing 5000 tonnes per annum (tpa) capacity
- Garden Well Landfill Expansion to maintain the existing 5000 tpa capacity
- Rosemont Landfill Expansion to maintain the existing 5000 tpa capacity
- New Ben Hur Landfill with a 5000 tpa capacity
- New Gloster landfill with a 5000 tpa capacity.

During a scoping meeting / response to a request for further information, amendments relating to mine dewatering, inert landfilling, crushing and screening at Gloster, power generation at Ben Hur and Gloster and wastewater treatment at Ben Hur were removed from the scope of the application. Approval for these proposals will be sort under separate applications. Table 1 below outlines the proposed changes to the existing Licence.

Table 1: Proposed design or throughput capacity changes

Category	Current design throughput capacity	Proposed design throughput capacity	Description of proposed amendment
5	<u>Existing:</u> 12,000,000 tonnes per annum	No change	<ul style="list-style-type: none"> - Change in backfilling/tailings deposition into MLW TSF4. - Addition of a secondary crushing unit to the Moolart Well processing plant. - Establishment of a 2 Mtpa paste fill plant at Garden Well to produce paste fill for use in underground mines. - Combining stages 4 and 5 for GDW TSF1 into a single 6m stage.
52	<u>Existing:</u> 32.4 MW	62.4 MW	Installation of new power station at Garden Well or Rosemont operating areas (30 MW).
54	<u>Existing:</u> 218 m ³ /day 75 m ³ /day (Cat 85)	316 m ³ /day	Expansion of the existing Wastewater Treatment Plant (WWTP) at Garden Well. An additional 118 m ³ /day increase in discharge.
64	<u>Existing:</u> 15,000 tonnes per annual period	25,000 tonnes per annual period	Establishment of new putrescible landfills at Ben Hur and Gloster, and expansion of landfilling capacity at Garden Well, Moolart Well and Rosemont. All landfills will have a consistent annual throughput of 5,000 tonnes each per annum.

2.3.1 Category 5: Processing or beneficiation of metallic or non-metallic ore

Moolart Well TSF4 filling strategy and tailings management

In April 2024 the licence was amended to include the construction of TSF4 in four stages. TSF4

was to include the existing Stirling in-pit TSF (TSF2) in the north of the operation and was to include the adjoining four open pits to create an enlarged in-pit TSF. The approved design of the MLW TSF4 up to 537 mRL in four stages (Figure 2) was as follows:

- Stage 1 - Lancaster/Eindhoven pit to 500 mRL (2.83 Mt of tailings),
- Stage 2 - Lancaster/Eindhoven pit to 515 mRL (6.14 Mt of tailings if Moolart Well processing ends in 2026),
- Stage 3 - Greater Eindhoven (Beaufort/Eindhoven/Lancaster/Lancaster South to 535 mRL (17.4 Mt of tailings)), and
- Stage 4 - Greater Eindhoven/Stirling (MLW TSF2) to 537 mRL (21.9 Mt of tailings if Moolart Well processing ends in 2029).

The greater Eindhoven pit comprises of the Beaufort and Lancaster pits (including Beaufort Northwest and Lancaster South). The Licence Holder planned to backfill the saddle between Beaufort and Lancaster to 515 mRL which would provide a platform for deposition of tailings from the northern end of MLW TSF4 stage 2. If backfilling had not progressed to the 515 mRL by the time deposition commenced, a 30 m wide bund was approved to be installed to provide the platform for tailings deposition. The internal bund between Lancaster and Beaufort would become redundant in Stage 3. In Stage 4, the spigotting plan extends into Stirling pit with MLW TSF2 being subsumed by MLW TSF4. Both Stages 3 and 4 were contingent on continuation of mining operations.

This amendment proposes to make changes to the filling strategy for Moolart Well TSF4. This involves run of mine backfilling of former stages 1 and 2 of and combining stages 3 and 4 (in a single operating phase (Figure 3)). The revised approach balances short-haul waste placement with adequate tailings storage and water recovery capacity. No change is proposed to the overall Category 5 throughput.

Tailings deposition will initially occur in TSF2 (already approved under the licence) through discharge points along its northern, western, and southern ends, directing the supernatant pond toward the eastern side where water recovery infrastructure will be located. The decant pump will be progressively relocated along the connector bridge between Stirling and Lancaster North pits as deposition advances. Deposition of waste rock into Eindhoven and Lancaster pits will be constrained until Beaufort pit backfilling reaches RL 495 m, after which tailings can be placed below the backfill level.

Once Beaufort Pit is fully backfilled, tailings will be deposited into Eindhoven and Lancaster pits via single-point discharge locations, forming a centrally located supernatant pond for efficient water recovery. Access ramps on the eastern side of Eindhoven pit will provide access to both ends of the facility. Ultimately, all pits will be integrated into a single connected tailings storage facility, with tailings directed toward a central low point for decanting from the causeway between Lancaster and Stirling pits.

The final TSF4 configuration will resemble a depressed cone, offering significant stormwater storage capacity of approximately 400,000 m³. The revised design supports tailings deposition across the integrated footprint while accommodating waste backfill as required by the mine schedule. Under this change, establishment of a bund to 315 mRL between Beaufort and Eindhoven pits will become redundant as the void will be backfilled on both sides of the potential bund.

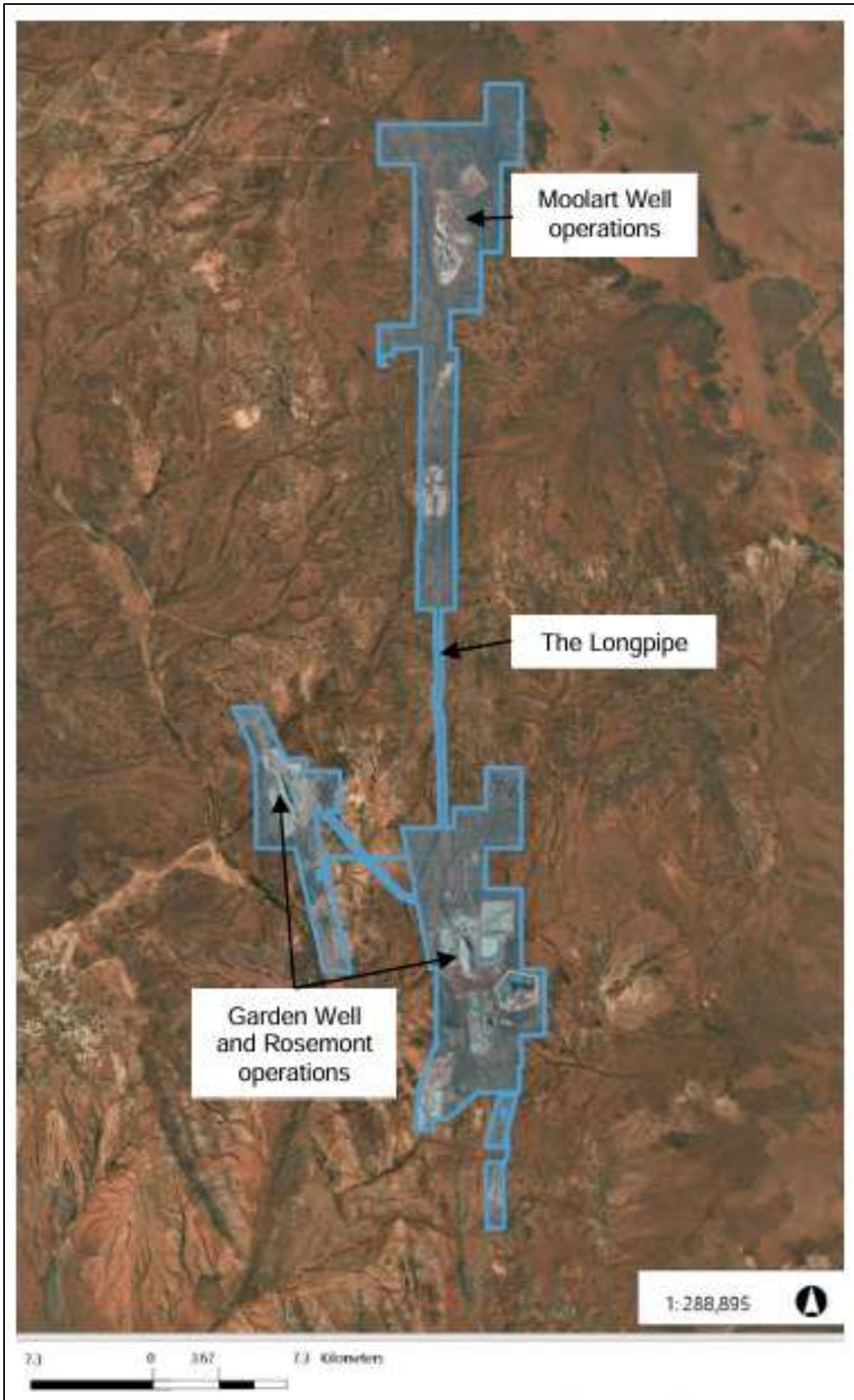


Figure 1: Regions of the Duketon Gold Project Operations.

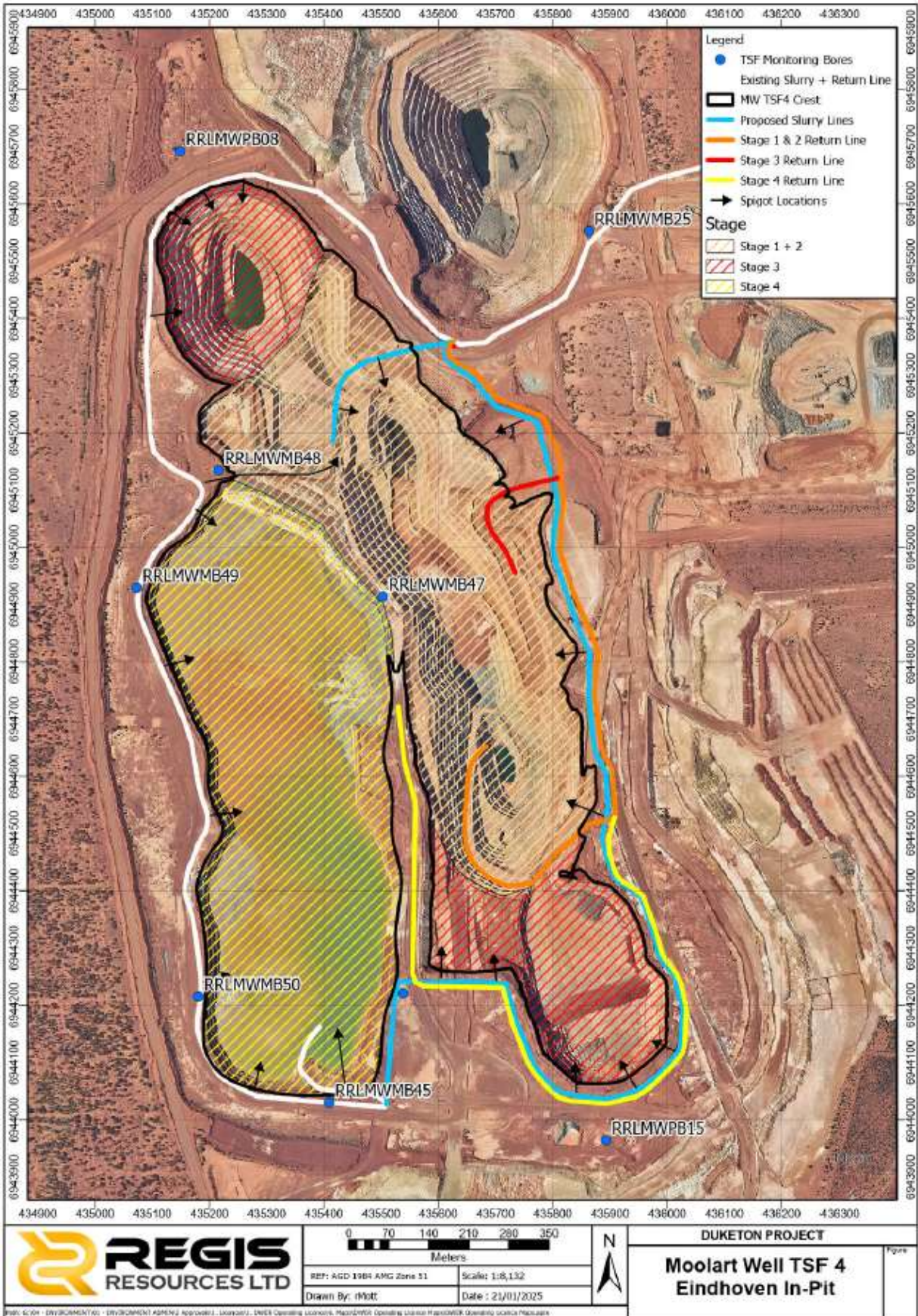


Figure 2: Former stages 1 – 4 for TSF4

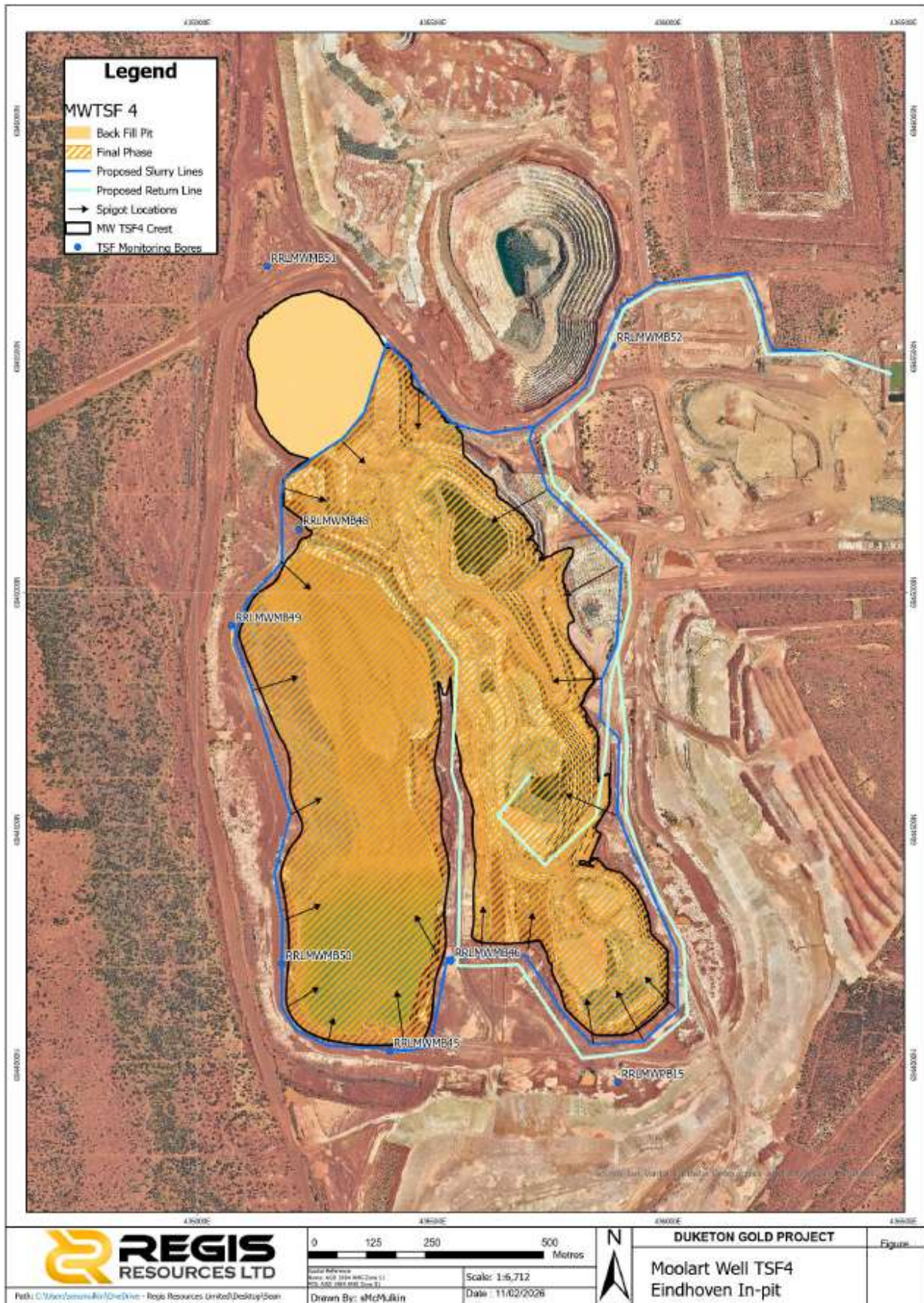


Figure 3: Single deposition phase for TSF4

Garden Well TSF1 embankment raises (stage 4 & 5)

In February 2017 the department approved the construction of two embankment raises for existing Garden Well TSF1 (stages 4 & 5). Stage 4 embankment raises the embankment crest level to RL521 m (3 m) and stage 5 raises the embankment crest level to RL524 m (3 m). Both stages are for upstream raises using compacted tailings borrowed from within the facility with mine waste capping and a total crest width of 6 m. The existing licence currently include the two embankment raise stages for Garden Well TSF1.

The licence holder proposes to raise Garden Well TSF1 by 6 m in one stage instead of two separate 3 m raises to improve trafficability of the current tailings surface. This surface has not received tailings deposition since 2020, allowing the tailings to dry and become firm to allow easier recovery of the tailings and construction of the upstream embankment. Two raises pose difficulties for both tailings recovery and embankment construction.

The licence holder has stated within their application that the 6 m raise will have the following features:

- At the completion of the raise, the maximum height will be RL524 m
- The perimeter embankment design angle will be constructed to 1V:2H on the upstream face and 1V:2.5H on the downstream embankment (same as the approved design).
- The embankment raise will utilise the upstream raise technique (same as the approved design).
- The base course and downstream embankment batters will comprise mine waste whilst the embankment will comprise compacted dried tailings (same as the approved design).
- Associated with the perimeter embankment raise will be a centreline raise to the decant causeway using mine waste. The decant causeway will also be raised to RL524 m but have a 10 m width and causeway batter angle of 1V:1.5H. This is also the same as the approved design. Although it is noted that this wasn't conditioned at the time.
- TSF1 will continue to have central decant pumps returning water to the Garden Well processing plant.
- The decant rock ring will also be raised to RL524 m of nominally 10 m width and slopes of 1V:1.5H, which is the same as the approved design.

Decision

As there is no change to the TSF embankment design other than constructing the 6-metre lift as a single lift rather than two lifts, no changes are anticipated to the previously completed risk assessment for this work. The department has accepted this request and considers the modification to be administrative in nature; therefore, the environmental risks associated with the proposal have not been reassessed.

Additional Crushing and Screening at Moolart Well Processing Plant

Processing at the premises is undertaken solely at the Moolart Well Processing Plant, with a throughput of 4 million tonnes per annum (Mtpa) (DWER, 2021).

To improve process plant efficiency, the licence holder proposes to install an additional modular crushing and screening plant. This plant will be integrated into the processing plant. The module will comprise of:

- Belt diversion plough to divert ore into the new circuit;
- Secondary cone crusher to crush any oversize material too large for effective ore sorting;
- Screening unit to deliver 30 to 90 mm product for ore sorting;
- Associated conveyors and feeders; and

- Ore sorter bin and ore sorter.

After primary crushing in the existing circuit, ore will be screened. While capable of screening at 500 tph, the licence holder will screen at 360 tph. Over-sized ore will pass through to the new secondary crusher. Crushed ore will pass through a new ore sorter to reject gangue material within the ore stream. The result will be more concentrated grade of ore in the mill feed, resulting in greater gold production per volume of ore processed. No change is proposed to the overall processing throughput limit for Category 5.

Paste Fill Plant at Garden Well

The licence holder is proposing to install a new paste plant to produce paste fill for the underground mines. Stockpiled tailings from Garden Well TSF2 (GDW TSF2), cement and water will be mixed to produce paste and delivered underground.

Tailings within GDW TSF2 will be recovered using excavators or loaders, screened via a mobile screening unit to ensure tailings material is of consistent size, and transported by truck to a tailings stockpile. The mobile screening unit will be a FABO FTS-15-60-3 mobile screening plant or similar and will be located at the paste plant/tailings stockpile area at the tow of the GDW TSF2. It may also be located at times on the top surface of GDW TSF2 to allow insitu screening of tailings.

To prevent damage to the geofabric layer on the upstream face of the GDW TSF2 embankment, harvesting of tailings will be offset 5 m from the upstream embankment.

Excavated tailings will be placed in a dedicated stockpile located adjacent to the paste plant on a concrete pad. The foundation of both the paste plant and stockpile will have a traffic compacted base comprising in-situ or fill material. The stockpile will be approximately 20,000 m³ and limited to a height of 5m.

Bunding will be constructed around the footprint of the stockpile area to prevent contaminated stormwater runoff entering the environment. Internal drainage from the stockpile area will be constructed including sumps to capturing contaminated water to enable recycling to the paste fill plant water tank or slurry recycle system. Any excess contact water will be pumped to TSF3.

The paste fill plant will be capable of producing up to 2 Mtpa of paste fill.

Key findings: Paste plants are regulated as an associated activity under category 5 and is limited only to the processing of tailings. Discharge of paste fill into underground workings is not regulated under part V, Division 3 of the EP Act.

2.3.2 Category 52: Power generation

Due to expanding underground mining operations, the licence holder is proposing to install additional power generating infrastructure (30 MW) at either Garden Well or Rosemont operating areas. The existing Garden Well power station will be expanded, or a new power station will be constructed at Rosemont operating area. At this point in time the Licence Holder cannot confirm the location and is seeking flexibility under the works approval. The licence holder is also seeking flexibility in the design of the power station and is proposing to construct the power station in one of the following configurations:

- 1) 2.5 MW gas fuelled engines (CAT G3520k) x 12 with four 386 kL gas bullets; or
- 2) 2 MW diesel fuelled engines (Cummings QSK78-G9) x 15. Diesel will be provided via the existing diesel fuel farm at Garden Well or if built at Rosemont, four 100 kL self-bunded diesel tanks will be installed; or
- 3) 1 MW diesel fuelled engines ((Cummins KTA50-G3) x 30. Diesel will be provided via the

existing diesel fuel farm at Garden Well or if built at Rosemont, four 100 kL self-bunded diesel tanks will be installed.

The three potential engines each have different expected air emissions as shown in Table 2 below.

Table 2: Manufacturer Emission Standards for the Three Potential Power Generation Options

Manufacturer	Model	Fuel Type	Power Generation	NOx mg/m ³	CO mg/m ³	SO ₂ mg/m ³
CAT	G3520K	Gas	2.5 MW	500	598	NA
Cummins	QSK78-G9	Diesel	2 MW	3,559	119	42
Cummins	KTA50 -G3	Diesel	1 MW	4,500	1,300	56

2.3.3 Category 54: Wastewater treatment plant

The Licence Holder is proposing to expand the existing Garden Well wastewater treatment plant (WWTP) to increase treatment capacity to 241 m³ per day (from 123 m³/day). This capacity is to support additional underground mining and subsequent accommodation village expansion at the premises. After duplicating the transfer station and line from the accommodation village, the following changes are proposed at the WWTP:

- Construction of three new primary stabilisation ponds (each pond being 2,148 m³) and lined with 1.6 mm HDPE;
- Construction of three new secondary stabilisation ponds (each pond being 1,637 m³) and lined with 1.6 mm HDPE;
- Installation of pontoon/submersible pumps;
- Duplication of the existing irrigation field to the north of the existing WWTP fitted with sprinklers (an additional 3.31 hectares (ha)); and
- Extension of the existing fence.

It is expected that the new ponds will achieve the same treatment quality as the existing system and will comply with the existing nutrient loading limits required by condition 20 of licence L8578/2011/11. Expected discharge volume to the irrigation field will be 118 m³ per day.

The treatment process of the raw water is designed for meet levels for treatment B in accordance with Appendix 6 of ARMCANZ and ANZECC (ARMCANZ and ANZECC 1997).

Based on median data, the licence holder expects the maximum concentration of nutrients etc in the discharge to be:

- Total N = 46 mg/L
- Total P = 15 mg/L
- BOD = 135 mg/L
- pH = 8.3
- TSS = 210 mg/Land
- E. coli = 29,900 cfu/100 mL.

The new irrigation field size of 3.31 ha was determined to be appropriately sized by the licence holder based off of the inflows from historic transfers from the Garden Well Village Transfer station to the WWTP. The estimated nutrient load across a total irrigation field of 6.615ha

(current and proposed irrigation field expansion) loading was calculated to be 314.5 kg/ha/year for nitrogen (N) and for total phosphorus (P) to be 70.66 kg/ha/year. The expected nutrient loading rates for the new irrigation field comply with the limits stipulated in condition 20 of 480 kg/ha/year for N and 120 kg/ha/year for P.

The soil type being irrigated to at Garden Well is red sandy soils which varies between sands and loams and may have pebble sized rocks. Vegetation here is low open Mulga Woodland.

2.3.4 Category 64: Putrescible landfill

The Premises has three existing putrescible landfill areas that are nearing capacity, these are located within waste rock dumps at Garden Well, Moolart Well and Rosemont operating areas. The licence holder is proposing to expand these landfills so they can continue to accept 5,000 tonnes per annum (tpa) of waste. The licence holder is also proposing to construct two new landfill each with a 5,000 tpa capacity within the waste rock dumps at Ben Hur and Gloster operating areas.

The landfills will have two trenches open at any one time (one active and one inactive). Each trench will be a maximum of 50 m in length, 10 m in width and 3 m deep and will be bunded using overburden produced during excavation. The access point will have a low rollover bund to allow access and guidance of water away from the active landfill trench.

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 and operation which have been considered in this Amendment Report are detailed in Table 3 below. Table 3 also details the proposed control measures the licence holder has proposed to assist in controlling these emissions, where necessary.

Table 3: Licence holder controls

Emission	Sources	Potential pathways	Proposed controls
Category 5: Processing or beneficiation of metallic or non-metallic ore			
Dust	Construction and operation of the new secondary crushing unit at Moolart Well Construction of paste plant Operation of paste plant mobile screening plant (tailings screening)	Air/windborne pathway	<u>Secondary crushing circuit</u> <ul style="list-style-type: none"> Shrouds installed on transfer points to minimise incremental dust; Use of water carts to suppress dust during construction activities; <u>Paste plant / tailings excavation /screening and storage</u> <ul style="list-style-type: none"> Use of water carts to suppress dust

Emission	Sources	Potential pathways	Proposed controls
	Dust from tailings excavation at MLW TSF1 for paste plant Dust lift off from paste plant tailings stockpile		during construction activities; <ul style="list-style-type: none"> • Tailings storage is limited in size (20,000 m³) and height (5 m); • Water sprays deployed on tailing storage as required • Water sprays deployed as required during the excavation and screening of tailings; • Tailings storage located at the base of the East Waste Dump; • Paste plant located at the base of the East Waste Dump; • Dust collection system on cement silo
Sediment laden / contaminated stormwater	Paste Plant and Tailings Stockpile Secondary crushing circuit at Moorlart well	Overland runoff	<u>Secondary crushing circuit</u> <ul style="list-style-type: none"> • None specified. <u>Paste plant / tailings excavation /screening and storage</u> <ul style="list-style-type: none"> • Tailings stockpile bunded with water reporting to a sump with sump pumps to capture sediment laden runoff; • Bunding to isolate stockpile and paste fill plant from external catchment; and • Sump to retain 72 hour 1% AEP event. • Paste plant to be installed on a concrete hardstand. • Screening plant will either be located within TSF1 or within the bunded paste plant area.
Hydrocarbon spills	New secondary crushing plant at Moorlart well	Direct discharge to land	<ul style="list-style-type: none"> • Spill kits located within the process plant area to manage spills
Paste slurry / water	Paste manufacture	Direct discharge to land	<ul style="list-style-type: none"> • Slurry recycle system to capture and reuse spilt water and slurry. • Paste plant installed on bunded concrete hardstand.

Emission	Sources	Potential pathways	Proposed controls
Tailings / water	Tailings and return water pipelines for TSF4 Change in backfilling/tailings deposition into MLW TSF4	Pipeline Spills and leaks Overtopping of TSF4	<ul style="list-style-type: none"> • Daily inspections • Pressure sensors for leak detection • Tailings pipeline around MLW TSF4 will be within the catchment of the MLW TSF4 thus will drain into MLW TSF4 if there is a leak. • Minimal change to already approved pipeline route. • Freeboard to be maintained on TSF4 Conditions existing on licence L8578/2011/1: <ul style="list-style-type: none"> • Condition 7 and 8: TSF4 freeboard requirement • Condition 10 – Required to routinely inspect the pipeline for visual integrity and . • Condition 11 – Pipeline requirements (general) • Condition 13 – construction requirements for TSF4 pipelines
Seepage from TSF4 potentially containing elements of environmental significance such as cyanide	Change in backfilling/tailings deposition into MLW TSF4	Seepage / infiltration	<ul style="list-style-type: none"> • Decant strategy further improved to maximise recovery and minimise seepage; • Decant pumps to be rated to 450 tph (no change); • New groundwater monitoring bores added to the monitoring schedule for MLW TSF4 (already approved for construction under condition 13); • Central pumped decant; • Low permeability of pit walls • Seepage preferentially drawn to the cone of depression associated with Buckwell pit Conditions existing on licence L8578/2011/1: <ul style="list-style-type: none"> • Condition 28 - requires standing water levels at monitoring bores to be greater than 4 mbgl. • Condition 12 – annual water balance for active TSFs
Category 52: Power station			

Emission	Sources	Potential pathways	Proposed controls
Dust	Construction of Power station	Air/windborne pathway	<ul style="list-style-type: none"> Use of water carts to suppress dust during construction activities
Air emissions	Operation of Power station	Air/windborne pathway	No controls proposed
Hydrocarbon spills	Operation of Power station	Direct Discharge to land	<ul style="list-style-type: none"> Power station engines will be installed within bunded concrete slab Fuel storage will be double skinned or within bunded storage tanks Spill kits will be available at power station.
Category 54: Wastewater treatment plant			
Dust	Construction of new WWTP	Air/windborne pathway	<ul style="list-style-type: none"> Use of water carts to suppress dust during construction activities
Treated Effluent (excessive nutrient loading)	Irrigation Sprayfield	Direct discharge to land	<ul style="list-style-type: none"> Irrigation area to be 3.31 hectares in size Total irrigation limited to 118 m³ per day <p>Conditions existing on licence L8578 /2011/1:</p> <ul style="list-style-type: none"> Condition 26 - Requires monitoring of effluent quality prior to irrigation. Condition 20: nutrient loading limits
		Overland runoff	<ul style="list-style-type: none"> No new controls provided <p>Conditions existing on licence L8578/2011/1:</p> <ul style="list-style-type: none"> Condition 6 - requires the licence holder to manage irrigation to ensure there is no run-off or spray drift beyond the irrigation area
Untreated effluent	Operation of WWTP	Overtopping of ponds	<ul style="list-style-type: none"> No new controls provided <p>Conditions existing on licence L8578/2011/1:</p> <ul style="list-style-type: none"> Condition 7&8 - requires licence holder to maintain a 300mm freeboard or greater on ponds Condition 10 - requires licence holder to inspect WWTP daily to ensure freeboard is being maintained.
		Seepage into groundwater	<ul style="list-style-type: none"> New treatment ponds will be lined with 1.6mm HDPE liner.

Emission	Sources	Potential pathways	Proposed controls
Category 64: Putrescible landfills			
Dust	Construction of landfill trenches	Air/windborne pathway	<ul style="list-style-type: none"> Water sprays deployed as required
Leachate	Operation of landfills	Seepage /infiltration	<ul style="list-style-type: none"> Landfills are located within waste rock dumps resulting in a large distance between the base of the landfills and groundwater Landfill trenches will be bunded to prevent stormwater ingress reducing leachate generation. <p>Conditions existing on licence L8578:</p> <ul style="list-style-type: none"> Condition 2 – Requires the separation distance between the base of the landfill and the highest groundwater level shall be not less than 3 metres. Condition 2 – restricts waste types approved for disposal Condition 3 – Requires wastes to be covered by clean fill/other cover material daily
Windblown waste	Operation of landfills	Air/windborne pathway	<p>Conditions existing on licence L8578:</p> <ul style="list-style-type: none"> Condition 4 – Requires that wind-blown waste is contained within the boundary of the Premises and that wind-blown waste is returned to the tipping area of a landfill on at least a weekly basis. Condition 3 – Requires wastes to be covered by clean fill/other cover material daily
Contaminated stormwater (stormwater coming into contact with waste)	Operation of landfills	Overland runoff	Landfill trenches will be bunded to prevent stormwater ingress and to divert clean stormwater away from waste.

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 holders from its assessment. Protection of these parties often involves different exposure risks and prevention strategies, and is provided for under other state legislation. 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)). Figure 4 shows a map of some of the receptors surrounding the premises.

Table 4: Sensitive human and environmental receptors and distance from prescribed activity

Human receptors	Distance from prescribed activity
Mulga Queen community	<ul style="list-style-type: none"> ▪ Mulga Queen community is >29 km west of the proposed Secondary Crushing circuit at Garden Well (screened out as a receptor for dust emissions due to distance). ▪ Mulga Queen community is approximately 39.5km northwest of Rosemont power station site and approximately 48.9km northwest of the Garden Well power station site (screened out as a receptor for air emissions due to distance).
Environmental receptors	Distance from prescribed activity
Native vegetation Priority flora <ul style="list-style-type: none"> • <i>Eremophila pungens</i> (Priority 4) • <i>Calytrix praecipua</i> (Priority 3) <i>Phyllanthus baeckiiodes</i> (Priority 3)	<ul style="list-style-type: none"> ▪ Approximately 110 m west of MLW TSF4. ▪ Approximately 200 m from new secondary crusher location at Moolart Well ▪ 400-500m from the proposed paste plant and tailings stockpile. ▪ Approximately 100m – 250m from landfill locations ▪ Immediately adjacent to the proposed Garden well WWTP ponds <p>Low open Mulga woodland consisting of <i>Acacia aneura</i> var. <i>aneura</i>, <i>Acacia aptaneura</i>, <i>Acacia ayersiana</i>, <i>Grevillea berryana</i>, <i>Eremophila punctata</i>, <i>Eremophila latrobei</i> subsp. <i>latrobei</i> and <i>Eriachne mucronate</i>. are all within the premises boundary.</p>
Surface water lines	Ephemeral creeks Borodale Creek and Mistake Creek intersect the premises.
Groundwater (Proclaimed Goldfields Groundwater Area)	<p>Underlying the Moolart Well TSF4 is between 10 and 20 meters below ground level (mbgl).</p> <p>The groundwater that underlies the operation is of a highly variable quality, with salinity levels ranging from 700mg/L TDS (potable) in some areas, to over 50,000mg/L TDS (hypersaline) in other areas. This indicates that there are multiple aquifers underlying the premises. The entire operation is located in the Goldfields Groundwater Area (proclaimed under the Rights in Water Irrigation Act 1914 (RIWI Act)) and is sited specifically within the Lake Carey Groundwater Management Unit.</p> <p>Groundwater in the region is actively used for stock purposes on the adjacent pastoral stations.</p>
Cultural Receptors	Distance from prescribed activity
Aboriginal heritage site	<ul style="list-style-type: none"> ▪ Kungarungara Yiwarra (Borodale Creek) Immediately adjacent to the western premises boundary. ▪ Artifacts scatter, quarry within the premises boundary, within 1 km of MLW TSF4.

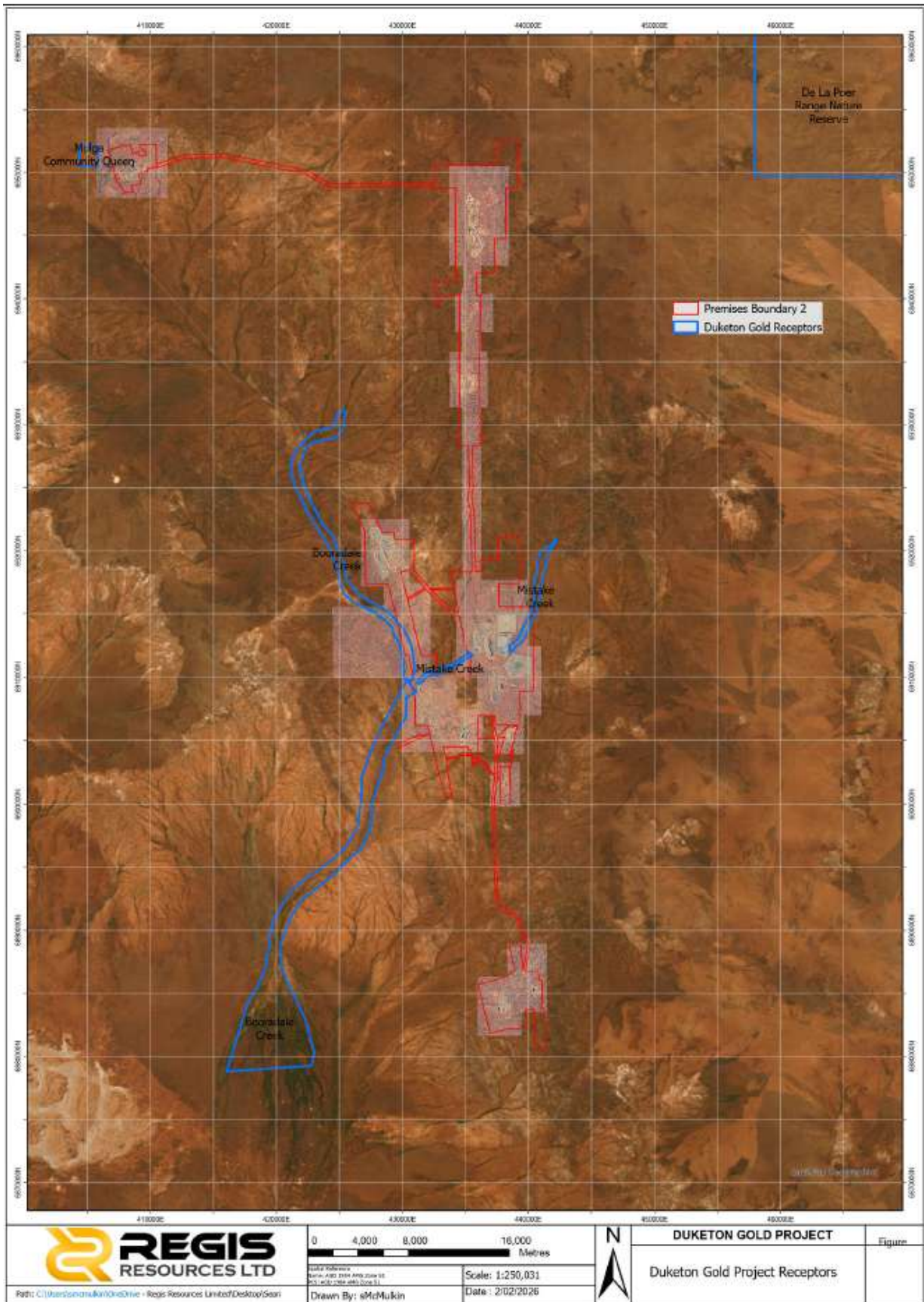


Figure 4: Environmental receptors

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 5.

The Revised Licence L8578/2011/1 has been granted that accompanies this Amendment Report authorises emissions associated with the operation of the Premises i.e. 5, 52, 54, and 64 activities.

The conditions in the Revised Licence have been determined in accordance with *Guidance Statement: Setting Conditions* (DER 2015).

Table 5. 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 sufficient?	Conditions ² of licence	Justification for additional regulatory controls/ DWER comments
Source/Activities	Potential emission	Potential pathways and impact	Receptors	Licence holder's controls				
Construction								
Installation of secondary crushing circuit at Moolart Well Processing Plant Installation of Paste plant Power station construction WWTP construction Landfill construction	Dust	Air/windborne pathway smothering vegetation potentially impacting photosynthesis	Native vegetation	Refer to Section 3.1	C = Slight L = Unlikely Low Risk	Y	N/A	Licence holders proposed controls have been deemed acceptable (use of water carts during construction activities) and will be conditioned on the licence.
Operation								
Category 5								
Change in backfilling/tailings deposition into MLW TSF4	Tailings / water potentially containing elements of environmental significance such as cyanide	Pipeline rupture - Direct discharge to land resulting in smothering of vegetation or overland runoff	Native vegetation	Refer to Section 3.1	C = Minor L = Unlikely Medium Risk	Y	Condition 7– Containment infrastructure Condition 10 – Inspection of infrastructure Condition 11 – Pipeline construction and operation requirements.	The change in deposition strategy for MLW TSF4 does not change the risk profile for TSF4 and therefore it has been determined that the original risk assessment and existing conditions on the licence associated with the management of emissions from TSF4 are adequate. No change to conditions are required other than updating TSF4 construction requirements.

Risk Event					Risk rating ¹ C = consequence L = likelihood	Licence holder's controls sufficient?	Conditions ² of licence	Justification for additional regulatory controls/ DWER comments
Source/Activities	Potential emission	Potential pathways and impact	Receptors	Licence holder's controls				
	Tailings / water potentially containing elements of environmental significance such as cyanide	Seepage / infiltration of decant water through pit basin and walls adversely impacting groundwater quality Potential groundwater mounding causing adverse impacts to vegetation health via root uptake	Underlying groundwater Native vegetation Surface waters / Aboriginal heritage water source 1.5 km to the south waters	Refer to Section 3.1	C = Minor L = Unlikely Medium Risk	Y	Condition 9 – Operation requirements for TSF Condition 12 – Water balance Condition 12 – construction requirements Condition 27 – Process monitoring Condition 28 – Ambient environmental quality monitoring,	
	Tailings / water potentially containing elements of environmental significance such as cyanide	Overtopping due to insufficient freeboard capacity	Native vegetation	Refer to Section 3.1	C = Moderate L = Unlikely Medium Risk	Y	Condition 7 and 8 Containment infrastructure (freeboard) Condition 10 Inspection of infrastructure	
Paste plant and tailings stockpile	Dust from stockpiles / paste manufacture, tailings handling and screening of	Air/windborne pathway smothering vegetation potentially impacting photosynthesis	Native vegetation	Refer to Section 3.1	C = Minor L = Unlikely Medium risk	Y	Condition 18 – dust management	The Delegated Officer has determined that the proposed controls for managing dust to be adequate. Licence holder's controls will be conditioned on the licence.

Risk Event					Risk rating ¹	Licence holder's controls sufficient?	Conditions ² of licence	Justification for additional regulatory controls/ DWER comments
Source/Activities	Potential emission	Potential pathways and impact	Receptors	Licence holder's controls	C = consequence L = likelihood			
	tailings							
	Sediment laden stormwater	Overland runoff during rainfall events impacting ecological health	Native vegetation Surface water lines.	Refer to Section 3.1	C = Minor L = Unlikely Medium risk	Y	Condition 13 – construction requirements	The Delegated Officer has determined that proposed controls for managing contaminated stormwater are adequate. Licence Holder's controls will be conditioned on the licence.
	Paste spills	Direct discharge to land. Overland runoff during rainfall events	Native vegetation Surface water lines.	Refer to Section 3.1	C = Minor L = Unlikely Medium risk	Y	Condition 13 - construction requirements	
Secondary crushing circuit at Moolart Well	Hydrocarbon spills	Direct discharge to land /Seepage through ground to groundwater	Groundwater	Refer to Section 3.1	C = Slight L = Unlikely Low risk	Y	N/A	New crushing circuit is located within the existing processing area making it unlikely that environmental receptors would be impacted in the event of a spill. No additional regulatory controls are required. The Environmental Protection (unauthorised Discharges) regulations 2004 apply
	Dust	Air/windborne pathway smothering vegetation potentially impacting photosynthesis	Native vegetation	Refer to Section 3.1	C = Minor L = Unlikely Medium Risk	Y	Condition 13 - construction requirements	The Delegated Officer has determined that the proposed controls for managing dust from crushing and screening to be adequate. Controls will be conditioned on the licence.
	Contaminated stormwater	Overland run-off impacting	Native vegetation	Refer to Section	C = Minor L = Unlikely	N	Condition 13 - construction	No controls to manage contaminated stormwater around the new secondary

Risk Event					Risk rating ¹ C = consequence L = likelihood	Licence holder's controls sufficient?	Conditions ² of licence	Justification for additional regulatory controls/ DWER comments
Source/Activities	Potential emission	Potential pathways and impact	Receptors	Licence holder's controls				
		vegetation		3.1	Medium Risk		requirements	crushing circuit at Moolart Well have been proposed. The delegated officer has determined to include a condition on the licence requiring the licence holder to ensure contaminated stormwater from within the new crushing circuit area is captured and prevented from being released into the environment.
Category 52: Power station								
Operation of Power station at Garden Well or Rosemont (Diesel or gas configurations)	Air emissions	Air/windborne pathway causing impact to human health	Mulga Queen community	Refer to Section 3.1	C = Minor L = Rare Low Risk	Y	N/A	Due to the significant distance between the nearest sensitive receptor (greater than 30 km away) and the proposed location(s) of the new power station it is expected that no human health impacts will occur from air emissions produced by the power station.
	Hydrocarbon spills	Direct discharge to land resulting in contamination of soil or seepage into groundwater	Groundwater	Refer to Section 3.1	C = Minor L = Unlikely Medium Risk	Y	Condition 13 - construction requirements	The Delegated Officer has determined that the licence holder's proposed controls for this risk event to be adequate. Controls will be conditioned on the licence.
Category 54 Garden Well WWTP Expansion								
Operation of new WWTP ponds and	Untreated Effluent (high	Overtopping of Ponds resulting	Native vegetation	Refer to Section	C = Minor	Y	Condition 13: Pond construction	The Delegated Officer has determined that existing

Risk Event					Risk rating ¹ C = consequence L = likelihood	Licence holder's controls sufficient?	Conditions ² of licence	Justification for additional regulatory controls/ DWER comments
Source/Activities	Potential emission	Potential pathways and impact	Receptors	Licence holder's controls				
irrigation field	nutrient levels)	in a direct discharge to land causing smothering of vegetation or exposure of vegetation to high nutrient levels.		3.1	L = Unlikely Medium Risk		requirement Condition 5: freeboard requirement Condition 10: inspection requirement	conditions on the licence adequately manage this risk event and will be applied to the new ponds.
		Seepage of untreated effluent with high levels of nutrients into groundwater	Groundwater	Refer to Section 3.1	C = Minor L = Unlikely Medium Risk	Y	Condition 7 – containment infrastructure Condition 13: pond construction requirements	The delegated officer has determined that the licence holders proposed controls are sufficient to manage this risk event. Controls (HDPE liner) have been conditioned within the licence.
	Treated Effluent	Excessive nutrient loading of irrigated effluent causing changes to vegetation structure and nutrient accumulation in soil	Native vegetation	Refer to Section 3.1	C = Minor L = Unlikely Medium Risk	Y	Condition 20: emission limits to land Condition 27 - Requires monitoring of effluent prior to irrigation. Condition 20: Nutrient loading limits	The Delegated Officer has determined that existing conditions on the licence adequately manage this risk event and apply to the new irrigation field (effluent monitoring and nutrient limits).
		Pooling of water causing water logging or runoff outside the irrigation area	Native vegetation	Refer to Section 3.1	C = Minor L = Unlikely Medium Risk	N	Condition 6: Management of irrigation <u>Condition 13: construction</u>	The Delegated Officer has determined that a requirement for the irrigation field to be bunded is necessary to manage this risk event.

Risk Event					Risk rating ¹	Licence holder's controls sufficient?	Conditions ² of licence	Justification for additional regulatory controls/ DWER comments
Source/Activities	Potential emission	Potential pathways and impact	Receptors	Licence holder's controls	C = consequence L = likelihood			
							<u>requirements</u>	
		Pipeline leaks	Native vegetation	Refer to Section 3.1	C = Minor L = Possible Medium Risk	N	Condition 10: inspections daily	The Delegated Officer has determined that a requirement to inspected pipelines associated with the transport of raw and treated sewage is to be inspected daily for leaks.
Category 64 Putrescible Landfill (all sites)								
Operation of landfills	Leachate	Leachate from landfills infiltrating into groundwater leading to changes in groundwater quality	Groundwater	Refer to Section 3.1	C = Minor L = Rare Low Risk	Y	Condition 2: Waste processing Condition 3: cover requirements Condition 13: construction requirements	All landfills are located within waste rock dumps which mean they are situated well above the natural groundwater level. Existing conditions relating to waste covering and waste type acceptance will be applied to the new landfill locations and will help to reduce the generation of leachate.
	Windblown waste	Windblown waste causing impacts to ecological health	Native vegetation / fauna	Refer to Section 3.1	C = Minor L = unlikely Medium Risk	Y	Condition 3: Cover requirements Condition 4: windblown waste	The Delegated Officer has determined that existing conditions on the licence adequately manage this risk event and will therefore be applied to the new landfill areas.
	Contaminated	Overland runoff	Native	Refer to Section	C = Minor	Y	Condition 2: waste	The Delegated Officer has determined that the licence

Risk Event					Risk rating ¹ C = consequence L = likelihood	Licence holder's controls sufficient?	Conditions ² of licence	Justification for additional regulatory controls/ DWER comments
Source/Activities	Potential emission	Potential pathways and impact	Receptors	Licence holder's controls				
	stormwater	resulting in impacts to ecological health	vegetation	3.1	L = Rare Low Risk		processing Condition 13: construction requirements	holders proposed controls (landfill trenches to be bunded) are adequate to manage this risk event and have therefore been conditioned on the licence.

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 6 provides a summary of the consultation undertaken by the department.

Table 6: Consultation

Consultation method	Comments received	Department response
Shire of Laverton was provided with the application on 12 February 2026.	No comments were received.	N/A
Licence holder was provided with draft amendment on 3 March 2026	Comment period waived. Minor comments clarifying Category 54 total capacity	Noted.

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 7 and 8 provides a summary of the proposed amendments (and changes to licence format) 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 7: Consolidation of licence conditions in this amendment to the new licence format

Existing condition	Condition summary	Revised licence condition	Conversion notes
N/A	Assessed production / design capacity	N/A	Removal of category 85 as superseded by category 54.
N/A	Introduction	N/A	Removed due to document formatting change.
1.1.1 1.1.2	Interpretation and definitions	N/A Interpretation section, Definitions and Table 1	Redundant condition. Revised to current licensing format. Definitions moved to the definitions table.
1.1.3	Australian or other standard	N/A Interpretation section, Definitions and Table 1	Redundant condition. Revised to current licensing format.
1.1.4	Reference to code of practice	N/A	Redundant condition.

Existing condition	Condition summary	Revised licence condition	Conversion notes
		Interpretation section, Definitions and Table 1	Revised to current licensing format.
2 - 35	Tables	N/A	Table headers separated from table.
1.2.1	Waste generated	1	Updated condition to current numbering.
1.2.2 Table 1.2.1	Waste processing	2 Table 1	Updated condition to current numbering.
1.2.3 Table 1.2.2	Cover requirements	3 Table 2	Updated condition to current numbering.
1.2.4	Wind-blown waste	4	Updated condition to current numbering.
1.2.5	Management of wastewater treatment	5	Updated condition to current numbering.
1.2.6	Management of irrigation of treated wastewater	6	Updated condition to current numbering.
1.2.7 Table 1.2.3	Containment infrastructure	7 Table 3	Updated condition to current numbering.
1.2.8	Freeboard	8	Updated condition to current numbering.
1.2.9	Operation of the TSFs	9	Updated condition to current numbering.
1.2.10 Table 1.2.4	Inspection of infrastructure	10 Table 4	Updated condition to current numbering.
1.2.11	Pipelines	11	Updated condition to current numbering.
1.2.12	Annual water balance	12	Updated condition to current numbering.
1.2.13 Table 1.2.5	Infrastructure approved for construction	13 Schedule 2	Updated condition to current numbering.
1.2.14	Audit of construction compliance	14	Updated condition to current numbering.
1.2.15	Report required by condition 14	15	Updated condition to current numbering.
1.2.16	Oily water for dust suppression	16	Updated condition to current numbering.

Existing condition	Condition summary	Revised licence condition	Conversion notes
2.1.1	Exceedances	17	Updated condition to current numbering.
2.2.1 Table 2.2.1	Authorised emissions to land	19 Table 6	Updated condition to current numbering. Inclusion of Ben Hur WWTP area.
2.2.2 Table 2.2.2	Emission limits to land	20 Table 7	Updated condition to current numbering
2.3.1 Table 2.3.1	Point source emissions to groundwater	21 Table 8	Updated condition to current numbering.
2.3.2 Table 2.3.2	Discharge limits for emissions to groundwater	22 Table 9	Updated condition to current numbering.
3.1.1	Limit or target	23	Updated condition to current numbering.
3.1.2	Standards	24	Updated condition to current numbering.
3.1.3	Monitoring periods	25	Updated condition to current numbering.
3.2.1 Table 3.2.1	Monitoring of WWTP effluent water quality prior to discharge to irrigation areas	26 Table 10	Updated condition to current numbering.
3.3.1 Table 3.3.1	Process monitoring	27 Table 11	Updated condition to current numbering.
3.4.1 Table 3.4.1	Monitoring of ambient groundwater quality	28 Table 12	Updated condition to current numbering.
3.5.1	bores are maintained in serviceable condition	29	Updated condition to current numbering.
3.6.1 Table 3.6.1	Monitoring of dewatering discharge	30 Table 13	Updated condition to current numbering.
4.1.1	Information and records	31 & 32	Updated condition to current numbering and updated wording to current format. Intent of condition remains the same.
4.1.2	Annual Audit Compliance Report	33	Updated condition to current numbering and revised condition wording to current format. Intent of condition remains the same

Existing condition	Condition summary	Revised licence condition	Conversion notes
4.1.3	Complaints management	34	Updated condition to current numbering and revised condition wording to current format. Intent of condition remains the same
4.2.1	Annual Environmental Report	35	Updated condition to current numbering and revised condition wording to current format. Intent of condition remains the same
4.2.2	Annual Environmental Report additional information	36	Updated condition to current numbering.
4.3.1 Table 4.3.1	Notification requirements	37 Table 15	Updated condition to current numbering.

Table 8: Summary of licence amendments

Condition no.	Proposed amendments
Cover	Changes to assessed production / design capacity.
Introduction	Removed due to formatting change.
Severance	Removed due to formatting change.
Interpretation	Added due to formatting change.
1.1 Interpretation	Moved to Definitions table.
Condition 2	Table 1 updated to include Gloster and Ben Hur landfill areas. Quantity limit increased to 25 000 tonnes. Requirement for landfill trenches to be bunded and no more than 50m in length, 10 m wide and 3 m deep added.
Condition 4	Reworded "...tipping area of all landfills..."
Condition 7	Inclusion of backfilling and tailings deposition strategy conditions for MLW TSF4 WWTP ponds named to clarify which operating area they are located (i.e Moolart Well or Garden Well).
Condition 10	Inspection of WWTP pipelines added
Condition 13	Garden Well Tailing Storage Facility 1 stage 4 embankment lift updated to be one 6m lift. Design and construction requirements added for: Secondary crushing circuit at Moolart Well processing plant, Garden Well Paste plant and associated infrastructure, 30 MW Garden Well / Rosemont Power station, New Garden Well wastewater treatment plant, Moolart Well Landfill Expansion, Garden Well Landfill Expansion, Rosemont Landfill Expansion, Ben Hur Landfill and New Gloster landfill. Updates to the 4 stages of construction for MLW TSF4 (4 stages converted to a single stage)
Condition 18	Added to manage dust emissions from paste manufacturer and tailings stockpile activities.

Condition no.	Proposed amendments
Condition 19	Added treated effluent from the New Garden Well WWTP ponds (L3)
Condition 20	Added L3 (New Garden Well WWTP irrigation Area
Condition 26	Added new Garden Well sampling points prior to discharge (L3) to irrigation Area as depicted in Figure 7, Schedule 1
Condition 27	Added New Garden Well WWTP ponds to process monitoring.
Schedule 1	Added and updated figures were required.

References

1. ARMCANZ and ANZECC 1997, *National Water Quality Management Strategy – Australian Guidelines for Sewerage Systems – Effluent Management*. Commonwealth of Australia
2. Department of Environment Regulation (DER) 2015, *Guidance Statement: Setting Conditions*, Perth, Western Australia.
3. Department of Water and Environmental Regulation (DWER) 2020, *Guideline: Environmental Siting*, Perth, Western Australia.
4. DWER 2020, *Guideline: Risk Assessments*, Perth, Western Australia.
5. DWER 2021, *Amendment Report*, Joondalup, Western Australia
6. DWER 2024, *Amendment Report*, Joondalup, Western Australia
7. Regis Resources Ltd 2024, *Duketon Gold Project Annual Environmental Report 2024*, Perth, Western Australia.
8. Regis Resources Ltd 2025, *Licence 8578/2011/1 Amendment Application Request for Further Information Response*, Perth Western Australia.