



Application for Works Approval

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

Works Approval Number	W6660/2022/1
Applicant	Wiluna Operations Pty Ltd
ACN	166 954 525
File number	DER2022/000021
Premises	Wiluna Mine Site Legal description Within Mining Leases M53/32, M53/96, M53/200, M53/26, M53/40 and M53/50 WILUNA WA 6646 As defined by the premises map attached to the issued works approval
Date of report	17 August 2022
Decision	Works approval granted

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

Table of Contents

1. Decision summary	1
2. Scope of assessment	1
2.1 Regulatory framework	1
2.2 Application summary and overview of premises	1
2.3 Description of Proposed Activities	1
2.3.1 Upgrade to Sulphide Processing Plant (Stage 2)	1
2.3.2 Tailings management and characteristics	4
2.3.3 Geochemistry and geotechnical analysis of sulphide tailings	4
2.3.4 Modifications to Category 63 activities	8
2.3.5 Modifications to Category 64 activities	8
3. Risk assessment	10
3.1 Source-pathways and receptors	10
3.1.1 Emissions and controls	10
3.1.2 Receptors	16
3.2 Risk ratings	19
4. Consultation	33
5. Conclusion	33
References	33
Appendix 1: Summary of applicant’s comments on risk assessment and draft conditions	35
Appendix 2: Application validation summary	40
Table 1: Proposed applicant controls	10
Table 2: Sensitive human and environmental receptors and distance from prescribed activity	16
Table 3: Risk assessment of potential emissions and discharges from the premises during construction, commissioning and operation	20
Table 4: Consultation	33
Figure 1: Location of SPP (Stage 2) at the Premises	5
Figure 2: Containment Infrastructure and Surface Water Management Plan	6
Figure 3: SPP (Stage 2) Process Flow Diagram	7
Figure 4: Location of proposed landfill sites at the Premises	9

1. Decision summary

This decision report documents the assessment of potential risks to the environment and public health from emissions and discharges during the construction, commissioning and operation of the Premises. As a result of this assessment, works approval W6660/2022/1 has been granted.

2. Scope of assessment

2.1 Regulatory framework

In completing the assessment documented in this decision report, the Department of Water and Environmental Regulation (the department; DWER) 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 and overview of premises

Wiluna Operations Pty Ltd (the Applicant) is currently licenced under Part V of the *Environmental Protection Act 1986* (EP Act) under Licence L5206/1987/10 for the Wiluna Mine Site (the Premises), for prescribed categories 5, 6, 57, 63, 64 and 85.

On 14 January 2022, the Applicant submitted an application for a Works Approval to the department under section 54 of the *Environmental Protection Act 1986* (EP Act).

The Application is for the authorisation of construction, commissioning and time limited operations of Stage 2 of the Sulphide Processing Plant (SPP) (Category 5). It also includes the construction and time limited operations of the Bulletin Pit backfill landfill under Category 63: Class I inert landfill site and the construction and time limited operations of the West waste rock landform (WRL), Happy Jack 2 WRL and House WRL landfill sites under Category 64: Class II or III putrescible landfill site.

The closest residences are in the Bondini Aboriginal Community located approximately 3.2kms northeast of SPP (Stage 2).

The Premises relates to the categories and assessed production / design capacity under Schedule 1 of the *Environmental Protection Regulations 1987* (EP Regulations) which are defined in works approval W6660/2022/1. The infrastructure and equipment relating to the premises category and any associated activities which the department has considered in line with *Guideline: Risk Assessments* (DWER 2020) are outlined in works approval W6660/2022/1.

2.3 Description of Proposed Activities

2.3.1 Upgrade to Sulphide Processing Plant (Stage 2)

In order to exploit the extensive sulphide ore bodies that are available at the Premises, the Applicant has proposed to construct a further ore processing facility to process its sulphide ores to produce a gold concentrate as a finished product. The sulphide processing plant (SPP) facility will be constructed in two Stages. Approval for the construction of the Stage 1 SPP was granted on 23 July 2020 under W6371/2020/1 and included construction of a flotation process; concentrates thickening and filtration; utilising the existing crushing and milling circuit and reagent and concentrates storage areas. Time Limited Operations under W6371/2020/1 authorises the processing of up to 0.75 million tonnes per annum (mtpa) of sulphide ores. The construction of the Stage 1 SPP covered by W6371/2020/1 has recently been completed. Compliance documentation for the construction of Stage 1 under W6371/2020/1 was submitted to the department on 2 May 2022.

This Works Approval Application is for the authorisation of Stage 2 of the SPP to accommodate

an increased throughput of sulphide ores from 0.75mtpa to 1.5mtpa. This would increase the currently approved Category 5 throughput of 2.2mtpa to an expected maximum throughput of 2.95mtpa. The design concept of the expanded Stage 2 SPP is based on the existing comminution (Carbon-In-Leach (CIL)) circuit being retained to treat free milling ores and tailings at the Premises with the addition of the expanded comminution circuit (Sulphide Plant) to treat sulphide gold ores. The Stage 2 expansion involves upgrading the Stage 1 plant to include new ore feed, crushing, milling, an additional flotation cell, relocation of the existing tank to the mill platform and additional filtering and concentrate handling facilities. Tailings disposal, reagent systems and air and water services and any additional infrastructure requirements will also be upgraded accordingly. Figure 1 depicts the location of the SPP (Stage 2) at the Premises.

2.3.1.1 Construction of SPP (Stage 2) infrastructure

In order to facilitate the SPP (Stage 2) expansion, the following upgrades to existing Stage 1 infrastructure and additional construction works are required:

- The conventional flotation circuit utilised in the Stage 1 SSP will be modified to include a sixth 50 m³ rougher cell which will be placed at the head of the circuit where the Stage 1 conditioning tank is currently located;
- The Stage 1 conditioning tank will be relocated to the grinding circuit located at ground level and the tank discharge pumped to the head of the sixth rougher cell;
- The adjoining tails spools and level control valves of the rougher, cleaner and cleaner scavenger cells will be upgraded to accommodate the increased Stage 2 plant volumes;
- Concentrate and tailings pumps will be upgraded to accommodate the increased Stage 2 plant volumes;
- Pipe sizing of tailings and water return lines will be upgraded to accommodate the increased Stage 2 plant volumes;
- The concentrate dewatering circuit utilised in the Stage 1 flotation circuit will be modified to include a second filter press to accommodate the increased Stage 2 throughput and equipped with cake washing functionality to remove the entrained chlorides in the filter cake;
- A second concentrate storage shed will be installed on the eastern side of the concentrate loading conveyor;
- Construction of a concrete passageway between the two concentrate storage sheds allowing for safe passage beneath the concentrate loading conveyor;
- Installation of new reagent pumps for the dosing pumps in the existing grinding reagent storage facility for reagent dosage to the Stage 2 grinding circuit;
- Installation of a new flocculent mixing, storage and dosing plant to accommodate the additional demand from the tailings thickener;
- Construction of a 6m raised ROM pad comprised of benign waste rock;
- Extension to the 6m wide internal road within the processing plant boundary to accommodate deliveries of reagents and collection of concentrate by triple trailer road-train trucks;
- Duplication of the Stage 1 high pressure air system for concentrate filtration to accommodate the new filter;
- Upgrade to Stage 1 plant air compressor system to include two new rotary screw compressors with integral dryers and a second air receiver to supply plant and instrument air requirements for the new grinding circuit and upgraded flotation circuit;

- Installation of a new process water tank to double the Stage 1 storage capacity to 700 m³; and
- Installation of a new tank to supply gland water and flocculant mixing water tank to Stage 2 facilities.

2.3.1.2 Containment Infrastructure and Surface Water Management Plan

The containment infrastructure and surface water management infrastructure for the SPP (Stage 2) expansion are presented in Figure 2. The surface water management for the expansion activities was based on the final design developed by Knight Pièsold (KP) Consulting during a hydrological assessment of the Premises. The following construction works will be carried out to contain potentially contaminated surface water runoff from the SPP (Stage 2) footprint area:

- The Stage 1 SPP earthen pad will be expanded to include the Stage 2 footprint area and will be finished above the surrounding terrain and contained on all sides by a perimeter access road;
- Concrete bunding will be constructed around the process infrastructure of the Stage 2 footprint area to capture any potential overflows or spillages of hydrocarbons/chemicals;
- The existing plant drainage system is to be remediated and upgraded in order for Pond 1, Drain 1, Pond 2 and Drain 3 to provide a contiguous drainage system to the south into Lake Violet;
- A new surface water management system will be designed to channel run-off between the western perimeter of the Stage 1 plant and the downstream toe of tailings storage facility (TSF) J Stage 4 into the existing plant site drainage system; and
- A drainage system will be designed to manage surface water runoff through the SPP (Stage 2) footprint to join with the Stage 1 plant drainage system.

2.3.1.3 Environmental Commissioning of SPP (Stage 2)

Following the completion of the construction works associated to SPP (Stage 2), the environmental commissioning phase will commence which will comprise of four stages and are expected to be completed over a 2-3 month period. The first stage involves testing equipment, inspection and static testing. Dry commissioning will occur during the second stage, which involves excitation and dynamic testing of all equipment. The third stage is the wet commissioning phase which involves commissioning of plant equipment under zero load or with safe media. The final stage is ore or plant commissioning of the plant and equipment with process media. Commissioning activities will also include the testing of dust suppression system operation, leak testing of pipelines and bunding, integrity of ponds and capacity of storage and bunding infrastructure.

2.3.1.4 Operation of SPP (Stage 2)

The ore will be fed into the run-of-mine (ROM) bin via a front-end loader where it will be processed through a two-stage crushing, high pressure grinding rolls (HPGR) and ball mill circuit. Oversize ore will be returned to the HPGR and undersize will be fed to the mill discharge hopper before being directed to the classification cyclones. Cyclone overflow is directed to the trash screen while the dual outlet flash flotation cell will receive feed from the cyclone underflow. Screen oversize will be directed to the primary mill and undersize feed will report to the gravity concentrator. Should the gravity concentrator be constructed at a later date, the concentrate will be transported to the existing circuit for intensive leaching and electrowinning. The top discharge of the flash flotation cell will report to the mill discharge-hopper and the bottom discharge will be transported to the ball mill feed. Concentrate from the first two rougher cells will be fed into the head of the cleaner bank or the concentrate thickener if it meets the grade criteria. If grade

criteria is attained, the first and second cleaner scavengers can operate in a cleaner duty. Flotation tailings will be pumped to a 15m high-rate tailings thickener and dosed with flocculent for dewatering. Following thickening of the final concentrate to 60% solids with flocculent added, the thickener overflow will feed into the process water tank and the underflow will be fed to the 75m³ filter feed tank. The filtered thickened concentrate will be discharged to concrete load out bunkers before being stored in the concentrate shed or loaded into bags for transportation offsite for export overseas. A process flow diagram of the Stage 2 SPP is indicated under Figure 3.

2.3.2 Tailings management and characteristics

Tailings from the SPP were proposed to be discharged directly to TSF K. However, since the Applicant obtained approval to construct the Wiltails Plant under W6615/2021/1, sulphide tailings from the SPP are directed to the Wiltails plant for reprocessing before being discharged to TSF K. The sulphide tailings will be mixed with historic tailings from existing TSF's at the Premises with the inclusion of lime dosing prior to feeding this output into the CIL plant and being deposited to TSF K. Sulphide tailings slurry will be mixed with the oxide tailings stream at mixing ratio of 1:3. The geotechnical properties of sulphide tailings are expected to be similar to the oxide tailings material. The Applicant obtained approval on 18 November 2021 for an amendment to L5206/1987/10 for an embankment raise (Stage 2) to TSF K to manage additional tailings storage requirements and extend the life of the facility. The embankment lift will accommodate an additional 6 million tonnes (Mt) of storage capacity for tailings generated by the processing plant over 27 months, bringing the total volumes of tailings stored at TSF K to 9.4 mtpa.

2.3.3 Geochemistry and geotechnical analysis of sulphide tailings

Environmental commissioning for the SPP (Stage 1) has only recently commenced, therefore the five sulphide ore tailings samples requested to be collected in accordance with Condition 7 of W6371/2020/1 to determine geochemical and geotechnical characteristics has not yet been undertaken. Therefore, the tailings geochemistry data for the expansion of the SPP (Stage 2) is based on the results derived from the geochemical assessment undertaken by Golder Associates in 2019 of fresh rock ore tailings samples taken from the pilot testing plant (Golder Associates Pty Ltd, 2019). One solid composite sample and one tailings supernatant (liquid fraction) sample were submitted for geochemical analysis during this geochemical assessment. Geochemical characterisation classified the tailings sample to be non-acid forming (NAF) with a net acid generation (NAG) pH>4.5 and negative net acid potential (NAPP).

Golder conducted a geochemical assessment in May 2020 to assess the potential interaction of sulphide tailings with oxide tailings (Golder Associates Pty Ltd, 2020). The assessment determined that the calculated water quality of mixed supernatant and TSF K decant water is expected to be neutral saline water and that most water quality parameters are expected to comply with the Australian and New Zealand Environment Conservation Council (ANZECC) (2000) livestock guideline with the exception of copper and sulfate which have had observable exceedances in oxide tailings at TSF J (Golder Associates Pty Ltd, 2020). The assessment also noted that the co-deposition of sulphide tailings and oxide tailings is not expected to materially affect the geochemistry of the tailings currently within TSF K.

It is noted that the mineralogy of oxide and sulfide tailings solids is not well known due to lack of mineralogical test results. A condition for testing sulphide ore tailings samples during environmental commissioning was placed on Works Approval W6371/2020/1 for the Stage 1 SPP in order to obtain updated geochemical and geotechnical data for the sulphide tailings. As there will be no changes to the geochemical and geotechnical properties from the Stage 1 to the Stage 2 tailings, the Stage 1 tailings sampling will be sufficient to inform the assessment of the Category 5 SPP operation during the next amendment to Licence L5206/1987/10.

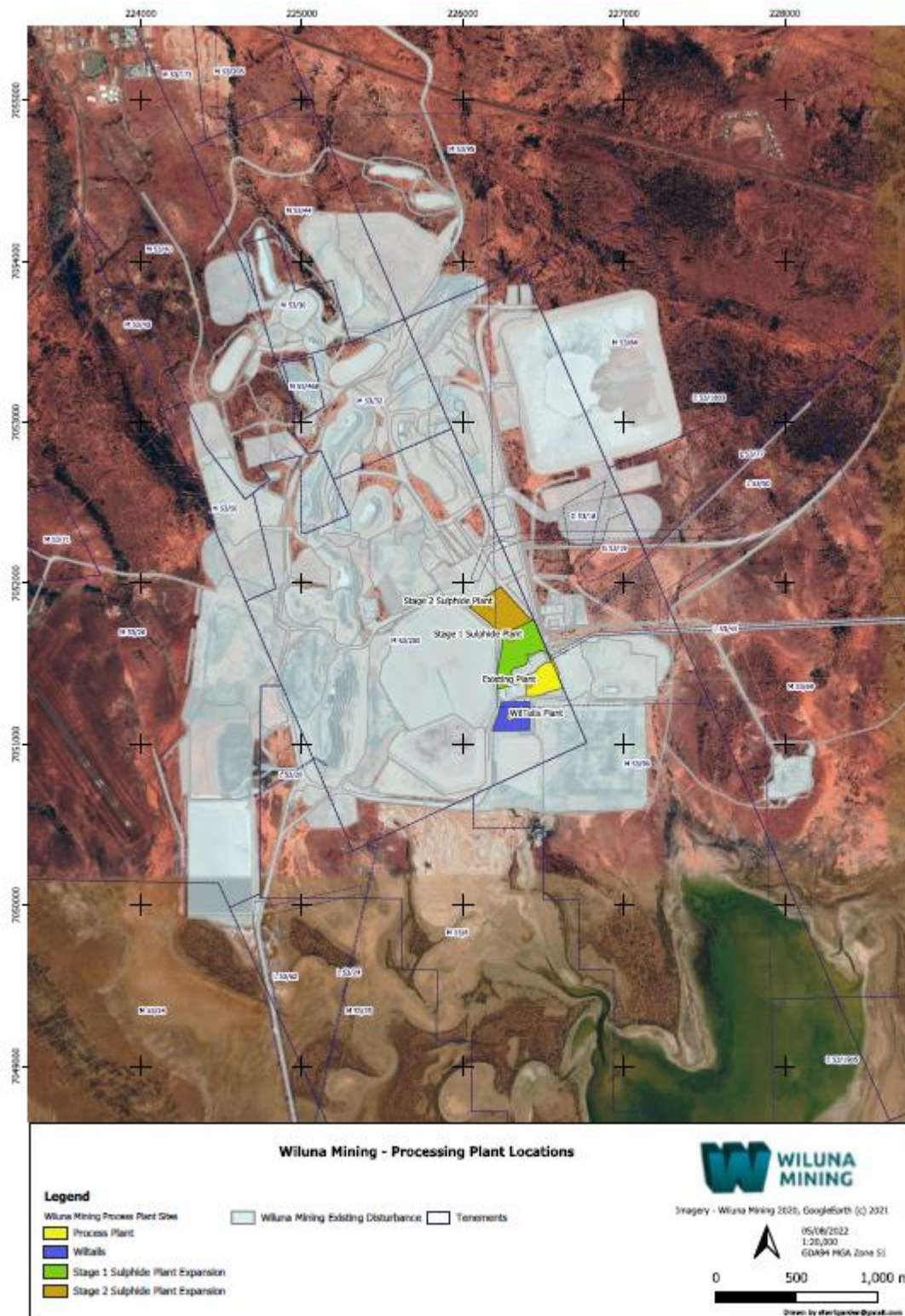


Figure 1: Location of SPP (Stage 2) at the Premises

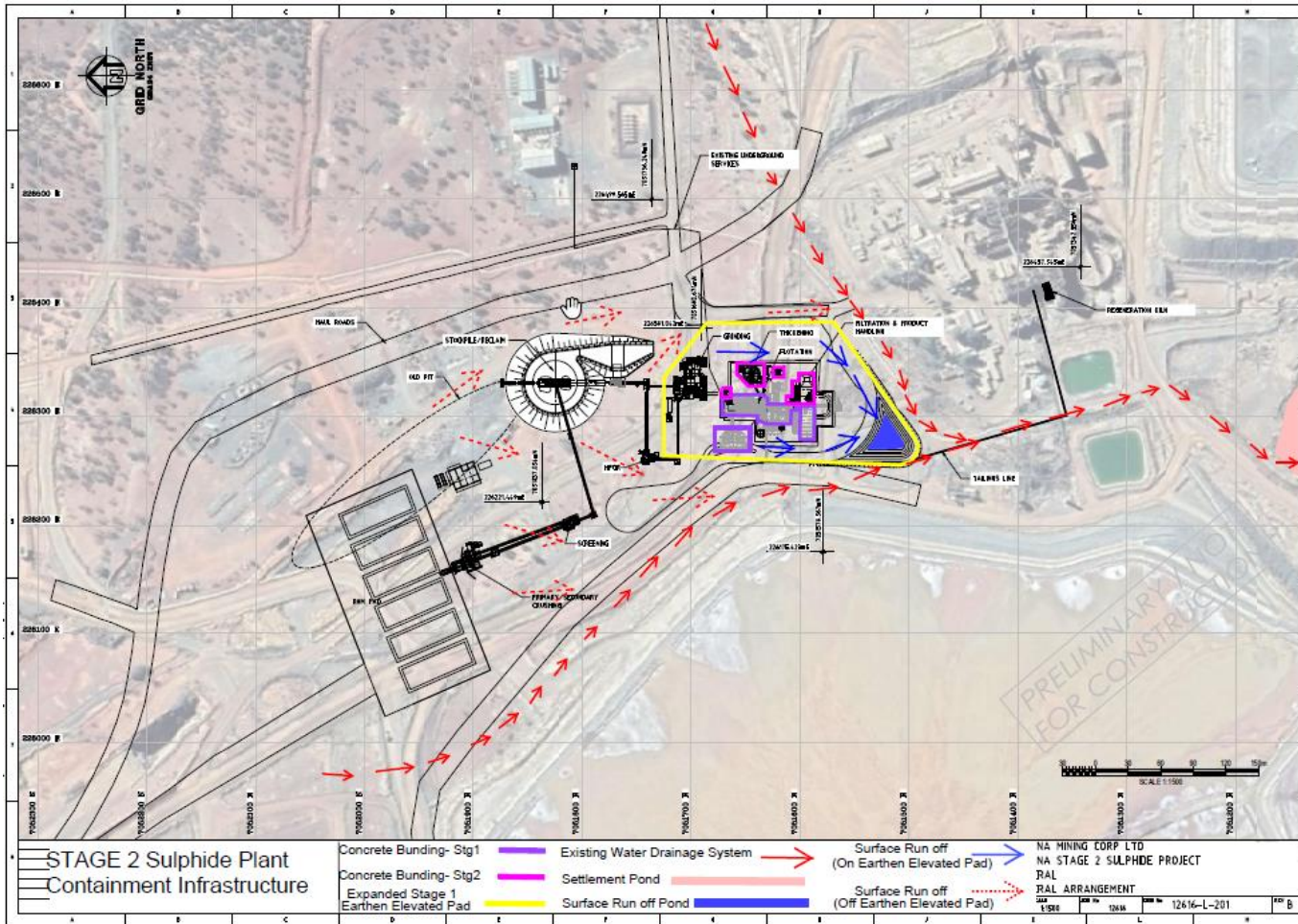
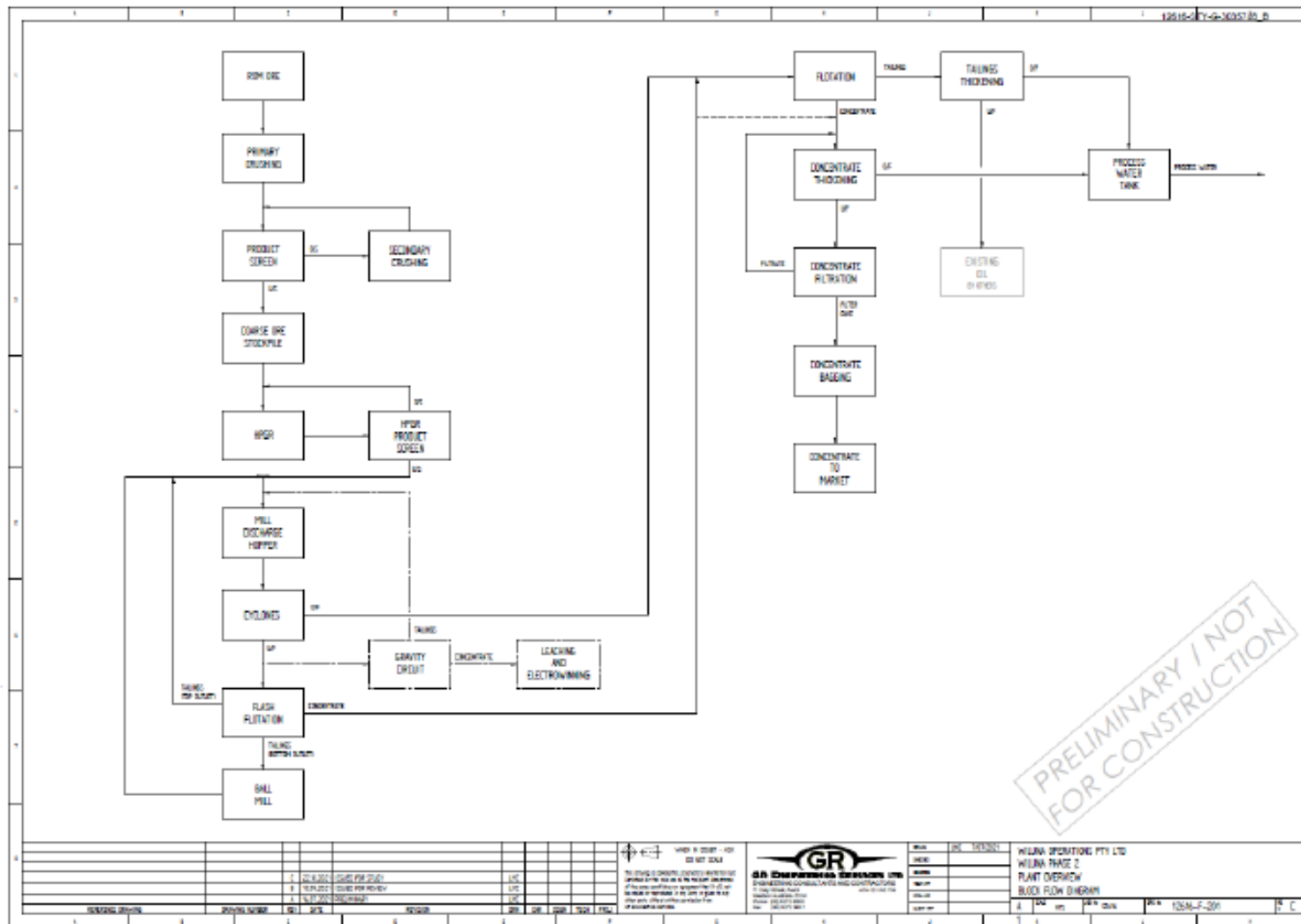


Figure 2: Containment Infrastructure and Surface Water Management Plan



PRELIMINARY / NOT FOR CONSTRUCTION

Figure 3: SPP (Stage 2) Process Flow Diagram

Works approval: W6660/2022/1

IR-T13 Decision report template (short) v3.0 (May 2021)

2.3.4 Modifications to Category 63 activities

The Applicant has obtained approval through the Department of Mines, Industry Regulation and Safety (DMIRS) under Mining Proposal (REG ID 100770) to backfill the Bulletin Pit with waste rock material and is seeking to use the additional site for the disposal of inert waste material. The Applicant currently has approval under Licence L5206/1987/10 to dispose of up to 2000 tonnes of tyres, mill liners and poly pipes per year into the designed areas as shown under Figure 4. In addition to the waste types described above, the Applicant has requested to dispose of polyethylene material, vent bags (tarps), small quantities of broken pallets/timber, conveyor rubber, empty explosive bags and building and demolition waste.

In accordance with the *Landfill Waste Classification and Waste Definitions 1996 (as amended 2019)* (Waste Definitions), polyethylene material, vent bags (tarps) and conveyor rubber are classified as Inert Waste Type 2. It is noted that there is a caveat under Table 1 of the Waste Definitions that these waste types can only be accepted where authorised under a Licence. Given this, these waste types have been included in the time limited operations conditions of the Works Approval and will need to be specified in the next licence amendment for L5206/1987/10. In addition, the empty explosive bags proposed for disposal are cardboard box packaging (no explosive material contained within the packaging) and wooden pallets/timber are classified as a Category 64 putrescible waste that cannot be accepted at the Bulletin Pit. This waste type would need to be disposed of at the Category 64 landfill sites within the premises as described under section 2.3.5 of this report.

There will be no changes to the annual waste volumes as a result of this modification to Category 63 activities. Although the Applicant is proposing to include additional Inert Waste Type 2 waste types which are flammable and have a potential risk for fire and toxic smoke, the annual throughput will remain the same, therefore a detailed risk assessment is not required for these potential emissions. However, as a new location is proposed for the disposal of inert waste, a risk assessment has been undertaken under section 3.2 of this report to assess the environmental risk of this new landfill location.

2.3.5 Modifications to Category 64 activities

As the existing Category II landfill site (Republic North Landfill) is nearing capacity (approximately 10 months until capacity is exhausted), the Applicant is proposing to construct three additional landfill facilities at the Premises for future use. These facilities will be constructed on top of the West, Happy Jack 2 and House WRL's as depicted in Figure 4 and will accept wastes commensurate with Class 64 landfill facilities, including putrescible and inert wastes. Construction of the three landfill facilities will involve the excavation of dedicated trenches approximately 30 m long and 5 m wide, with one trench active at any given time. There will be no increase in the annual waste volumes as a result of this change to Category 64 activities. The Applicant has proposed to apply the controls on the existing Licence L5206/1987/10 which have been outlined under section 3.1.1 of this report.



Figure 4: Location of proposed landfill sites at the Premises.

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, commissioning and operation (including time limited operations) which have been considered in this decision report are detailed in Table 1 below. Table 1 also details the control measures the applicant has proposed to assist in controlling these emissions, where necessary.

Table 1: Proposed applicant controls

Emission	Sources	Potential pathways	Proposed controls
Construction (Category 5)			
Dust	Earth moving activities to prepare site Construction of SSP (Stage 2) infrastructure Construction or upgrade of roads to account for new infrastructure Upgrade of existing plant site drainage and stormwater management system Light vehicle/mobile equipment movements	Air / windborne pathway	<ul style="list-style-type: none"> • Vehicle travel speeds on site will be controlled to minimise dust generation; • Watercart to be utilised for dust suppression during construction of the SPP plant; • The largest practical truck will be utilised to reduce the number of movements necessary across the site; • Regular housekeeping will be conducted to collect and remove earth material that may contribute to dust emissions; • Activities will be terminated if adverse conditions result in excessive dust generation which cannot be suppressed and the event recorded; • Conduct regular visual monitoring of construction areas for dust emissions; and • Visual monitoring of adjacent native vegetation conducted to determine dust impacts and if dust impacts are suspected, photographic monitoring points are to be established.
Noise	Earth moving activities to prepare site Construction of SSP (Stage 2)	Air / windborne pathway	<ul style="list-style-type: none"> • Earth moving machinery, vehicles and other equipment to be maintained in accordance with manufacturer specifications to minimise noise emissions; • Any complaints received regarding noise

Emission	Sources	Potential pathways	Proposed controls
	infrastructure Construction or upgrade of roads to account for new infrastructure Upgrade of existing plant site drainage system Light vehicle/mobile equipment movements		emissions will be investigated and mitigation measures implemented; <ul style="list-style-type: none"> • Noise managed as per the <i>Environmental Protection (Noise) Regulations 1997</i>; • Internal combustion engines fitted with mufflers in good repair.
Construction (Category 64)			
Dust	Excavation of 30m long x 5m wide trenches, installation of fencing around the facility and construction of surface water diversions and bunding.	Air / windborne pathway	<ul style="list-style-type: none"> • Vehicle travel speeds on site will be controlled to minimise dust generation; • Watercart to be utilised for dust suppression during construction of landfill trenches and associated infrastructure; • The largest practical truck will be utilised to reduce the number of movements necessary across the site; • Drop heights between excavators and trucks will be reduced to minimise the creation of fugitive dust; • Regular housekeeping will be conducted to collect and remove earth material that may contribute to dust emissions; • Activities will be terminated if adverse conditions result in excessive dust generation which cannot be suppressed and the event recorded; • Visual monitoring of dust will be regularly conducted; and • Visual monitoring of adjacent native vegetation conducted to determine dust impacts and if dust impacts are suspected, photographic monitoring points are to be established.
Noise			<ul style="list-style-type: none"> • Earth moving machinery, vehicles and other equipment to be maintained in accordance with manufacturer specifications to minimise noise emissions; • Any complaints received regarding noise emissions will be investigated and mitigation measures implemented; • Noise managed as per the <i>Environmental</i>

Emission	Sources	Potential pathways	Proposed controls
			<p><i>Protection (Noise) Regulations 1997</i>; and</p> <ul style="list-style-type: none"> Internal combustion engines fitted with mufflers in good repair.
Operation (Category 5)			
Dust	<p>Crushing of ore material prior to processing through SPP plant</p> <p>Unloading, loading and stockpiling of material onto ROM pad during ore processing</p> <p>Vehicle movements on unsealed surfaces</p>	Air / windborne pathway	<ul style="list-style-type: none"> Vehicle travel speeds on site will be controlled to minimise dust generation; Watercart to be utilised for dust suppression during ROM pad operations and stockpiling of material; The largest practical truck will be utilised to reduce the number of movements necessary across the site; Drop heights between excavators and trucks will be reduced to minimise the creation of fugitive dust; Regular housekeeping will be conducted to collect and remove earth material that may contribute to dust emissions; Activities will be terminated if adverse conditions result in excessive dust generation which cannot be suppressed and the event recorded; Conduct regular visual monitoring of operational areas for dust emissions; and Visual monitoring of adjacent native vegetation conducted to determine dust impacts and if dust impacts are suspected, photographic monitoring points are to be established.
Noise		Air / windborne pathway	<ul style="list-style-type: none"> Earth moving machinery, vehicles and other equipment to be maintained in accordance with manufacturer specifications to minimise noise emissions; Any complaints received regarding noise emissions will be investigated and mitigation measures implemented; Noise managed as per the <i>Environmental Protection (Noise) Regulations 1997</i>; and Internal combustion engines fitted with mufflers in good repair.
Sediment laden stormwater	Contaminated stormwater discharging from plant, ROM pad and crusher and	Overland runoff from SPP area during high during rainfall	<ul style="list-style-type: none"> The SPP Stage 2 footprint is to be located on an earthen pad finished above the elevation of the surrounding terrain and contained on all sides by a perimeter

Emission	Sources	Potential pathways	Proposed controls
	<p>materials conveyors.</p> <p>Vehicle movements on the ROM pad.</p>	<p>events</p>	<p>access road;</p> <ul style="list-style-type: none"> • The main SPP (Stage 2) footprint area is concrete bunded; • Drainage implemented such that potentially contaminated stormwater is captured within the earthen bund and directed to the event pond; • Contaminated stormwater runoff from the plant area is collected by the perimeter earthen bund that has been established around the plant area and directed to an event pond; and • The reagent facility, SPP and process tanks shall be above the 1% AER flood event.
<p>Processing water leaks/spills (contaminated)</p>	<p>Seepage from water storage areas and saline water discharge from pipeline breaches.</p>	<p>Direct discharge to land</p> <p>Potential seepage to groundwater</p>	<ul style="list-style-type: none"> • Bunding constructed within the process area to comply with the requirements of <i>Australian Standard AS1940:2017 The Storage and Handling of Flammable and Combustible Liquids</i>; • Greater SPP area is defined by an earthen bund which provides secondary containment for any potential leaks and spills; • Pipelines within the processing plant area to be bunded or have double containment; and • Pipelines traversing between bunded areas to be located within cable trays and have double containment.
<p>Spills/leaks of hydrocarbons and chemicals</p>	<p>Hydrocarbon spills or leaks from vehicles, plant and equipment used in the commissioning and operational phases of the plant.</p> <p>Spillage, leakage and seepage of hydrocarbons and chemicals used and stored within the processing plant area</p> <p>Pipeline leaks for pipelines transferring chemicals and reagents</p>	<p>Direct discharge to land</p> <p>Potential seepage to groundwater</p>	<ul style="list-style-type: none"> • All hydrocarbons and chemicals will be stored in a bunded area to collect any potential spillage; • The bunding of all hydrocarbon storage areas will be designed and constructed in accordance with Australian Standards (AS) <i>AS1940 Storage and Handling of Flammable and Combustible Liquids (2004)</i>; • Bunded storage areas will be regularly inspected to ensure containment capacity is maintained; • All chemical and reagents classified as dangerous goods will be stored and segregated in accordance with the Material Data Safety Sheets and <i>Dangerous Goods Safety Act 2004</i> requirements;

Emission	Sources	Potential pathways	Proposed controls
			<ul style="list-style-type: none"> • Spill kits will be retained on site around hydrocarbon storage areas in the event there is a hydrocarbon or chemical spill on site and appropriate employees trained in their use; • Spillages will be cleaned up promptly and disposed of in line with the Material Safety Data Sheets, the sites environmental procedure and the sites relevant environmental safety guidelines; • All spillage incidents to be reported through the site incident management system; and • Pipelines within the processing plant area to be bunded or have double containment; and • Bunding and sump shall have a capacity of at least 110% of the largest vessel.
Operation (Category 64)			
Odour	Disposal of putrescible waste to landfill facility	Air/windborne pathway	<p>The following controls from the existing Licence L5206/1987/10 will apply to the constructed landfills:</p> <ul style="list-style-type: none"> • Waste to be covered on a weekly basis to a depth of 300mm with Type 1 inert waste or clean fill material to ensure that no waste is exposed; • No waste shall be temporarily stored or landfilled within 35 m from the boundary of the premises; • Waste to be covered entirely at the end of the life of the landfill facility; and • Putrescible landfill facility to remain in current location to minimise the detection of odours. <p>The Applicant has also proposed the following controls for managing odour emissions from disposal of putrescible waste to the landfill facility:</p> <ul style="list-style-type: none"> • Only one active trench will operate at a time.
Noise	Disposal of waste within landfill facility Waste covering activities Vehicle movements	Air/windborne pathway	Applicant has not proposed controls.

Emission	Sources	Potential pathways	Proposed controls
Dust	Unloading and storage of material in landfill Waste covering activities Vehicle movements	Air/windborne pathway	The following controls from the existing Licence L5206/1987/10 will apply to the landfills: <ul style="list-style-type: none"> Waste to be covered on a weekly basis to a depth of 300mm with Type 1 inert waste or clean fill material to ensure that no waste is exposed; and No waste shall be temporarily stored or landfilled within 35 m from the boundary of the premises.
Windblown waste	Landfilling general waste	Air/windborne pathway	The following controls from the existing Licence L5206/1987/10 will apply to the landfills: <ul style="list-style-type: none"> Boundary fencing will be maintained around the landfill facility to contain windblown waste; Cover material to a depth of 300mm will be applied on a weekly basis over putrescible waste; and Putrescible waste to be covered entirely at the end of life of the landfill facility.
Leachate	Disposal of putrescible waste within landfill	Seepage of leachate into soil / groundwater Overland runoff from landfill areas during high during rainfall	The following controls from the existing Licence L5206/1987/10 will apply to the landfills: <ul style="list-style-type: none"> Cover material to a depth of 300mm will be applied on a weekly basis over putrescible waste; and Putrescible waste to be covered entirely at the end of life of the landfill facility.
Contaminated stormwater	Putrescible waste disposed at the landfill coming into contact with stormwater		The following controls from the existing Licence L5206/1987/10 will apply to the landfills: <ul style="list-style-type: none"> Clean surface water shall be diverted around putrescible waste landfill facility; and Potentially contaminated waters are retained onsite via bunds or surface diversions.
Operation (Category 63)			
Dust	Unloading and storage of landfill material Waste covering activities Vehicle movements	Air/windborne pathway	The following controls from the existing Licence L5206/1987/10 will apply to the Category 63 landfill: <ul style="list-style-type: none"> Tyres, mill liners and poly pipes will be disposed in batches of less than 100 in total; Each batch separated by at least 100 mm
Noise	Disposal of waste		

Emission	Sources	Potential pathways	Proposed controls
	within landfill facility Waste covering activities Vehicle movements		of soil; <ul style="list-style-type: none"> • Location of batches to be surveyed and the GPS coordinates recorded and marked on the site map; • Final cover layer for disposed tyres will be at least 500mm in depth; and • Unburied tyres to be orientated or located so they cannot roll.

3.1.2 Receptors

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

Table 2 below provides a summary of potential human and environmental receptors that may be impacted as a result of activities upon or emission and discharges from the prescribed premises (*Guideline: Environmental Siting* (DWER 2020)).

Table 2: Sensitive human and environmental receptors and distance from prescribed activity

Human receptors	Distance from prescribed activity
Town of Wiluna residences	<ul style="list-style-type: none"> • 4.3kms northwest of SPP (Stage 2); • 3.5kms northwest of West WRL landfill; • 2.7kms northwest of Bulletin backfill landfill; • 2.3kms northwest of Happy Jack 2 WRL landfill; and • 2.7kms northwest of House WRL landfill.
Bondini Aboriginal Community	<ul style="list-style-type: none"> • 3.2kms northeast of SPP (Stage 2); • 4kms northeast of West WRL landfill; • 2.2kms northeast of Bulletin backfill landfill; • 3.5kms northwest of Happy Jack 2 WRL landfill; and • 3.6kms northwest of House WRL landfill.
Environmental receptors	Distance from prescribed activity
Major watercourses / waterbodies	<p>Lake Violet - Salt encrusted lake, filled with comparatively fresh water during flooding</p> <ul style="list-style-type: none"> • 1.1km south of SPP (Stage 2); • 870m south of West WRL landfill; • 2.7kms south of Bulletin backfill landfill; • 1.5kms southwest of Happy Jack 2 WRL landfill; and • 1.8kms southwest of House WRL landfill. <p>Lakeway - an episodic lake, approximately 270km² in size. It is one of the most northern lakes in the palaeodrainage system known as the 'Salinaland'. Sporadic high rainfall leads to</p>

	<p>overflow from surrounding lakes, including Lake Violet, into Lake Way.</p> <ul style="list-style-type: none"> • 6.2kms southeast of SPP (Stage 2); • 7.3kms southeast of West WRL landfill; • 8kms southeast of Bulletin backfill landfill; • 7.6kms southwest of Happy Jack 2 WRL landfill; and • 7.8kms southwest of House WRL landfill. <p>Two minor surface water lines intersect the West WRL and Happy Jack 2 landfill facilities.</p>
<p>Priority Ecological Communities</p>	<p>Priority 1 - Wiluna BF calcrete groundwater assemblage type on Carey palaeodrainage on Millbillillie Station</p> <ul style="list-style-type: none"> • 4.3kms east of SPP (Stage 2); • 5.7kms east of West WRL landfill; • 4.8kms east of Bulletin backfill landfill; • 5.8kms northwest of Happy Jack 2 WRL landfill; and • 5.7kms northwest of House WRL landfill. <p>Priority 1 - Lake Violet south and Lake Violet calcrete groundwater assemblage types on Carey palaeodrainage on Millbillillie Station.</p> <ul style="list-style-type: none"> • 4.1kms south of SPP (Stage 2); • 3.5kms south of West WRL landfill, • 6kms south of Bulletin backfill landfill; • 6.3kms northwest of Happy Jack 2 WRL landfill; and • 6.3kms northwest of House WRL landfill. <p>Priority 1 - Uramurdah Lake calcrete groundwater assemblage type on Carey palaeodrainage on Millbillillie Station</p> <ul style="list-style-type: none"> • 4.7kms east of SPP (Stage 2); • 5.8kms southeast of West WRL landfill, • 6.1kms east of Bulletin backfill landfill. • 4.8kms south of Happy Jack 2 WRL landfill; and • 6.3kms south of House WRL landfill.
<p>Underlying groundwater East Murchison Groundwater Area</p>	<p>Saline to hypersaline, lower salinity groundwater restricted to isolated recharge cells.</p> <p>Groundwater level at Wiluna ranges from 10 mbgl in the mining area to 2 mbgl near Lake Violet. Mine dewatering resulted in major local depression (approx. 100 mbgl).</p> <p>The closest downstream groundwater bore is Butcher Well which is approximately 4.5km downstream of the Premises. It is unclear as to whether this bore is in use. Garden Well bore is also approximately 5.5km downstream of the Premises.</p> <p>West WRL has a constructed height above ground level of approximately 28 m.</p>

Conservation significant fauna	<p>Two conservation significant fauna species, namely the Brush-tailed mulgara (<i>Dasycercus blythi</i>) (Priority 4) and Bilby (<i>Macrotis lagotis</i>) (Threatened) have been recorded:</p> <ul style="list-style-type: none"> • 5kms northwest of SPP (Stage 2); • 4.7kms north of West WRL landfill, • 3.1kms northwest of Bulletin backfill landfill; • 4.3kms north of Happy Jack 2 WRL landfill; and • 3.9kms north of House WRL landfill.
Native vegetation	<p>Native vegetation is located:</p> <ul style="list-style-type: none"> • to the north of SPP (Stage 2); • to the west of West WRL landfill, Happy Jack 2 WRL landfill and House WRL landfill; and • to the north of Bulletin backfill landfill. <p>Although the Applicant has noted that no clearing will be required for the Works Approval, the Applicant does have approval to clear up to 375ha of native vegetation within a footprint area of 611ha under Clearing Permit CPS 8354/1 which covers the area to the west of West WRL landfill, Happy Jack 2 WRL landfill and House WRL landfill and the area to the north of Bulletin backfill landfill.</p>

3.2 Risk ratings

Risk ratings have been assessed in accordance with the *Guideline: Risk Assessments* (DWER 2020) for each identified emission source 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 applicant 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 applicant's proposed controls to be critical to maintaining an acceptable level of risk, these will be incorporated into the works approval as regulatory controls.

Additional regulatory controls may be imposed where the applicant's controls are not deemed sufficient. Where this is the case the need for additional controls will be documented and justified in Table 3.

Works approval W6660/2022/1 that accompanies this decision report authorises construction and time-limited operations. The conditions in the issued works approval, as outlined in Table 3 have been determined in accordance with *Guidance Statement: Setting Conditions* (DER 2015).

An amendment to licence L5206/1987/10 is required following the time-limited operational phase authorised under the works approval to authorise emissions associated with the ongoing operation of the premises i.e. Construction and operation of Stage 2 SPP, Happy Jack 2 WRL landfill, House WRL landfill, West WRL landfill and Bulletin backfill landfill sites. A risk assessment for the operational phase has been included in this decision report, however licence conditions will not be finalised until the department assesses the licence application.

Table 3: Risk assessment of potential emissions and discharges from the premises during construction, commissioning and operation

Risk events					Risk rating ¹ C = consequence L = likelihood	Applicant controls sufficient?	Conditions ² of Works Approval	Justification for additional regulatory controls
Sources / activities	Potential emission	Potential pathways and impact	Receptors	Applicant controls				
Construction								
Category 5 Source: Construction of the Stage 2 SPP expansion Activities: Upgrade of Stage 1 plant to include new ore feed, crushing, milling, expanded flotation plant, construction of new ROM pad, upgrade to tailings and water return pipelines and construction or upgrade of roads to account for new infrastructure Light vehicle/mobile equipment movements	Dust	Pathway: Air / windborne dispersion Impact: Health and amenity of closest human receptors	No residences in close proximity to proposed activity (closest human receptor Bondini Aboriginal Community 3.2kms northeast of SPP (Stage 2))	Refer to Section 3.1	C = Slight L = Rare Low Risk	Y	Condition 1 (Table 1): Design and Construction/installation requirements Conditions 2 and 3: Submission of an Environmental Compliance Report	The Delegated Officer notes that there is sufficient separation from human receptors and as such, additional regulatory controls are not required to mitigate this risk.
		Pathway: Air/windborne dispersion Impact: Reduced native vegetation health or native vegetation death	Native vegetation located to north of SPP (Stage 2)	Refer to Section 3.1	C = Slight L = Possible Low Risk	Y	Condition 1 (Table 1): Design and Construction/installation requirements Conditions 2 and 3: Submission of an Environmental Compliance Report	As minimal dust emissions are expected from the construction works associated to the proposed activity which are for a finite period, the risk of dust impacting environmental receptors has been determined to be 'low'.
	Noise	Pathway: Air / windborne dispersion Impact: Health and amenity of closest human receptors.	No residences in close proximity to proposed activity (closest human receptor	Refer to Section 3.1	C = Slight L = Unlikely Low Risk	Y	N/A	The Delegated Officer considers there is sufficient separation distance from sensitive receptors to mitigate the risk of noise impacts. Construction works are within an existing mining/processing area and noise emissions from general mining operations are likely to be greater.

Works approval: W6660/2022/1

Risk events					Risk rating ¹ C = consequence L = likelihood	Applicant controls sufficient?	Conditions ² of Works Approval	Justification for additional regulatory controls
Sources / activities	Potential emission	Potential pathways and impact	Receptors	Applicant controls				
			Bondini Aboriginal Community 3.2kms northeast of SPP (Stage 2)					
Category 64 Source: Construction of the West WRL, Happy Jack 2 WRL and House WRL Landfill facilities Activites: Excavation of 30m long x 5m wide trenches, installation of fencing around the facility and construction of surface water diversions and bunding.	Dust	Pathway: Air / windborne dispersion Impact: Health and amenity of closest human receptors.	No residences in close proximity to proposed activity (closest human receptor 2.3kms northwest of Happy Jack 2 WRL landfill)	Refer to Section 3.1	C = Slight L = Rare Low Risk	Y	Condition 1 (Table 1): Design and Construction/installation requirements Conditions 2 and 3: Submission of an Environmental Compliance Report	The Delegated Officer notes that there is sufficient separation from human receptors and as such, additional regulatory controls are not required to mitigate this risk.
		Pathway: Air/windborne dispersion Impact: Reduced native vegetation health or native vegetation death	Native vegetation located to the west of West WRL landfill, Happy Jack 2 WRL landfill and House WRL landfill.	Refer to Section 3.1	C = Slight L = Possible Low Risk	Y	Condition 1 (Table 1): Design and Construction/installation requirements Conditions 2 and 3: Submission of an Environmental Compliance Report	As minimal dust emissions are expected from the construction works associated to the proposed activity which are for a finite period, the risk of dust impacting environmental receptors has been determined to be 'low'.
	Noise	Pathway: Air / windborne dispersion Impact: Health and amenity of closest human receptors.	No residences in close proximity to proposed activity (closest human receptor 2.3kms northwest of Happy Jack 2	Refer to Section 3.1	C = Slight L = Unlikely Low Risk	Y	N/A	The Delegated Officer considers there is sufficient separation distance from sensitive receptors to mitigate the risk of noise impacts. Therefore, no additional regulatory controls are required.

Works approval: W6660/2022/1

Risk events					Risk rating ¹ C = consequence L = likelihood	Applicant controls sufficient?	Conditions ² of Works Approval	Justification for additional regulatory controls
Sources / activities	Potential emission	Potential pathways and impact	Receptors	Applicant controls				
			WRL landfill)					
Commissioning and Operation (Category 5)								
<p>Source: Commissioning and operation of the SPP (Stage 2)</p> <p>Activities: Crushing of ore material prior to processing through SPP plant</p> <p>Unloading, loading and stockpiling of material onto ROM pad during ore processing</p> <p>Vehicle movements on unsealed surfaces</p>	Dust (containing elevated arsenic)	<p>Pathway: Air / windborne dispersion</p> <p>Impact: Health and amenity of closest human receptors.</p>	No residences in close proximity to proposed activity (closest human receptor Bondini Aboriginal Community 3.2kms northeast of SPP (Stage 2)	Refer to Section 3.1	C = Slight L = Unlikely Low Risk	Y	<p>Condition 1 (Table 1): Design and Construction/installation requirements</p> <p>Conditions 2 and 3: Submission of an Environmental Compliance Report</p>	<p>Dust emissions are expected to be generated from the commissioning and operation of the sulphide processing plant, loading/unloading of material and vehicle movements.</p> <p>Noting the separation distance to the closest human receptor, the Delegated Officer has determined that the likelihood of dust emissions impacting upon this sensitive receptor is unlikely. The Delegated Officer also took into consideration the Applications proposed controls outlined under Section 3.1 which reduces the likelihood of the risk event occurring, therefore no additional regulatory controls are required.</p> <p>The submission of an Environmental Compliance report confirms the infrastructure as proposed (including emission controls) has been constructed.</p>
		<p>Pathway: Air/windborne dispersion</p> <p>Impact: Reduced native vegetation health or native vegetation death</p>	Native vegetation located to north of SPP (Stage 2)	Refer to Section 3.1	C = Minor L = Unlikely Medium Risk	N	<p>Condition 1 (Table 1): Design and Construction/installation requirements</p> <p>Conditions 2 and 3: Submission of an Environmental Compliance Report</p> <p>Condition 5 (Table 2): Environmental Commissioning requirements for SPP's dust suppression</p>	<p>It is noted that location of the SPP plant is in close proximity to native vegetation that may be impacted from dust emissions being generated from the proposed activities. The Delegated Officer has taken into account the controls proposed by the Applicant including the application of dust suppression sprays throughout the plant and the maintenance of a water cart at the Premises for watering down stockpiles, the ROM pad and unsurfaced roads which will reduce the risk of dust emissions impacting on nearby sensitive</p>

Works approval: W6660/2022/1

Risk events					Risk rating ¹ C = consequence L = likelihood	Applicant controls sufficient?	Conditions ² of Works Approval	Justification for additional regulatory controls
Sources / activities	Potential emission	Potential pathways and impact	Receptors	Applicant controls				
							<p>system</p> <p>Conditions 6 and 7: Environmental Commissioning Reporting requirements for SPP's dust suppression system</p> <p>Condition 10 (Table 4): Infrastructure and equipment requirements for SPP and watercart during Time Limited Operations</p> <p>Condition 13: Submission of Time Limited Operations report.</p> <p>Condition 14: Time Limited Operations reporting requirement for SPP and watercart.</p>	<p>receptors.</p> <p>To ensure dust emissions are not likely to impact upon the relevant receptors discussed above, the Delegated Officer has included an outcome-based condition (Condition 10, Table 4, Item 1 (e)) for the Applicant to minimise any dust generation to prevent it crossing the Premises boundary.</p>
	Noise	<p>Pathway: Air / windborne dispersion</p> <p>Impact: Health and amenity of closest human receptors.</p>	<p>No residences in close proximity to proposed activity (closest human receptor Bondini Aboriginal Community 3.2kms northeast of SPP (Stage 2))</p>	Refer to Section 3.1	<p>C = Slight</p> <p>L = Possible</p> <p>Low Risk</p>	Y	N/A	<p>The Delegated Officer considers there is sufficient separation distance from sensitive receptors to mitigate the risk of noise impacts. Therefore, no additional regulatory controls are required.</p>
Source: Commissioning and	Sediment	Pathway:	Surrounding	Refer to	C = Minor	Y	Condition 1 (Table 1):	The Delegated Officer has determined

Works approval: W6660/2022/1

Risk events					Risk rating ¹ C = consequence L = likelihood	Applicant controls sufficient?	Conditions ² of Works Approval	Justification for additional regulatory controls
Sources / activities	Potential emission	Potential pathways and impact	Receptors	Applicant controls				
<p>operation of the SPP (Stage 2)</p> <p>Activities: Contaminated stormwater discharging from plant, ROM pad and crusher and materials conveyors.</p> <p>Vehicle movements on the ROM pad.</p>	laden stormwater	<p>Overland runoff from SPP area during high during rainfall events</p> <p>Impact: Contamination on and off-site land, surface water bodies and groundwater if not properly contained.</p>	<p>soils and groundwater.</p> <p>Native vegetation to the north of SPP (Stage 2)</p> <p>Surface water bodies (closest is Lake Violet located 1.1kms south of SPP (Stage 2).</p>	Section 3.1	L = Unlikely Medium Risk		<p>Design and Construction/installation requirements for SPP, Bunds and sumps across all infrastructure and Stormwater Management System</p> <p>Conditions 2 and 3: Submission of an Environmental Compliance Report</p> <p>Condition 10 (Table 4): Infrastructure and equipment requirements during time limited operations.</p> <p>Condition 13: Submission of Time Limited Operations report.</p> <p>Condition 14: Time Limited Operations reporting requirement for SPP, Bunds and sumps across all infrastructure and Stormwater Management System</p>	that the likelihood of surface water contamination is unlikely based on the Applicant's stormwater emission control infrastructure including construction of concrete bunding around the processing areas and perimeter bunding around the SPP Stage 2 elevated footprint area to ensure potentially contaminated water is kept separate from clean water. Therefore, the Delegated Officer considers the likelihood of this risk event to be unlikely. The Applicant's controls will be conditioned within the works approval as a construction requirement and an operational requirement during time limited operations.
<p>Source: Commissioning and operation of the SPP (Stage 2)</p> <p>Activities: Seepage from water storage areas and saline water discharge from pipeline breaches.</p>	Processing water leaks/spills (contaminated)	<p>Pathway: Direct discharge to land</p> <p>Potential seepage to groundwater</p> <p>Impact: Contamination of soil and impacts to groundwater.</p> <p>Groundwater is 2mbgl around the</p>	<p>Surrounding soils and groundwater.</p> <p>Native vegetation to the north of SPP (Stage 2)</p> <p>Surface water bodies (closest is</p>	Refer to Section 3.1	C = Moderate L = Unlikely Medium Risk	Y	<p>Condition 1 (Table 1): Design and Construction/installation requirements for SPP, Bunds and sumps across all infrastructure and Reagent mixing and distribution unloading facility</p> <p>Conditions 2 and 3: Submission of an Environmental</p>	<p>Three reagents required to produce gold concentrate via the SPP are toxic to the environment or corrosive, including Polyfroth W22C Combustible liquid, Copper Sulphate and Potassium amyl xanthanate.</p> <p>The Delegated Officer has taken into consideration the Applicant's controls for managing leaks and spills of contaminated water including that all processing areas are concrete</p>

Works approval: W6660/2022/1

Risk events					Risk rating ¹ C = consequence L = likelihood	Applicant controls sufficient?	Conditions ² of Works Approval	Justification for additional regulatory controls
Sources / activities	Potential emission	Potential pathways and impact	Receptors	Applicant controls				
		site.	Lake Violet located 1.1kms south of SPP (Stage 2).				<p>Compliance Report</p> <p>Condition 5 (Table 2): Environmental Commissioning requirements for the SPP and the Reagent mixing and distribution unloading facility and Wiltails Plant or CIL plant</p> <p>Conditions 6 and 7: Environmental Commissioning Reporting requirements for Sulphide Processing Plant and pipelines between the SPP and the Reagent mixing and distribution unloading facility and Wiltails Plant or CIL plant</p> <p>Condition 10 (Table 4): Infrastructure and equipment requirements during time limited operations.</p> <p>Condition 13: Submission of Time Limited Operations report.</p> <p>Condition 14: Time Limited Operations reporting requirement for SPP, Bunds and sumps across all infrastructure and Stormwater Management System</p>	bunded to comply with AS1940, reagent pipelines have double containment, and that spill material will be redirected through the processing plant and has determined that these controls are sufficient for managing this risk event.
Source: Commissioning and operation of the SPP (Stage	Spills/leaks of hydrocarbons/	Pathway: Seepage through	Surrounding soils and	Refer to	C = Moderate	Y	Condition 1 (Table 1): Design and	All bulk hydrocarbons and chemicals stored at the Premises are contained in permanent or temporary facilities.

Works approval: W6660/2022/1

Risk events					Risk rating ¹ C = consequence L = likelihood	Applicant controls sufficient?	Conditions ² of Works Approval	Justification for additional regulatory controls
Sources / activities	Potential emission	Potential pathways and impact	Receptors	Applicant controls				
<p>2)</p> <p>Activities: Hydrocarbon spills or leaks from vehicles, plant and equipment used in the commissioning and operational phases of the plant.</p> <p>Spillage, leakage and seepage of hydrocarbons and chemicals used and stored within the processing plant area</p>	chemicals	<p>the soil profile to groundwater</p> <p>Overland runoff during rainfall events</p> <p>Impacts: Contamination of soils and the deterioration of groundwater quality.</p> <p>Ecosystem disturbance and impacting surface water quality</p> <p>Groundwater is 2mbgl around the site.</p>	<p>groundwater.</p> <p>Native vegetation to the north of SPP (Stage 2)</p> <p>Surface water bodies (closest is Lake Violet located 1.1kms south of SPP (Stage 2).</p>	Section 3.1	<p>L = Unlikely</p> <p>Medium Risk</p>		<p>Construction/installation requirements for SPP, Bunds and sumps across all infrastructure and Stormwater Management System.</p> <p>Conditions 2 and 3: Submission of an Environmental Compliance Report</p> <p>Condition 10 (Table 4): Infrastructure and equipment requirements during time limited operations</p> <p>Condition 13: Submission of Time Limited Operations report.</p> <p>Condition 14: Time Limited Operations reporting requirement for SPP, Bunds and sumps across all infrastructure and Stormwater Management System</p>	<p>The bunding of all hydrocarbon storage areas are designed in accordance with AS1940 and are inspected regularly to ensure integrity and that there is adequate capacity following rainfall events.</p> <p>The Delegated Officer has determined that the likelihood of surface water contamination is unlikely based on the Applicant's proposed controls. Therefore, the Delegated Officer considers the likelihood of this risk event to be unlikely. The Applicant's controls will be conditioned within the works approval for time limited operations.</p>
<p>Source: Tailings and return water pipelines</p> <p>Activity: Piping of SPP to Wiltails plant or CIL plant to TSF K.</p>	Tailings or return water with elevated metals and metalloids	<p>Pathway: Seepage through the soil profile to groundwater from pipeline leak/rupture</p> <p>Impact: Soil contamination inhibiting vegetation growth and survival</p>	<p>Localised soils and groundwater located adjacent to process plant and tailings pipeline.</p> <p>Remnant native vegetation in the vicinity of</p>	Refer to Section 3.1	<p>C = Moderate</p> <p>L = Possible</p> <p>Medium Risk</p>	Y	<p>Condition 1 (Table 1): Design and Construction/installation requirements for General pipeline requirements and Tailings pipeline and return water pipeline</p> <p>Conditions 2 and 3: Submission of an Environmental Compliance Report</p>	<p>As discussed under Section 2.3.2 of this report, sulphide tailings from the SPP are now directed to the Wiltails Plant for reprocessing prior to being discharged to TSF K. Sulphide tailings will have similar geochemical characteristics to the oxide tailings approved under L5206/1987/10 and will be mixed with the oxide tailings stream at mixing ratio of 1:3.</p> <p>There is potential for the discharge of tailings slurry or return water to the environment through pipeline failure</p>

Works approval: W6660/2022/1

Risk events					Risk rating ¹ C = consequence L = likelihood	Applicant controls sufficient?	Conditions ² of Works Approval	Justification for additional regulatory controls
Sources / activities	Potential emission	Potential pathways and impact	Receptors	Applicant controls				
			the pipelines Surface water bodies (closest is Lake Violet located 1.1kms south of SPP (Stage 2).				<p>Condition 5 (Table 2): Environmental Commissioning requirements for pipelines between SPP and Wiltails Plant or CIL plant</p> <p>Conditions 6 and 7: Environmental Commissioning Reporting requirements for pipelines between SPP and Wiltails Plant or CIL plant.</p> <p>Condition 10 (Table 4): Infrastructure and equipment requirements during time limited operations</p> <p>Condition 13: Submission of Time Limited Operations report.</p> <p>Condition 14: Time Limited Operations reporting requirement for Tailings pipeline and return water pipeline and General Pipeline Requirements</p>	<p>between the SPP to Wiltails plant or CIL plant or from the CIL plant to TSF K which could impact the health of nearby native vegetation.</p> <p>The Applicant's regulatory controls as outlined under Section 3.1 for managing unintentional leaks and spills from pipeline ruptures are consistent with the current operating Licence for the Premises L5206/1987/10 and are considered to be adequate for managing loss of containment in the event of a leak or rupture. The Applicant's controls have been conditioned on the works approval for time limited operations.</p> <p>It is noted that one of the commissioning requirements specified in the Works Approval W6371/2020/1 for the construction of Stage 1 of the SPP required the tailings sampling and testing of five sulphide ore tailings samples to determine the geochemical and geotechnical properties of the sulphide tailings that are being processed. As commissioning has only recently commenced, this data has not yet been collected, so this assessment has been based on the results derived from the geochemical assessment undertaken by Golder Associates in 2019 of rock ore tailings samples taken from the pilot testing plant.</p>
Operation (Category 64)								
Source: Operation of West WRL, Happy Jack 2 WRL and House WRL Landfill facilities	Odour (waste handling and infilling activities)	Pathway: Air / windborne dispersion Impact: Health	No residences in close proximity to proposed	Refer to Section 3.1	C = Minor L = Rare Low Risk	Y	Condition 10 (Table 4): Infrastructure and equipment requirements during	Noting the closest sensitive residential receptor is located 2.3kms kilometres from the nearest landfill facility and in consideration of the Applicant's proposed controls as described in

Works approval: W6660/2022/1

Risk events					Risk rating ¹ C = consequence L = likelihood	Applicant controls sufficient?	Conditions ² of Works Approval	Justification for additional regulatory controls
Sources / activities	Potential emission	Potential pathways and impact	Receptors	Applicant controls				
Activity: Disposal of putrescible waste to landfill facility		and amenity of closest human receptors	activity (closest human receptor 2.3kms northwest of Happy Jack 2 WRL landfill)				time limited operations Condition 11 (Table 5): Waste Acceptance requirements Condition 12 (Table 6): Waste cover requirements Condition 13: Submission of Time Limited Operations report. Condition 14: Time Limited Operations reporting requirement for West WRL, Happy Jack 2 WRL and House WRL Landfill facilities	Section 3.1 which are consistent with the current operating Licence for the Premises L5206/1987/10, the Delegated Officer considers that these measures are sufficient for managing odour and have been conditioned on the Works Approval. The Delegated Officer determined that regulatory controls are required to be added to the Works Approval to specify the waste acceptance requirements and the monitoring requirements for waste being accepted and removed at the Premises during time limited operations.
	Noise (waste disposal, covering activities and vehicle movements)	Pathway: Air / windborne dispersion Impact: Health and amenity of closest human receptors	No residences in close proximity to proposed activity (closest human receptor 2.3kms northwest of Happy Jack 2 WRL landfill)	No Applicant Controls outlined in submission	C = Slight L = Rare Low Risk	Applicant has proposed no controls. Risk assessment has shown that no additional works approval controls are required to further reduce risk.	N/A	The Delegated Officer notes that there is sufficient separation from human receptors and as such, additional regulatory controls are not required to mitigate this risk. The provisions of the <i>Environmental Protection (Noise) Regulations 1997</i> are also applicable.
	Dust (unloading and storage of landfill material, waste covering activities and	Pathway: Air / windborne dispersion Impact: Health and amenity of closest human	No residences in close proximity to proposed activity (closest	Refer to Section 3.1	C = Slight L = Unlikely Low Risk	Y	Condition 10 (Table 4): Infrastructure and equipment requirements during time limited operations Condition 11 (Table 5):	As detailed under Section 3.1 of this report, the Applicant's proposed controls which are consistent with the existing controls on the Licence L52506/1987/1 will be applied for the management of any potential dust emissions generated during landfill

Works approval: W6660/2022/1

Risk events					Risk rating ¹ C = consequence L = likelihood	Applicant controls sufficient?	Conditions ² of Works Approval	Justification for additional regulatory controls
Sources / activities	Potential emission	Potential pathways and impact	Receptors	Applicant controls				
	vehicle movements)	receptors	human receptor 2.3kms northwest of Happy Jack 2 WRL landfill)				Waste Acceptance requirements Condition 12 (Table 6) Waste cover requirements Condition 13: Submission of Time Limited Operations report. Condition 14: Time Limited Operations reporting requirement for West WRL, Happy Jack 2 WRL and House WRL Landfill facilities	operations. The Delegated Officer considers these controls to be sufficient in mitigating this risk and have conditioned the Applicant's controls on the Works Approval. The Delegated Officer determined that regulatory controls are required to be added to the Works Approval to specify the waste acceptance requirements and the monitoring requirements for waste being accepted and removed at the Premises during time limited operations.
	Windblown waste	Pathway: Air / windborne dispersion Impact: Loss of amenity and nuisance impacts	No residences in close proximity to proposed activity (closest human receptor 2.3kms northwest of Happy Jack 2 WRL landfill)	Refer to Section 3.1	C = Minor L = Rare Low Risk	Y	Condition 1 (Table 1): Design and Construction/installation requirements Conditions 2 and 3: Submission of an Environmental Compliance Report Condition 10 (Table 4): Infrastructure and equipment requirements during time limited operations Condition 11 (Table 5): Waste Acceptance requirements Condition 12 (Table 6) Waste cover requirements Condition 13: Submission of Time Limited Operations	As detailed under Section 3.1 of this report, the Applicant's proposed controls which are consistent with the existing controls on the Licence L5206/1987/1 will be applied for the mitigation of windblown waste from the landfill facility and in turn reducing the risk of potential impacts to fauna. The Delegated Officer considers these controls to be sufficient in mitigating this risk and have conditioned the Applicant's controls on the Works Approval. The Delegated Officer has determined that the Licence Holder's controls outlined in Section 3.1 and the regulatory controls that have been added to the Existing Licence are likely to be sufficient at mitigating windblown waste from the landfill facility and in turn mitigate the risk of potential impacts to fauna.
		Pathway: Fauna directly accessing and scavenging waste Impact: Health of fauna and encouraging increase of introduced pest species	Local fauna		C = Slight L = Unlikely Medium risk			

Works approval: W6660/2022/1

Risk events					Risk rating ¹ C = consequence L = likelihood	Applicant controls sufficient?	Conditions ² of Works Approval	Justification for additional regulatory controls
Sources / activities	Potential emission	Potential pathways and impact	Receptors	Applicant controls				
							report. Condition 14: Time Limited Operations reporting requirement for West WRL, Happy Jack 2 WRL and House WRL Landfill facilities	
	Leachate (generated from disposal of putrescible waste)	<p>Pathway: Discharge to landland - seepage of leachate into soil / groundwater</p> <p>Overland runoff from landfill areas during high during rainfall events</p> <p>Impact: Contamination of soils and the deterioration of groundwater quality causing stress or death to adjacent native vegetation.</p>	<p>Surrounding groundwater</p> <p>Native vegetation located to the west of West WRL landfill, Happy Jack 2 WRL landfill and House WRL landfill.</p>	Refer to Section 3.1	C = Minor L = Rare Low risk	Y	<p>Condition 1 (Table 1): Design and Construction/installation requirements</p> <p>Conditions 2 and 3: Submission of an Environmental Compliance Report</p> <p>Condition 10 (Table 4): Infrastructure and equipment requirements during time limited operations</p> <p>Condition 11 (Table 5): Waste Acceptance requirements</p> <p>Condition 12 (Table 6) Waste cover requirements</p> <p>Condition 13: Submission of Time Limited Operations report.</p> <p>Condition 14: Time Limited Operations reporting requirement for West WRL, Happy Jack 2 WRL and House WRL Landfill facilities</p>	Noting that the proposed landfill facilities will be constructed over waste rock landforms and in consideration of the high rate of evaporation typical of this region, the Delegated Officer considers that leachate emissions generated from the landfill site are considered to be minimal and that the risk of seepage of leachate to groundwater has been determined to be 'low'. In addition, the Applicant's proposed control of the construction of bunding around the perimeter of each of the landfill facilities will ensure leachate will be contained. The Applicant's controls have been conditioned on the works approval as construction requirements and operational requirements during time limited operations.
	Contaminated	Pathway:	Surrounding	Refer to	C = Minor	Y	Condition 1 (Table 1):	The Delegated Officer considers the

Works approval: W6660/2022/1

Risk events					Risk rating ¹ C = consequence L = likelihood	Applicant controls sufficient?	Conditions ² of Works Approval	Justification for additional regulatory controls
Sources / activities	Potential emission	Potential pathways and impact	Receptors	Applicant controls				
	stormwater (generated from putrescible waste coming into contact with stormwater)	Overland runoff from landfill areas during high during rainfall events Contaminated stormwater may infiltrate through underlying soils to groundwater Impacts: Contamination of soils and the deterioration of groundwater quality causing stress or death to adjacent native vegetation.	groundwater Native vegetation located to the west of West WRL landfill, Happy Jack 2 WRL landfill and House WRL landfill.	Section 3.1	L = Rare Low Risk		Design and Construction/installation requirements Conditions 2 and 3: Submission of an Environmental Compliance Report Condition 10 (Table 4): Infrastructure and equipment requirements during time limited operations Condition 11 (Table 5): Waste Acceptance requirements Condition 12 (Table 6): Waste cover requirements Condition 13: Submission of Time Limited Operations report. Condition 14: Time Limited Operations reporting requirement for West WRL, Happy Jack 2 WRL and House WRL Landfill facilities	Applicant's proposed controls for stormwater management as outlined in section 3.1 are adequate to control storm water runoff and prevent the risk of stormwater contamination. The Applicant's infrastructure controls and operational controls consistent with Licence L5206/1987/10 will be conditioned within the works approval. Additional regulatory controls are not required.
Operation (Category 63)								
Source: Operation of Bulletin Pit Landfill Activity: Disposal of inert waste to Bulletin Pit	Dust (unloading and storage of landfill material, waste covering activities and vehicle	Pathway: Air / windborne dispersion Impact: Health and amenity of closest human receptors	No human receptors in close proximity. Nearest residence (Bondini Aboriginal Community)	Refer to Section 3.1	C = Minor L = Rare Low Risk	Y	Condition 1 (Table 1): Design and Construction/installation requirements Conditions 2 and 3: Submission of an Environmental	The Delegated Officer considers the Applicant's proposed controls for the management of dust emissions as outlined in section 3.1 are adequate to control fugitive dust generated from landfill activities. The Applicant's infrastructure controls and operational controls consistent

Works approval: W6660/2022/1

Risk events					Risk rating ¹ C = consequence L = likelihood	Applicant controls sufficient?	Conditions ² of Works Approval	Justification for additional regulatory controls
Sources / activities	Potential emission	Potential pathways and impact	Receptors	Applicant controls				
	movements)		is located 2.2km northeast of the landfill site.				Compliance Report Condition 10 (Table 4): Infrastructure and equipment requirements during time limited operations Condition 11 (Table 5): Waste Acceptance requirements Condition 12 (Table 6): Waste cover requirements Condition 13: Submission of Time Limited Operations report. Condition 14: Time Limited Operations reporting requirement for West WRL, Happy Jack 2 WRL and House WRL Landfill facilities	with Licence L5206/1987/10 will be conditioned within the works approval. Additional regulatory controls are not required.
		Pathway: Air/windborne dispersion Impact: Reduced native vegetation health or native vegetation death	Native Vegetation located to the north of Bulletin backfill landfill.	Refer to Section 3.1	C = Minor L = Unlikely Medium Risk	Y		
	Noise (waste disposal, covering activities and vehicle movements)	Pathway: Air / windborne dispersion Impact: Health and amenity of closest human receptors	No human receptors in close proximity. Nearest residence (Bondini Aboriginal Community) is located 2.2km northeast of the landfill site.	Refer to Section 3.1	C = Slight L = Rare Low Risk	Y	N/A	The Delegated Officer notes that there is sufficient separation from human receptors and as such, additional regulatory controls are not required to mitigate this risk. The provisions of the <i>Environmental Protection (Noise) Regulations 1997</i> are also applicable.

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

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

Works approval: W6660/2022/1

4. Consultation

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

Table 4: Consultation

Consultation method	Comments received	Department response
Application advertised on the department's website on 22 April 2022	None received	N/A
Local Government Authority advised of proposal on 21 April 2022	None received	N/A
Department of Mines, Industry Regulation and Safety (DMIRS) advised of proposal on 21 April 2022	DMIRS replied on 27 April 2022 advising that DMIRS do not have any Mining Proposals relating to the proposed works outlined in the Works Approval Application.	Noted.
Applicant was provided with draft documents on 19 July 2022.	Comments from Applicant received on 30 June 2022. Comments are summarised in Appendix 1	Refer to Appendix 1.

5. Conclusion

Based on the assessment in this decision report, the delegated officer has determined that a works approval will be granted, subject to conditions commensurate with the determined controls and necessary for administration and reporting requirements.

References

1. BPL Environmental 2021, Wiluna Mining – Works Approval WA6371/2020/1 – Construction Compliance Report, dated May 2022, DWER Reference: DWERDT608437.
2. BPL Environmental 2022, *Sulphide Processing Plant Stage 2 and Landfill Facilities Works Approval Application Support Document – Wiluna Operations Pty Ltd*, prepared on behalf of Wiluna Operations Pty Ltd, dated March 2022, DWER Reference: A2096857.
3. BPL Environmental 2022a, Response on Applicant's behalf to request for further information, dated 1 June 2022, DWER Reference: A2105385.
4. BPL Environmental 2022b, Response on Applicant's behalf to request for further information, dated 23 June 2022, DWER Reference: A2111449.
5. Department of Environment Regulation (DER) 2015, *Guidance Statement: Setting Conditions*, Perth, Western Australia.
6. Department of Water and Environmental Regulation (DWER) 2019, *Landfill Waste Classification and Waste Definitions 1996 (as amended 2019) – Environmental Protection Act 1986*, Perth, Western Australia.

7. DWER 2020, *Guideline: Environmental Siting*, Perth, Western Australia.
8. DWER 2020a, *Guideline: Risk Assessments*, Perth, Western Australia.
9. Golder Associates Pty Ltd 2019, *Geochemical characterisation of a tailings sample associated with the stage 2 Matilda Operations Expansion – Memorandum - 18112083-002-L-Rev1*, dated 27 August 2019, DWER Reference: A1870865.
10. Knight Pièsold Consulting, 2021, *Wiluna Matilda Operations – Surface Water Management Design Final Design – Memorandum - PE21-00034*, dated 14 January 2021, DWER Reference: A2096857.

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

Condition	Summary of applicant's comment	Department's response
Works Approval		
<p>Condition 1 (Table 1): Design and Infrastructure requirements for Sulphide Ore Processing Plant (Stage 2)</p>	<p>The Applicant has requested the additional items be included in the infrastructure table:</p> <ul style="list-style-type: none"> • ROM Pad; • ROM Bin; • Apron feeder; • Jaw Crusher – Terex JW55 1400mm x 820mm opening and 160kW motor; • Joest Vibrating double deck horizontal screen 1.8m 4.8mm; • MO HP400 Cone Crusher with 315kW motor; • Tramp Magnet; • Classification Cyclones 250CVX10 x 15; • Ball Mill (EGL) L 6.60m x (IS) D 6.40, with discharge trommel 3.3m x 2.0m; • Coarse Ore Stockpile with Reclaim system 2x belt feeders; and • Conveyors 	<p>Additional items of equipment required for Stage 2 have been included under Condition 1 (Table 1), Item 1 of the Works Approval.</p>
<p>Condition 1 (Table 1): Design and Infrastructure requirements for Sulphide Ore Processing Plant (Stage 2)</p> <p>DWER requested the Applicant confirm if the dust suppression system means</p>	<p>The Applicant confirmed that the dust suppression system refers to dust sprays at transfer points, however it is not proposed to load dry tailings into the sulphide plant.</p>	<p>Noted and updated Condition 1 (Table 1), Item 1 of the Works Approval with the additional information provided by the Applicant.</p>

Works approval: W6660/2022/1

Condition	Summary of applicant's comment	Department's response
the installation of dust suppression sprays at the transfer points on the plant.		
<p>Condition 1 (Table 1): Design and Infrastructure requirements for upgraded infrastructure to be installed within the reagent mixing and unloading facility</p> <p>DWER requested the Applicant advise of the capacity of the tank being installed with third gland water distribution pump to supply gland water and flocculent mixing water to feed Stage 2 facilities.</p>	Applicant confirmed that the new tank will have a capacity of 32 m2.	Noted and updated Condition 1 (Table 1), Item 4(a) of the Works Approval with the additional information provided by the Applicant.
<p>Condition 1 (Table 1): Design and Infrastructure requirements for upgraded infrastructure to be installed within the reagent mixing and unloading facility</p> <p>DWER noted that this construction requirement was not met for the construction of the SPP (Stage 1) under W6371/2020/1 due to the small flows and low pressure in the reagent pipelines making it difficult to monitor through this control system. Noting the increased Stage 2 plant volumes, it is assumed that flows and pressure will increase and this could now be monitored through this system. DWER requested that the Applicant confirm if</p>	<p>The Applicant advised that it is expected that the same situation will occur for Stage 2. As such, the Applicant proposed the following controls to be implemented:</p> <ul style="list-style-type: none"> • Pipelines are contained in a dedicated bunded corridor that will contain spillage in the event of excursions; and • All reagent lines will be double contained. If the process control system indicates a consistent low-level indication from the existing mill area reagent dosing tanks this would indicate a possible excursion event and trigger an inspection of the reagent lines; 	DWER considers that the Applicant's proposed controls are sufficient for containing processing water leaks/spills in the event of pipeline breach. The condition for a process control system to be implemented to monitor the flow and pressure of reagent to the sulphide ore processing plant to shall alarm operations in the event of loss of containment has been removed from Condition 1 (Table 1), Item 4(d) of the Works Approval.

Works approval: W6660/2022/1

Condition	Summary of applicant's comment	Department's response
the process control system could now monitor this given the increased throughput.		
<p>Condition 1 (Table 1): Design and Infrastructure Requirements for tailings pipeline and return water pipeline</p> <p>DWER requested the Applicant advise what the upgrades to the pipelines will be to accommodate the increased volumes. I.e. What will be the size and material of the pipelines to contain the increased volumes?</p>	<p>The Applicant advised that the tailings line is to be increased between the Sulphide Processing Plant and CIL Plant and that a HDPE 250-300mm PN16/20 line will be used.</p>	<p>Noted and updated Condition 1 (Table 1), Item 5, to include a sub condition noting the size and material of the tailings line from the Sulphide Processing Plant to the CIL plant.</p>
<p>Condition 1 (Table 1): Design and Infrastructure Requirements for stormwater management system</p> <p>DWER requested the Applicant advise how the capacity of the event pond will be managed. I.e. Is there a pumping station at the pond to allow return of water to the SPP for reuse?</p>	<p>The Applicant advised that a land-based pump will be used to return water from the event pond to the tailing's hopper.</p>	<p>Noted.</p>
<p>Figure 2 of Schedule 1: Containment Infrastructure and Stormwater Management Infrastructure Map</p> <p>DWER requested that the Applicant provide an updated figure with better resolution as the image is blurred when zooming in to view the</p>	<p>The Applicant provided an updated Figure 2 with better resolution as requested.</p>	<p>Updated Figure 2 of Schedule 1 of the Works Approval accordingly.</p>

Condition	Summary of applicant's comment	Department's response
infrastructure.		
<p>Figure 3 of Schedule 2: Sulphide Processing Plant (Stage 2) general arrangement</p> <p>DWER requested that the Applicant provide an updated figure with better resolution as the image is blurred when zooming in to view the infrastructure.</p>	<p>The Applicant provided an updated Figure 2 with better resolution as requested.</p>	<p>Updated Figure 3 of Schedule 2 of the Works Approval accordingly.</p>
Decision Report		
<p>Section 2.3.3 of the Decision Report: Geochemistry and geotechnical analysis of sulphide tailings</p> <p>DWER requested the Applicant confirm that the environmental commissioning for the SPP Stage 1 has commenced.</p>	<p>The Applicant confirmed the environmental commissioning has commenced.</p>	<p>Noted.</p>
<p>Figure 1 of the Decision Report: Location of SPP (Stage 2) at the Premises</p> <p>DWER requested the Applicant provide an updated map that clearly shows the SPP for Stages 1 and 2 at the Premises.</p>	<p>The Applicant provided an updated map as requested.</p>	<p>Updated Figure 1 of the Decision Report accordingly.</p>
<p>Section 3.1.1 (Table 1): Proposed Applicant controls for Spills/leaks of hydrocarbons and chemicals</p>	<p>The Applicant advised that hydrocarbon storage will be undertaken in accordance with AS1940 and that the bunding and sumps will have a capacity of at least 110% of the largest vessel.</p>	<p>Updated Section 3.1.1 (Table 1) to include this additional control proposed by the Applicant. Condition 10 (Table 3), Item 2 has been updated to include this sub condition as an operational requirement.</p>

Condition	Summary of applicant's comment	Department's response
<p>DWER requested the Applicant advise whether the hydrocarbon storage areas will be graded to direct any potentially contaminated stormwater to a collection sump? If so, what is the capacity of the collection sump and is the sump lined?)</p>		

Appendix 2: Application validation summary

SECTION 1: APPLICATION SUMMARY				
Application type				
Works approval	<input checked="" type="checkbox"/>			
Licence	<input type="checkbox"/>	Relevant works approval number:		None <input type="checkbox"/>
		Has the works approval been complied with?	Yes <input type="checkbox"/> No <input type="checkbox"/>	
		Has time limited operations under the works approval demonstrated acceptable operations?	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	
		Environmental Compliance Report / Critical Containment Infrastructure Report submitted?	Yes <input type="checkbox"/> No <input type="checkbox"/>	
		Date Report received:		
Renewal	<input type="checkbox"/>	Current licence number:		
Amendment to works approval	<input type="checkbox"/>	Current works approval number:		
Amendment to licence	<input type="checkbox"/>	Current licence number:		
		Relevant works approval number:	N/A	<input type="checkbox"/>
Registration	<input type="checkbox"/>	Current works approval number:	None	<input type="checkbox"/>
Date application received	14 January 2022			
Applicant and Premises details				
Applicant name/s (full legal name/s)	Wiluna Operations Pty Ltd			
Premises name	Wiluna Mine Site			
Premises location	Within Mining Leases M53/32, M53/96, M53/200, M53/26 and M53/50 Wiluna Mine Site, Wiluna. - M53/32 and M53/96 – Bulletin backfill landfill - M53/26, M53/200 and M53/50 - West WRL landfill - M53/200 - Wiluna Sulphide Plant			
Local Government Authority	Shire of Wiluna			
Application documents				
HPCM file reference number:	DER2022/000021			
Key application documents (additional to application form):	Supporting Documents (DWERDT550579) including: <ul style="list-style-type: none"> • <i>BPL Environmental (2022), 'Sulphide Processing Plant Stage 2 and Landfill Facilities Works Approval Application Support Document, prepared for Wiluna Operations Pty Ltd, dated January 2022; and</i> • <i>Works Approval Application Form.</i> 			
Scope of application/assessment				

Summary of proposed activities or changes to existing operations.

Sulphide Processing Plant (Category 5)

Construction of Stage 2 of the Sulphide Processing Plant (SPP) to accommodate an increased throughput from 0.75mtpa to 1.5mtpa. The design concept of the expanded plant is based on the existing Stage 1 plant. The Stage 2 expansion involves upgrading the Stage 1 plant to include new ore feed, crushing, milling, an additional flotation cell, relocation of the existing tank to the mill platform and additional filtering and concentrate handling facilities.

Bulletin Pit Inert Waste Disposal (Category 63)

Inclusion of the Bulletin Pit to be used as an additional waste disposal location for inert wastes. The Licence Holder has recently obtained approval through Mining Proposal (REG ID 100770) to backfill the Bulletin Pit with waste rock material and would like to use the site to dispose of inert waste.

The wastes proposed to be disposed of in Bulletin Pit include:

- Mill liners (Rubber - Inert Waste Type 2)
- Polyethylene material (Plastic – Inert Waste Type 2)
- Vent bags (tarps) (Plastic or plastic coated – Inert Waste Type 2)
- Small quantities of broken pallets/timber (Category 64)
- Conveyor rubber (Inert Waste Type 2)
- Empty explosive bags (Category 64 – putrescible waste)

* No changes to annual waste volumes are required.

West WRL Landfill (Category 64)

Construction of a new landfill facility on top of the West Waste Rock Landform (WRL) as the existing landfill site (Republic North Landfill) is nearing capacity (approximately 10 months until capacity is exhausted). Putrescible and inert wastes will be accepted at the facility commensurate with Class II Category 64.

Happy Jack 2 WRL and House WRL Landfills (Category 64)

Construction of two additional landfill facilities on two other WRL's at the Premises.

* No changes to annual waste volumes are required.

Category number/s (activities that cause the premises to become prescribed premises)

Table 1: Prescribed premises categories

Prescribed premises category and description	Assessed production or design capacity	Proposed changes to the production or design capacity (amendments only)
Category 5: Processing or beneficiation of metallic or non-metallic ore	Current throughput (L5206): 2 200 000 tonnes /year	2.95mtpa (additional 0.75mtpa)
Category 63: Class I inert 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 <i>Landfill Waste Classification and Waste Definitions 1996</i> , is accepted for burial.	2,000 tonnes or more per annual period	No change.
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 <i>Landfill Waste Classification and Waste Definitions 1996</i> , is accepted for burial.	1,500 tonnes or more per annual period	No change.

Legislative context and other approvals

Has the applicant referred, or do they intend to refer, their proposal to the EPA under Part IV of the EP Act as a significant proposal?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Referral decision No: Managed under Part V <input type="checkbox"/> Assessed under Part IV <input type="checkbox"/>
Does the applicant hold any existing Part IV Ministerial Statements relevant to the application?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Ministerial statement No: EPA Report No:
Has the proposal been referred and/or assessed under the EPBC Act?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Reference No:
Has the applicant demonstrated occupancy (proof of occupier status)?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Certificate of title <input type="checkbox"/> General lease <input type="checkbox"/> Expiry: Mining lease / tenement <input type="checkbox"/> Downloaded from Mineral Titles website: M53/96: Expiry date 21 April 2030 M53/200: Expiry date 23 October 2033 M53/32: Expiry date 26 February 2027

		M53/50: Expiry date 08 July 2029 M53/26: Expiry date 23 June 2027 Other evidence <input type="checkbox"/> Expiry:
Has the applicant obtained all relevant planning approvals?	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>	Approval: Expiry date: If N/A explain why? Not required as the project occurs on Mining Tenements which supersedes the requirement for planning approvals under the <i>Planning and Development Act 2005</i> .
Has the applicant applied for, or have an existing EP Act clearing permit in relation to this proposal?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	CPS No: N/A No clearing is proposed.
Has the applicant applied for, or have an existing CAWS Act clearing licence in relation to this proposal?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Application reference No: N/A Licence/permit No: N/A No clearing is proposed.
Has the applicant applied for, or have an existing RIWI Act licence or permit in relation to this proposal?	Yes <input type="checkbox"/> No <input type="checkbox"/>	A valid licence applies: GWL 159247(5)
Does the proposal involve a discharge of waste into a designated area (as defined in section 57 of the EP Act)?	Yes <input type="checkbox"/> No <input type="checkbox"/>	Name: East Murchison Type: Proclaimed Groundwater Area Has Regulatory Services (Water) been consulted? Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>
Is the Premises situated in a Public Drinking Water Source Area (PDWSA)?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Name: N/A Priority: N/A Are the proposed activities/ landuse compatible with the PDWSA (refer to WQPN 25)? Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>

<p>Is the Premises subject to any other Acts or subsidiary regulations (e.g. <i>Dangerous Goods Safety Act 2004, Environmental Protection (Controlled Waste) Regulations 2004, State Agreement Act xxxx</i>)</p>	<p>Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p>	<p><i>Mining Act 1972</i> – Mining Proposal and Mine Closure Plan's are currently under assessment by DMIRS.</p>
<p>Is the Premises within an Environmental Protection Policy (EPP) Area?</p>	<p>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p>	<p>N/A</p>
<p>Is the Premises subject to any EPP requirements?</p>	<p>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p>	<p>N/A</p>
<p>Is the Premises a known or suspected contaminated site under the <i>Contaminated Sites Act 2003</i>?</p>	<p>Yes <input type="checkbox"/> No <input type="checkbox"/></p>	<p>Contaminated Site ID: 3586 Classification: possibly contaminated – investigation required (PC-IR) Date of classification: 30 May 2016</p>