



## Application for Licence Amendment

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

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<b>Licence Number</b>	L9293/2021/1
<b>Licence Holder</b>	Silver Lake (Rothsay) Pty Ltd
<b>ACN</b>	151 137 450
<b>File Number</b>	APP-0031003
<b>Premises</b>	Rothsay Gold Project Mining Tenements M59/39, M59/40 and L59/24 PERENJORI WA 6620
<b>Date of Report</b>	25/03/2026
<b>Decision</b>	Revised licence granted

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# 1. Decision summary

Licence L9293/2021/1 is held by Silver Lake (Rothsay) Pty Ltd (Licence Holder) for the Rothsay Gold Project (the Premises), located within mining tenements M59/39, M59/40 and L59/24, Perenjori.

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 L9293/2021/1 has been granted to allow an increase in TDS concentration for discharge to the evaporation pond only, with soil monitoring added as an additional means to monitor vegetation health. The request to increase TDS concentration for discharge to an ephemeral creek line has not been approved at this time.

# 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 3 September 2025, the Licence Holder submitted an application to the department to amend Licence L9293/2021/1 under section 59 and 59B of the *Environmental Protection Act 1986* (EP Act). The following amendments are being sought:

- Increase the total dissolved solids (TDS) limit at both the evaporation/ infiltration pond and the ephemeral drainage line discharge points from 35,000 to 60,000mg/L.

Increased groundwater salinity has been observed within the Rothsay underground mine with the increasing depth of the underground mining activities as shown in Table 1. As a result of this increase, the TDS at the authorised discharge locations (the evaporation/ infiltration pond and the ephemeral drainage line) has also been increasing in response (Table 2).

Consequently, the Licence Holder is seeking an increase to the TDS discharge limits of dewatered groundwater at the evaporation/infiltration pond and ephemeral drainage line.

**Table 1: Rothsay underground dewatering quality 2021 - 2024**

	Date	TDS mg/L
Rothsay Underground	10/06/2021	8,070
	16/09/2021	11,900
	9/12/2021	12,600
	14/03/2022	16,100
	7/06/2022	18,000
	11/09/2022	19,000
	5/12/2022	23,000
	28/03/2023	23,000
	25/12/2023	28,000
	11/03/2024	30,000
	29/09/2024	32,000
	10/12/2024	36,000

There are no proposed changes to the existing Licence relating to the assessed design capacity for category 6, 64 and 85 activities. The prescribed premises boundary with key infrastructure is shown in Figure 1

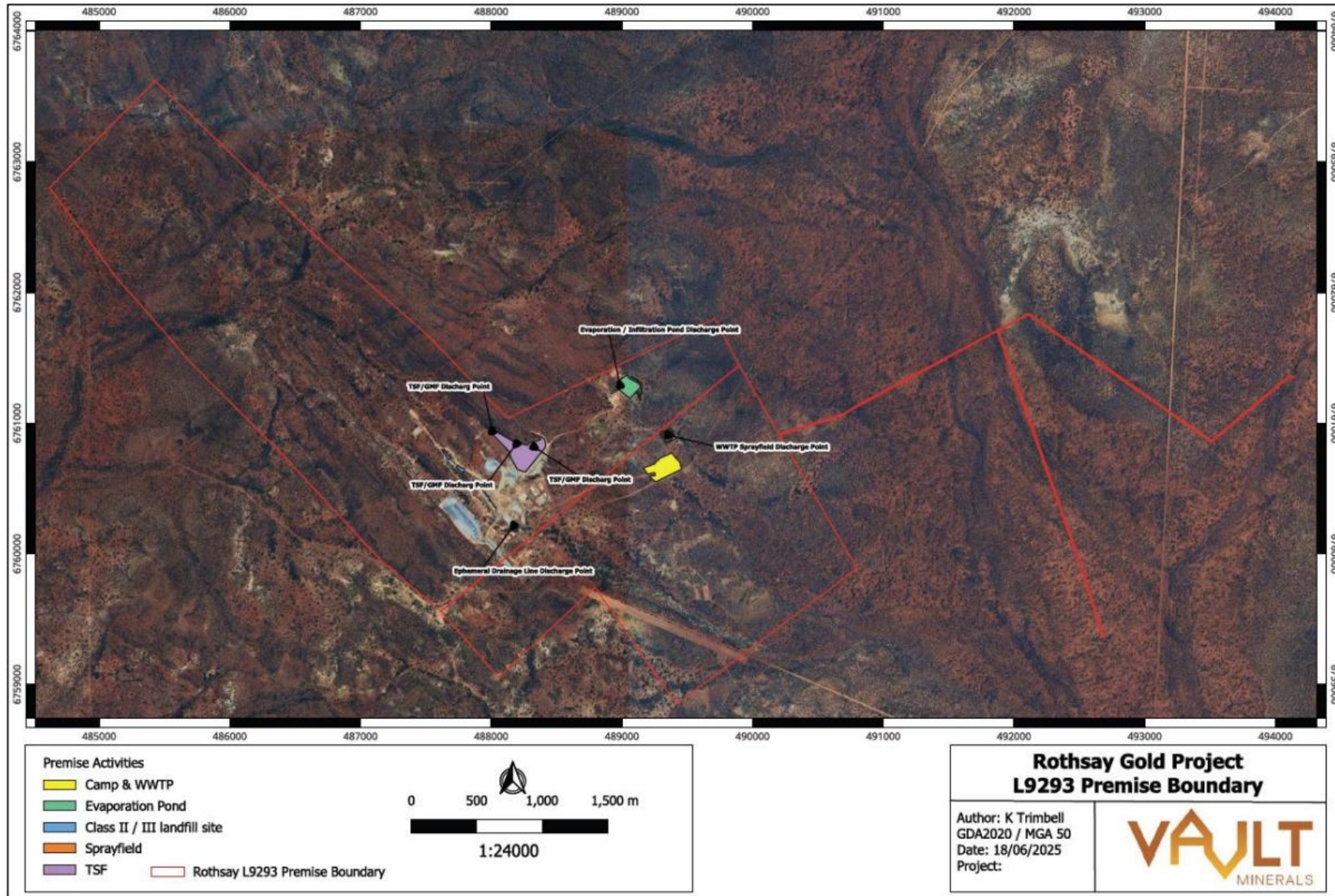


Figure 1: Prescribed premises boundary with key infrastructure

## 2.2.1 Mine dewatering

Mine dewatering is undertaken to support ongoing underground gold mining operations within the premises. Water is removed from the underground mine and discharged from two authorised discharge points: the evaporation/ infiltration pond and the ephemeral drainage line (Figure 1).

Dewatered groundwater is pumped approximately 1.2km from the underground mine to the Tailings Storage Facility Gold Mill Facility (TSF GMF). From the TSF GMF, water is collected via a concrete decant tower and is either:

- Pumped to the header tanks for underground reuse, pumped to the washdown bay and / or used for dust suppression.
- Diverted to the evaporation / infiltration pond.
- Diverted to the mechanical evaporator on the TSF GMF if required; or
- Diverted to the ephemeral drainage line for periodic discharge.

The flow pathway for dewatered groundwater from the Rothsay underground mine is illustrated in Figure 2.

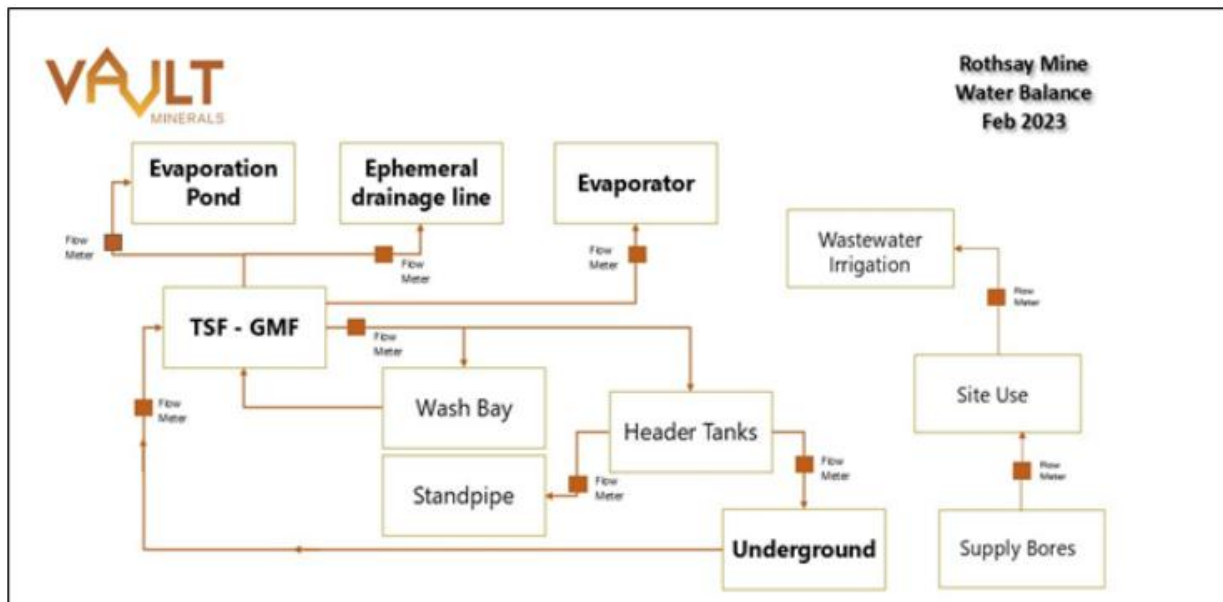


Figure 2: Rothsay water flow schematic

## 2.2.2 Groundwater monitoring

### Groundwater quality – mine dewater

Baseline monitoring has estimated groundwater in the area to exhibit a TDS reading of approximately 6,000 mg/L (Botanica Consulting 2025). Comparatively, the TDS in the dewatered groundwater has been recorded as much higher, with the Licence Holder stating that TDS levels are increasing in the dewatered groundwater as operations progress deeper underground. With the deeper expansion of mining operations there is an increased potential to exceed the TDS limit of 35,000 mg/L under the existing Licence L9293/2021/1 (Vault Minerals 2025).

Recent TDS values for dewatered groundwater at the authorised discharge points are presented in Table 2.

**Table 2: Discharge point water quality results**

Location	Date	TDS (mg/L)
Ephemeral Drainage Line – Discharge Point	19/04/2022	15300
	27/05/2022	19000
	20/02/2023	24000
	20/03/2023	20000
	30/04/2023	22000
	29/05/2023	23000
	26/06/2023	26000
	21/08/2023	25000
	30/10/2023	26000
	19/11/2023	24000
	4/05/2025	39000*
	18/05/2025	45000**
Evaporation / Infiltration Pond – Discharge Point	14/06/2021	6820
	13/12/2021	15000
	14/03/2022	16300
	7/06/2022	18000
	24/12/2023	28000
	29/09/2024	31000
	23/06/2025	35,000

\*Discharge had ceased

\*\*Confirmatory sample only

While there has been no recorded TDS exceedance at the evaporation/ infiltration pond discharge point observed to date, there is an observed trend of increasing salinity with depth of mining. In comparison, there has been one TDS exceedance at the ephemeral drainage line, which has recorded TDS reaching 39,000 mg/L in May 2025 (later confirmed at 45,000 mg/L TDS). Existing licence condition 9 prevents discharge of water at the ephemeral drainage line discharge point if TDS is more 35,000 mg/L.

**Groundwater levels - evaporation/ infiltration pond**

The evaporation/infiltration pond has been designed on the assumption that seepage is acceptable given the water is from groundwater originally and far enough from underground mining to prevent recirculation back into dewatering activities (Vault Minerals 2025). Groundwater levels within the immediate proximity to the evaporation/infiltration pond have risen since dewater discharge activities commenced (Figure 3). The location of monitoring bores is shown in Figure 4.

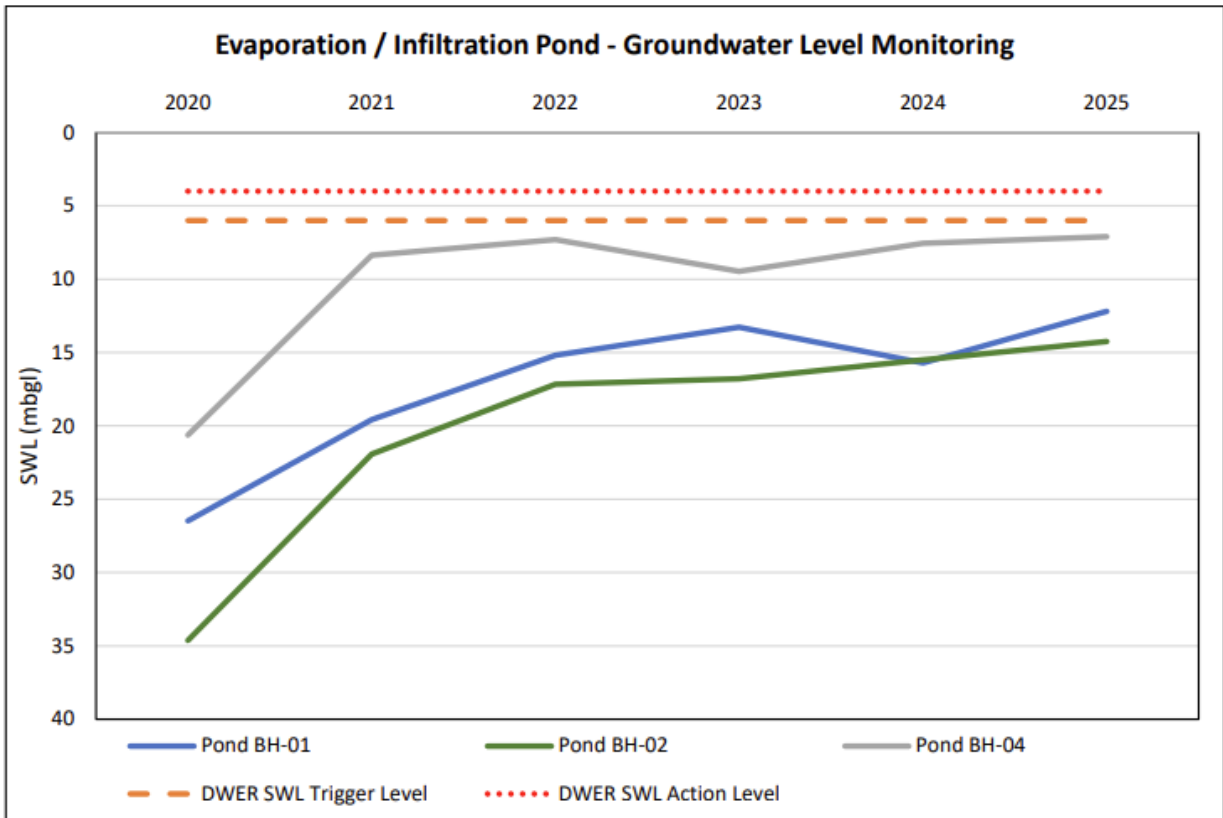


Figure 3: Groundwater levels surrounding the evaporation/ infiltration pond

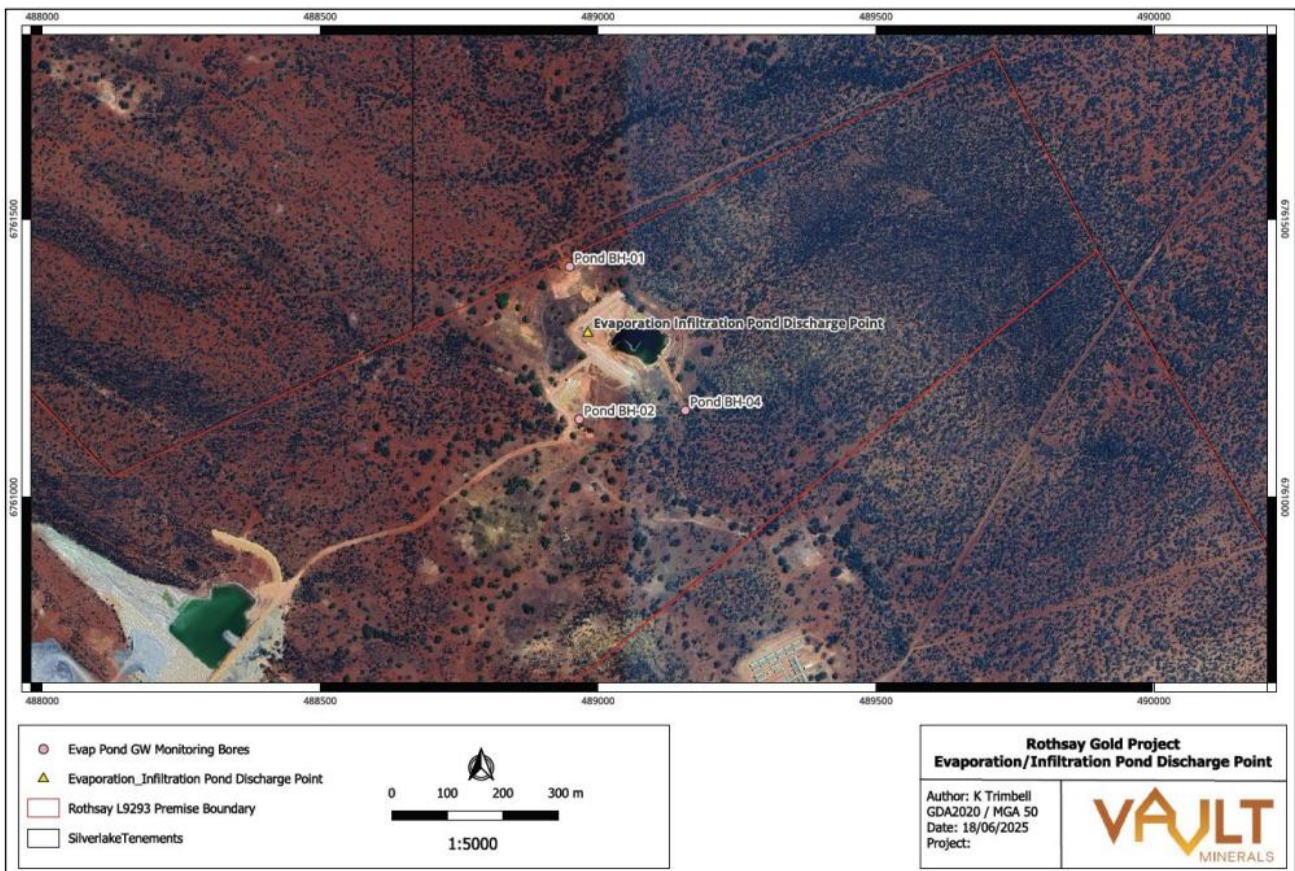
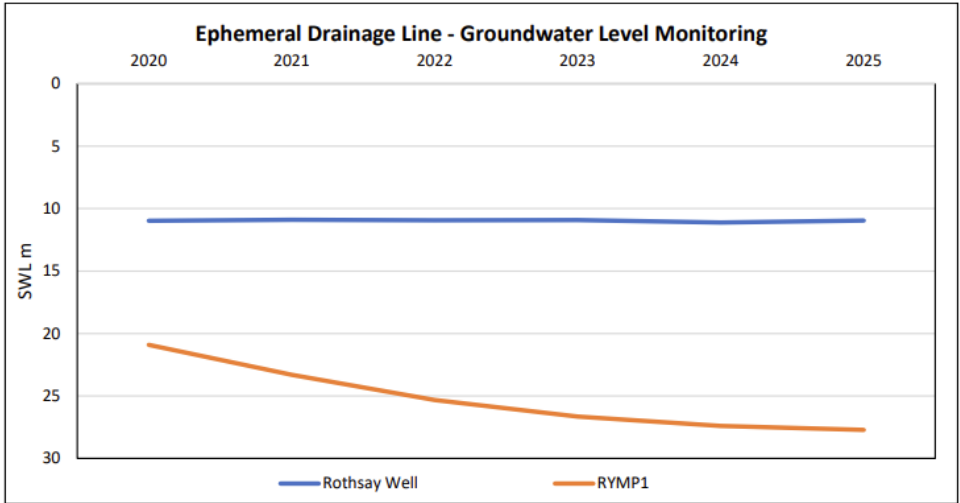


Figure 4: Evaporation/ infiltration discharge point with monitoring bore locations

**Groundwater levels - ephemeral drainage line**

The Licence Holder has indicated that groundwater mounding from discharge to the ephemeral drainage line is unlikely and would be immediately visible due to proximity to surface (Vault Minerals 2025). To date, there has been no evidence to suggest that groundwater mounding has occurred in the vicinity of the ephemeral drainage line, with standing water levels downstream of the drainage line being observed to have decreased over the past 5 years (Figure 5).



**Figure 5: Groundwater standing water levels downstream of the ephemeral drainage line**

Figure 5 shows the gradual decline in groundwater levels between 2020 and 2025, from approximately 20 mbgl to 28 mbgl. This depth to groundwater and its gradual decline indicates that groundwater is not interacting with the upper surface and is therefore not rising and carrying salts to the land surface (Botanica Consulting 2025).

The Licence Holder has suggested that the existing groundwater monitoring program contained within licence L9293/2021/1 is sufficient to mitigate potential impacts to groundwater (Vault Minerals 2025).

The location of the monitoring bore (RYMP1) downstream of the ephemeral drainage line is shown in Figure 6.

**Water discharge rates**

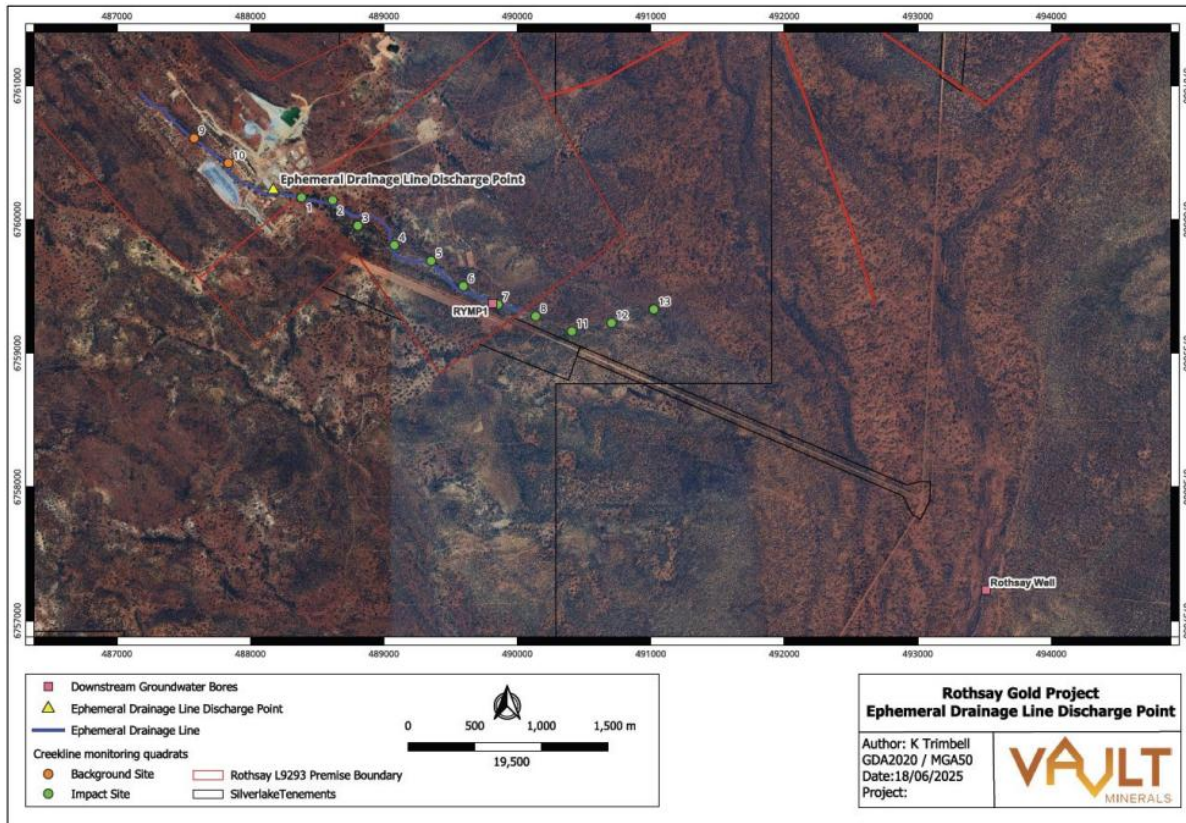
A total of 144,100 kL since 2022 has been discharged to the ephemeral drainage line at an overall average rate of 3.7 L/s. Discharge occurred intermittently in May 2022, February to November 2023 and March to May 2025. In comparison, a total of 1,141,781 kL has been discharged to the evaporation/ infiltration pond since 2021 at an overall average rate of 8.2 L/s (Botanica Consulting 2025).

**2.2.3 Vegetation health and monitoring**

**Vegetation monitoring results**

There are no known priority flora records within the downstream ephemeral drainage line, however eight Priority Flora have been previously recorded as occurring 100-200m parallel of the ephemeral drainage line, located outside the area of inundation.

Visual vegetation health monitoring is undertaken around the evaporation/ infiltration pond and the ephemeral drain line (Figure 6), in accordance with licence L9293/2021/1, to identify any potential impacts to vegetation from the rise in groundwater levels and change in TDS water quality.



**Figure 6: Ephemeral drainage line discharge point with vegetation monitoring quadrats**

Over the three discharge periods since 2022, there has been no significant presence of waterlogging, erosion, increased weed competition and no significant vegetation health decline, with little to no impact on the condition of vegetation along the ephemeral drainage line having been observed (Botanica Consulting 2025). As such, the Licence Holder has determined that potential impacts to vegetation and conservation significant flora posed by an increase in TDS along the ephemeral drainage line has been determined to be low risk (Botanica Consulting 2025).

The Licence Holder considers the current monitoring regime adequate to manage any potential impacts from discharge at the proposed increased TDS discharge limit (Vault Minerals 2025).

**Vegetation monitoring response**

Vegetation health and creek line integrity monitoring is undertaken as per the requirements of L9293/2021/1 when discharge is required at the ephemeral drainage line. Pre-discharge visual assessments are conducted on foot by qualified environmental personnel to identify any signs of impact from previous discharge periods (for example, salt staining, erosion, and increase in weed competition). If signs of unacceptable impact are observed, the decision to begin discharge is reassessed with management actions to be implemented as per the Rothsay Vegetation Monitoring Operation Procedure (Vault Minerals 2025).

To ensure groundwater with elevated TDS concentrations is not impacting the root zone of vegetation adjacent to this area, “warning” and “action” trigger levels are implemented for monitoring bores BH-01, BH-02 and BH-04 (Figure 4). The Licence Holder recommends that the current management response measures, as outlined in licence L9293/2021/1, are to continue should these levels be reached. The response actions for each trigger level are outlined as follows:

Warning trigger level

- Should the standing water level rise beyond warning trigger level of 6 mbgl:
  - Notify the Rothsay Mine Registered Manager and Environment Manager within 24 hours.
  - Commence weekly monitoring of the respective groundwater bore (BH-01, BH-02 and BH-04) that has exceeded; and
  - Review the water level data for groundwater bores BH-01, BH-02 and BH-04 fortnightly to identify any continuing adverse trends.

Action trigger level

- Should the SWL rise beyond action trigger level of 4 mbgl:
  - Notify DWER within 5 days of the exceedance record and provide a description of actions that will be taken to mitigate impacts.
  - Commence daily monitoring of the respective groundwater bore (BH-01, BH-02 and BH-04) that has exceeded.
  - Review the water level data for groundwater bores BH-01, BH-02 and BH-04 weekly to identify any continuing adverse trends.
  - Discuss the actions implemented and assessment of monitoring data within the AER; and
  - Cease discharge to the evaporation / infiltration pond within 2 months of the action trigger limit being recorded if the water level in the groundwater bores (BH-01, BH-02 and BH-04) has not started to decline.

Considering the current state of the vegetation and the results from ongoing monitoring, the Licence Holder considers the current monitoring and management measures, prescribed in licence L9293/2021/1 and summarised above, adequate to manage any potential impacts from the proposed increased in TDS discharge to the evaporation/ infiltration pond and the ephemeral drainage line.

### 3. Risk assessment

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

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

#### 3.1 Source-pathways and receptors

##### 3.1.1 Emissions and controls

The key emissions and associated actual or likely pathway during premises operation which have been considered in this Amendment Report are detailed in Table 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
Mine dewater	Increase in TDS levels of mine dewater discharged to the evaporation pond and ephemeral drainage line	Overland runoff from ephemeral drainage line	<p>The Licence Holder has not proposed additional controls beyond those existing within Licence L9293/2021/1:</p> <ul style="list-style-type: none"> <li>• GMF and Evaporation / Infiltration Pond to be used preferably, with Ephemeral drainage line least preferable option.</li> <li>• Maximum 20 L/second discharge rate.</li> <li>• Maximum 7 days continuous discharge.</li> <li>• Minimum 7 days of no discharges between each discharge event.</li> <li>• Discharge quality monitoring.</li> <li>• Discharge limit.</li> <li>• Vegetation monitoring (further details in Section 2.2.3 above).</li> <li>• Maintain rock apron dissipater, rock lined causeway, and HDPE polypipeline.</li> <li>• Daily visual inspections to check for erosion.</li> </ul>
		Direct discharge caused by spills and overtopping from evaporation pond	<p>The Licence Holder has not proposed any additional controls beyond those existing in Licence L9293/2021/1:</p> <ul style="list-style-type: none"> <li>• Storage capacity of 23,780 m3.</li> <li>• Maintain 500 mm freeboard.</li> <li>• HDPE pipelines contained within an earthen bund.</li> <li>• Maintain diversion bund to direct overland sheet flow from significant storm events away from the Evaporation / Infiltration Pond.</li> <li>• Maintain spillway for the release of diluted pond water into a nearby drainage channel.</li> <li>• Groundwater depth warning and action trigger levels for monitoring bores surrounding the TSF (further details in Section 2.2.3 above).</li> <li>• Daily inspections to check:                             <ul style="list-style-type: none"> <li>○ Visual integrity.</li> <li>○ Visual to confirm no unusual changes and required freeboard capacity is available; and</li> <li>○ Visual to confirm able to accommodate stormwater flows from a 1 in 100-year, 72-hour ARI rainfall event.</li> </ul> </li> </ul>

Emission	Sources	Potential pathways	Proposed controls
Mine dewater	Increase in TDS levels of mine dewater discharged to the evaporation pond and ephemeral drainage line	Infiltration through base of pond to soils and groundwater	No controls have been proposed.
		Movement of saline water and material to vegetation root zones due to cumulative loading of TDS in soil	No controls for soil monitoring for management of TDS loaded soils have been proposed by the Licence Holder. Refer to the Detailed risk assessment in Section 3.3 for proposed controls by the Delegated Officer.

### 3.1.2 Receptors

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

Table 4 below provides a summary of potential 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)). Human receptors are not within the scope of this assessment.

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

Environmental receptors	Distance from prescribed activity
Native vegetation	Surrounding the premises and adjacent to dewatering operations.
Ephemeral surface water body.	Mine dewater is directly discharged into the ephemeral surface water body.  The premises is not located within a surface water management area and there is no permanent surface water in the area. The applicant’s supporting documentation has stated that “ <i>Very low stream gradients and high evaporation rates likely result in sheetwash flow into numerous ephemeral drainage lines which do not reach the Lake Monger system</i> ”. This system is located approximately 7.5 km to the south of the premises.
Groundwater	Between 11 and 55 mbgl. From the supporting documentation regarding depth to groundwater around the surface water bodies: <i>Groundwater levels have shown a gradual decline, ranging between 20 to 28 mbgl, indicating no interaction with the surface and no upward movement of salts.</i>
Threatened and priority flora <u>Priority 1:</u> <i>Acacia karinae</i> <i>Allocasuarina tessellate</i>	The eight priority flora have been previously recorded upgradient approximately 100m parallel to the drainage line and outside of any inundation area.  One of these eight priority flora species ( <i>Bossiaea</i> sp. Jackson Range) has the potential to occur within drainage line habitat

<p><i>Lepidosperma sp. Blue Hills</i></p> <p><u>Priority 3:</u></p> <p><i>Bossiaea sp. Jackson Range</i></p> <p><i>Grevillea subtiliflora</i></p> <p><i>Persoonia pentasticha</i></p> <p><i>Rhodanthe collina</i></p> <p><i>Stenanthemum poicilum</i></p>	<p>(Botanica Consulting 2025).</p>
<p>Soil</p>	<p>Technical experts within the Department have determined that the soil within the ephemeral drainage line and supporting the surrounding vegetation is susceptible to storing and releasing high concentrations of dissolved solids which can be released and transferred to nearby vegetation.</p>

### 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 L9293/2021/1 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).

**Table 5. Risk assessment of potential emissions and discharges from the Premises operation**

Risk Event					Risk rating C = consequence L = likelihood	Applicant controls sufficient?	Conditions of licence	Justification for additional regulatory controls
Source/Activities	Potential emissions	Potential pathways and impact	Receptors	Applicant controls				
<b>Operation</b>								
Increase in TDS levels of mine dewater discharged to the ephemeral drainage line	Mine dewater	<b>Pathway:</b> Overland runoff from ephemeral drainage line <b>Impact:</b> Ecosystem disturbance, impact to surface water and groundwater and soil quality leading to reduced health or death of vegetation	Groundwater Surface water Native vegetation Priority Flora Soil	Refer to Section 3.1.1	C = Major L = Possible <b>High Risk</b>	N	<b>Condition 18, Table 7</b> <b>Condition 19, Table 8</b>	Refer to detailed risk assessment in Section 3.3 below.
Increase in TDS levels of mine dewater discharged to the evaporation pond	Mine dewater	<b>Pathway:</b> Direct discharge caused by spills and overtopping from evaporation pond <b>Impact:</b> Ecosystem disturbance, impact to surface water and groundwater quality	Groundwater Native vegetation Priority flora Soil	Refer to Section 3.1.1	C = Slight L = Unlikely <b>Low Risk</b>	N	Condition 1, Table 1	Although the Licence Holder has not proposed additional controls, the Delegated Officer considers the existing controls to be sufficient in minimizing potential impacts of increased TDS on groundwater, native vegetation, priority flora and soil.
Increase in TDS levels of mine dewater discharged to the evaporation pond	Mine dewater	<b>Pathway:</b> Infiltration through base of pond to soils and groundwater <b>Impact:</b> Ecosystem disturbance, impact to surface water and groundwater quality	Groundwater Native vegetation Priority flora Soil	Refer to Section 3.1.1	C = Slight L = Unlikely <b>Low Risk</b>	N	N/A	Although no controls exist or have been proposed, the Delegated Officer considers the risk to be low enough to not require specific controls due to the relatively benign nature of the discharged mine dewater and the function of the evaporation pond.

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.

### 3.3 Detailed risk assessment – discharge of TDS to vegetation root zones

#### 3.3.1 Overview of the risk assessment

This detailed risk assessment considers the potential for environmental harm associated with the increase in TDS being discharged to the ephemeral drainage line as a result of raising authorised TDS limits from 35,000 mg/ L to 60,000 mg/ L.

#### 3.3.2 Characterisation of emission

Since 2022 there have been three mine dewater discharge events to the ephemeral drainage line. TDS has been observed to have increased (Table 2) with the most recent recorded TDS from the ephemeral drainage line being 45,000 mg/ L.

The previous monitoring data and past emissions to the ephemeral drainage line indicate an upwards trend in TDS, and so it is likely that the proposed limit of 60,000 mg/ L would be reached in the future should discharge continue to occur.

#### 3.3.3 Characterisation of potential impact

Mine dewater is currently discharged into the ephemeral drainage line irregularly and as a functional contingency when it is unable to be discharged to the evaporation pond due to reaching storage capacity. Historically, the risk that the periodic discharge of dewatering effluent would cause adverse impacts on vegetation was considered to be low to moderate. This is because of the relatively moderate salinity of the discharges (TDS values of approximately 20,000 to 30,000 mg/ L) by comparison with the naturally high soil and water salinities in the area, and the infrequent nature of the discharge events.

However, the Delegated Officer considers that increasing the TDS limit of the discharge water to 60 000 mg/L would greatly increase the risk of adverse impacts on vegetation adjacent to the ephemeral waterway. Technical experts within the Department have determined that adverse impacts may include a reduction in the production of new eucalypt seedlings, as the proposed limit of 60,000 mg/ L for TDS is estimated to be 5 to 6 times higher than levels that would cause a 100% mortality rate in germinating seedlings of the most salt-tolerant eucalypts in the region.

Initially, mature trees would appear to be unaffected by the increased salt levels in shallow soil because of the depth of their roots. However, with continuing hypersaline discharges, saline water would progressively move through the soil profile over a prolonged period of time (likely over several years) to kill trees. Additionally, understory shrubs would be progressively replaced by more salt-tolerant plants such as samphire species.

Considering these potential impacts, the Delegated Officer has identified that a higher level of regulatory control is to manage the increased risk of high concentrations of TDS on vegetation through TDS loading in soil.

#### 3.3.4 Licence holder controls

Controls are summarised in Section 3.1.1, with additional controls being implemented in accordance with Part V approvals, such as soil monitoring and improved frequency of vegetation monitoring.

#### 3.3.5 Consequence

Based on the observed trends of increasing TDS in mine dewater discharge, and the sensitivity of receptors (native vegetation), the delegated officer has determined that the impact of discharging high concentrations of TDS is mid-level, off-site impacts and high-level on-site impacts. Therefore, the delegated officer considers the consequence to be **major**.

### 3.3.6 Likelihood

Considering the trend of increasing TDS observed since 2022, the latest recorded TDS of 45,000 mg/ L, and the proposal to increase the TDS limit at the discharge locations to 60,000 mg/ L, it is anticipated that TDS will continue to increase.

Based on the observed trends, the proposed limit of 60,000 mg/ L for TDS, and current licence holder controls, the delegated officer has determined that the likelihood of high-level, on-site impacts or mid-level off-site impacts from discharging high concentrations of TDS to the ephemeral drainage line is **possible**.

### 3.3.7 Overall rating of discharge of TDS into the ephemeral drainage line

The delegated officer has applied the consequence and likelihood ratings described above to the Risk Criteria table in the *Guidance Statement: Risk Assessments* (DWER 2020a) and determined that the overall rating for the risk of emissions to the ephemeral drainage line (from excessive TDS loading) on sensitive receptors is **high**.

A risk rating of 'High' may be acceptable but is generally subject to regulatory controls. Controls determined to be necessary to mitigate the risk to an acceptable level are detailed in Section 5.3.9.

### 3.3.8 Regulatory controls

#### Vegetation health monitoring

Due to the irregularity of discharges and the nature of the emissions, it is anticipated that impacts on vegetation would take place slowly and may not be immediately observable in current annual vegetation monitoring.

Considering this, the Delegated Officer considers the current vegetation health monitoring as insufficient, as it is reactive, irregular, and may not accurately monitor changes in vegetation health over time.

Additional requirements for regular (quarterly) vegetation monitoring have been added to the vegetation monitoring requirements in Schedule 2, Table 14 with the aim of capturing long term vegetation health data that isn't dependant on discharge events.

#### Soil TDS monitoring

Increases in TDS being discharged to the drainage line have observed limited impact to native vegetation to date. However, impacts to vegetation health as a result of further increases in TDS being discharged are largely unknown, and as such need to be closely monitored.

Ongoing, regular soil salinity monitoring is therefore proposed to be added to the Licence to track TDS soil loading over time. The intention is to anticipate adverse impacts to vegetation health in advance as TDS moves through the soil and before it reaches the root ones of vegetation adjacent to the ephemeral drainage line.

In addition to soil salinity monitoring, the Department is also including a 'specified action' which requires the Licence Holder to prepare a site-specific plan that would establish site-specific guideline values for the measurement and management of soil salinity.

Until the completion of the specified action, the TDS limit for discharges to the creek will remain at 35,000 mg/ L as a precautionary measure for the protection of native vegetation, and as such the proposed increase to 60,000 mg/ L for the ephemeral drainage line discharge point will not be granted at this time. However, discharge of up to 60,000 mg/ L of TDS to the evaporation pond will be approved.

The Licence Holder has advised that the current TDS limit for the ephemeral drainage line discharge may still be met when the dewatering is diluted by rainfall and the discharge may be used to maintain freeboard levels in the evaporation pond.

The imposition of additional controls for soil monitoring is considered to be effective in allowing some management actions in response to increased TDS before vegetation health decline can be observed.

The Department may consider a future increase in TDS concentration for discharges to the ephemeral creek line once additional data has been collected through soil monitoring which demonstrates a reduced level of risk to environmental receptors.

## 4. Consultation

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

**Table 6: Consultation**

Consultation method	Comments received	Department response
Application advertised on the department's website (20/08/2018).	No comments received.	N/A
Licence Holder was provided with draft amendment on 25/02/2026.	<u>Condition 1, Table 1</u> This condition is restricting opportune discharge after rain unless the evaporation pond is full. It is requested to be removed or reworded to allow for creek discharge if other storage options are available (e.g. removal of water after a rain event, particularly where another rain event is imminent).	Condition 1, Table 1 has been updated to allow discharge via the ephemeral creek to remove water after rainfall events.
	<u>Condition 18, Table 7</u> Cap rock may be within 1 m of surface. Suggested wording 'or to refusal at cap rock'.	Condition 18, Table 7 has been updated to require soil pore water salinity to be measured at a depth of 1 metre or to refusal at cap rock.
	<u>Condition 18, Table 7</u> The wording of the condition is ambiguous as it pertains to the location of Porous-cup lysimeters.	Condition 18, Table 7 has been updated to provide more specific location requirements for the installation of Porous-cup lysimeters.
	<u>Table 14 – Vegetation health monitoring</u> This condition is queried. Assessed vegetation impacts have not been observed to date over several years, nor are anticipated, discharging at up to 35,000 ppm TDS (which cannot be increased with this licence amendment). This condition would be beneficial when/if the licence is increased to 60,000 ppm TDS and therefore it is requested removed for this amendment.	The Delegated Officer considers the imposition of this condition to be reasonable considering the lack of ongoing, regular vegetation health monitoring. However, the frequency of monitoring has been reduced to annually. The annual monitoring ensures vegetation health monitoring is undertaken each year regardless of whether a discharge event has occurred.

## 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 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 7: Summary of licence amendments**

Condition no.	Proposed amendments
Cover page	Update DWER file number Update date of amendment
Licence history	Add licence amendment to increase the total dissolved solids (TDS) limit in Table 6 of L9293/2021/1 at both the Evaporation/Infiltration Pond and the Ephemeral Drainage Line discharge points from 35,000 to 60,000mg/L.
Condition 1, Table 1	Improved clarity around the circumstance under which the ephemeral drainage line can be used for mine dewater discharge.
Condition 1, Table 1 and Condition 9, Table 6	Moved discharge rates and discharge volume and timing requirements from Table 1 to Table 6.
Condition 9, Table 6	Increase TDS limit from 35,000 mg /L to 60,000 mg/ L for the evaporation pond discharge point.
Condition 18, Table 7	Added a table that prescribes parameters for soil salinity monitoring.
Condition 19, Table 8	Added a table that provides the requirements for a specified action requiring the Licence Holder to prepare a site-specific soil salinity monitoring program for the purpose of determining site-specific guideline values and triggers for soil salinity in vegetation roots zones.
Condition 24, Table 9	Added soil salinity monitoring to the minimum requirements for the preparation and submission of the Annual Environmental Report.
Condition 25, Table 10	Added requirement to notify CEO of discharge event to the ephemeral drainage line within 5 days of commencement of discharge.
Definitions	Added definition for 'quarterly period'.
Schedule 1, Figure 4	Figure added to show the position of bores RYMP1 Camp Bore, RYMP2 Camp Bore, RYMP3 Mine Bore, RYMP4 Mine Bore
Schedule 2, Table 13	Updated to include references to the Schedule 1 figures depicting the position of bores listed.
Schedule 2, Table 14 (previously Table 12)	Added a requirement for ongoing, regular monitoring of vegetation health that is independent from discharge events.

## References

1. Botanica Consulting 2025, *Technical Review of Prescribed Premise Licence (L9293/2021/1) Groundwater Emission and Discharge Limits*, Perth, Western 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. Vault Minerals 2025, *Rothsay Gold Project Prescribed Premise Licence L9293/2021/1 Amendment Application Attachment 8 – Supporting Document*, South Perth, Western Australia.