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	L8464/2010/2
Licence Holder	FMG Solomon Pty Ltd
ACN	128 959 179
File Number	DER2013/001363-2 / APP-0028805
Premises	Solomon Mine E47/1011, E47/1334, E47/1532, M47/1409, M47/1410, M47/1411, M47/1413, M47/1431, M47/1453, M47/1466, M47/1473, M47/1474, M47/1475, L47/293, L47/294, L47/296, L47/301, L47/351, L47/360, L47/362, L47/363, L47/367, L47/381, E47/382, L47/391, L47/392, L47/397, L47/471, L47/472, L47/710, L47/711, L47/813, L47/814, P47/1279, P47/1286, P47/1287, P47/1304, P417/1305, P47/1735, P47/1736 and portion of E47/1319, E47/1333, E47/1398, E47/1399, E47/1447, E47/3094, E47/3464, L47/361 and L47/713 MT SHEILA WA 6751 As defined by the coordinates in Schedule 2 of the Revised Licence As defined by the Premises maps attached to the Revised Licence
Date of Report	17 September 2025 **(FINAL)**
Proposed Decision	Revised licence granted

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1. Decision summary

Licence L8464/2010/2 is held by FMG Solomon Pty Ltd (Licence Holder) for the Solomon Mine (the Premises), located at

E47/1011, E47/1334, E47/1532, M47/1409, M47/1410, M47/1411, M47/1413, M47/1431, M47/1453, M47/1466, M47/1473, M47/1474, M47/1475, L47/293, L47/294, L47/296, L47/301, L47/351, L47/360, L47/362, L47/363, L47/367, L47/381, E47/382, L47/391, L47/392, L47/397, L47/471, L47/472, L47/710, L47/711, L47/813, L47/814, P47/1279, P47/1286, P47/1287, P47/1304, P417/1305, P47/1735, P47/1736 and portion of E47/1319, E47/1333, E47/1398, E47/1399, E47/1447, E47/3094, E47/3464, L47/361 and L47/713, MT SHEILA WA 6751

This Amendment Report documents the assessment of potential risks to the environment and public health from proposed changes to the emissions and discharges during the construction and operation of the Premises. As a result of this assessment, Revised Licence L8464/2010/2 has been granted.

2. Scope of assessment

2.1 Regulatory framework

In completing the assessment documented in this Amendment Report, the department has considered and given due regard to its Regulatory Framework and relevant policy documents which are available at https://dwer.wa.gov.au/regulatory-documents.

2.2 Application summary

On 29 April 2025, the Licence Holder submitted an application to the department to amend Licence L8464/2010/2 under section 59 and 59B of the *Environmental Protection Act 1986* (EP Act). The following amendments are being sought:

- Amendments to the groundwater monitoring bores, correction of the naming conventions of the landfill and supplementation scheme bores and extension of the expiry date on the Licence;
- Contingency discharge of the Brad Tailings Storage Facility (TSF) decant water to Gee Pit when there is a recoverable pond (amendment to Table 3 of the Licence);
- Proposed use of the existing LV Evaporation Pond for dust suppression;
- Transfer of the Concrete Batching Plant (CBP) under the works approval W6802/2023/1 to the Licence;
- Transfer of the partially constructed Brad TSF Stage 1A infrastructure under the works approval W6802/2023/1 to the Licence; and
- Utilisation of the Licence to approve the construction and operation of the SASH WWTP for the SASH Project camp.

This amendment is limited only to changes to Categories 5, 54 and 77 activities from the Existing Licence. No changes to the aspects of the existing Licence relating to Categories 6, 57, 61, 62, 64 and 73 have been requested by the Licence Holder.

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

Table 1: Proposed design or throughput capacity changes

Category	Current design throughput capacity	Proposed design throughput capacity	Description of proposed amendment
Category 5: Processing or beneficiation of metallic or non-metallic ore	Not more than 95,300,000 tonnes per annual period	No change	No proposed changes are required from the partial transfer of the Brad TSF Stage 1A under works approval W6802/2023/1 to the Licence
Category 6: Mine dewatering	25,000,000 tonnes per annual period	No change	No change
Category 54: Sewage facility	Not more than 1,178 cubic metres per day	1,328 cubic metres per day	Addition of 150 cubic metres per day from the SASH Camp and WWTP
Category 57: Used tyre storage (general)	2500 tyres	No change	No change
Category 61: Liquid waste facility	110,000 tonnes per annual period	No change	No change
Category 62: Solid waste depot	6,000 tonnes per annual period	No change	No change
Category 64: Class II putrescible landfill site	14,000 tonnes per annual period	No change	No change
Category 73: Bulk storage of chemicals	Not more than 9,560 cubic metres in aggregate	No change	No change
Category 77: Concrete batching or cement products manufacturing	N/A	10,000 tonnes per year	Addition of the mobile CBP from Works Approval W6802/2023/1 to the Licence. The CBP services Stage 4 of FMG's Pilbara Transmission Project3 (PEC4). The CBP will move as required between tenements L47/294 and M47/1431 to facilitate concrete production for the construction of foundations and other associated infrastructure required. Concrete will also be used on other Fortescue projects

Category	Current design throughput capacity	Proposed design throughput capacity	Description of proposed amendment
			as required.

2.2.1 Removal of the groundwater monitoring associated with the old Solomon Landfill

The current putrescible landfill is reaching capacity and is in the process of decommissioning. This putrescible landfill was constructed under Works Approval W5429/2013/1 and operated under this Licence L8464/2010/2. Two groundwater monitoring bores were implemented onto this Licence L8464/2010/2 GQ9 (WF-MB001D) and GQ10 (WF-MB002D) to monitor potential contamination.

The decommissioning process for the landfill facility is in evaluation process and yet to be finalised. When a suitable decommissioning process has been established, the relevant information obtained, the Licence Holder will submit this information. Groundwater monitoring will continue in the interim.

Groundwater in the vicinity of the putrescible landfill is generally fresh and depth to groundwater is approximately 40 metres below ground level (mBGL). The Licence Holder has compared the monitoring results from 2022-24 against the bedrock threshold values in the Solomon Water Quality Threshold Assessment Rev 2 (SO-AS-EN-0071). No thresholds were exceeded, suggesting that there is no contamination.

Groundwater monitoring results are shown in Table 2.

Based on the results obtained, these groundwater monitoring bores have been removed from Licence L8464/2010/2. This is an administrative amendment, and no further assessment is required.

2.2.2 Correction of the naming conventions of the new landfill monitoring bores

The previous amendment to the Licence was approved on 29 July 2024 for the construction and TLO of a new landfill and associated groundwater monitoring bores. The Environmental Compliance Report (ECR) was provided 29 August 2024 and DWER Compliance Demonstrated Letter provided 17 December 2024. The Licence Holder is requesting the naming conventions of the landfill groundwater monitoring bores be updated.

Groundwater Bore #1 updated to SLMB233

Groundwater Bore #2 updated to SLMB234

This is an administrative amendment, and no further assessment is required.

2.2.3 Correction of the naming conventions of the supplementation scheme bores

The Licence Holder has requested that the Weelumurra Creek North Supplementation Infrastructure nomenclature be updated to ensure the bore names are sequential.

SM_WM_IJ_24, SM_WM_IJ_25 and SM_WM_IJ_26 to be updated to SM_WM_IJ_17, SM_WM_IJ_18 and SM_WM_IJ_19.

SM_QU_IJ_01, SM_QU_IJ_02, SM_QU_IJ_03, SM_QU_IJ_04, SM_QU_IJ_05 and SM_QU_IJ_06 be updated to QIB001, QIB002, QIB003, QIB004, QIB005 and QIB006.

An updated map has been provided with the updated bore names to be included in the Licence.

This is an administrative amendment, and no further assessment is required.

2.2.4 Extension of the Solomon Mine Licence expiry date from October 2025

The Licence Holder has requested that the Licence expiry date be updated from 17 October 2025 to 17 October 2035.

This is an administrative amendment, and no further assessment is required.

2.2.5 Contingency discharge of the Brad TSF Decant Water to Gee Pit

The Licence Holder proposes that the licence be amended to enable the contingency discharge of Brad TSF decant water/stormwater to Gee Pit during high rainfall events. TSF1 is already authorised to discharge tailings decant water mixed with stormwater to Gee Pit as a contingency discharge during high rainfall events.

Tailings will be discharged from the main embankment to form a sloping beach, pushing the decant pond to the south. A tailings return water pipeline will also be constructed to return water to either the Kings OPF or be pumped to the Gee Pit.

2.2.6 Proposed use of the existing LV Evaporation Pond for dust suppression

The Licence Holder is requesting the use of the LV Evaporation Pond for dust suppression within the Licence prescribed premises boundary.

Water will be monitored prior to the water being discharged and/or reused to ensure that it contains a Total Recoverable Hydrocarbon (TRH) content of no more than 15 mg/L. Treated water will be used for dust suppression as required, in accordance with the *Mechanical Equipment Wash Down: Water Quality Protection Note (WQPN) 68.*

The use of dust suppression water will be limited to access roads, camps, within currently approved disturbed, active operational areas, hardstands and cleared ground, and pre-conditioning or stockpile management and other uses as deemed fit.

2.2.7 Transfer of the CBP under Works Approval W6802/2023/1 to the Licence

The CBP ECR was submitted on 15 May 2024 and DWER's Compliance Demonstrated Letter was provided on 20 August 2024. The Licence Holder is requesting the operation of the CBP is now transferred across to the Licence. The Licence Holder is also requesting that the Assessed production / design capacity is increased from the previously approved 3,000 tonnes per year up to 10,000 tonnes per year for concrete for use both within and outside the Solomon prescribed premises boundary.

Achieving the new production capacity of 10,000 tonnes per annum will involve the optimisation of the existing plant, thereby increasing the production rate, all within the capability of the installed plant. The 10,000 tonnes per year is within the standard output ranges of a standard-sized plant. The existing CBP infrastructure will be sufficient to handle the additional concrete batching. There are no proposed changes required to the existing infrastructure.

Table 2: Putrescible Landfill Groundwater Monitoring from 2022-24

Monitoring point reference and location	Quarter	SWL mbgl	pH	EC µS/cm	TDS mg/L	As mg/L	Cd mg/L	Cr mg/L	Cu mg/L	Hg mg/L	Pb mg/L	Ni mg/L	NO_3 mg/L	TP mg/L	Zn mg/L
GQ9 (WF-MB001D)	Q1	477.72	7.79	1,310	854	0.0012	0.00005	0.0002	0.0037	0.00004	0.0001	0.0005	0.01	0.05	0.028
	Q2	478.25	8.16	1,329	854	0.0010	<0.00005	<0.0002	<0.0005	<0.00004	<0.0001	<0.0005	0.01	0.05	0.059
	Q3	478.33	7.64	1,300	836	0.0031	<0.00005	<0.0002	<0.0005	<0.00004	<0.0001	0.0148	0.02	0.73	0.002
	Q4	476.25	7.30	1,270	809	0.0026	<0.00005	<0.0002	<0.0005	<0.00004	<0.0001	<0.0005	0.01	0.003	0.018
GQ10 (WF-MB002D)	Q1	437.67	8.02	975	550	0.0012	<0.00005	0.0002	0.0014	0.00004	0.0001	0.0005	0.01	0.03	0.008
	Q2	436.75	8.21	969	526	0.0025	<0.00005	<0.0002	<0.0005	<0.00004	<0.0001	<0.0005	0.01	0.03	0.018
	Q3	436.61	7.84	934	528	0.0006	<0.00005	<0.0002	<0.0005	<0.00004	<0.0001	<0.0005	<0.01	0.04	0.002
	Q4	437.56	7.80	939	538	0.0006	<0.00005	<0.0002	<0.0005	<0.00004	<0.0001	<0.0005	<0.01	0.02	0.002

2.2.8 Transfer of the Brad TSF Stage 1A infrastructure under Works Approval W6802/2023/14 to the Licence

The existing TSF1 is forecast to reach storage capacity during 2025 and, therefore, the Brad TSF will need to be commissioned to accept tailings and continue operations.

Due to operational constraints, the construction of the Brad TSF Stage 1 Main Embankment with a crest level of RL 607 m was not achieved. The Licence Holder implemented an interim State 1A raise with a shorter embankment height than what was stipulated in works approval W6802/2023/1 and intends to implement an additional State 1B to raise the construction to the dimensions specified in works approval W6802/2023/1.

Critical Containment Infrastructure Report (CCIR) for works approval W6802/2023/1 indicated the following construction deviations:

- Decreased completed elevation for the Main Embankment Stage 1, Main Embankment Stage 1 safety bund and Eastern Saddle Embankment Stage 1;
- Delay/non-commencement of Eastern Saddle Embankment construction and associated infrastructure;
- Main Embankment Stage 1 embankment footprint moved 40m upstream;
- Increased spacing of cut-off valves and addition of scour valves and pits; and
- Alternative stormwater management measures associated with non-construction of the Eastern Saddle Embankment.

Stage 1 construction has been staggered to meet operational requirements for the timing of tailing deposition into the TSF. Stage 1A is broadly defined with a TSF construction height of 585 mRL and associated infrastructure. It is anticipated the next and final stage, Stage 1B, of construction, will be the completion of the TSF main embankment construction height to 607 mRL, the Eastern Saddle Embankment and all remaining associated infrastructure. The completion of Stages 1A and 1B will signify the total completion of Stage 1.

The Licence Holder considers that the construction of Stage 1A ahead of Stage 1B does not change the risk assessment or have additional environmental impacts to those considered in the works approval application.

The Critical Containment Infrastructure Report (CCIR) required under conditions 10 and 11 of works approval W6802/2023/1 was submitted to the department on 07 January 2025. The department provided a reply on 13 February 2025 stating that the acceptability of deviations will be considered as part of the CCIR for Stage 1B.

Condition 23 of works approval W6802/2023/1 also requires that representative tailings samples are collected for testing within the first 60 calendar days of time limited operations. These results are to be provide in the time limited operations report required by conditions 29 and 30 of works approval W6802/2023/1 following time limited operations.

It should also be noted that condition 5 of works approval W6802/2023/1 required the installation of groundwater monitoring wells and condition 6 required the installation of hyporheic zone monitoring points. The Environmental Compliance Report was submitted to the department on 18 September 2024.

The department acknowledged compliance with condition 5 on 12 December 2024.

The department acknowledged compliance with condition 6 on 21 February 2025 as pre-existing monitoring wells have been used and also provided a hydrogeologist certification stating that they have the ability to monitor the hyporheic zone and meet the obligations of the works approval. It is acknowledged that the area of concern is currently within a cone of depression of the water table that is being produced by mine-dewatering. Consequently, there is unlikely to

be a functional hyporheic zone in waterways in the immediate vicinity of the mine-site. Monitoring bores KMB12S and SMB1052-D are, therefore, considered suitable for monitoring water quality as required by the Works Approval.

Please note, the situation will likely change when mine dewatering ceases. It will, therefore, be important that Fortescue develops a strategy for monitoring the hyporheic zone in waterways near the mine site as part of the closure plan for the mine.

Groundwater/hyporheic monitoring from these points is required under condition 24 of works approval W6802/2023/1. Results of these monitoring sites are required to be submitted as part of the time limited operations report required by condition 30 W6802/2023/1.

2.2.9 SASH Camp, WWTP, RO Plant and Irrigation Sprayfield

The Solomon Airport Solar Hub (SASH) is a 450 MW solar project with a camp, WWTP, RO Plant and Irrigation Sprayfield. The solar plant will provide power for Stage 4 of the Pilbara Transmission Project adjacent to the Solomon Mine.

WWTP

The WWTP will have a throughput capacity of up to 100 m^3 per day, and the proposed RO plant will produce an additional 50 m^3 per day of RO reject water, which will be mixed in the final effluent tank before being transferred to a proposed 5.6 ha Irrigation Sprayfield.

The WWTP will be a sequential batch reacting (SBR) configuration consisting of a primary tank, screen and balance tank front end.

The SBR process features a combined anoxic/aerobic biological suspended growth treatment process which relies on bacterial action to achieve the following:

- Coagulate and remove the non-settleable colloidal solids and carbonaceous organic matter;
- Convert the colloidal and dissolved carbonaceous organic matter into various gases and cell mass; and
- Reduce the nutrients such as nitrogen, phosphorus, and other trace organic compounds.

The primary input coming into the WWTP will be raw wastewater from typical sources, including camp toilets, showers, laundries, kitchen facilities, ablutions, and wastewater from administration and construction offices (and other waste-generating activities). Chemical inputs into the facility will be used in the treatment process, not limited to carbon dosing, pH correction and alkalinity buffering via liquid caustic or soda ash dosing, aluminium sulphate dosing, liquid chlorine dosing, citric acid dosing and the use of chlorine during disinfection.

Refer to Table 3 for anticipated treated effluent quality.

Table 3: Anticipated effluent water quality

Parameter	Concentration
5 Day Biological Oxygen Demand (BOD5)	<20 mg/L
Total Suspended Solids (TSS)	<30 mg/L
Total Nitrogen (TN)	<20 mg/L
Total Phosphorus (TP)	<7.5 mg/L
Thermotolerant Coliforms	<1,000 cfu/100 mL

RO Plant

The RO system will provide potable water on-site and will also be managed and regulated under the *Rights in Water and Irrigation (RIWI) Act 1914* (Licence to Take Water to feed into the RO Plant).

RO reject water will be blended and mixed with treated effluent at the WWTP in the final effluent tank before final discharge to the native vegetation via the Irrigation Sprayfield. The mixing process will occur at the post-treatment stage of the WWTP as the RO plant produces brine continuously, whilst the WWTP produces effluent in batches.

During the drier periods, there is a potential for the TDS in the raw water to fluctuate closer to 3,000 mg/L. Due to these fluctuations, the TDS of the final combined effluent stream is expected to be within the range, which is generally within levels that can be tolerated by vegetation endemic to the area. Based on current data, the TDS in the blended waste stream (mix of treated effluent and RO brine) is expected to be below 1,600 mg/L. However, during drier periods the TDS levels may fluctuate. The Licence Holder has requested a limit of 2,800 mg/L for TDS in the mixed stream to account for this variability.

Table 4: Irrigation Sprayfield area required based on TN application criteria

Parameter	Values
Maximum hydraulic flow rate	150,000 L per day (consisting of 50,000 L of RO reject and 100,000 L of treated effluent)
Daily total nitrogen load (100,000 L per day x 20 mg/L)	2 kg/day
Annual total nitrogen load (2 kg/day x 365 days)	730 kg/year
Disposal rate (TN)	480 kg/ha/year
Area required (730 kg/yr / 480 kg/ha/yr)	1.52 ha

Table 5: Irrigation Sprayfield area based on TP application criteria

Parameter	Values
Maximum hydraulic flow rate	150,000 L per day (constituting of 50,000 L of RO reject and 100,000 L of treated effluent)
Daily total phosphorus load (100,000 L per day x 7.5 mg/L)	0.75 kg/day
Annual total phosphorus load (0.75 kg/day x 365 days)	273.75 kg/year
Disposal rate (TP)	120 kg/ha/yr
Area required (273.75 kg/yr / 120 kg/ha/yr)	2.28 ha

The Licence Holder is requesting the construction and operation of a 5.6 ha Irrigation Sprayfield to provide sufficient capacity to accommodate the anticipated nutrient loading criteria to minimise ponding from occurring.

2.3 Part IV of the EP Act

Solomon is approved under Part IV of the EP Act pursuant to MS 1062. MS 1062 was revised under section 45C of the EP Act, as approved on 07 June 2023.

3. Risk assessment

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

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

3.1 Source-pathways and receptors

3.1.1 Emissions and controls

The key emissions and associated actual or likely pathway during premises construction and operation which have been considered in this Amendment Report are detailed in Table 6 below. Table 6 also details the proposed control measures the Licence Holder has proposed to assist in controlling these emissions, where necessary.

Table 6: Licence Holder controls

Emission	Sources	Potential pathways	Proposed controls
Construction			
Dust	Construction of the SASH WWTP infrastructure	Air/windborne pathway	• Dust suppression techniques to access roads, camps, within currently approved disturbed, active operational areas, hardstands and cleared ground, and pre-conditioning or stockpile management is active onsite; and • Dust Management Plan in place.
Hydrocarbons / chemicals	Construction of the SASH WWTP infrastructure	Direct discharges from leaks and spills	• Managed under the Chemical and Hydrocarbon Management Plan; • Chemicals are stored in accordance with Australian Standard AS3780-2008 Storage and Handling of Corrosive Substances; and • Any chemical or hydrocarbon spills arising from the WWTP facilities will be managed in accordance with the Environmental Spills Procedure.
Contingency discharge of the Brad TSF Decant Water to Gee Pit			
Tailings decant water mixed with stormwater	Brad TSF Decant Pond	Direct discharges from pipeline leaks / spills	• Pipelines containing tailings are equipped with telemetry, automatic cut-outs in the event of a pipeline failure or provided with secondary containment

Emission	Sources	Potential pathways	Proposed controls
Total element concentrations include enrichment of aluminium, arsenic, barium, selenium, strontium, titanium, iron, vanadium and zinc. All tailings samples were classified as non-acid forming.			sufficient to contain any spill between inspections.
	Pipelines transferring tailings decant from Brad TSF to Gee Pit	Direct discharges during high rainfall events	• Tailings characterisation, groundwater monitoring and hyporheic monitoring is required under the time limited operations report for works approval W6802/2023/1.
	Contingency storage of tailings decant water	Seepage	
LV Evaporation Pond for dust suppression			
Wastewater, potentially sediment laden and hydrocarbon contaminated	LV Evaporation Pond	Direct discharges via intentional use in dust suppression	• Water will be monitored prior to the water being discharged and/or reused to ensure that it contains a TRH content of no more than 15 mg/L; • Water cart operators will be trained and competent in the use of water carts, including sprays, to monitor for overspray and reduce the fan width to ensure that spray is applied within delineated windrows and cleared areas; • Spray and dribble bars will be used to ensure that dust suppression water is controlled and easily directed to the required area; • Visual monitoring of native vegetation will be implemented, if and as required, to ensure there are no impacts to vegetation. If impacts to vegetation are noted, the use of dust suppression water will cease in that location until vegetation stabilises; • Monitoring of dust suppression water will be undertaken quarterly to ensure that water quality is still within the specified parameters; • Dust suppression will not be conducted during and immediately following rainfall events, therefore reducing the possibility of surface water mobilising potential salts; and • Dust suppression water will not be used within major creek lines or drainage channels or in the vicinity of

Emission	Sources	Potential pathways	Proposed controls
			Conservation Significant Flora Species or Groundwater Dependent Vegetation.
Brad TSF Stage 1A			
Tailings and contaminated water Total element concentrations include enrichment of aluminium, arsenic, barium, selenium, strontium, titanium, iron, vanadium and zinc. All tailings samples were classified as non-acid forming.	Discharge and storage of tailings in Brad TSF	Seepage through base and embankments causing water table mounding which may adversely impact the health of adjacent native vegetation	<u>Controls:</u> • Decant tailings water will be collected via trailer or skid-mounted pumps with floating intakes and pumped via return water pipelines to the Gee Pit or reused at the OPF; and • The applicant has indicated that impacts of the Brad TSF on surface water will be managed in accordance with the conditions specified in MS1062 and the Surface Water Management Plan. <u>Proposed monitoring:</u> • Four monitoring bores surrounding the TSF; • Proposed "routine sampling" of two existing monitoring bores along intersecting dolerite dyke (potential conduit for seepage) to monitor for changes in ground water levels and chemistry following commissioning of Brad TSF; • To monitor the phreatic surface within the embankments, installation of nine piezometers in the eastern embankment and twenty-two piezometers in stage 1 of the main embankment (to be replaced by a further twenty two piezometers in stage two); and • Monitoring of tailings delivery to Brad TSF.
		Seepage through base and embankments causing contamination of nearby creek lines	
		Seepage through base and embankments causing potential impacts to the Millstream Water Reserve, a priority 2 public drinking water source area	
		Overtopping of TSF and direct discharge to land causing poor vegetation health/death and surface water contamination	• The maximum tailings levels applied for each stage restricts tailings volumes to allow for storm event inflow volumes over and above a long-term wet season; • Stages 1 and 2 designed for a 1:1000 AEP 72-hour storm event (631mm); • Use of a safety bund crest to provide additional 1.8 m freeboard above design flood for stage 1 and 3.1 m additional freeboard above flood level for stage 2; and

Emission	Sources	Potential pathways	Proposed controls
			• Daily inspection of freeboard whilst the TSF is operational.
		Pipeline leak/rupture and direct discharge to land causing vegetation poor health/death	• Tailings delivery and decant return pipelines to be equipped with real-time 24/7 telemetry monitoring with automatic cut-outs in the event of a pipeline failure; • Both the tailings delivery line and decant return line will be constructed predominantly on haul roads and light vehicle roads contained within the active mining footprint; • The access roads are bunded by earthen windrows to manage and contain pipeline leaks; • Should the pipelines be located above ground and outside of existing road corridors, they will be bunded to a sufficient capacity to contain approximately 1km pipeline spill volume, 1km being the distance between cut-off valves(130m^3); and • The existing Solomon TSF1 is to be utilised as an emergency flush location where the first 1/3rd of the tailings delivery line can be cleared out to reduce pressure in the line and to allow for repairs and flushing the rest of the line to the Brad TSF in the event of failure or blockage.
Contaminated surface water run off		Overland flow causing impacts to vegetation and/or contamination of nearby surface water bodies	• Windrows, culverts and/or bunding along the Brad TSF designed in accordance with the FMG Standard Engineering Specification for Drainage and Flood Protection; • Audits to check natural drainage lines are buffered from disturbance footprint and ensure that the water quality and flow of monitored creeks downstream of construction activities remain similar to background levels; • Re-use run off from infrastructure/activity where possible to ensure turbid water is not discharged to the environment; • Contain and appropriately manage contaminated stormwater prior to release to the environment; • Audits/inspection reports to check that stormwater is captured and managed

Emission	Sources	Potential pathways	Proposed controls
			before being released to the environment and ensure that the results of monitoring are all within the natural variability expected and anthropogenic toxicants do not exceed guideline values; and • Ongoing inspection and maintenance of the physical structures and monitoring of stormwater quality during operation of the Brad TSF.
WWTP, RO Plant and Irrigation Sprayfield			
Sewage, partially treated sewage	Tanks of the WWTP	Overtopping of the tanks	• Volumetric flow meters are to be maintained on the WWTP inlet and outlet to the Irrigation Sprayfield; • Total System buffer storage capacity at zero discharge conditions = 3.5 days; • Earthen bunding to be maintained around the WWTP perimeter; • Sludge is contained within sealed sludge tanks prior to removal by a licensed waste carrier for disposal to a licensed disposal facility; • Screenings are contained within a sealed bin prior to removal for disposal to a licensed disposal facility; and • Spills of wastewater or chemicals outside of a vessel/container are cleaned up as soon as reasonably practical.
Treated effluent mixed with RO brine	Final irrigation tank of the WWTP	Pipeline leaks and spills	• Pipeline corridor will be in place; • Volumetric flow meters are to be maintained on the WWTP inlet and outlet to the Irrigation Sprayfield; and • Earthen bunding is to be maintained around the WWTP perimeter.
		Overtopping of the tanks	• WWTP will incorporate an alarm system, which will activate in the event of pump faults, high WWTP tank levels and spillage, including any spills into the emergency overflow pond. The alarm system will also have a warning beacon and audible and visual pump fault alarms; and • Total System buffer storage capacity at zero discharge conditions = 3.5 days.

Emission	Sources	Potential pathways	Proposed controls
		Direct intended discharges to the Irrigation Sprayfield	• Buffer distance of 5 m between sprinklers and perimeter fence; • Connected to a volumetric flowmeter to monitor the daily volume of RO brine delivered to the WWTP irrigation storage tanks; • Fenced with safety signage installed to deter access; • The Irrigation Sprayfield will be managed to ensure that treated effluent will not pool on the surface, where it can flow into the surrounding environment; and • The Irrigation Sprayfield will not intercept any surface water features, and separation buffers of 100 m will be utilised where sensitive environmental areas are identified, e.g., water pools.
		Infiltration of treated wastewater to groundwater	• A minimum two-metre vertical separation will be maintained between the irrigated surface and the end of the wet-season water table to maintain aerobic soils This will limit waterlogging and foster contaminant control via soil filtration and microbial action. The treated wastewater will be applied to support vegetation growth needs and coupled with the infiltration and nutrient retention capacity of the soil; and • The sprayfield will be operated so that most of the water evaporates and there is no water pooling on the surface, so that seepage to groundwater does not occur. Furthermore, it is anticipated that nutrients in treated wastewater will be taken up by vegetation growth or retained in the soil, and it is unlikely that groundwater will receive any loading from the irrigation of treated wastewater.
Sludge waste	Sludge tank of the WWTP	Direct discharges from leaks / spills	• Sludge produced by the WWTP will be collected in sludge tanks; and • The sludge will be removed periodically from the tanks by a licensed carrier and taken off-site for disposal at an appropriately licensed facility in accordance with *the Environmental Protection (Controlled Waste) Regulations 2004*.

Emission	Sources	Potential pathways	Proposed controls
Chemicals	Chemicals used at the WWTP	Direct discharges from leaks / spills	• Chemicals are stored in accordance with Australian Standard AS3780-2008 Storage and Handling of Corrosive Substances; • Bunding will be installed around the WWTP units and chemical storage locations as a further mitigation measure; • Chemicals and Hydrocarbons utilised will be managed under the Chemical and Hydrocarbon Management Plan; and • Any chemical or hydrocarbon spills arising from the WWTP facilities will be managed in accordance with the Environmental Spills Procedure.
RO Plant			
RO brine	RO Plant	Intended addition of the RO brine to the WWTP final irrigation tank	• Connected to a volumetric flowmeter to monitor the daily volume of RO brine delivered to the WWTP final irrigation tank.

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 7 below provides a summary of potential human and environmental receptors that may be impacted as a result of activities upon or emission and discharges from the prescribed premises *(Guideline: Environmental siting* (DWER 2020)).

Table 7: Sensitive human and environmental receptors and distance from prescribed activity

Human receptors	Distance from prescribed activity
Yindjibarndi use of exclusive Determined Native Title land (camping, etc.) adjacent to FMG tenure.	Proposed activities are within the exclusive NT area and about 1 km from the premises boundary.
Hamersley Station	33 km south west
Tom Price	54 km south
Environmental receptors	**Distance from prescribed activity**
Rights in Water and Irrigation Act 1914 – Groundwater Areas	The premises is within the Pilbara Groundwater Area. The water table varies from about 5 to 30 m below

	ground level. Groundwater quality: Mostly fresh, with total dissolved solids (TDS) ranging between 340 – 1000 mg/L.
Surface water bodies including ephemeral creeks and Kangeenarina Creek (and associated permanent pools) YNAC have previously advised that this creek is used as a source of drinking water for the Yindjibarndi people. Under MS1062 condition 10-1 (3) and (4) FMG is required to: • Maintain water levels in permanent pools in Kangeenarina Creek, which are not authorised to be removed by Schedule 1, consistent with pre-mining surveys; and • Maintain the health of riparian vegetation associated with permanent pools and semipermanent pools in Kangeenarina Creek that are not authorised to be removed by Schedule 1 consistent with pre-mining surveys. The Ministerial Statement relates to water level management for the creeklines rather than potential impacts to water quality.	Kangeenarina Creek runs northward about 100m west of the Kings Valley OPF. Ephemeral creeks run adjacent to proposed landfill facility (beyond highly disturbed landfill area).
Priority Ecological Communities (Themeda sp. Hamersley Station (M.E. Trudgen 11431) tussock grassland) and Brockman Iron cracking clay communities of the Hamersley Range	Multiple occurrences of Themeda grasslands on cracking clays (Hamersley Station, Pilbara), Threatened Ecological Community (Vulnerable) located adjacent to the southern boundary of the Premises. Multiple occurrences of Brockman Iron cracking clay communities, Priority 1 Ecological Community, located adjacent to the southern boundary of the Premises
Threatened and/or priority fauna. Numerous conservation significant species have been recorded within the premises: • Northern Quoll (Endangered under the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act) and Schedule 2 of the Wildlife Conservation (Specially Protected Fauna) Notice 2018); • Pilbara Leaf-nosed Bat (Vulnerable under the EPBC Act and Schedule 3 of the Wildlife Conservation (Specially Protected Fauna) Notice 2018); • Pilbara Olive Python (Vulnerable under the EPBC Act and Schedule 3 of the Wildlife Conservation (Specially Protected Fauna) Notice 2018); • Pilbara Barking Gecko (Priority 2);	Numerous conservation significant species have been recorded within the premises Figure 4 of the Supporting Documentation Under MS1062 condition 12-1(1) FMG is required to minimise direct and indirect impacts on conservation significant fauna species and their habitat.

• Fork Tailed Swift (Migratory under the EPBC Act and Schedule 5 of the Wildlife Conservation (Specially Protected Fauna) Notice 2018); • Western Pebble-mound Mouse (Priority 4); • Ghost Bat (Vulnerable under the EPBC Act and Schedule 3 of the Wildlife Conservation (Specially Protected Fauna) Notice 2018); • Gane's Blind snake (Priority 1); and • Peregrine Falcon (Other Specially Protected under the EPBC Act and Schedule 7 of the Wildlife Conservation (Specially Protected).	
Threatened and/or priority flora. Numerous priority flora species have been recorded within the Premises: • *Gompholobium karijini* (Priority 2); • *Acacia effusa* (Priority 3); • *Acacia daweana* (Priority 3); • *Indigofera gilesii* subsp. gilesii (Priority 2); • *Eremophila magnifica subsp. Magnifica* (Priority 4); • *Goodenia nuda* (Priority 4); and • *Lepidium catapycnon* (Priority 4).	Numerous priority flora species have been recorded within the Premises Figure 4 of the Supporting Documentation Under MS1062 condition 8-1 FMG is required to maintain health and minimize impacts to regionally and locally significant flora species.
Country Areas Water Supply Act 1947 – Public Drinking Water Source Area (PDWSA) Receptor screened out due to distance.	The Milstream Water Reserve Priority 2 PDWSA is about 16 km west of the Karijini 2A Supplementation Scheme injection borefield.
Fortescue River South	Mapped 1.98km south of the Licence PPB Not near any of the proposed activities
Moderate to low-risk Acid Sulphate Soils	24 km north of the Licence PPB
Subterranean fauna FMG is required to maintain the biodiversity and ecological integrity of troglofauna identified through baseline surveys under conditions within MS1062 and the Subterranean Fauna Management Plan. Note: Receptor managed under Part IV of the EP Act.	No survey data provided.

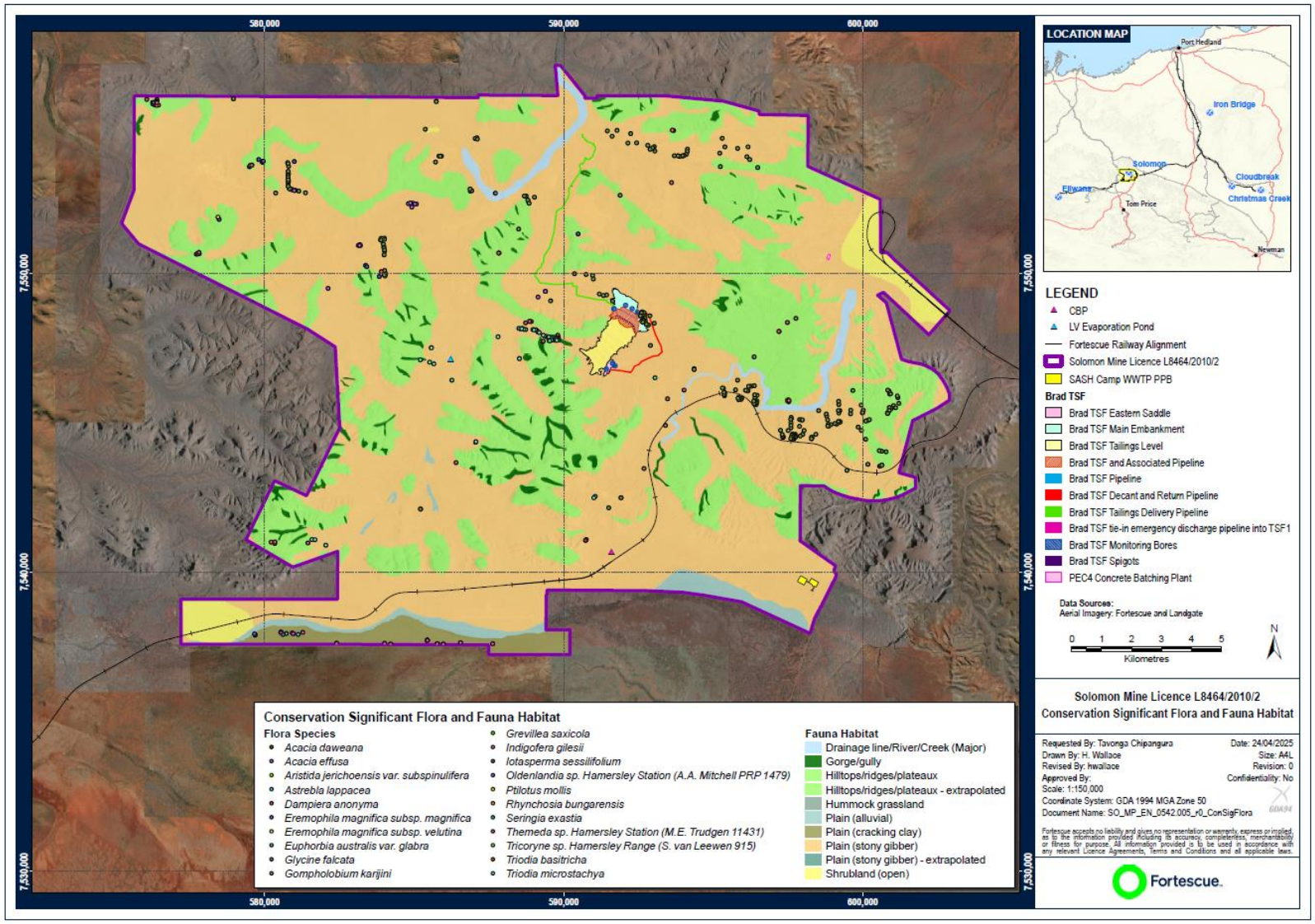

Figure 1: Distance to sensitive receptors

3.2 Risk ratings

Risk ratings have been assessed in accordance with the *Guideline: Risk Assessments* (DWER 2020) for those emission sources which are proposed to change and takes into account potential source-pathway and receptor linkages as identified in Section 3.1. Where linkages are incomplete they have not been considered further in the risk assessment.

Where the Licence Holder has proposed mitigation measures/controls (as detailed in Section 3.1), these have been considered when determining the final risk rating. Where the Delegated Officer considers the Licence Holder's proposed controls to be critical to maintaining an acceptable level of risk, these will be incorporated into the licence as regulatory controls.

Additional regulatory controls may be imposed where the Licence Holder's controls are not deemed sufficient. Where this is the case the need for additional controls will be documented and justified in Table 8.

The Revised Licence L8464/2010/2 that accompanies this Amendment Report authorises emissions associated with the operation of the Premises i.e. Categories 5, 54 and 77 activities.

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

Table 8. Risk assessment of potential emissions and discharges from the Premises during construction and operation

Risk Event					Risk rating[1] C = consequence L = likelihood	Licence Holder's controls sufficient?	Conditions[2] of licence	Justification for additional regulatory controls / DWER comments
Source/Activities	**Potential emission**	**Potential pathways and impact**	**Receptors**	**Licence Holder's controls**				
Construction								
Construction of the SASH WWTP infrastructure	Dust	Air/windborne pathway causing impacts to health and amenity	Adjacent native vegetation	Refer to Section 3.1	C = Slight L = Unlikely **Low Risk**	Y	Condition 3, Table 2 - design and construction/installation requirements for related works. Condition 4 and 5 – compliance reporting requirements, following completion of construction/installation activities specified in Condition 3.	Standard conditions for construction works.
	Hydrocarbons / chemicals	Direct discharges from leaks and spills		Refer to Section 3.1	C = Slight L = Unlikely **Low Risk**	Y	Condition 3, Table 2 - design and construction/installation requirements for related works. Condition 4 and 5 – compliance reporting requirements, following completion of construction/installation activities specified in Condition 3.	Standard conditions for construction works.
Operation (including time-limited-operations operations)								
Discharge of the Brad TSF Decant Water to Gee Pit								
Pipelines transferring tailings decant from Brad TSF Decant Pond to Gee Pit	Tailings decant water mixed with stormwater Total element concentrations	Direct discharges from pipeline leaks / spills	Soils, groundwater, vegetation	Refer to Section 3.1	C = Moderate L = Unlikely **Medium Risk**	Y	Condition 10, Table 6 Inspection of infrastructure requires frequent visual pipeline inspections Condition 25, Table 16 Process monitoring requires	N/A

Risk Event					Risk rating[1] C = consequence L = likelihood	Licence Holder's controls sufficient?	Conditions[2] of licence	Justification for additional regulatory controls / DWER comments
Source/Activities	**Potential emission**	**Potential pathways and impact**	**Receptors**	**Licence Holder's controls**				
	include enrichment of aluminium, arsenic, barium, selenium, strontium, titanium, iron, vanadium and zinc. All tailings samples were classified as non-acid forming.						monitoring of tailings delivery and return line volumes	
Brad TSF Decant Pond		Direct discharges during high rainfall events	Soils, groundwater, vegetation	Refer to Section 3.1	C = Moderate L = Unlikely **Medium Risk**	Y	Condition 6, Table 3 Containment and waste treatment infrastructure requires freeboard markers be installed Condition 10, Table 6 Inspection of infrastructure requires frequent visual freeboard inspections Condition 25, Table 16 Process monitoring requires monitoring of tailings delivery and return line volumes	N/A
		Seepage	Groundwater	Refer to Section 3.1	C = Moderate L = Possible **Medium Risk**	Y	Condition 25, Table 16 Process monitoring requires monitoring of tailings delivery and return line volumes Condition 26, Table 17 Monitoring of ambient groundwater quality requires groundwater monitoring in the vicinity of Brad TSF	N/A
LV Evaporation Pond for dust suppression								
LV Evaporation Pond	Wastewater, potentially sediment laden and hydrocarbon contaminated	Direct discharges via intentional use in dust suppression	Soils, groundwater, vegetation	Refer to Section 3.1	C = Slight L = Unlikely **Low Risk**	Y	Condition 7, Table 4 Management of waste requires TRH limit of dust suppression wastewater from the LV Evaporation Pond does not exceed 15 mg/L Condition 16, Table 10 Emissions to land sets L7 as	N/A

Risk Event					Risk rating[1] C = consequence L = likelihood	Licence Holder's controls sufficient?	Conditions[2] of licence	Justification for additional regulatory controls / DWER comments
Source/Activities	**Potential emission**	**Potential pathways and impact**	**Receptors**	**Licence Holder's controls**				
							a discharge to land point Condition 17, Table 11 Emission limits to land requires a monthly spot sample and TRH limit Condition 23, Table 14 Monitoring of emissions to land requires monthly spot sampling of L7	
Brad TSF Stage 1A								
Discharge and storage of tailings in Brad TSF	Tailings and contaminated water	Seepage through base and embankments causing water table mounding which may adversely impact the health of adjacent native vegetation	Soils, groundwater, adjacent native vegetation	Refer to Section 3.1	C = Moderate L = Unlikely **Medium Risk**	Y	Condition 25, Table 16 Process monitoring requires tailings and decant volume monitoring Condition 26, Table 17 Monitoring of ambient groundwater quality requires quarterly ambient groundwater monitoring including SWL	N/A
		Seepage through base and embankments causing contamination of nearby creek lines	Zalamea Creek (2.7 km south-east) and Kangeenarina Creek (4.6 km west)	Refer to Section 3.1	C = Moderate L = Unlikely **Medium Risk**	Y	Condition 25, Table 16 Process monitoring requires tailings and decant volume monitoring	N/A
		Seepage through base and embankments causing potential impacts to the Millstream Water Reserve, a priority 2 public drinking water source area	PDSWA (5.7km west)	Refer to Section 3.1	C = Moderate L = Unlikely **Medium Risk**	Y	Condition 25, Table 16 Process monitoring requires tailings and decant volume monitoring Condition 26, Table 17 Monitoring of ambient groundwater quality requires quarterly ambient	N/A

Risk Event					Risk rating[1] C = consequence L = likelihood	Licence Holder's controls sufficient?	Conditions[2] of licence	Justification for additional regulatory controls / DWER comments
Source/Activities	**Potential emission**	**Potential pathways and impact**	**Receptors**	**Licence Holder's controls**				
							groundwater monitoring	
		Overtopping of TSF and direct discharge to land causing poor vegetation health/death and surface water contamination	Adjacent native vegetation Adjacent creeklines connecting with Kangeenarina Creek and Zalamea Creek	Refer to Section 3.1	C = Moderate L = Unlikely **Medium Risk**	Y	Condition 6, Table 3 Containment and waste treatment infrastructure requires height, storm event design and freeboard Condition 10, Table 6 Inspection of infrastructure requires freeboard visual inspections Condition 25, Table 16 Process monitoring requires tailings and decant volume monitoring	N/A
		Pipeline leak/rupture and direct discharge to land causing vegetation poor health/death	Adjacent native vegetation Adjacent creek lines connecting with Kangeenarina Creek and Zalamea Creek	Refer to Section 3.1	C = Moderate L = Unlikely **Medium Risk**	Y	Condition 2 requires that pipelines containing tailings are equipped with telemetry, automatic cut-outs, secondary containment	N/A
	Contaminated surface water run off	Overland flow causing impacts to vegetation and/or contamination of nearby surface water bodies	Adjacent creek lines connecting with Kangeenarina Creek and Zalamea Creek	Refer to Section 3.1	C = Moderate L = Unlikely **Medium Risk**	Y	Condition 6, Table 3 Containment and waste treatment infrastructure requires stormwater be diverted to Gee Pit during high rainfall events Condition 7, Table 4 Management of waste requires stormwater be diverted to Gee Pit during high rainfall events	N/A

Risk Event					Risk rating[1] C = consequence L = likelihood	Licence Holder's controls sufficient?	Conditions[2] of licence	Justification for additional regulatory controls / DWER comments
Source/Activities	**Potential emission**	**Potential pathways and impact**	**Receptors**	**Licence Holder's controls**				
WWTP, RO Plant and Irrigation Sprayfield								
Tanks of the WWTP	Sewage, partially treated sewage	Overtopping of the tanks	Soils, groundwater, adjacent native vegetation	Refer to Section 3.1	C = Slight L = Unlikely **Low Risk**	Y	Condition 3, Table 2 Design and construction/installation requirements requires flow metres, earthen bunding, alarm system, buffer storage capacity	N/A
		Pipeline leaks and spills	Soils, groundwater, adjacent native vegetation	Refer to Section 3.1	C = Slight L = Unlikely **Low Risk**	Y	Condition 3, Table 2 Design and construction/installation requirements requires flow metres, earthen bunding, alarm system, buffer storage capacity	N/A
Final irrigation tank of the WWTP	Treated effluent mixed with RO brine	Pipeline leaks and spills	Soils, groundwater, adjacent native vegetation	Refer to Section 3.1	C = Slight L = Unlikely **Low Risk**	Y	Condition 3, Table 2 Design and construction/installation requirements requires flow metres, earthen bunding, alarm system, buffer storage capacity	N/A
		Overtopping of the tanks	Soils, groundwater, adjacent native vegetation	Refer to Section 3.1	C = Slight L = Unlikely **Low Risk**	Y	Condition 3, Table 2 Design and construction/installation requirements requires flow metres, earthen bunding, alarm system, buffer storage capacity	
		Direct intended discharges to the Irrigation Sprayfield (including RO brine)	Soils, adjacent native vegetation, weeds	Refer to Section 3.1	C = Minor L = Possible **Medium Risk**	Y	Condition 3, Table 2 Design and construction/installation requirements requires treated effluent quality design specifications Condition 8 requires that irrigation is managed so there is no run-off, spray drift, soil erosion, water logging and that there is	N/A

Risk Event					Risk rating[1] C = consequence L = likelihood	Licence Holder's controls sufficient?	Conditions[2] of licence	Justification for additional regulatory controls / DWER comments
Source/Activities	**Potential emission**	**Potential pathways and impact**	**Receptors**	**Licence Holder's controls**				
							even distribution and healthy vegetation cover maintained Condition 16, Table 10 Emissions to land requires L8 as a discharge to land point Condition 23, Table 14 Monitoring of emissions to land requires monitoring of the treated effluent	
		Infiltration of treated wastewater to groundwater	Groundwater 5 to 30 mbgl Milstream Water Reserve Priority 2 PDWSA is over 10 km north west away	Refer to Section 3.1	C = Minor L = Unlikely **Medium Risk**	Y	Condition 3, Table 2 Design and construction/installation requirements requires treated effluent quality design specifications Condition 8 requires that irrigation is managed so there is no run-off, spray drift, soil erosion, water logging and that there is even distribution and healthy vegetation cover maintained Condition 16, Table 10 Emissions to land requires L8 as a discharge to land point Condition 23, Table 14 Monitoring of emissions to land requires monitoring of the treated effluent	N/A
Sludge tank	Sludge waste	Direct discharges from leaks / spills	Soils	Refer to Section 3.1	C = Slight L = Unlikely **Low Risk**	Y	Condition 3, Table 2 Design and construction/installation requirements requires that sludge produced is collected in sludge tanks Condition 7, Table 4	N/A

Risk Event					Risk rating[1] C = consequence L = likelihood	Licence Holder's controls sufficient?	Conditions[2] of licence	Justification for additional regulatory controls / DWER comments
Source/Activities	**Potential emission**	**Potential pathways and impact**	**Receptors**	**Licence Holder's controls**				
							Management of waste requires that liquid sludge to be dewatered and turned into a spadable material prior to disposal into approved on-site putrescible landfill sites	
Chemicals used at the WWTP	Chemicals	Direct discharges from leaks / spills	Soils, groundwater	Refer to Section 3.1	C = Slight L = Unlikely **Low Risk**	Y	Condition 3, Table 2 Design and construction/installation requirements requires that chemicals are stored in accordance with Australian Standards and bunding is installed	N/A
RO Plant								
RO Plant	RO brine	Leaks and spills from pipelines from the Intended addition of the RO brine to the WWTP final irrigation tank	Soils, groundwater, adjacent native vegetation	Refer to Section 3.1	C = Slight L = Unlikely **Low Risk**	Y	Condition 16, Table 10 Emissions to land requires RO Plant and WWTP are listed as emissions points Condition 23, Table 14 Monitoring of emissions to land requires that volumes of RO reject are monitored	N/A

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

Note 2: Proposed Licence Holder's controls are depicted by standard text. **Bold and underline text** depicts additional regulatory controls imposed by department.

4. Consultation

Table 9 provides a summary of the consultation undertaken by the department.

Table 9: Consultation

Consultation method	Comments received	Department response
Local Government Authority advised of proposal (18 June 2025)	No comments received.	N/A
Department of Mines, Industry Regulation and Safety (DMIRS) advised of proposal (18 June 2025)	No comments received.	N/A
Department of Planning, Lands and Heritage (DPLH) advised of proposal (18 June 2025)	DPLH replied on 09 July 2025 stating/advising that a review of the Aboriginal Heritage Register of Places and Objects, as well as the DPLH Aboriginal Heritage Database, concludes that the prescribed premises boundary intersects numerous Aboriginal sites and heritage places. It is noted that FMG have previously been granted consent under section 18 of the *Aboriginal Heritage Act 1972* (AHA) for the Solomon Project for mining operations and infrastructure construction. It is also noted that shapefile of the specific amendment areas has not been provided. Any new ground disturbing activities outside of the extent of the existing section 18 within an Aboriginal site or heritage place as part of the licence amendment will require approval under the AHA. If any of the proposed future works do reveal any previously unknown Aboriginal heritage, FMG will be required to apply for approvals under the AHA	Noted.
Wintawari Guruma Aboriginal Corporation (WGAC) advised of proposal (18 June 2025)	No comments received.	N/A
Wirlu-Murra Yindjibarndi Aboriginal	No comments received.	N/A

Corporation (WMYAC) advised of proposal (18 June 2025)		
Yindjibarndi Ngurra Aboriginal Corporation (YNAC) and Yindjibarndi Aboriginal Corporation (YAC) advised of proposal (18 June 2025)	No comments received.	N/A
Licence Holder was provided with draft amendment on 21 August 2025	The Licence Holder replied on 11 September 2025 Refer to Appendix 1	The Licence Holder replied on 11 September 2025 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 10 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 10: Summary of licence amendments

Condition no.	Proposed amendments
Front page	Expiry date extended.
Category Table	Category 54: Sewage facility Approved premises production or design capacity amended from 1,178 up to 1,328 cubic metres per day. Category 77: Concrete batching or cement products manufacturing added.
3, Table 2	Inclusion of Design and construction / installation requirements for the SASH WWTP, RO Plant and Irrigation Sprayfield.
6, Table 3	Inclusion of Brad TSF Stage 1A to the Containment and waste treatment infrastructure. Inclusion of Discharge of Brad TSF decant water to Gee Pit (or reuse via the OPF) under normal operating conditions when there is a recoverable pond. Inclusion of the Mobile Concrete Batching Plant
7, Table 4	Inclusion of Treated wastewater **from sewage treatment** for clarity. Inclusion of Treated wastewater from LV Evaporation Pond in Dust suppression and Treated wastewater from the LV Evaporation Pond for dust suppression (and/or other suitable uses on-site) is to not exceed a TRH concentration of 15 mg/L.
8	Inclusion of L8 discharge point from SASH WWTP, RO Plant and Irrigation Sprayfield.
10, Table 6	Inclusion of Brad TSF embankment freeboard to inspections.

15, Table 9	Modification to Weelumurra North Supplementation Injection Bores nomenclature.
16, Table 10	Inclusion of L4 Solomon Power Station treated wastewater as this was not previously included in the Emissions to land table and it is used in dust suppression. Modification from L12 to L6 Contingency pipeline discharge of TSF decant water/stormwater to Gee Pit during high rainfall events so discharges are in order and inclusion of Discharge of Brad TSF decant water to Gee Pit (or reuse via the OPF) under normal operating conditions when there is a recoverable pond. Inclusion of L7 Discharge of treated water to the LV Evaporation Pond. Inclusion of L8 Discharge of treated wastewater and Reverse Osmosis reject water to a 5.6 hectare Irrigation Sprayfield, Effluent from the combined final irrigation tank, including SASH Camp WWTP and RO reject water.
17, Table 11	Inclusion of L7 LV Evaporation Pond TRH limit of 15 mg/L monthly spot sample. Inclusion of L8 SAH Irrigation Sprayfiled TDS limit of 2,800 mg/L combined treated effluent and RO brine quarterly spot sample.
22, Table 13	Modification to Weelumurra North Supplementation Injection Bores nomenclature.
23, Table 14	Inclusion of L8 discharge point from SASH WWTP, RO Plant and Irrigation Sprayfield to Monitoring of emissions to land. Inclusion of TDS for treated effluent and RO brine. Inclusion of L4 for the Solomon Power Station dust suppression. Modification from L12 to L6 Contingency pipeline discharge of TSF decant water/stormwater to Gee Pit during high rainfall events so discharges are in order. Inclusion of L7 LV Evaporation Pond TRH sampling.
24, Table 15	Inclusion of Brad TSF tailings and decant water monitoring.
25, Table 16	Removal of L4 for the Solomon Power Station dust suppression as it has been included as a discharge to land, rather than process monitoring.
26, Table 17	Inclusion of Brad TSF groundwater monitoring bores to ambient groundwater quality monitoring. Removal of decommissioning putrescible landfill ambient groundwater monitoring bores and inclusion of new landfill groundwater monitoring bores.
32, Table 18	Inclusion of L8 of L8 Discharge of treated wastewater and Reverse Osmosis reject water to a 5.6 hectare Irrigation Sprayfield. Inclusion of Brad TSF tailings and decant water monitoring. Removal of L3 from the Process monitoring row.
Schedule 1: Maps	Figure 1: Prescribed premises boundary and key infrastructure updated. Figure 6: New Solomon landfill, and monitoring bore locations updated. Figure 14: The locations of the Landfill monitoring points removed. Figure 15: Weelumurra Creek North Supplementation Infrastructure updated. Figure 19: The locations of the emission points L7 and L8, defined in Condition 16, Table 10.

References

1. Department of Environment Regulation (DER) 2015, *Guidance Statement: Setting Conditions*, Perth, Western Australia.
2. Department of Water and Environmental Regulation (DWER) 2020, *Guideline: Environmental Siting*, Perth, Western Australia.
3. DWER 2020, *Guideline: Risk Assessments*, Perth, Western Australia.
4. FMG Solomon Pty Ltd, Fortescue submission's of the amendment to the Solomon Iron Ore Mine L8464/2010/2 - APP-0028806 29/04/2025 (APP-0028805 – Supporting Documentation).
5. FMG Solomon Pty Ltd, RE: L8464/2010/2 Solomon Mine Amendment 07/07/2025 (APP-0028805 – Reply to additional queries).
6. FMG Solomon Pty Ltd, Clarification on the best pathway for the renewal of the Solomon Mine Licence L8464/2010/2 - Due to expire on 17 October 2025 23 July 2025 (APP-0028805 – request to expiry date extension).
7. FMG Solomon Pty Ltd, RE: Clarification on the best pathway for the renewal of the Solomon Mine Licence L8464/2010/2 - Due to expire on 17 October 2025 23 July 2025 (APP-0028805 – reply to email about expiry date extension).
8. FMG Solomon Pty Ltd, RE: L8464/2010/2 Solomon Mine Amendment 05/08/2028 (APP-0028805 – Reply to Gee Pit queries).
9. FMG Solomon Pty Ltd, Fortescue review of the draft licence and decision report for the amendment to the Solomon Mine Licence L8464/2010/2 - APP-0028805 11 September 2025 (App-0028805 – reply to 21 days letter).

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

Condition	Summary of Licence Holder's comment	Department's response
1, Table 1	Fortescue has noticed an error in the volume of sewage stated in Condition 1, Table 1 of the Licence, as this incorrectly states 1,178 cubic metres per day. Fortescue requests that the volume of Category 54 (sewage facility) be updated from 1,178 cubic metres per day to **1,328 cubic metres per day**.	Updated as requested.
3, Table 2	Fortescue requests that this infrastructure be removed from Condition 3, Table 2 of the Licence and placed in Condition 6, Table 3 of the Licence. The mobile concrete batching plant has been constructed and compliance demonstrated: The environmental compliance report was submitted to the Department on 15 May 2024, with additional information provided on 6 August 2024. The works approval compliance demonstrated letter was received from the Department on 20 August 2024 (provided in Attachment 3 of this response).	Updated as requested.
3, Table 2	Fortescue has reviewed the design and construction/installation requirements for the SASH WWTP, RO Plant and irrigation sprayfield, as outlined in Condition 3, Table 2 of the draft licence. Upon review, Fortescue notes that several of the proposed conditions are inconsistent with the existing wording on other Fortescue Operational Licences with WWTPs. Fortescue requests that the highlighted wording be removed from the draft Licence to ensure consistency and support compliance outcomes. This change will provide the required operational flexibility whilst still ensuring the Department's intended purpose and outcome is achieved.	Not updated as these are construction based conditions that the Licence Holder has committed to in the supporting documentation as part of the construction of the SASH WWTP and Irrigation Sprayfield.
3, Table 2	The word 'schedule' has been incorrectly spelt as 'shcedule'.	Updated as requested.

Condition	Summary of Licence Holder's comment	Department's response
6, Table 3	As discussed above, Fortescue requests that the (constructed) mobile concrete batching plant be added to Condition 6, Table 3 of the Licence.	Updated as requested.
7, Table 4	Fortescue requests that the volume of Category 54 (sewage facility) be corrected to state **1,328 m3/day**.	Updated as requested.
10, Table 6	Fortescue has reviewed the frequency of inspection requirements for the tailings pipelines, return water lines and TSF1 embankment freeboard. Fortescue requests that the frequency of inspection requirements be amended to state 'Daily whilst operational and Fortnightly whilst inactive' to ensure operational consistency with the frequency of inspections on other Fortescue Operational Licences. The additional wording will better align with the Project requirements and still achieve the Department's requirements.	Updated as requested.
22, Table 13	The Weelumurra North Supplementation Injection bore numbers have not been updated, as outlined in Condition 15, Table 9 of the draft licence.	Updated as requested.
Schedule 1: Maps	Fortescue notes the following: The existing Figure 10 of the draft licence shows emissions points **L1, L2, L3 and L5**. Figure 11 of the draft Licence shows emission point **L4**. Figure 15 of the draft licence has been updated to show emission point **L6**. Fortescue has provided a new map to show the location of the emissions to land (**L7 and L8**) emission points. The map is provided in **Attachment 4, Map 2** of this document.	Updated as requested.
Figure 15: Weelumurra Creek North Supplementation Infrastructure	Fortescue has updated Figure 15 of the draft licence to clearly show the location of the planned supplementation infrastructure.	Updated as requested.