Government of Western Australia
Department of Water and Environmental Regulation

Amendment Report

Application for Licence Amendment

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

Licence Number	L4611/1987/11
Licence Holder	Agnew Gold Mining Company Pty Ltd
ACN	098 385 883
Application Number	APP-0025954
Premises	Agnew Gold Mine Mining tenements Mining tenements M36/27, M36/32, M36/53, M36/55, M36/65, M36/91, M36/150, M36/171, M36/174, M36/208, M36/248, M36/293, M36/314, M36/383, M36/450, M36/635, L36/143, L36/154, L36/162, L36/173, L36/177, L36/211, L36/212, L36/228, G36/36, G36/37, G36/38, G36/39 and G36/42.
Date of Report	30 May 2025
Decision	Revised licence granted

Christine Pustkuchen

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MANAGER, RESOURCE INDUSTRIES
an officer delegated under section 20 of the *Environmental Protection Act 1986* (WA)

Table of Contents

1. Decision summary

Licence L4611/1987/11 is held by Agnew Gold Mining Company Pty Ltd (licence holder) for Agnew Gold Mine (the premises), located on tenements M36/27, M36/32, M36/53, M36/55, M36/65, M36/91, M36/150, M36/171, M36/174, M36/208, M36/248, M36/293, M36/314, M36/383, M36/450, M36/635, L36/143, L36/154, L36/162, L36/173, L36/177, L36/211, L36/212, L36/228, G36/36, G36/37, G36/38, G36/39 and G36/42 (Figure 1).

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 L4611/1987/11 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 Amendment summary

On 23 August 2024, the licence holder submitted an application to the department to amend Licence L4611/1987/11 under section 59 and 59B of the *Environmental Protection Act 1986* (EP Act). The following amendments are being sought:

- The inclusion of pre-existing conditions, infrastructure, operations, prescribed premises categories and tenements from existing licence L5110/1988/10 (Lawlers) into this licence (with exception to fairyland operations and Daisy Queen pit as a mine dewater discharge location) (section 2.4);
- Include Barren Lands Pit as a source of dewatering water, with discharge of this water to the Crusader Complex (consisting of Cox, Deliverer and Pilgrim Pits). An increase to the Category 6 approved throughput from 200,000 tonnes to 300,000 tonnes per annum will occur (section 2.5);
- Increase in annual discharge to class II putrescible landfills (section 2.7);
- Include operation of a power station facility and gas generators (constructed and commissioned under works approval W6757/2022/1) to the licence (section 2.8);
- Reduction in inspection requirements from weekly to monthly for pipelines, pits and ponds when in care and maintenance (section 2.9); and
- Amend submission date of Annual Audit Compliance Report (AACR) and Annual Environmental Report (AER) from “59 day after the annual period” (1 January to 31 December of the same year) to “31 March”.

This amendment is limited only to changes to category 6 activities the inclusion of categories 52, 54 and 64 and the removal of categories 85 and 89. No changes to the aspects of the existing licence relating to category 5 has been requested by the licence holder. Table 1 outlines the proposed category changes and design/throughput changes to the existing licence.

Table 1: Proposed design/throughput capacity changes

Category	Current design/ throughput capacity	Proposed design/throughput capacity	Description of proposed amendment
Category 5: Processing or beneficiation of metallic or non-metallic ore.	Existing: 1,500,000 tonnes per annual period.	No change. The approval to process ore at Lawler's mine site is no longer required.	N/A
Category 6: Mine dewatering: premises on which water is extracted and discharged to the environment to allow mining of ore.	Existing: 2,000,000 tonnes per annual period.	Proposed: 3,000,000 tonnes per annual period	Mine dewater extracted from Barren Lands to be discharged at the Crusader Complex. Increase 1,000,000 tonnes per annual period to Crusader Complex.
Category 52: Electric power generation: premises (other than premises within category 53 or an emergency or standby power generating plant) on which electrical power is generated using a fuel.	This is a new category proposed to be added to the existing licence.	Proposed: 22 megawatts (MW)	Operation of 11 gas generators located on the premises. Nine gas generators existing within premises boundary (previously unregulated) Two new gas generators were constructed and commissioned from Works Approval W6757/2022/1 raising output from 18 to 22 MW (section 2.8).
Category 54: Sewage facility: premises — (a) on which sewage is treated (excluding septic tanks); or (b) from which treated sewage is discharged onto land or into waters.	This is a new category proposed to be added to the existing licence. Licence has a pre-existing category 85.	Proposed: 280 cubic meters per day	Operation of current L4611/1987/11 sewage facility of 80 cubic meters per day and incorporation of 200 m^3 per day sewage facility from licence L5110/1988/10 Total throughput triggers Category 54 resulting in a change in Category.
Category 64: Class II or III putrescible landfill site: premises (other than clean fill premises) on which waste of a type permitted for disposal for this category of prescribed premises, in accordance with the Landfill Waste Classification and Waste Definitions 1996, is accepted for burial.	This is a new category proposed to be added to the existing licence. Licence has a pre-existing category 89.	Proposed: 8,000 tonnes per annual period	L4611/1987/11: 4,000 tonnes per annual period. Plus an increase of 4,000 tonnes per annual period to bring the total to 8,000 tonnes per annual period. The licence holder has indicated that all landfills existing on licence L5110/1998/10 are decommissioned and remediated. The licence holder has requested the landfills on L5110/1998/10 are not to be transferred over to L4611/1987/11 The increase in throughput from 4000 to 8000 tonnes

			relate to existing landfill locations within L4611/1987/11
Category 85: Sewage facility: premises — (a) on which sewage is treated (excluding septic tanks); or (b) from which treated sewage is discharged onto land or into waters.	Removed: 80 cubic meters per day.	Incorporated into category 54.	N/A
Category 89: Putrescible landfill site: premises (other than clean fill premises) on which waste of a type permitted for disposal for this category of prescribed premises, in accordance with the Landfill Waste Classification and Waste Definitions 1996, is accepted for burial.	Removed: 4,000 tonnes per annual period.	Incorporated into category 64.	N/A

2.3 Amalgamation of Licences L4611/1987/11 and L5110/1988/10

The licence holder has requested to amalgamate two licences as part of this licence amendment, both licences are held by Agnew Gold Mining Company Pty Ltd. Licence L4611/1987/11 (Agnew Gold Mine) and L5110/1988/10 (Lawlers Gold Mine) will form a single licence under L4611/1987/11.

The department has granted the licence consolidation request and has amalgamated the two licences together, comments regarding each condition from L5110/1988/10 and it's incorporation into L4611/1987/11 is summarised in Table 2.

Table 2: Licence conditions consolidated in this amendment

L5110 condition	Item	L4611 condition	Comments and changes
1.1.1 (table 1)	Management of waste	**NA**	The licence holder has notified the department that all landfills existing on licence L5110/1998/10 are decommissioned and remediated. The licence holder has requested the landfills on L5110/1998/10 are not to be transferred over to L4611/1987/11. The department has not incorporated any landfills from L5110/1988/10.
	Sewage waste	**1** (table 1)	The storage, handling and disposal of treated water onto the Lawlers irrigation area (now called Village Sprayfield) has been incorporated into the "infrastructure and equipment requirements" table in L4611/1987/11 for both Lawler's village Sprayfield and Lawlers wastewater treatment plant (WWTP) (now called Village WWTP and Village Sprayfield). Authorised discharge volume added to condition 10 (Table 7).
1.1.2	TSF 3 (cell a and cell	**1**	The department has renamed "TSF 3 (cell a and cell b)" to "Lawlers TSF3" to differentiate between pre-existing

L5110 condition	Item	L4611 condition	Comments and changes
(table 2)	b)	(table 1) and **2** (table 2)	containment infrastructure. Lawlers WWTP (Village Sprayfield) requirements have been incorporated into condition 1 (table 1) in L4611/1987/11. Lawlers Turkeys Nest has not been transferred over to L4611/1987/11 at the Licence Holders request due to the turkeys nest being decommissioned. Fairyland infrastructure has not been included to L4611/1987/11 as discussed in section 2.4.
1.1.3	Freeboard requirement	**2** (table 2)	Included condition requirements within condition 2 (table 2) in L4611/1987/11.
1.1.4	TSF management requirements for seepage and supernatant pond.		
1.1.5 (table 3)	Inspection requirements	**3** (table 3)	Inspection requirements from L5110/1988/10 have been adopted to L4611/1987/11. The licence holders proposed change in frequency of inspection for L4611/1987/11 infrastructure has been amended.
1.1.6	Pipeline controls	**4**	Pre-existing condition in L4611/1987/11, no change to L4611/1987/11 required.
1.1.7	Landfilling activities	**N/A**	The licence holder has notified the department that all landfills existing on licence L5110/1998/10 are decommissioned and remediated. The licence holder has requested the landfills on L5110/1998/10 are not transferred over to L4611/1987/11. The department has not incorporated any landfills from L5110/1988/10.
1.1.8	Available material stockpiled for covering of landfills		
1.1.9	Wind blown waste management		
1.1.10	Wastewater treatment management	**1** (table 1)	Integrated condition wording into condition 1 (table 1) in L4611/1987/11 for the Lawlers WWTP. No change in operations or controls.
1.1.11	Irrigation management	**1** (table 1)	Integrated condition into condition 1 (table 1) in L4611/1987/11 for the Lawlers Irrigation area. No change in operations or controls.
2.1.1	Requirement to record and investigate exceedance of any limit in licence.	**9**	Pre-existing condition in L4611/1987/11 no change required.
2.2.1 (table 4)	Emissions to land	**10** (table 6) and (table 7)	Included emission points to existing condition. No operational change or controls implemented in exception to Daisy Queen Pit. Daisy Queen Pit as an authorised mine dewater discharge point from Lawlers mine operations has not been transferred over to L4611/1987/11 at the request of the licence holder as mine dewater is no longer discharged to Daisy Queen Pit.

L5110 condition	Item	L4611 condition	Comments and changes
2.2.2 (table 5)	Emission parameter targets	**12** (table 10)	Included condition into L4611/1987/11 as condition 12.
3.1.1	Monitoring methodology requirements	**13**	Pre-existing condition in L4611/1987/11 no change required.
3.2.1 (table 6)	Monitoring of emission to groundwater	**NA**	Monitoring of emissions to groundwater from Fairyland Pit to the Daisy Queen Pit licence condition has not been transferred from L5110/1998/10 to L4611/1987/11. Daisy Queen Pit and Fairyland infrastructure has not been added to L4611/1987/11 and is discussed in section 2.4.
3.3.1 (table 7)		**15** (table 12)	Included monitoring requirement for the treated wastewater from Lawlers WWTP discharged to Lawlers irrigation area. No operational or monitoring change. The monitoring of mine dewatering discharged from Fairyland Pit to the Daisy Queen Pit has not been added from L5110/1998/10 to L4611/1987/11. Fairyland infrastructure and Daisy Queen Pit has not been included to L4611/1987/11 as discussed in section 2.4.
3.4.1 (table 8)	Monitoring of ambient groundwater quality	**16** (table 13)	Included groundwater monitoring requirements into L4611/1987/11. No operational or monitoring change implemented.
3.4.2	Groundwater recovery plan requirements	**17**	Included groundwater recovery plan requirements into L4611/1987/11. No operational or reporting change implemented.
3.4.3		**18**	
3.4.4		**19**	
3.4.5		**20**	
3.4.6 (table 9)	Monitoring emissions to land requirements	**14** (table 11)	Incorporated table into L4611/1987/11. No operational or monitoring change implemented.
4.1.1 – 4.1.3	Record management	**21 – 23**	Pre-existing condition in L4611/1987/11 no change implemented.
4.2.1 (table 10)	Annual Environmental Report (AER)	**24** (table 14)	Pre-existing condition in L4611/1987/11 updated reporting requirements to include L5110/1988/10 AER reporting requirements.
4.2.2	AER additional requirements	**25**	Pre-existing condition in L4611/1987/11 no change required.
4.3.1 (table 11)	Notification requirements	**26** (table 15)	Pre-existing condition in L4611/1987/11 no change required.

The obligations of the licence holder have not changed in amalgamating the licences, except were specifically identified within this amendment report. The department has not undertaken any additional risk assessment of the premises for the inclusion of pre-existing operations with the exception where an increase of a prescribed activity is proposed as presented in section 3.2 of this report.

2.4 Prescribed premises boundary

Tenements that are under the Lawlers operations (L5110/1988/10) that will be added to the premises include: M36/91, M36/171, M36/208, L36/228, L36/162, G36/36, G36/37, G36/38 and G36/42. At the department's recommendation of a continuous premises boundary, the licence holder has proposed to include additional tenements: L36/143, L36/154, L36/173, L36/177, L36/211, L36/212, M36/293, M36/383, M36/635 and G36/39 to the licence to ensure there is a contiguous premises boundary between the two operating areas. The department has reviewed the additional tenements and has confirmed that all tenements are active and are held by the licence holder.

The Fairylands operation incorporating tenements M36/277 and M36/622 have not been incorporated from L5110/1988/10 into the premises boundary for L4611/1987/11. Currently the activities that are authorised within the Fairylands operations (Figure 2) on mining tenements M36/277 and M36/622 include a non-putrescible landfill (category 89) and mine dewatering activities to allow the mining of ore (category 6). The licence holder has confirmed that the Fairylands activities have been decommissioned. The licence holder has requested that conditioned activities associated with Fairylands operations are not incorporated into amended licence L4611/1987/11.

Figure 1 presents the new premises boundary for L4611/1987/11.

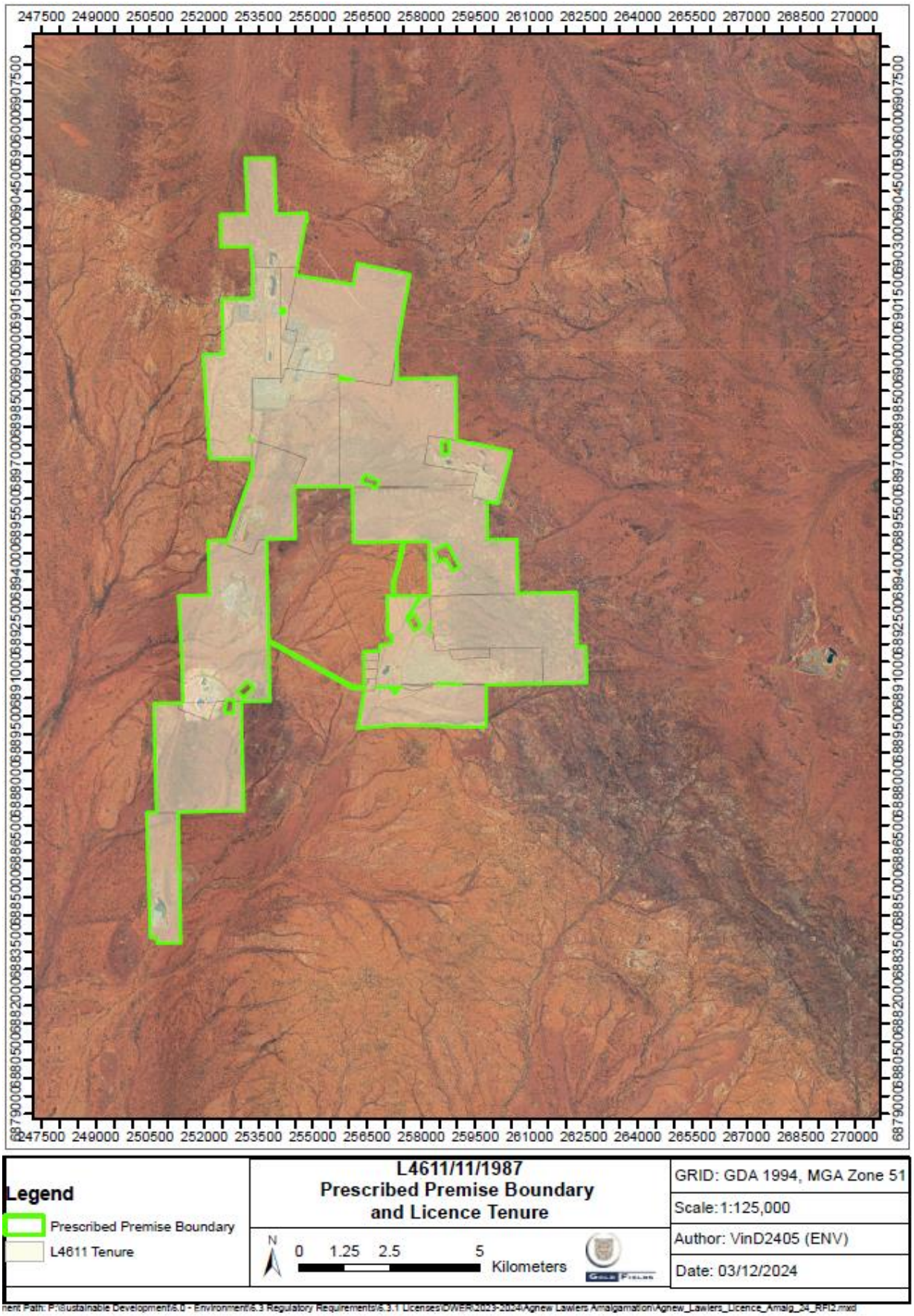

Figure 1: Updated prescribed premises boundary

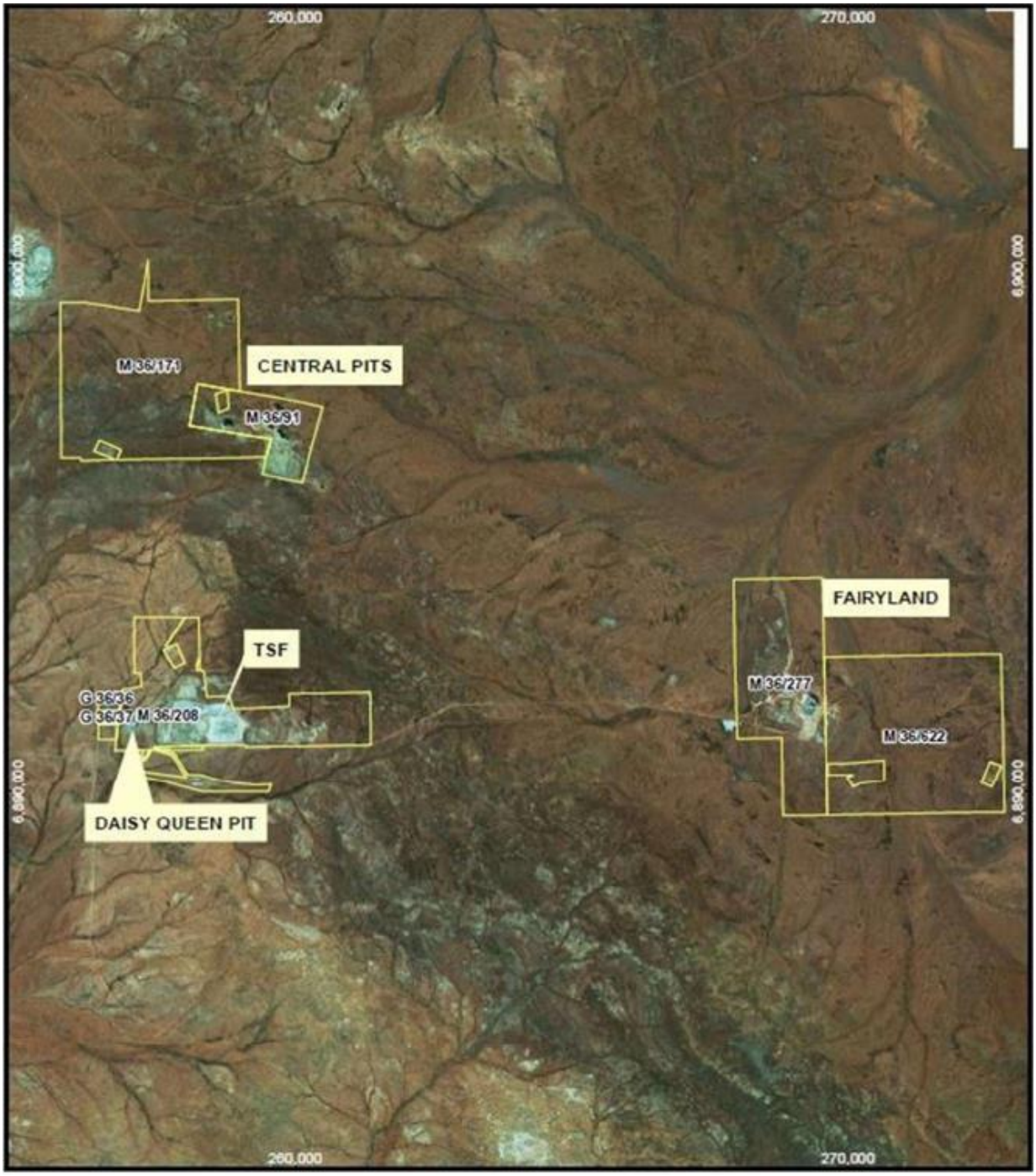

Figure 2: Prescribed premises boundaries for L5110/1988/10

2.5 Category 6

2.5.1 Additional source locations for mine dewater

The licence holder is intending to develop underground mining operations at Barren Lands Pit. To conduct mining within this area the licence holder has requested to include Barren Lands Pit as a source of mine dewater to be discharged to Cox, Pilgrim and Deliverer pits (Figure 3). Cox, Pilgrim and Deliverer pits are previously mined voids and together comprise of the Crusader Complex. The Crusader Complex was added to Licence L4611/1987/11 as a mine dewater discharge location during an amendment granted in July 2021. The licence holder has confirmed that there is a pre-existing 5.1 km pipeline connecting Barren Lands Pit to the Crusader Complex

(Figure 3). The licence holder intends to use this pre-existing pipeline to transport mine dewater from the Barren Lands Pit to the Crusader Complex. The pipeline was used as a return water line and was installed in 2011, the pipeline has been decommissioned for several years. The pipeline is contained within a bund and runs parallel with the haul road. The risk assessment for the discharge of mine dewater from Barren Lands to the Crusader Complex has been included within the risk assessment table (Section 3).

Due to the decommissioning of the pipeline the department has made a requirement for the 5.1 km pipeline (Figure 3) to undergo a "construction phase," (condition 27 of L4611/1987/11). The licence holder will be required to ensure that the pipeline has been constructed to meet appropriate requirements prior to its operation as a dewatering pipeline. In addition, the licence holder will be required to conduct an audit of the pipeline and submit a construction compliance report to the department on its compliance.

In this amendment application it was proposed that dewatering of Hidden Secret pit will occur and the water will be discharged to the Crusader Complex. The licence holder has stated that mining at Hidden Secret pit will no longer be going ahead. In further correspondence the licence holder has requested that Hidden Secret pit remains as an authorised discharge point for mine dewater from Waroonga, Genesis, and New Holland and Vivien underground operations.

Water quality

Water quality samples from the Crusader Complex were unable to be collected due to safety concerns and therefore the current water quality within the Crusader Complex is unknown. The licence holder has submitted groundwater monitoring results from a nearby bore located approximately 90 m from the edge of the Crusader Complex which will be used as an indicator on pit water quality within the complex.

The Barren Lands turkeys nest (TKN) receives mine dewater from only the Barren Lands Pit and therefore is considered to be representative of the Barren Lands pit lake water quality and has been used to indicate pit water conditions.

Sampling data indicates that water at Barren Lands and Crusader Complex is of a similar quality. A summary of water quality results and recent monitoring data submitted by the licence holder are summarised below:

- Arsenic is generally reported in low concentrations; however arsenic has been reported to be approximately ten times higher at Barren Lands TKN than the Crusader Bore between December 2022 to January 2024;
- Cyanide Weak Acid Dissolved (WAD) was reported below the limit or reporting (LOR) at the Crusader bore and the Barren Lands TKN between 2023 and 2024;
- Boron, Copper, Nitrate/Nitrite and Potassium was reported at slightly higher concentrations at the Barren Lands TKN than the Crusader Bore;
- Cobolt was reported at slightly higher concentrations at Crusader Bore than Barren Lands TKN; and
- Nickel has been reported at approximately 5 times higher at the Crusader Bore than the Barren Lands TKN.

Dewatering volumes and holding capacity

The Barren Lands open pit is estimated to require a dewatering rate between 190,000 kL to 1,135,000 kL per annum. The licence holder has indicated that additional discharges to the Crusader Complex from Barren Lands is not required with exception of intermittent discharges during high rainfall event or when dust control is not required for extended period.

Mine dewater at the Barren Lands open pit will initially be discharged to an established turkeys

nest south of the pit. Excess water not able to be stored will be discharged to the Crusader Complex. The Crusader Complex has a total holding capacity of 2,987,701 kL (based on a 3 m freeboard to low pit crest), individual holding capacities of the pits that make up the Crusader Complex is presented in Table 3.

Table 3: Mine dewater pit holding volumes

Pit	Holding capacity inclusive of freeboard requirement (kL)	[1]Water Volume within pit (kL)	[1]Remaining available capacity within pit (kL)
Cox Pit	1,545,301	83,108	1,462,193
Pilgram Pit	870,557	57,870	812,687
Deliverer Pit	762,673	49,852	712,821
TOTAL	3,602,724	190,830	**2,987,701**

Note 1: As of January 2025.

2.5.2 Daisy Queen Pit

The licence holder has also stated that Daisy Queen Pit is no longer needed as an authorised discharge point for dewatering water (authorised under licence L5110/1988/10). This pit has therefore not been transferred over to licence L4611/1987/11 as an authorised discharge point.

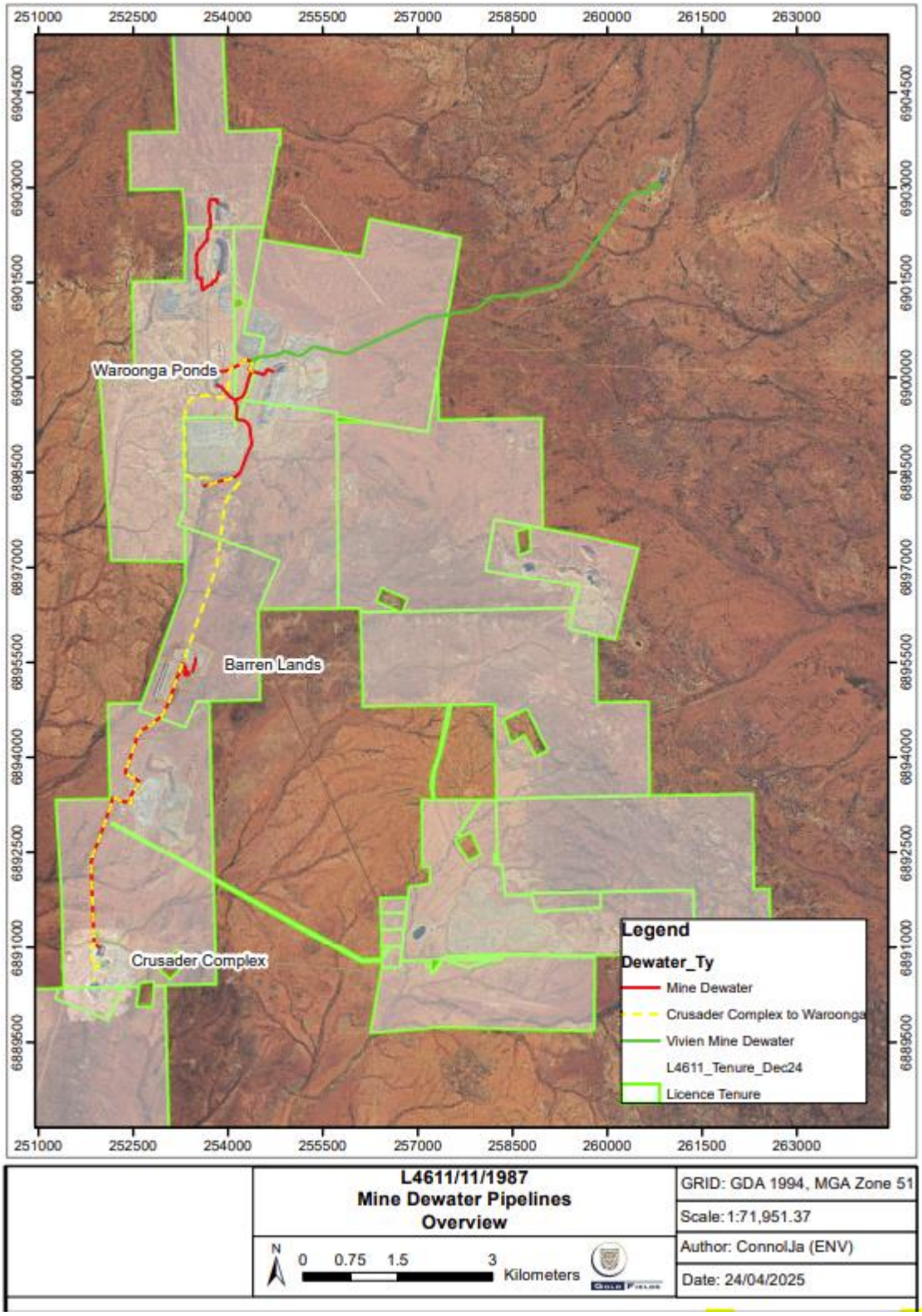

Figure 3: Barren Lands and Crusader Complex

2.6 Category 54 - Sewage facilities

Licence L4611/1987/11 authorises the operation of an existing sewage treatment facility under Category 85. The Waroonga wastewater treatment plant (WWTP) consists of a Biomax WWTP and a Tristar Sequential Batch Reactor WWTP with discharge of treated waste water to the Waroonga sprayfield. The authorised discharge volume to this sprayfield is 80 cubic meters of treated wastewater per day (m^3/day).

As part of this amendment. The sewage treatment facilities at Lawlers operations area is to be transferred to licence L4611/1987/11. These sewage treatment facilities (now called 'Village WWTP') are located at the Lawler's accommodation village (Figure 4). Wastewater generated at the village is collected via buried pipeline in a wastewater pump station and pumped to the Village WWTP. The WWTP consists of a 200kL sequencing batch reaction (SBR) system. Treated wastewater is stored within an irrigation tank (TK-108) (Figure 5) which also stores reverse osmosis (RO) reject water (brine waste). The brine waste is diluted with a maximum of 200 m^3/day of effluent. Two methods are used for the disposal of treated waste: buried dripper irrigation to the mining camp lawn or by pump to the Village Sprayfield.

Effluent water is treated to a secondary level of (Category D) in accordance with the Water Quality Protection Note 22 (WQPN 22) and complies with a Low Exposure Risk Level (level of human contact) in accordance with DoH, 2011, with effluent achieving the specifications presented in Table 4.

With the two sewage treatment facilities being authorised under one licence the total authorised discharge volume is 280 m^3/day across the two irrigation fields. This capacity triggers the Category 54 threshold which will replace reference to Category 85 on licence L4611/1987/1. Infrastructure and licence conditions relating to the WWTP from L5110/1988/10 have been transferred over to licence L4611/1987/11 as presented in . There is no operational change from the two WWTPs and therefore operations of the WWTPs have not been reassessed and have not been included within the risk assessment table in this amendment report.

Table 4: Effluent average specifications for Village WWTP

Analyte	Units	Target
Biochemical Oxygen Demand	mg/L	<20
Total Suspended Solids	mg/L	<30
Total Dissolved Solids	mg/L	<1164
Total Nitrogen	mg/L	<40
Total Phosphorus	mg/L	<8
Chlorine Residual	mg/L	>0.2 – 2
pH	pH units	6.5 – 8.5
Escherichia coli	Cfu/100 ml	<1000

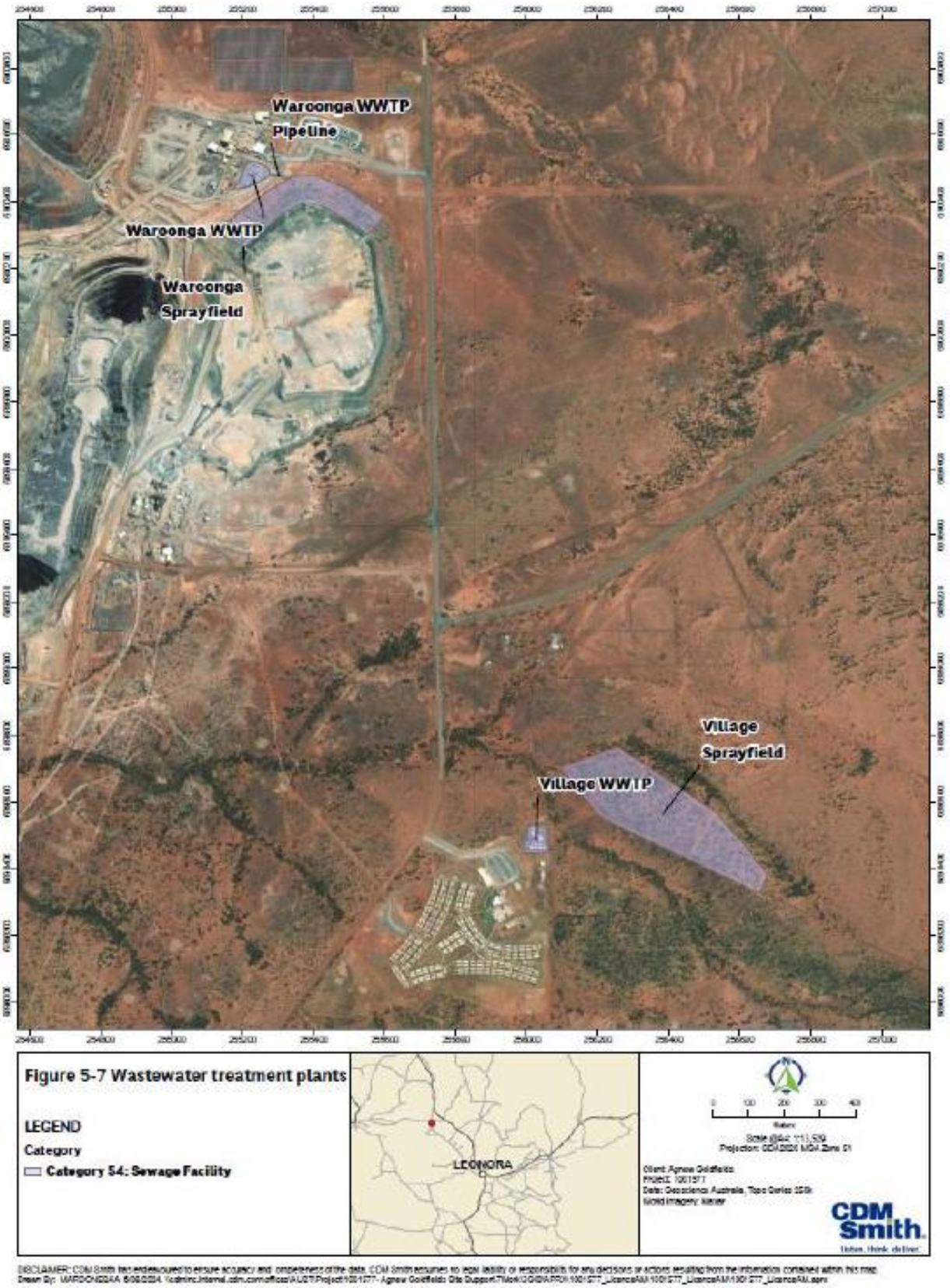

Figure 4: Location of the wastewater treatment plants and associated spray fields.

Figure 5: Irrigation tank (TK-108) and layout of Village WWTP

2.7 Category 64 - Increase in landfill discharge

The transfer of putrescible landfilling activities from licence L5110/1988/10 to L4611/1987/11 brings the total approved capacity of landfilling activities to 5,100 tonnes per annual period. In addition, the licence holder has requested an increase discharge of 2,900 tonnes per annual period bringing the total to 8,000 tonnes per annual period. The licence holder has advised the department that all landfills existing on L5110/1998/10 are decommissioned and remediated. The licence holder has requested landfills on L5110/1998/10 are not transferred over to

L4611/1987/11. As a result, the departments risk assessment within section 3.2 of this amendment report assesses the increase of landfill discharge from 4,000 to 8,000 tonnes per annual period at the three active landfills.

The proposed increase of landfill discharge is due to the newly developed underground mine at Barren Lands and the expansion of the Redeemer area. The extra waste discharged will include putrescible wastes and inert industrial wastes.

There are three total active and one inactive landfill (Figure 6) within the prescribed premises:

- Waroonga North Landfill;
- New Holland Landfill Expansion Area;
- Redeemer Landfill; and
- Waroonga Skyway Landfill (inactive).

The licence holder has proposed to leave Waroonga Skyway Landfill as an authorised landfill location within the licence to allow additional operational flexibility for waste management. The licence holder has acknowledged and advised that the activity status of all landfill facilities will continue to be reported in the annual environmental reports.

The department has retained the Waroonga Skyway Landfill on the licence as an authorised landfill area as part of this licence amendment. The department has included a requirement within the Annual Environmental Report for the licence holder to provide the operation status of each landfill location during the annual period.

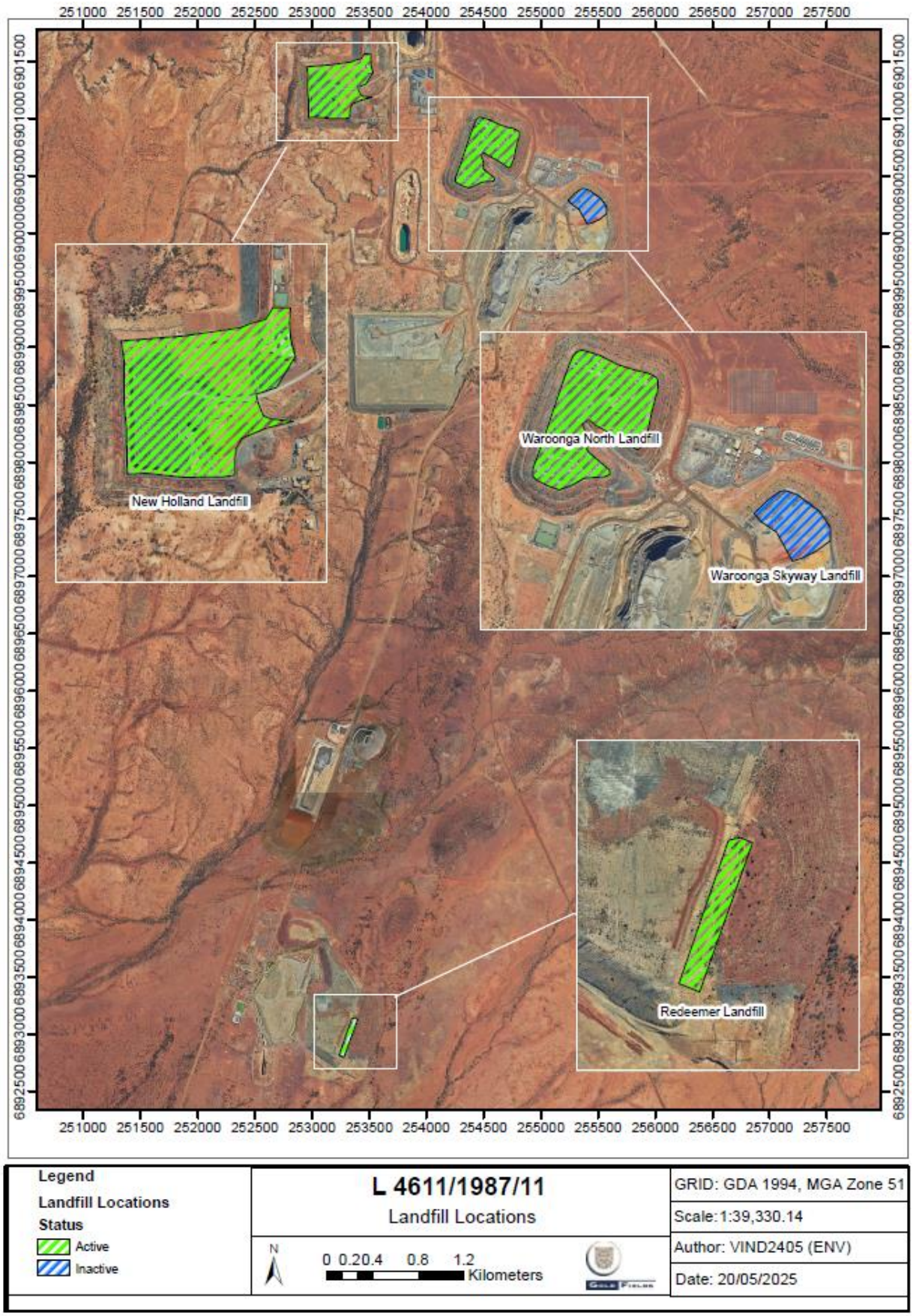

Figure 6: Waroonga North, New Holland, Redeemer landfill and Waroonga Skyway Landfills

2.8 Category 52

2.8.1 Power station background

The licence holder operates a power station within the Premises (Figure 7). The power station's fuel source is a combination of natural gas and diesel. The construction and commissioning of the power station was completed in 2019 (MBS 2022) under the *Mining Act 1978* via Mining Proposal (Reg ID:73834). The total output of the plant from natural gas was 18 MW in aggregate (9 x 2.0 MW Cummings C2000 N5CB gas reciprocating generator sets) which does not trigger the *Environmental Protection Regulations* Schedule 1 Category 52 threshold of 20 MW for category 52 – electric generation fuel by natural gas.

The department notes that prior to this licence amendment (inclusion of category 52) the licence required Category 84 to be on the licence. Electrical power was generated using natural gas as a fuel source with a production output of more than 10 MW but less than 20 MW in aggregate as per *Environmental Protection Regulation* Schedule 1 Part 2.

The licence holder operates two 1.8 MW diesel generator sets and a backup diesel generator with a combined operational output of 7.2 MW in aggregate which doesn't trigger the category 52 threshold of 10 MW for fuel sources other than natural gas. Due to the threshold not being met the department has not assessed or regulated the operation of these generators.

Within the power station area there are several hydrocarbon facilities associated with the operations of the power station and gas generators, these are presented in Table 5.

Table 5: Power station hydrocarbon facilities

Fuel Type	Fuel Use	Fuel Storage Infrastructure and Location
Bulk Lube Oil	Equipment and maintenance purposes	Self-bunded tanks located at the power station consisting of: • 1 x 10 kL (for gas generators); and • 1 x [1]3 kL (for diesel generators).
Waste Oil	Equipment and maintenance purposes	1 x 5 kL self-bunded tank located at the power station.
Diesel Fuel	Equipment and light vehicle service vehicle use	1 x [1]10 kL self-bunded tank located at the power station.

Note 1: Infrastructure not assessed or included within the amended licence.

2.8.2 Newly constructed generators

On 8 March 2023 works approval W6757/2022/1 was granted to the licence holder to authorise the construction of four additional gas generators which will increase the total output of the power station from 18 MW to a total of 26 MW from the use of natural gas.

The construction of two of the four gas generators, GG10 and GG11 (known as stage one) was completed on 18 April 2024. The environmental compliance report was submitted to the department for the construction of this infrastructure on 7 May 2024. The environmental compliance report was assessed in August 2024 and the department did not identify any non-compliance with the construction requirements for the generators. The department informed the licence holder that compliance had been demonstrated.

The licence holder has requested these two new gas generators (GG10 and GG11) to be added to the licence. The inclusion of these two additional gas generators will raise the total electric power generation output from 18 MW to 22 MW triggering the requirement for category 52 to be

included within the licence.

The department notes that the licence holder has applied for the assessed production of category 52 to be total of 26 MW for this licence amendment, however, only 22 MW can be authorised as only two of the four generators listed in W6757/2022/1 has been constructed. Once the additional two generators have been constructed a separate amendment application will need to be submitted to increase the Category 53 throughput to 26 MW. The department has completed a risk assessment for the operation of 11 gas generators, the risk assessment is presented in section 3 of this amendment report.

Gas generator exhausts are directed to individual stacks for each gas generator with each stack approximately 8.5 m above ground level. The expected air emissions from the 11 installed gas generators at the power station are presented in Table 6.

Table 6: Gas power plant emissions (Data sourced from MBS 2022).

Component	Continuous power (mg/m^3)	Total emissions (mg/m^3)
Total unburned hydrocarbons	1,605	
Oxides of Nitrogen as NO_2 (NOx)	500	5,500
Carbon Monoxide (CO)	1,105	12,155
Particulate Matter	<0.06	0.66
Sulphur dioxide (SO^2)	N/A	N/A

The current power generating infrastructure at the premises includes:

- 22 MW gas generator plant (locations shown in Figure 8) including:
    - 11x 2.0 MW Cummings C2000 N5CB gas reciprocating generator sets encased in purpose-built steel enclosures with acoustic roof and walls; and
    - 11 kV switch room with three feeders, plus space for future addition of two more feeders/incomers.
- [1]3.6 MW diesel generator plant including:
    - Two 1.8 MW Cummins C2250 D5 prime rated diesel reciprocating generator sets; and
    - [2]3.6 MW diesel generator backup plant.
- [1]4 MWdc solar plant; and
- [1]A wind turbine generator system with a total capacity of 17.9 MW and 10.4 MW/4MWh battery plant.

Note 1: Infrastructure not assessed or included within the amended licence.

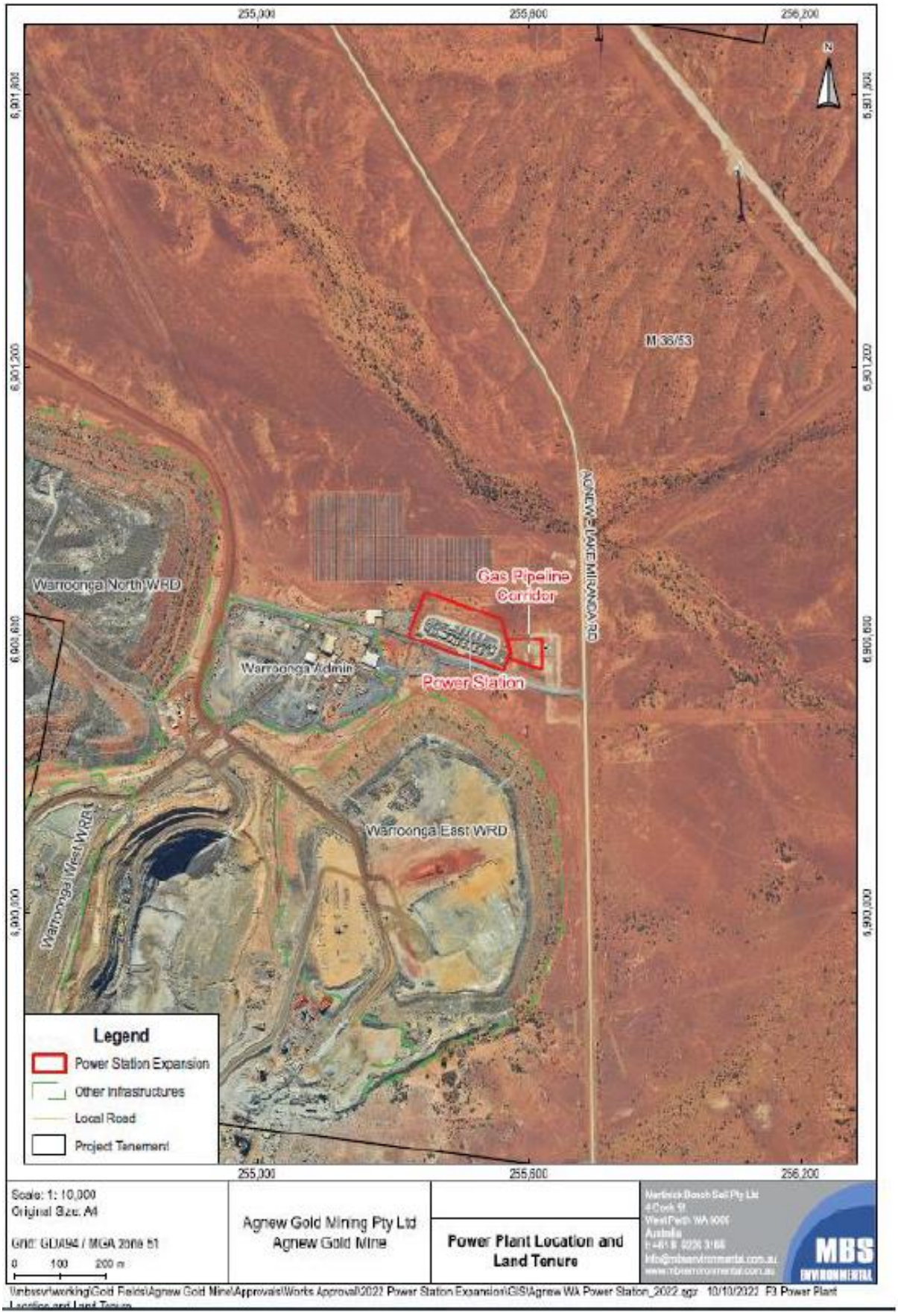

Figure 7: Power station location.

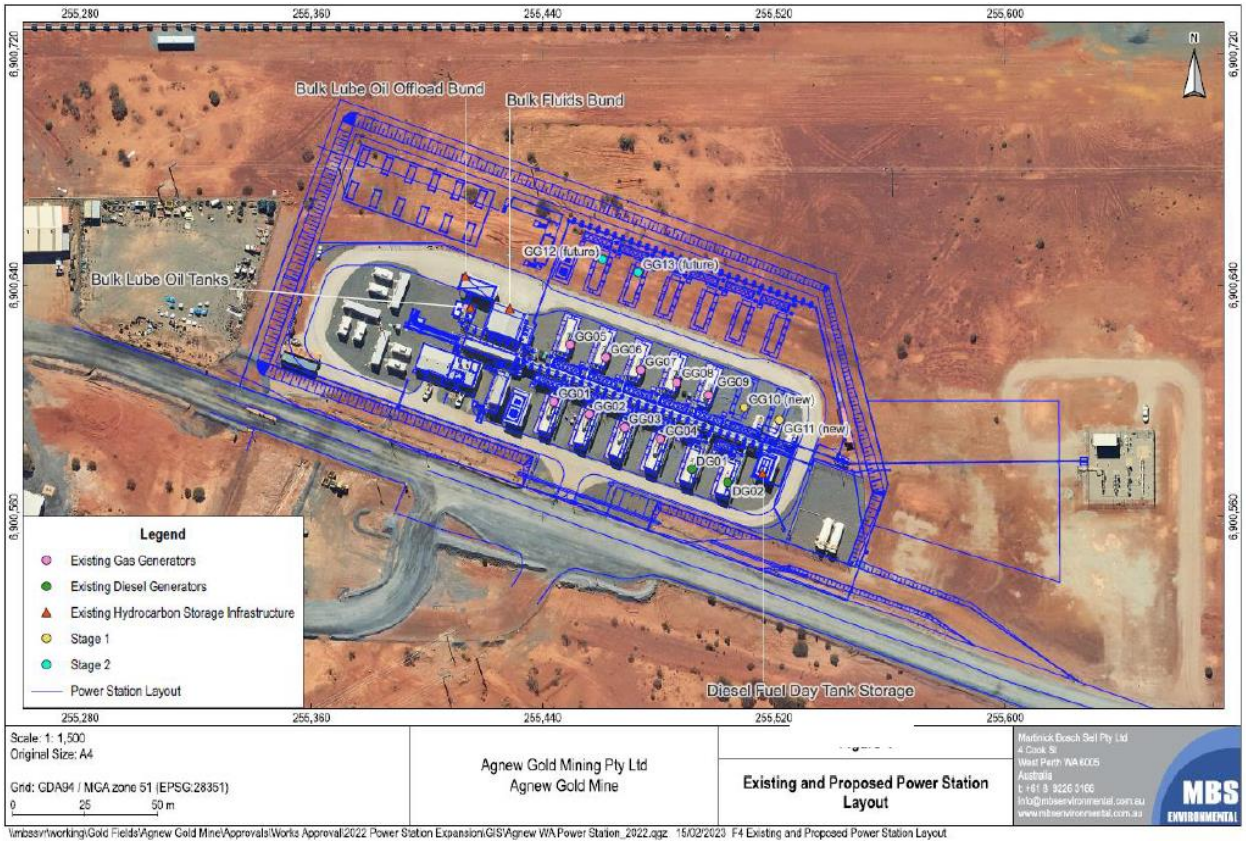

Figure 8: Power station layout and generator locations.

2.9 Reduction in inspections during care and maintenance

The licence holder has requested a reduction in the frequency of inspections for pipelines, TSFs, decant ponds, freeboards and discharge pits during care and maintenance from 'weekly when not in use' to 'monthly when in care and maintenance'.

The department has reviewed this proposal and has granted this request. The licence has been updated to reflect the changes.

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 2020a).

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 7 below.

Table 7 also details the proposed control measures the licence holder has proposed to assist in controlling these emissions, where necessary.

Table 7: Licence holder controls

Emission	Sources	Potential pathways	Proposed controls
Dust	Re-instatement of decommissioned dewatering pipeline from Barren Lands Pit to the Crusader Complex.	Air/windborne dispersion.	None proposed
Noise			Noise emissions are discounted due to the absence of nearby receptors.
Mine dewater	Transportation and discharge of mine dewater from Barren Lands Pit to the Crusader Complex pits (Pilgrim Pit, Deliverer Pit and Cox Pit).	Leaks and spills from pipeline.	**Proposed controls** • Dewater pipeline buried underground wherever it crosses a creek line or under a road; • Pipeline located in a bunded road corridor; • Regular inspections undertaken for water leaks, bunds and drains; and • Reporting and recording environmental incidents and 'near misses' in an Environmental Incident Register. **Existing licence L4611 conditions** • Condition 4: Pipelines have automatic cut-outs, secondary containment or telemetry requirements; and
		Overflow of pit discharge location.	**Proposed controls** • Regular inspections undertaken for freeboard within receiving pits; and • Quarterly water balance for the life of mine (LoM). **Existing licence L4611 conditions** • Condition 2: Freeboard requirements (3 meters below top of pit embankment); • Condition 3: Inspection of pits for freeboard; and • Condition 15: Monitoring of volume discharged.
		Mine dewater seeping through pit walls to	**Proposed controls** • Regular inspections undertaken for freeboard; • Quarterly water balance for the life

Emission	Sources	Potential pathways	Proposed controls
		groundwater.	of mine (LoM); • Water monitoring to be conducted in accordance with the Australian standards; and • The water balance is closely monitored to identify opportunities to reduce water consumption. **Existing licence L4611 conditions** • Condition 14: Monitoring of dewater discharge.
Odour of putrescible waste	Landfill	Odour emissions are discounted due to the absence of nearby receptors.	
leachate from landfill cells		Infiltration assisted by rainwater of leachate through landfill.	**Existing licence L4611 conditions** • Condition 5: Base of landfill to not be within three meters of the highest groundwater level; • Condition 6: waste covering requirements

Windblow rubbish		Air/windborne dispersion.	**Existing licence L4611 conditions**
			• Condition 7: Wind-blown waste contained within the boundary of the landfill; and wind-blown waste returned to tipping area on at least a monthly basis.
			• Condition 5:
			  ○ Asbestos waste only disposed into a designed asbestos disposal area within the landfill;
			  ○ Asbestos waste Not deposited within two meters of the final tipping surface; and
			  ○ Works shall not be carried out on landfill that could lead to a release of asbestos fibres.

Dust		Air/windborne dispersion.	None proposed.
Contaminated stormwater that comes into contact with wastes		Overland runoff from rainfall events.	**Existing licence L4611 conditions** Condition 5: waste management, waste to be placed in a defined trench. Condition 6: Covering requirements

Emission	Sources	Potential pathways	Proposed controls
NOx; CO; Particulate matter; Unburned hydrocarbons; and SO_2.	Natural gas power station	Air/windborne pathway.	**Proposed controls from W6757/2022/1 application** • Emission stacks are located 8.5 metres above ground level; • Generators to be maintained and serviced to manufacturers specifications; • Emissions testing was completed on existing generators in 2019 and 2020 and are within tolerance limits for the generators; and • Emissions testing will continue in accordance with the manufacturers requirements.
Contaminated stormwater (hydrocarbons)		Surface water run-off.	**Proposed controls from W6757/2022/1 application** • Waste oils produced on site will be collected and removed from site for recycling or reuse in accordance with *Environmental Protection (Controlled Waste) Regulations 2004*; • Minor spills to be cleaned up immediately; • Leak/spillage of engine oil to be contained within a closed bund and pumped out of a sump; • Fuel bowsers/delivery inlets to be located on concrete or high density poly-ethylene (HDPE) lined pads to contain any drips and spills; • Bunds and other spill containment structures will be designed to contain 110% of the largest hydrocarbon storage tank located within the containment area; • Bulk hydrocarbons (lubricant, waste oil diesel fuel) are stored in self-bunded tanks; and • Gas generators are housed in individual purpose-built steel enclosures which are mounted on a 250 mm elevated concrete slab surrounded by blue metal and compacted 150 mm thick quarry rubble.

Emission	Sources	Potential pathways	Proposed controls
Noise	Noise emissions are discounted due to the absence of nearby receptors.		

3.1.2 Receptors

In accordance with the *Guideline: Risk assessments* (DWER 2020a), 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 8 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 2020b)).

Table 8: Sensitive human and environmental receptors and distance from prescribed activity

Environmental receptors	Distance from prescribed activity
Native vegetation	**Power Station** • Native vegetation is present approximately 260 m northeast of the power station. **Crusader Complex and dewater pipelines from Barren Lands Pit** • Native vegetation appears to be approximately 70 m north of Crusader Complex and approximately 10 m from the dewatering pipeline. **Landfills** • Native vegetation is identified approximately 130 m east of the New Holland Landfill. • The Waroonga Sprayfield is located approximately 50 m north of the Waroonga Skyway Landfill which contains native vegetation. • All other landfill locations have native vegetation over 300 m away.
Ephemeral creek lines	**Power Station** • An unnamed ephemeral creek line approximately 230 m north of power station. **Dewater pipeline from Barren Lands Pit to Crusader Complex** • Ephemeral creek lines intersect the pipeline route approximately 10 times. All creek lines eventually connect and flow to join Claudius Creek (approximately 1.7 km from the pipeline) and Scotty Creek (approximately 3.2 km from the pipeline). **Crusader Complex**

	• An ephemeral creek line flows approximately 70 m north of the Crusader Complex which eventually flows into Claudius Creek (approximately 2.3 km from the complex).
Groundwater	**Power station** The closest monitoring bore to the power station is EWB68 and is located approximately 1.6 km southwest of the power station. Groundwater levels reported in the bore is between 32.14 to 52.28 meters below ground level (mbgl) (AGMC 2024). There are no beneficial users of groundwater within 2 km of the power station. The closest beneficial users of groundwater to the Power Station at AGM include Pinnacles Pastoral Station and Leinster Downs Pastoral Station located approximately 4 km west and 3 km north of the power station respectively. **Landfills** Groundwater levels at TSF3 between January 2021 and December 2023 range from approximately 9 to 17.5 mbgl and total dissolved solids (TDS) was generally reported from approximately 500 to 4,000 mg/L (AGMC 2024). **Crusader Complex and dewater pipelines from Barren Lands Pit** The closest groundwater monitoring bores to the Crusader Complex are the bores surrounding TSF3 located approximately 2 km away. From January 2023 to December 2023 standing water levels within bores measured to be between approximately 12.04 meters below top of casing (mbtoc) to 18.8 mbtoc.
Native fauna	**Landfills** Native fauna is likely to exist within the native vegetation located at approximately 50 to 190 m from landfill locations.
Heritage receptors	**Distance from prescribed activity**
Aboriginal heritage places: • Walawurru Hill Site Complex (ID: 28449); • NHRC_WH_01 (ID: 28454); • NHRC_WH_02 (ID: 28453); • NHRC_WH_03 (ID: 28451); • NHRC_WH_04 (ID: 28452); • GW02/03 (ID: 24572); • GF N3 (ID: 24322);	**Crusader Complex and dewater pipelines from Barren Lands Pit** All listed public boundary aboriginal heritage places listed are located less than 200 m from dewatering pipelines or mine dewater discharge pits. Five public boundary aboriginal heritage sites intercept at least one pit within the Crusader Complex (Pilgrim Pit, Deliverer Pit and Cox Pit). One public boundary aboriginal heritage site intersects the pre-existing 5.1 km from Barren Lands Pit to the Crusader Complex.

• GF N6 (ID: 24325); • CN18 (ID: 24574); • Lawlers 3 (ID: 1497); and • GF N8 (ID: 24327.	***Landfill*** The Redeemer landfill, Waroonga landfill north and the New Holland Landfill is situated within the public boundary of at least one of the aboriginal heritage places listed. Waroonga landfill is situated within approximately 430 m north of one of the public boundary aboriginal heritage places.

3.2 Risk ratings

Risk ratings have been assessed in accordance with the *Guideline: Risk Assessments* (DWER 2020a) 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 in-complete they have not been considered further in the risk assessment.

Where the licence holder has proposed mitigation measures/controls (as detailed in Section 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 9.

The Revised Licence L4611/1987/11 that accompanies this Amendment Report authorises emissions associated with the operation of the Premises i.e. additional mine dewatering discharge locations and the inclusion of gas generators, increase in sewage facility discharges and an increase in discharge to putrescible landfill facilities.

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

Table 9. 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
Source/Activities	**Potential emission**	**Potential pathways and impact**	**Receptors**	**Licence holder's controls**				
Construction								
Re-instatement of decommissioned dewatering pipeline from Barren Lands Pit to the Crusader Complex (Pilgrim Pit, Deliverer Pit and Cox Pit).	Dust	**Pathway** Air/windborne dispersion **Impact** Impacts to ecological health.	• **Native vegetation** (10 m from pipeline) • **Ephemeral creek lines** (Intersects pipeline) • **Aboriginal heritage places** (Intersects pipeline)	Refer to Section 3.1	C = Slight L = Unlikely **Low Risk**	Y	N/A	N/A
	Noise	Noise emissions are discounted due to the absence of nearby receptors.						
Operation								
Transportation and discharge of mine dewater from Barren Lands Pit to the Crusader Complex (increase of Category 6 throughput from 2,000,000 to 3,000,000 tpa).	Mine dewater (TDS <6,000 mg/L)	**Pathway** Leaks and spills from pipeline **Impact** Potential degradation to environmental and/or cultural receptors.	• **Native vegetation** (10 m from pipeline) • **Ephemeral creek lines** (Intersects pipeline) • **Aboriginal heritage places** (Intersects pipeline)	Refer to Section 3.1	C = Minor L = Unlikely **Medium Risk**	Y	**Condition 27-** construction requirements for pipeline; **Condition 3** – Inspection of pipeline requirements; and **Condition 4** – Pipeline automatic cut-outs, secondary containment or telemetry requirements.	It is understood that the 5.1 km pipeline has already been constructed as mentioned in section 2.5 of this amendment report. The pipeline was constructed in 2011 and was utilised as a return water line and has been decommissioned for several years. Due to the use of a previously decommissioned pipeline and the change of use from a return water pipeline to a dewatering pipeline the department has placed a condition on the licence requiring the pipeline to meet certain requirements (i.e secondary containment, etc.). An Environmental Compliance Report (condition 28) will also be required to be submitted to the department to demonstrate the pipelines construction/installation compliance with condition 27. The licence other existing conditions also adequately manage this risk event.
		Pathway Overflow of pit discharge location **Impact** Brackish water potential degradation to environmental and/or cultural receptors.	• **Native vegetation** (70 m from pit) • **Ephemeral creek lines** (70 m from Crusader Complex) • **Aboriginal heritage places** (Intersects pits at the Crusader Complex)		C = Minor L = Unlikely **Medium Risk**	Y	**Condition 2** – Freeboard requirements; **Condition 3** – Inspection of freeboard requirements; **Condition 10** – Mine dewater discharge location and volume restriction; and **Condition 15** – Cumulative volume monitoring requirements.	The department considers the licence holders proposed controls and current licence conditions are suitable to manage the discharge of mine dewater sourced from Barren Lands to the Crusader Complex. No additional regulatory controls are required.

Risk Event					Risk rating[1] C = consequence L = likelihood	Licence holder's controls sufficient?	Conditions[2] of licence	Justification for additional regulatory controls
Source/Activities	**Potential emission**	**Potential pathways and impact**	**Receptors**	**Licence holder's controls**				
		Pathway Mine dewater seeping through pit walls to groundwater. **Impact** Seepage creating groundwater mounding potentially causing impacts to nearby native vegetation root systems.	• **Native vegetation** (70 m from pit) • **Groundwater**		C = Minor L = Possible **Medium Risk**	Y	**Condition 2** – Freeboard requirements; **Condition 3** – Inspection of freeboard requirements; **Condition 10** – Mine dewater discharge location and volume restriction; **Condition 14** – Water sampling requirements; **Condition 16 – Groundwater monitoring bore monitoring requirements;** **Condition 30 -31 – Groundwater monitoring bore construction requirements**	The department has granted the proposed discharge of mine dewater sourced from Barren Lands to the Crusader Complex. Reported water quality monitoring data from the source pits/associated TKNs indicate the water is brackish (<3,500 mg/L) and reported concentrations of cyanide WAD have been reported below LOR between 2023 and 2024 within the Barren Lands TKN and the Crusader Bore. The department has taken the recommendation from the Crusader Complex Water Storage Strategy (AECOM 2023) submitted during the assessment of this amendment to condition the installation of five monitoring bores surrounding the Crusader Complex. The bores will be required to be monitored to identify any potential seepage of potential contaminants from the pits within the Crusader Complex and identify any potential groundwater mounding that may occur.
Increase Category 64: putrescible landfill discharge amount from 4,000 to 8,000 tonnes per annual period.	Odour of putrescible waste	Odour emissions are discounted due to the absence of nearby receptors.						
	leachate from landfill cells	**Pathway** Infiltration assisted by rainwater of leachate through landfill to groundwater/native vegetation. **Impact** Reduction in groundwater quality	**Groundwater** (9 mbgl)	Refer to Section 3.1	C = Minor L = Unlikely **Medium Risk**	Y	**Condition 5** – Waste disposal requirements; and **Condition 6** – Waste cover requirements.	It is understood that the landfills are situated upon waste rock dumps/landforms which are several meters above the natural ground surface reducing the potential for leachate to reach groundwater. In addition, existing condition 5 of L4611/1987/11 specifies that the separation distance from the base of the landfill and the highest groundwater level shall not be less than 3 m. The premises is located within a low rainfall area further reducing risk of leachate entering groundwater. Existing conditions adequately regulate this risk event. No additional regulatory controls are required. The department has granted the increase of landfill discharge from the amalgamated capacity from 4,000 to 8,000 tonnes per annual period.
	Windblown rubbish	**Pathway** Air/windborne dispersion. **Impact** Impacts to ecological health	**Native fauna** (50 m) **Aboriginal heritage places** (<20 – 550 m)		C = Minor L = Possible **Medium Risk**	Y	**Condition 5** – Waste disposal requirements; **Condition 6** – Waste cover requirements; and **Condition 7** – Collection of wind-blown waste requirements.	The department has determined that existing licence conditions within L4611/1987/11 adequately manages these risk events. No additional regulatory controls have been included within the licence.
	Dust	**Pathway** Air/windborne dispersion. **Impact** Pathway causing impacts to health and amenity.	**Native vegetation** (50 m) **Aboriginal heritage places** (<20 – 550 m)		C = Slight L = Low **Low Risk**	Y	**N/A**.	**N/A**.
	Contaminated stormwater	**Pathway** Overland runoff from rainfall events. **Impact** Reduction health of receptors	**Native vegetation** (50 m)		C = Slight L = Unlikely **Low Risk**	Y	**Condition 5** – waste disposal requirements.	The premises is located in a relatively low rainfall area. The closest weather station to the premises is the Leinster Aero station which revied a mean annual rainfall of 245.7 mm per year and generally experiences the highest rainfall between January and March (CDM 2024). Waste is required to be disposed of only within the approved landfilling areas within a defined trench. Existing conditions adequately manage this risk event. No additional regulatory controls are required.
Operation of 11 gas generators at the power station	Emissions to air (including NOx, CO, SO_2, unburnt hydrocarbons and	**Pathway** Air/windborne dispersion.	**Native vegetation** (260 m)		C = Slight L = Unlikely **Low Risk**	Y	**Condition 1** – Infrastructure and equipment requirements; and **Condition 10** – Gas emission discharge	The applicants proposed controls for works approval W6757/2022/1 has been included within the licence. Condition 1 of licence L4611/1987/11 requires the licence holder to maintain and operate the generators in accordance with manufacturers specifications which in line

Risk Event					Risk rating[1] C = consequence L = likelihood	Licence holder's controls sufficient?	Conditions[2] of licence	Justification for additional regulatory controls
Source/Activities	**Potential emission**	**Potential pathways and impact**	**Receptors**	**Licence holder's controls**				
	particulate matter.	**Impact** Reduction in health of receptors.					location.	with conditions within W6757/2022/1. It is noted that the manufacturer recommends that testing NOx emissions are completed when certain engine components are replaced or modified, or otherwise every scheduled 2000-hour service. The risk rating for the potential impact on identified receptors from emissions caused by the gas generators is considered low. Considering there are no human receptors nearby it has been determined that ongoing air emission monitoring will not be required during operations and therefore no additional monitoring conditions have been added to the licence.
	Contaminated stormwater (hydrocarbons)	**Pathway** Surface water run-off **Impact** Reduction in health of receptors or reduction in the sites amenity	**Ephemeral creek lines** (230 m) **Native vegetation** (260 m)		C = Slight L = Unlikely **Low Risk**	Y	**Condition 1** – operational requirements	Applicant proposed controls are considered sufficient and these have been added to the licence.
	Noise	Noise emissions are discounted due to the absence of nearby receptors.						

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

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

Table 10: Consultation

Consultation method	Comments received	Department response
Department of Planning Lands and Heritage (DPLH), advised of proposal (29 October 2024)	DPLH replied on 15 November 2024 confirming that the pipeline intersects with the actual boundary of Aboriginal heritage place GW02/03 (ID 24572) and therefore based on current information held by DPLH, approvals under the Aboriginal Heritage Act 1972 (AHA) are required whether the proposed works intersect the actual boundary. DPLH advises the following: • The granting of the licence amendment does not impact the Aboriginal heritage of the area; • The licence holder needs to contact the Aboriginal Heritage Conservation Team for their own advice prior to the commencement of works; and • The granting of this licence amendment does not count as approval under the AHA.	The department notes that the request for advice was sent to DPLH with the understanding that the proposed works involved the 11.66 km under condition 27 of L4611/1987/11. While this licence amendment did not involve the 11.66 km pipeline there may be a potential for the pipeline linking Barren Lands to the Crusader Complex to intersect the Aboriginal heritage place GW02/03 (ID 24572). The department recommends that the licence holder conducts its due diligence under the AHA to ensure the correct approvals are obtained (if they are required).
Ngalia Heritage Research Council advised of proposal (18 December 2024)	No response received.	N/A.
Licence holder was provided with the draft amendment on 12 May 2025	The licence holder provided comments to the department on 27 May 2025 and has waived the rest of the consultation period. The licence holders comments on the draft are presented in Appendix 1.	Refer to Appendix 1.

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 11 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 11: Summary of licence amendments

Condition no.	Proposed amendments
Throughout licence	Condition, tables and figure numbers are amended throughout licence.
	Amended typographical and format errors throughout licence (no change in operation, monitoring or reporting requirements)
Front page	Included tenements: M36/91, M36/171, M36/208, M36/293, M36/383, M36/635, L36/143, L36/154, L36/162, L36/173, L36/177, L36/211, L36/212, L36/228, G36/36, G36/37, G36/38, G36/39 and G36/42 to the premises details.
Prescribed premises category table	Increase Category 6 throughput from 2,000,000 to 3,000,000 tpa.
	Included Category 52: Electric power generation, Category 54: Sewage facility, Category 64: Class II or III putrescible landfill site to the licence.
	Removed Category 85: Sewage facility, Category 89: Putrescible landfill site for the licence.
Licence history	Updated table to include summary of this licence amendment.
1 (table 1)	Included the following infrastructure to table 1: Village WWTP, Village sprayfield, Power station and hydrocarbon storage areas and Gas generators (GG01-GG11).
	Moved sewage treatment targets for Tristar Sequential Batch Reactor and Waroonga Biomax WWTP to condition 12.
2 (table 2)	Included Barren Lands pits as mine dewater source for the Crusader Complex discharge location.
	Transferred Lawlers TSF3 into containment infrastructure table from L5110/1988/10.
3 (table 3)	Included requirements to inspect the external walls of Lawlers TSF3 daily.
	Amended the frequency of inspection from “weekly when not operating” to ”monthly during care and maintenance.”
5 (table 4)	Amended authorised disposal of landfill from 4,000 to 8,000 tonnes per year.
	Added a figure reference where disposal of waste by landfilling is authorised.
6 (table 5)	Included “Special Waste Type 2” to table.
10	Added reference to table 8 within condition.
10 (table 6)	Amended name of table to reference from “groundwater” to “pits.”
	Included Barren Lands as a source for the discharge of mine dewater for Hidden Secret, Cox, Deliverer and Pilgrim pits.
10 (table 7)	Included Lawlers irrigation area from L5110/1988/10 as an authorised point source discharge to land location.

10 (table 8)	New table with the authorised point source discharge to air for the gas generator exhaust stacks.
12 (table 10)	Transferred table for emission targets to land from L5110/1988/10 for Village WWTP Irrigation tank TK-108 and WWTP outlet at Waroonga Sprayfield. Targets applied to Warronga Sprayfield (majority shifted from Table 1) and included target total nitrogen and total phosphorus for Warronga Sprayfield.
14 (table 11)	Included Barren Lands as a source location for mine dewater.
	Transferred irrigation tank TK-108 from L5110/1988/10 as a discharge point reference and included monitoring parameters requirements.
	Added monthly monitoring timeframe note below the table.
15 (table 12)	Included Barren Lands as a source location for mine dewater.
	Transferred Village Sprayfield as a monitoring location for cumulative volume from L5110/1988/10.
16 (table 13)	Transferred Lawlers TSF3 monitoring bore monitoring requirements from L5110/1988/10.
	Transferred L17, L18, L34, L52 and L53 monitoring requirements and limits from L5110/1988/10.
	Transferred L8 and Satellite Well monitoring requirements, targets and limits from L5110/1988/10.
	Included notes 8 and 9 below table detailing minimum time between annual sampling events and for monitoring to only occur once bores have been constructed.
17	Included reference to “groundwater level” and “targets” to require a groundwater recovery plan.
18	Transferred condition from L5110/1988/10 requiring a groundwater recover plan to be submitted and implemented for an exceedance of limits for L8 and/or Satellite well groundwater monitoring parameters.
19	Included reference to condition 18 and “groundwater levels” to condition.
24	Changed submission date for the AER from “59 calendar days after the end of the annual period” to 31 March each year.
	Re-worded condition to reflect current licensing templates.
24 (table 14)	Changed note at bottom of table to refer to N1 form within Schedule 3 instead of the departments website.
	Included the requirement to submit a N1 form for a limit/target exceedances or exceedances of authorised discharge volume for Tables 5, 6 and 7.
	Included requirement for the licence holder to provide the operational status of each landfill location in the licence throughout the annual period.
26 (table 15)	Changed note at bottom of table to refer to N1 form within Schedule 3 instead of the departments website.
27 (table 16)	Included the dewater pipeline from Barren Lands Pit to Crusader Complex to the table requiring the pipeline to undergo a “construction phase” to ensure it meets infrastructure requirements.
30 (table 17)	New condition to construction and install groundwater monitoring bores surrounding the

	Crusader complex
31	New condition for the licence holder to submit a bore construction report for the bores constructed under condition 30.
Deleted condition 28 (table 15)	The licence holder has completed the requirements of the specified actions and therefore they have been removed as part of this licence amendment: 1. Undertake and complete pilot plant trial for the addition of ferrous sulfate to the tailings stream at the EMU processing plant; 2. Upgrade Songvang TSF4 return water pumping infrastructure to increase return water pumping rate to approximately 280 m^3/hour; 3. Undertake and complete aquatic macroinvertebrate sampling program at Redeemer TSF3 and Songvang TSF4 decant ponds; 4. Report to the CEO on wildlife monitoring undertaken at the Songvang TSF4 from 1 December 2023 until 1 March 2024; and 5. Report to the CEO on a review of controls implemented to minimise or prevent wildlife deaths at the Songvang TSF4.
Definitions (table 18)	Amended table to include additional terms and definitions that appear within the licence.
Schedule 1: Maps	Updated figures within schedule 1 to reflect current premises boundaries, infrastructure location and monitoring locations within the licence.
Schedule 2: Construction plans (Figure 12 and 13)	Included additional figures to Schedule 2 of the 5.1 km pipeline from Barren Lands Pit to the Crusader Complex and the monitoring bores.
Schedule 3	Included a N1 notification form.

References

1. Agnew Gold Mining Company (AGMC) 2024, Licence L4611/1987/11 Annual Environmental Report, Reporting period 1 January 2023 – 31 December 2023, Dated 17 May 2024.
2. AGMC 2025, Licence L4611/1987/11 Annual Environmental Report, Reporting period 1 January 2024 – 31 December 2024, Dated 28 February 2025.
3. Barrick 2013, Mine Closure Plan: Barrick (Lawlers) NL Lawlers Gold Mine. Ref ENV-PLN-0001. Barrick (Lawlers) NL. Western Australia.
4. Department of Environment Regulation (DER) 2015, *Guidance Statement: Setting Conditions*, Perth, Western Australia.
5. Department of Water (DoW) 2008, Water Quality Protection Note 22, Irrigation with nutrient-rich wastewater.
6. Department of Water and Environmental Regulation (DWER) 2020a, *Guideline: Risk Assessments*, Perth, Western Australia.
7. DWER 2020b, *Guideline: Environmental Siting*, Perth, Western Australia.
8. DWER 1996, Landfill Waste Classification and Waste Definitions 1996 (as amended 2019, *Environmental Protection Act 1986*.
9. International Cyanide Management Institute 2021, The International Cyanide Management Code.
10. MBS Environmental 2022 Power Station Expansion Project Works Approval Application Project Activities dated 14 October 2022.
11. MBS 2024 Agnew Gold Mine, Agnew Expansion Mining Proposal: Revision 4 Version 5. Tenements M36/150, M36/55, M36/27, M36/32, M36/314, M36/680, M36/53, M36/450 & M36/89. Dated 22 February 2024.

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

Condition	Summary of Licence Holder's comment	Department's response
Amendment report	Request to re-naming TSF 3 (cell a and cell b) to Lawlers TSF3.	Granted and amended.
24	The licence holder indicated that condition 24 has a split condition and mentions that it appears to be intended as a singular subheading.	The department confirms that the split condition is correct and is the most current layout as per current templates.
27 (table 16)	The licence holder has requested to remove the requirement for the dewater pipeline from Barren Lands Pit to Crusader Complex to be double sleeved. Justification on the removal is: • Low TDS concentrations are unlikely to present a risk of abrasiveness or excessive wear on the dewatering pipeline; • Approved controls for "Stage 2 – Dewater discharge pipeline" under condition 27 does not require double sleeving; • Pipeline installed within existing pipeline bund and inspected daily; • Dewatering pump infrastructure has engineering design that initiate a "hard lock out" isolation if leaks or pressure changes are detected; • Crusader Complex discharge point is open ended, with low pressure and downhill flow from Barren Lands turkeys' nest; • Standard practice pipe commissioning and pressure testing will be completed to ensure pipeline integrity.	The department has reviewed the licence holders request and has determined that the risk assessment completed in Table 9 will not change with the removal of the requirement for the pipeline to be double sleeved.
Schedule 1, Figure 6 (Landfill cells)	The licence holder has mentioned to the department that Waroonga Landfill Skyway is inactive. The licence holder has requested to leave on the licence to enable operational flexibility for waste management.	Granted, an additional requirement has been added to condition 24 which requires the licence holder to provide the operational status of each landfill location during the annual period within the annual environmental report.