

# **Amendment Report**

# **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	2011/003002-1
Premises	Duketon Gold Project
	Legal description –
	Mining tenements M38/114, 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, M38/1277, L38/201, L38/202, L38/203, L38/204 and L38/216.
	As depicted by Schedule 1 attached to the revised licence.
Date of Report	07 February 2023
Proposed Decision	Intent to grant revised licence

## SENIOR ENVIRONMENTAL OFFICER, INDUSTRY REGULATION REGULATORY SERVICES

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

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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 on mining tenements M38/114, 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, M38/1277, L38/201, L38/202, L38/203, L38/204 and L38/216.

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 operation of the Premises. As a result of this assessment, Revised Licence 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 <a href="https://dwer.wa.gov.au/regulatory-documents">https://dwer.wa.gov.au/regulatory-documents</a>.

# 2.2 Application summary

On 28 March 2022, the Licence Holder submitted an application 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:

• The revision of dewatering conditions on the licence and the inclusion of new discharge points – Cooper's Pit, Russell's Find and Reichelt's Find. Dewatering throughput will remain unchanged.

As part of this process, the CEO has also:

- updated the format and appearance of the Licence;
- updated some maps and figures;
- revised wording and naming conventions for clarity;
- revised licence condition's numbers and realigned condition numbers for numerical consistency; and
- corrected clerical mistakes and unintentional errors.

This amendment is limited only to changes to Category 6 activities from the existing licence. No changes to the aspects of the existing licence relating to Category 5, 52, 54, 64, 73 or 85 have been requested by the licence holder.

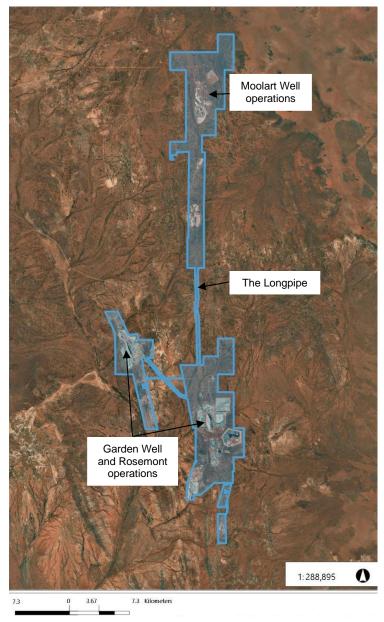
## Existing operations - category 6 activities

The Duketon Gold Project lies 70 kms north of Laverton and is situated on the Erlistoun and Banjawarn Pastoral leases.

The premises is large, and was historically divided into two separate regions (refer to 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.



## Figure 1: Regions of the Duketon Gold Project Operations

These regions operated under separate licences (L8578/2011/1 and L8412/2010/2) until 2021, when the licences were amalgamated. A water pipeline called 'the Longpipe', connected the two operations and was initially approved to transfer mine dewater from the Garden Well underground mine to the Moolart Well process water pond for use in the processing plant (category 6 activities). This pipeline was subsequently approved for the bidirectional transfer of process water between the Moolart Well processing plant and the Garden Well processing plant (category 5 activities).

There are currently three locations approved for mine dewater discharge at the Moolart Well operations (Blenheim, Wallace and Lancaster pits). The ambient groundwater at these locations has comparatively low salinity (approximately 800 to 5,000mg/L TDS). For this reason, discharge water quality parameters (pH between 6 and 9, TDS less than 15,000mg/L

and arsenic less than 0.5mg/L) were applied to water discharged at these locations under the existing operating licence to reduce the risk of local groundwater quality deterioration.

There are two locations approved for mine dewater discharge at the Garden Well operations – Rosemont pit and Erlistoun pit. The ambient groundwater quality around these pits is comparatively poor, with TDS levels at around 20,000 – 35,000mg/L and 22,000 – 27,000mg/L respectively. With dewatering discharge from the Garden Well underground mine generally having lower TDS levels (ranging between 1,300 and 31,000mg/L) than the ambient receiving environment, no discharge water quality parameters were included on the licence to discharge at these locations. Impacts of dewatering deteriorating the groundwater quality at these two discharge points was considered very low risk, given the elevated salinity levels of the ambient groundwater making it unsuitable for other beneficial uses such as stock watering.

#### Amendment description – category 6 activities

The applicant is seeking to add three new mine dewatering discharge points to the licence – Cooper's pit, Reichelt's Find and Russell's Find. This will allow for the mining of alternative areas within the operation, including pits that are currently used as mine dewatering discharge locations. The applicant is not seeking to change the current discharge points from one area to another, but to secure additional dewatering discharge points to add operational flexibility.

While the majority of mine dewater abstracted across site comes from the Garden Well underground mine, the applicant may need to dewater from other locations, (including but not limited to Dogbolter's pit, Reichelt's Find and Russell's Find) to any of the nominated discharge points depending on operational requirements. Water quality across these multiple abstraction points appears to be of highly variable quality (from potable to highly saline), and data demonstrating water quality is very limited in areas that are not currently required to be monitored under the licence.

Hydraulic conductivity data for the pit walls at all of the discharge points (saprolite with 5 x  $10^{-4}$  to 1 x  $10^{-8}$  m/d and jointed bedrock with 1 x  $10^{-5}$  to 1 x  $10^{-9}$  m/d) indicate that discharge water will not be stored at these locations, but has the potential to seep to groundwater.

The licence holder's current sitewide water use strategy prioritises mine dewater for use in the processing plants, however, the company anticipates that there will be a surplus of mine dewater going forward that will require discharge to one or more of these new locations in addition to the five existing discharge locations.

The current mine dewatering network consists of interconnected pipelines in conjunction with raw water dams into which mine dewater is both deposited and drawn from. These raw water dams may hold mine dewater from multiple locations, where waters of variable qualities have the potential to mix. The longpipe has a dual use for both category 6 (mine dewater) and category 5 (process water) transfer and has the capacity to draw from either the raw water or process water ponds.

#### Reichelt's Find discharge point

Reichelt's Find is an open pit situated about 11km south of the Garden Well operations which has been mined to a depth of 70mbgl. A dewatering pipeline currently exists that takes water from Reichelt's Find to the Garden Well processing plant, going via a turkey's nest at Toohey's Well. This location is planned to be dewatered during remining and used as a discharge point when mining is completed.

#### Russell's Find discharge point

Russell's Pit is located 4kms further south of Reichelt's Find and has been mined to about 40mbgl. With a natural depth to groundwater level of 31 - 43mbgl, it contains a very shallow pit lake. The applicant plans to extend the mine dewatering pipeline network to include this location.

#### Cooper's Pit discharge point

Two open pit mines, Cooper's Pit and Dogbolter's Pit are situated close to the Longpipe that connects the Moolart Well and Garden Well processing plants, about 11kms south of the Moolart Well operations. Both of these pits are planned to be mined to 75mbgl. Currently, the depth to groundwater at Dogbolter's and Cooper's Pits are 19.5mbgl and 26mbgl, respectively. Only Cooper's pit is proposed to become a mine dewatering discharge point.

The applicant plans to utilise the existing Longpipe to transfer mine dewater discharge to Cooper's pit, through the addition of a short off-take line directed into the pit.

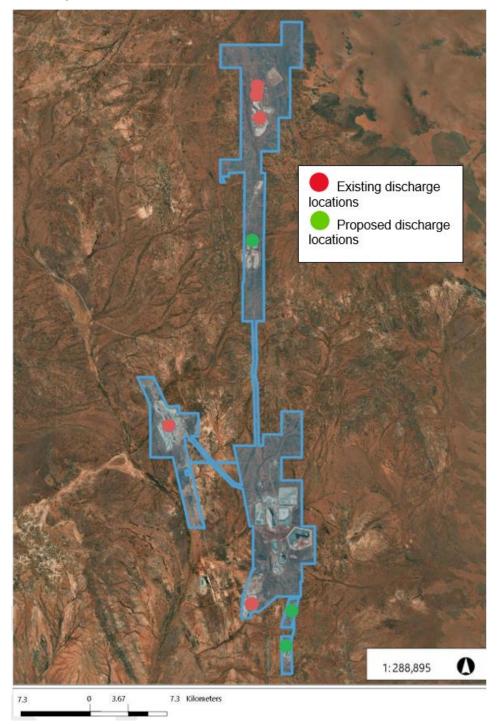


Figure 2: Existing and proposed discharge points

# 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

#### **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 1 below.

Table 1 also details the proposed control measures the Licence Holder has proposed to assist in controlling these emissions, where necessary.

Emission	Sources	Potential pathways	Proposed controls
Noise	Construction of pipeline corridors	Airborne	No receptors (no risk assessment required)
Dust	Construction of pipeline corridors	Airborne	No receptors (no risk assessment required)
Mine dewater impacting surrounding	Pipeline leaks	Direct discharge	Existing condition 1.2.11 requiring telemetry, automatic cut-outs and secondary containment for all pipelines.
vegetation or groundwater			Existing condition 1.2.10 for daily pipeline inspections
	Overtopping of the pit	Direct discharge	4m vertical freeboard
	Seepage causing groundwater mounding	Seepage through the pit walls	4m vertical freeboard
	Seepage causing the deterioration of groundwater quality	Seepage through the pit walls	No controls proposed
Process water deteriorating the quality of the groundwater	Operational error sending process water to Cooper's Pit	Seepage through the pit walls	Operational procedure to only discharge mine dewatering discharge to the pit. No engineering controls proposed.

**Table 1: Licence Holder controls** 

## 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 2 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
Nearest residence is the Mulga Queen Community	29 km west of the premises
Aboriginal and other heritage places	Located within the premises boundary
Environmental receptors	Distance from prescribed activity
Erlistoun Pastoral Station	Pastoral bore within prescribed premises boundary, 1.5km southeast of Garden Well TSF 3.
Banjawarn Pastoral Station	Pastoral bore within prescribed premises boundary, less than 1km northwest of Moolart Well open pits.
	Pastoral bore 1.5kms northeast of Cooper's Pit.
Mulgara (priority 4 fauna)	Sighted 3 kms to the north of operations
Long-tailed dunnart (Priority 4 fauna) habitat	Habitat within premises boundary – no recorded sightings
Priority flora:	Within premises boundary.
<ul> <li>Calytrix praecipua (Priority 3)</li> <li>Phyllanthus baeckiodes (Priority 3)</li> </ul>	<i>E. pungens</i> located 1.5km northeast of Garden Well processing plant, 1km east of Moolart Well processing plant and 500m south of Dogbolter's Pit.
• Eremophila pungens (Priority 4)	proceeding plant and ocom could of Degeoner of ht.
Groundwater (Proclaimed Goldfields	4 to 50 mbgl
Groundwater Area)	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. Groundwater in the region is actively used for stock purposes on the adjacent pastoral stations.

# 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 3.

The Revised Licence L8578/2011/1 that accompanies this Amendment Report authorises emissions associated with the operation of the Premises i.e. category 6 activities.

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

Risk Event			Risk rating <sup>1</sup>	Licence				
Source/Activities Potentia emissior		Potential pathways and impact	Receptors	Licence Holder's controls	C = consequence L = likelihood	Holder's controls sufficient?	Conditions <sup>2</sup> of licence	Justification for additional regulatory controls
Operation								
	Pipeline leaks	Direct discharge	Vegetation and fauna	Refer to Section 3.1	C = Minor L = Unlikely <b>Medium Risk</b>	Y	Condition 1.2.10, 1.2.11 – pipeline inspection and pipeline containment conditions.	N/A
Discharge of mine water into Cooper's pit, Reichelt's Find and Russell's Find.	Overtopping of the pits	Direct discharge	Vegetation and fauna	Refer to Section 3.1	C = Minor L = Rare Low Risk	Y	Condition 1.2.7, 1.2.10 – freeboard requirement and inspection conditions.	N/A
	Seepage causing groundwater mounding	Seepage through the pit walls	Vegetation	Refer to Section 3.1	C = Minor L = Unlikely <b>Medium Risk</b>	Y	Condition 1.2.7, 1.2.10 – freeboard requirement and inspection conditions.	N/A
	Seepage causing groundwater quality deterioration	Seepage through the pit walls	Groundwater and stock	Refer to Section 3.1	C = Major L = Possible <b>High Risk</b>	Ν	Condition 2.3.2 – Discharge limits for emissions to groundwater.	Added water guality discharge limits Refer to section 3.3 for a detailed risk assessment.
Discharge of process water into Cooper's pit.	Seepage causing groundwater quality deterioration	Seepage through the pit walls	Groundwater and stock	Refer to Section 3.1	C = Moderate L = Rare <b>Medium Risk</b>	Y	Condition 2.3.2 – Discharge limits for emissions to groundwater.	Added a limit on total cyanide Refer to section 3.3 for a detailed risk assessment.

#### Table 3. Risk assessment of potential emissions and discharges from the Premises during operation

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.

Licence: L8578/2011/1

IR-T15 Amendment report template v3.0 (May 2021)

# 3.3 Detailed risk assessment for mine dewatering discharge: Seepage causing groundwater quality deterioration

## Potential emissions from proposed activities

The groundwater that underlies the prescribed premises 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, although they have not been clearly delineated in information provided in the application.

The applicant is seeking three additional mine dewatering discharge locations – Cooper's Pit, Russell's Find and Reichelt's Find to be included on the existing licence. The applicant is seeking the flexibility to dewater from any location across site, to any of these discharge points depending on operational requirements. As the operational requirements will change as the mining strategy evolves, exact volumes of water to be discharged to particular discharge points, and the quality of that water, has not been fully determined.

Some of the aquifers in this region are being actively used by pastoral stations for stock watering purposes, and the post-mining land use for the area is also likely to be pastoral use. Given that stock generally do not tolerate water with a salinity over 4,000mg/L TDS it is assumed that pastoralists are generally using the fresher, better water quality aquifers that exist in the area.

Because of the general lack of information around the receiving aquifers, the volumes of water to be discharged and the quality of the water to be discharged into these areas, the Delegated Officer considers it prudent to apply the *Precautionary Principle* with regards to the proposed activities.

In addition, there is the potential for the aquifers that will receive the mine dewater discharge, to either now or in the future, be used for stock watering purposes. There is a lack of clarity in the data provided as to whether these aquifers are currently being used by nearby pastoralists. For this reason, the Delegated Officer considers it important to apply the *Principle of Intergenerational Equality* to preserve the potential productivity of the local groundwater resources of the area for both current and future beneficial users.

Only limited data was provided regarding the existing groundwater quality at the proposed discharge points, but what was presented is outlined below and forms the basis for the risk assessment of the potential for groundwater deterioration impacts. The Delegated Officer has taken into consideration the principles outlined above when considering additional regulatory controls. A separate risk assessment has been included for each new discharge location.

#### **Reichelt's Find**

Water quality data for this location is limited. Data from 2012 showed that Reichelt's Find contained a small pit lake with salinity of about 10,000mg/L TDS, while the ambient groundwater salinity was measured at around 1,200mg/L TDS, indicating that the pit is acting as a groundwater sink. No information was provided to demonstrate whether this is likely to change when this location becomes a discharge point. It is estimated that the pit has the capacity to store a further 1,500,000 m<sup>3</sup> of water.

Groundwater salinity levels of 1,200mg/L TDS constitutes brackish water quality, which is suitable for other beneficial uses such as stock watering. It has not been determined if this aquifer is currently being used for stock watering on the adjacent pastoral leases.

Given that the water quality of some mine dewater across site has higher salinity and is of poorer quality than the water of the receiving aquifer, it is acknowledged that when dewatering to this location it will be **Possible** to cause **Major** (mid-level off-site) impacts to the

groundwater, making the consequence **High**. The Delegated Officer will therefore apply water quality discharge limits to the water that may be discharged to this location, in line with stock watering water quality criteria (ANZECC & ARMCANZ, 2000). Monitoring of the discharge water quality will be required prior to discharge at this location (this has been clarified in the licence conditions), with the applicant having the flexibility to select an appropriate sampling point location. These requirements will reduce any potential impacts to **Minor** (minimal off-site) impacts, reducing the overall consequence to **Moderate**.

#### **Russell's Find**

Water quality data for this location is also very sparse. Data from limited sampling undertaken in 2011 recorded the salinity of the pit lake water to be 4,600mg/L TDS while the ambient groundwater salinity was 1,200mg/L TDS. The report from this time also noted that arsenic in the pit lake water was 'elevated' (no specific data was provided). A hydrogeological assessment prepared in 2019 suggests that post-mining, Russell's Find will become a groundwater sink, however this assessment did not take into account that this location may be used as a dewatering discharge location.

Groundwater salinity levels of 1,200mg/L TDS constitutes brackish water quality, which is suitable for other beneficial uses such as stock watering. It has not been determined if this aquifer is currently being used for stock watering on the adjacent pastoral leases.

Given that the water quality of some mine dewater across site has higher salinity and is of poorer quality than the water of the receiving aquifer, it is acknowledged that when dewatering to this location it will be **Possible** to cause **Major** (mid-level off-site) impacts to the groundwater, making the consequence **High**. The Delegated Officer will therefore apply water quality discharge criteria to the water that may be discharge to this location, in line with stock watering water quality criteria (ANZECC & ARMCANZ, 2000). Monitoring of the discharge water quality will be required prior to discharge at this location (this has been clarified in the licence conditions), with the applicant having the flexibility to select an appropriate sampling point location. These requirements will reduce any potential impacts to **Minor** (minimal off-site) impacts, reducing the overall consequence to **Moderate**.

#### **Cooper's Pit**

Four samples of groundwater taken from around Cooper's pit between 2019 to 2021 indicate that ambient groundwater salinity at this location is 700 to 1,200mg/L TDS, pH is close to neutral and heavy metals are low. These groundwater quality parameters constitute potable to brackish water, which indicates that groundwater in this area is significantly better than many other areas of site and is of suitable quality for other beneficial uses such as stock watering. It has not been determined if this aquifer is currently being used for stock watering on the adjacent pastoral leases.

Given that the water quality of almost all mine dewater across site has higher salinity and is of poorer quality than the receiving aquifer, it is acknowledged that when dewatering to this location it will be **Possible** to cause **Major** (mid-level off-site) impacts to the groundwater, making the consequence **High**. The Delegated Officer will therefore apply water quality discharge criteria to the water that may be discharge to this location, in line with stock watering water quality criteria (ANZECC & ARMCANZ, 2000). Monitoring of the discharge water quality will be required prior to discharge at this location (this has been clarified in the licence conditions), with the applicant having the flexibility to select an appropriate sampling point location. These requirements will reduce any potential impacts to **Minor** (minimal off-site) impacts, reducing the overall consequence to **Moderate**.

There is an additional risk of potentially impacting the groundwater at this discharge point due to there being no dedicated mine dewatering discharge pipeline. Instead, mine dewater will be transported using a pipeline that has a dual use for the transfer of process water between the processing plants. The only proposed controls to ensure that process water will not be discharged at this location will be operational. With these operational controls in place, it

would be **Rare** for processing water to impact the groundwater, causing **Moderate** (low-level off-site) impacts, making the overall consequence **Moderate**.

The Delegated Officer considers this an appropriate level of risk for these activities, with the applicant's controls in place. However, to verify that the applicant's controls have been effective in mitigating this risk, the Delegated Officer deems it appropriate to apply a Total Cyanide limit and monitoring requirement at this discharge point only.

#### Explanation of discharge water quality criteria

While it is acknowledged that the applicant's proposal to discharge mine dewater to these new locations is expected to cause a level of deterioration to the groundwater quality of the aquifers, the Delegated Officer has determined that discharge to these locations is acceptable, subject to conditions. The conditions on the accompanying licence are considered sufficient reduce the risks of groundwater impacts to a level that balances the demands all potential users of this resource.

The Delegated Officer has applied water quality discharge limits for the key parameters of TDS, arsenic and pH to Russell's Find, Reichelt's Find and Cooper's pit discharge points (at the end of pipe), in line with the ANZECC and ARMCANZ (2000) stock water guidelines. This is in accordance with the department's policy of setting outcome-based conditions and allows the applicant to best determine how to manage their operation to meet them.

Although the data presented indicate that water at the discharge point locations is currently better than stock water criteria, the Delegated Officer considers the stock water guidelines a pragmatic benchmark to use, given that stock watering is the likely alternative beneficial use of the groundwater resources in the area.

The discharge water quality limits for Lancaster pit, Wallace pit and Blenheim pit remain unchanged, and there continues to be no discharge water quality limits for Rosement pit and Erlistoun pit. The Delegated Officer has taken into consideration the fact that the applicant has the option of sending poorer quality water to other locations where it will have minimal environmental impacts, including the processing plants, Rosemont pit and Erlistoun pit.

It is recognised that not all excess mine dewater across the site will be able to meet the discharge criteria at the new discharge locations, however, the Delegated Officer considers this a balanced approach that facilitates additional operational flexibility while also minimising potential environmental impacts.

# 4. Consultation

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

Consultation method	Comments received	Department response
Application advertised on the department's website (14 October 2022)	None received	N/A
Local Government Authority advised of proposal (14 October 2022)	Received 19 November 2022 – the Council have no objections to the amendment.	N/A
Licence Holder was provided with draft amendment on 12	Refer to Appendix 1	Refer to Appendix 1

#### Table 4: Consultation

January 2023	
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# 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 5 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.

Condition no.	Proposed amendments
Premises details	Revised to include tenements which had been mistakenly omitted from licence.
Introduction	Premises description updated to clarify and reflect changes to category 6 activities.
1.1.2	Definition of AACR reworded to standard phrasing
1.2.7, Table 1.2.3	Containment infrastructure naming updated to clarify existing locations with the same names. Mine dewatering discharge points removed (as they do not meet the definition of containment infrastructure) and transferred to Section 2.3 Point source emissions to groundwater.
2.3 Point source emissions to	Section added to clearly define authorised dewatering discharge points and requirements for discharge at each location.
groundwater	Added Condition 2.3.1, Table 2.3.1, Condition 2.3.2 and Table 2.3.2.
	Discharge water quality limits added for new mine dewater discharge locations.
3.6.1, Table 3.6.1	Discharge limits moved to section 2.3.1 Discharge Limits.
	Routine monitoring of Russell's Find, Reichelt's Find and Cooper's pit groundwater quality parameters added.
4.2.1, Table 4.2.1	Inclusion of additional process monitoring in Annual Environmental Reporting
Schedule 1, Figure 11	Updated map.
Schedule 1, Figures 13 and 14 Maps of dewatering discharge points	Maps of new dewatering discharge locations.
Schedule 1, Figures 15, 16, 17 Maps of groundwater monitoring bores	Updated numbering. Previously numbered Figures 13, 14 and 15

Table 5: Summary of licence amendments

# References

- 1. Department of Environment Regulation (DER) 2015, *Guidance Statement: Setting Conditions*, Perth, Western Australia.
- 2. Department of Water and Environmental Regulation (DWER) 2020, *Guideline: Environmental Siting*, Perth, Western Australia.
- 3. DWER 2020, Guideline: Risk Assessments, Perth, Western Australia.
- 4. Australian and New Zealand Environment and Conservation Council (ANZECC) & Agriculture and Resource Management Council of Australia and New Zealand (ARMCANZ) 2000, Australian and New Zealand Guidelines for Fresh and Marine Water Quality (Volume 3) Primary Industries Rationale and Background Information, Australia.
- 5. Regis Resources, March 2022, *Application for Amendment of Licence L8578/2011/1,* Perth, Western Australia.
- 6. Regis Resources, June 2022, Supplemental Information, Perth, Western Australia.
- 7. Regis Resources, June 2022, *Duketon Mining Proposal Version 8 (Environmental Registration 112214)*, Perth, Western Australia.

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

Condition	Summary of Licence Holder's comment	Department's response
N/A	Updated maps provided	
3.6.1	Discussion with the department about monitoring point location for discharge water	In consultation with the applicant, additional clarity on the discharge points (in/at the discharge pipe, not the pit following discharge) was added.

Licence: L8578/2011/1

# Appendix 2: Application validation summary

SECTION 1: APPLICATION SUMMA	ARY (a	s updated from vali	dation checklist)			
Application type						
Amendment to licence	$\boxtimes$	Current licence number:	L8578/2011/1			
		Relevant works approval number:		N/A		
Date application received		28/03/2022 but re	submitted 5/07/2022	followi	ng an RFI	
Applicant and Premises details						
Applicant name/s (full legal name/s)		Regis Resources	Ltd (ACN: 009 174 7	'61)		
Premises name		Duketon Gold Pro	ject			
Premises location	M38/114, M38/237, M38/250, M38/283, M38/292, M38/30 M38/303, M38/341, M38/343, M38/352, M38/354, M38/49 M38/499, M38/500, M38/589, M38/630, M38/943, M38/1091, M28/1249, M38/1250, M38/1251, M38/1257, M38/1259, M38/1260, M38/1261, M38/1262, M38/1263, M38/1277, L38/201, L38/202, L38/203, L38/204, L38/216, M38/407, M38/802, M38/1258			354, M38/498, 943, M38/1257, M38/1263,		
Local Government Authority		Shire of Laverton				
Application documents						
HPCM file reference number:		2011/003002-1~3				
Key application documents (additional to application form):		Letter from Sior Consulting providing additional information (June 2022) Hydrogeological Assessment Report – Dogbolter and Coopers Gold Mines (2016)				
		Hydrogeological Assessment Report – Reichlt's Find (2022) Hydrogeological Assessment Report – Russell's Find (2019) Hydrogeological Assessment Report – Garden Well Mine (2020)(includes groundwater modelling)				
Scope of application/assessment						
		Licence amendmen	t			
Summary of proposed activities or changes to existing operations.		The applicant is planning to modify the current dewatering infrastructure to incorporate new discharge points at Cooper's Pit, Reichelt's Find and Russell's Find Pits. This will require the construction of new pipeline infrastructure. Discharge to Reichelt's Find and Russell's Find was assessed in a previous (expired) works approval. Discharge to Cooper's Pit has not been assessed before. Amendment is for category 6 activities only.				

able 1: Prescribed premises categorie	es			
Prescribed premises category and description		osed/Ass sign cap	sessed production acity	Proposed changes to the production or design capacity
Category 6: Mine dewatering			cence allows for dewatering	A change to mine dewatering volumes has not been proposed
egislative context and other approv	vals			
Has the applicant referred, or do they intend to refer, their proposal to the E under Part IV of the EP Act as a significant proposal?	PA	Yes □	No 🖂	Referral decision No: Managed under Part V □ Assessed under Part IV □
Does the applicant hold any existing I IV Ministerial Statements relevant to t application?		Yes □	No 🖂	Ministerial statement No: EPA Report No:
Has the proposal been referred and/o assessed under the EPBC Act?	or	Yes 🗆	No 🖂	Reference No:
Has the applicant demonstrated occupancy (proof of occupier status)?		Yes ⊠	No 🗆	Certificate of title □ General lease □ Expiry: Mining lease / tenement ⊠ Expiry: 2024 - 2039 Other evidence □ Expiry:
Has the applicant obtained all relevant planning approvals?		Yes □	No 🗆 N/A 🖂	Approval: Expiry date: If N/A explain why? Not required
Has the applicant applied for, or have existing EP Act clearing permit in rela to this proposal?		Yes ⊠	No 🗆	CPS No: 6657/9
Has the applicant applied for, or hav existing CAWS Act clearing licenc relation to this proposal?	in o	Yes 🗆	No 🖂	Application reference No: N/A Licence/permit No: N/A
Has the applicant applied for, or hav existing RIWI Act licence or perm relation to this proposal?	nit in	Yes ⊠	No 🗆	Application reference No: Licence/permit No: GWL169314(3), GWL175928(1 GWL180893

Does the proposal involve a discharge of waste into a designated area (as defined in section 57 of the EP Act)?	Yes ⊠ No □	<ul> <li>Name: Goldfields Groundwater Area</li> <li>Type: Proclaimed Groundwater</li> <li>Area</li> <li>Has Regulatory Services (Water)</li> <li>been consulted?</li> <li>Yes □ No ⊠ N/A □</li> <li>Regional office:</li> </ul>
Is the Premises situated in a Public Drinking Water Source Area (PDWSA)?	Yes □ No ⊠	Name: N/A Priority: P1 / P2 / P3 / N/A Are the proposed activities/ landuse compatible with the PDWSA (refer to <u>WQPN 25</u> )? Yes I No I N/A I
Is the Premises subject to any other Acts or subsidiary regulations (e.g. Dangerous Goods Safety Act 2004, Environmental Protection (Controlled Waste) Regulations 2004, State Agreement Act xxxx)	Yes ⊠ No □	Environmental Protection (Unauthorised Discharges) Regulations 2004
Is the Premises within an Environmental Protection Policy (EPP) Area?	Yes □ No ⊠	
Is the Premises subject to any EPP requirements?	Yes □ No ⊠	
Is the Premises a known or suspected contaminated site under the <i>Contaminated Sites Act 2003</i> ?	Yes 🗆 No 🗆	Classification: To be determined Date of classification: N/A