



Application for Works Approval

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

Works Approval Number W6977/2024/1

Applicant Iluka Eneabba Pty Ltd

ACN 654 432 541

File number DER2024/000483~1

Premises Iluka Eneabba Mine Site (Accommodation Village)
Lot 10 Brand Highway
ENEABBA 6518

Mining Lease M267SA
Lot 10 On Plan 18828
Certificate of Title Volume 1943 Folio 634
As defined by the coordinates in Schedule 2 of the issued works approval

Date of report 2 May 2025

Decision Works approval granted

**A/MANAGER, WASTE INDUSTRIES
REGULATORY SERVICES**

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

Table of Contents

1. Decision summary	3
2. Scope of assessment	3
2.1 Regulatory framework	3
2.2 Application summary and overview of premises	3
2.2.1 Proposed works	3
2.2.2 Inputs	4
2.2.3 Output	4
3. Risk assessment.....	6
3.1 Source-pathways and receptors	7
3.1.1 Emissions and controls	7
3.1.2 Receptors.....	11
3.2 Risk ratings.....	14
4. Consultation	18
5. Conclusion	19
References	20

Table 1: Anticipated sewage influent quality.....	4
Table 2: WWTP treated effluent target concentrations	5
Table 3: Effluent specifications and spray field sizing.....	5
Table 4: Proposed applicant controls	7
Table 5: Sensitive human and environmental receptors and distance from prescribed activity	11
Table 6: Risk assessment of potential emissions and discharges from the premises during construction	15
Table 7: Risk assessment of potential emissions and discharges from the premises during commissioning and operation.....	16
Table 8: Consultation	18
Figure 1: Distance to sensitive receptors.....	13

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 and operation of the premises. As a result of this assessment, Works Approval W6977/2024/1 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

On 30 August 2024, 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 to undertake construction works relating to a sewage facility and sprayfield at the applicant's existing mine site premises (L5646/1994/10). The premises is approximately 1.2 km west of Eneabba.

The premises relates to a Category 54: Sewage facility under Schedule 1 of the Environmental Protection Regulations 1987 (EP Regulations) with an assessed capacity of 100 cubic metres per day. 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 W6977/2024/1.

2.2.1 Proposed works

The proposed wastewater treatment plant (WWTP) and irrigation sprayfield will be constructed to support the Eneabba Temporary Construction Camp, which will accommodate 500 personnel.

The WWTP has been designed to treat up to 100 m³/day of sewage generated in the mine site accommodation village. Inputs will be received from sewage, kitchen and mess areas, which will be operating 24 hours a day, 365 days a year.

The WWTP will be a containerised modular system, which uses the anaerobic-anoxic-aerobic treatment method (A2O method) designed to remove nitrogen and phosphorus from sewage. The treated wastewater will be pumped to spray fields and disposed of through land irrigation.

Key infrastructure and equipment of the system include;

- Inlet bar screen;
- Balance pump and 2 x 50 kL balance tanks;
- A2O Process comprising 3 x submersible aerators;
- Sludge pumps;
- Recirculation pump with online chlorine dosing;
- Sodium hypochlorite dosing system;
- Poly aluminum chloride dosing system;
- 50 kL sludge storage tank;
- 2 x 50 kL irrigation tanks and outlet;
- Irrigation pumps;
- Discharge flow meter;

- Audible visual alarm;
- Interconnecting pipework;
- Sewage pump station; and
- Treated wastewater irrigation area containing above ground hammer cast iron type spray field sprinklers, irrigation pump, two strand wire perimeter fencing, lockable gate, safety signage and individual branch line flush valves.

The 14.6 ha irrigation sprayfield has been sized and location of the irrigation sprayers determined with respect to local wind data. The location of the irrigation spray field was selected to maximise the separation between Village occupants, Eneabba town, Eneabba Water Reserve and the irrigation spray field (>2 km).

The indicative design of the spray field uses above ground hammer type sprinklers to discharge the treated effluent onto the ground, positioned away from drainage lines to prevent pooling. Each sprinkler will be able to deliver an approximate radius of 30 m with a nozzle appropriately sized to reduce clogging. A 5m spray drift buffer will be added to the spray field. Figure 6 provides irrigation spray field design. The spray field will have a 1,200 mm high steel wire perimeter fence, with a lockable gate and safety signage displayed on the fencing.

2.2.2 Inputs

The expected quality of sewage influent received by the WWTP is shown in Table 1.

Table 1: Anticipated sewage influent quality

Parameter	Concentration
pH	6.5 - 8.5
Total nitrogen (TN)	60
Total phosphorus (TP)	12
Total suspended solids (TSS)	300
Biochemical oxygen demand (BOD)	300

The treatment process at the WWTP will also utilize the following chemical inputs:

- Sodium hydroxide dosing for pH balancing;
- Sodium hypochlorite dosing for disinfection; and
- Poly aluminum chloride dosing for improved flocculation.

Chemicals will be stored in impermeable bunds or be stored in sealed bunded tanks / containers.

2.2.3 Output

The WWTP aims to treat sewage to the concentrations set out in Table 2Table 2: WWTP treated effluent target concentrations below, before pumping the effluent via an above ground pipe to an irrigation spray field for disposal.

Sludge produced in the WWTP will be collected in a 50-kL storage tank. This will be periodically removed and disposed of off-site at a licensed facility. Sludge collection, transport and disposal will take place in accordance with the Environmental Protection (Controlled Waste) Regulations 2004 (Controlled Waste Regulations).

Table 2: WWTP treated effluent target concentrations

Parameter	Concentration target
BOD (mg/L)	<20
TSS (mg/L)	<30
TN (mg/L)	<30
TP (mg/L)	<8
<i>Escherichia coli</i> (cfu/100 mL)	<1,000
Residual free chlorine (mg/L)	0.2 - 2.0
pH	6.5 - 8.5

Based on soil type information for the area, the applicant considered soils at the sprayfield to be coarse grained soils (e.g. sands and gravels). The location is also considered to have a low eutrophication risk of surface waters within 500 metres. This corresponds to a risk category B in accordance with *Water Quality Protection Note 22: Irrigation with nutrient-rich wastewater*, with maximum nutrient application rates for nitrogen and phosphorus being 180 kg/ha/year and 20 kg/ha/year respectively. The expected annual nutrient loading and the spray field area required are provided in Table 3 below.

Table 3: Effluent specifications and spray field sizing

Item	Value
Nitrogen loading	
Daily flow rate	100 m ³ /day
Total TN in effluent	1095 kg/year
Total TN allowed per ha (soil category B)	180 kg/ha/year
Irrigation area required	7.6 ha
Irrigation area proposed	14.6 ha
Phosphorus loading	
Daily flow rate	100 m ³ /day
Total TP in effluent	292 kg/year
Total TP allowed per ha (soil category B)	20 kg/ha/year
Irrigation area required	14.6 ha
Irrigation area proposed	14.6 ha

The applicant has indicated that commissioning of the WWTP is proposed to commence immediately for three months upon the completion of construction. Time-limited operations has also been requested for 180 days to allow for the assessment and determination of a licence

application.

3. Risk assessment

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

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

3.1 Source-pathways and receptors

3.1.1 Emissions and controls

The key emissions and associated actual or likely pathway during premises construction and operation which have been considered in this decision report are detailed in Table 4 below. Table 4 also details the control measures the applicant has proposed to assist in controlling these emissions, where necessary.

Table 4: Proposed applicant controls

Emission	Sources	Potential pathways	Proposed controls
Construction			
Dust	Vehicle and plant movements on unsealed areas, excavation and dust uplift	Air / windborne pathway	<p>Earthworks will be restricted to areas required for construction activities.</p> <p>Vehicles and earth moving equipment will keep to defined roads.</p> <p>Dust suppression (water sprays, water trucks, control of vehicle movements/ restricted speeds) will be employed during construction if required.</p> <p>Opportunistic inspections for dust emissions during mobilisation and installation/construction.</p> <p>An incident reporting system will be maintained to assist in managing environmental incidents including excessive dust emissions.</p>
Noise	Vehicle movements, construction machinery	Air / windborne pathway	<p>Noise emissions will comply with the Environmental Protection (Noise) Regulations 1997 (Noise Regulations).</p> <p>Construction works will be carried out in accordance with Australian Standard AS2436: <i>Guide to Noise and Vibration Control on Construction, Demolition and Maintenance Sites</i>.</p> <p>Equipment and vehicles will be maintained to ensure they are operating efficiently and within manufacturer's requirements.</p> <p>An incident reporting system will be maintained to assist in managing environmental incidents including excessive noise emissions.</p>
Sediment laden stormwater	Clearing activities, excavation, vehicle movements and/or earthworks etc.	Overland flow and discharge to waterlines and waterbodies	<p>Liquid chemicals, including hydrocarbons will be stored in designated areas and on self-bunded facilities.</p> <p>Drainage infrastructure will be designed and modelled to maintain offsite natural surface water flows as much as possible.</p> <p>Stormwater will be diverted from active areas.</p>

Emission	Sources	Potential pathways	Proposed controls
Windblown waste and litter	Construction waste	Air / windborne pathway	<p>Good housekeeping practices and store waste in dedicated waste receptacles.</p> <p>Manage waste in accordance with the Eneabba Waste Management Plan.</p>
Spills and leaks of chemicals and hydrocarbons	Use and storage of hydrocarbons during construction and unloading of treatment chemicals for WWTP	<p>Overland runoff and direct discharge</p> <p>Migration via soil to groundwater</p>	<p>Operate in accordance with the <i>Dangerous Goods Safety Act 2004</i> and fuel storage and handling will be in accordance with Australian Standards AS1940: <i>The storage and handling of flammable and combustible liquids</i>.</p> <p>Refueling restricted to dedicated areas.</p> <p>Spill kits will be located at all hydrocarbon and chemical storage on site to ensure immediate clean-up of any spills.</p> <p>Soil contaminated by hydrocarbons will either be treated in situ or removed by a controlled waste contractor for disposal offsite to an appropriate licensed facility.</p> <p>Potentially contaminated waters retained within the work front via culverts, levees and surface diversion.</p> <p>Regular inspections of fuel and chemical storage areas.</p> <p>Spillages occurring as a result of incident or equipment failures will be addressed and reported through the Iluka Incident Reporting Procedure.</p>
Operation			
Odour	Sewage treatment	Air / windborne pathway	<p>Separation distance to nearest receptors.</p> <p>The WWTP will be commissioned and operated in accordance with manufacturer specifications.</p> <p>The irrigation spray field will be commissioned and operated in accordance with manufacturer specifications.</p> <p>The irrigation spray field will be fenced and sign posted.</p> <p>The spray field includes a spray drift buffer.</p> <p>Treated effluent generated during the commissioning process will not be discharged into the environment until it meets the relevant water quality discharge criteria.</p> <p>Regular checks for any odour outside of the WWTP will take place, if odours are noted necessary repairs will be made to the WWTP.</p> <p>Volume of sludge produced from the treatment process will be monitored on a regular basis and removed as required by a licensed controlled</p>

Emission	Sources	Potential pathways	Proposed controls
			<p>waste contractor.</p> <p>The sludge will be disposed to appropriate licensed landfill facility.</p> <p>An incident reporting system will be maintained to assist in managing environmental incidents including odour complaints.</p>
Noise	Vehicle movements, machinery and pumping systems	Air / windborne pathway	<p>The nearest sensitive receptor is approximately 1.7 km west-southwest of the WWTP and 2.9 km west-southwest of the sprayfield</p> <p>Noise emissions will comply with the Noise Regulations.</p> <p>WWTP will be regularly serviced and maintained in accordance with manufacturer specifications.</p> <p>The WWTP unit will be enclosed to attenuate noise.</p> <p>An incident reporting system will be maintained to assist in managing environmental incidents including excessive noise emissions and complaints.</p>
Dust	Vehicle and plant movements on unsealed areas and dust uplift	Air / windborne pathway	<p>Earthworks will be restricted to only areas required for construction activities.</p> <p>Vehicles and earth moving equipment will keep to defined roads.</p> <p>Dust suppression (water sprays, water trucks, control of vehicle movements/ restricted speeds) will be employed during construction if required.</p> <p>An incident reporting system will be maintained to assist in managing environmental incidents including excessive noise emissions and complaints.</p> <p>Dust management will comply with Eneabba Dust Management Plan (Iluka, 2018).</p>
Spills and leaks of raw or partially treated sewage	Sewerage pipes, plant or holding tanks failure and overtopping	Direct discharge	<p>Components of the WWTP will be fitted with alarms to warn of high-water levels in the tank and pump failure.</p> <p>Units can be isolated and shut down if required.</p> <p>All storage components will be impermeable.</p> <p>Surface water flows will be managed within and around the Eneabba Accommodation Village to reduce potential for contaminants entering surface water.</p> <p>Maintain good housekeeping practices.</p> <p>Sludge will be removed periodically from the sludge tank by a licensed carrier and taken offsite for disposal to an appropriately licensed facility in accordance with the Controlled Waste</p>

Emission	Sources	Potential pathways	Proposed controls
			<p>Regulations.</p> <p>Regularly inspections of the WWTP. Discharge suspended if it is discovered operating below the established standard.</p> <p>An incident reporting system will be maintained to assist in managing environmental incidents including sewage spills.</p>
Spills and breach of chemical containment area	Storage and use of hydrocarbons	Overland runoff and direct discharge and migration via soil to groundwater	<p>No permanent major drainage lines located within the vicinity of the WWTP.</p> <p>Storage will be in accordance with the <i>Dangerous Goods Safety Act 2004</i> and Fuel Storage and handling will be in accordance with AS 1940. Chemicals will be stored in accordance with relevant Australian Standards.</p> <p>Chemical/ reagents will be stored in impermeable bunds or be stored in self-bunded tanks/ containers.</p> <p>Spill kits will be made available at the chemical storage locations and employees trained in their use.</p> <p>Spill kits will be checked on a regular basis and maintained in good order.</p> <p>Regular inspections of chemical/reagent storage area.</p> <p>An incident reporting system will be maintained to assist in managing environmental incidents including chemical spills.</p>
Irrigation of excessive nutrient or pathogen levels	Irrigation of treated effluent water	Direct discharge	<p>Depth to groundwater is >30 m. The irrigation spray field is located to maximise the separation between receptors</p> <p>No permanent major drainage lines located within the vicinity of the WWTP or irrigation spray field.</p> <p>The WWTP will be operated in accordance with manufacturer specifications.</p> <p>The balance tank will have contingency storage capacity for up to 1 day of normal flow via internal overflow system.</p> <p>Suitable storage will be maintained in the treated wastewater tank in case irrigation cannot occur for several days.</p> <p>Irrigation will not occur during significant rainfall events to prevent potential unauthorised discharge to surface water flows.</p> <p>Effluent will flow to a dedicated irrigation field by an automated system that is managed by a trained operator. The trained operator will be</p>

Emission	Sources	Potential pathways	Proposed controls
			<p>responsible for the disposal of effluent to the conditions present.</p> <p>Components of the WWTP will be regularly inspected, and discharge suspended if it is discovered operating below the established standard.</p> <p>Regular monitoring of the WWTP irrigation water prior to discharge to ensure discharge compliance.</p>

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 5 and **Error! Reference source not found.** 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 5: Sensitive human and environmental receptors and distance from prescribed activity

Receptors	Distance from prescribed activity
Human receptors	
Eneabba Town Site – Comprising of residential premises, Eneabba Primary School, camping grounds, a tavern, an ex-mining village accommodation, an airport and recreational activities including a golf course.	1.7 km west-southwest of the WWTP. 2.9 km west-southwest of the irrigation spray field.
Environmental receptors	
Proclaimed surface water area – Eneabba Creek and Tributaries	Premises is sited in the surface water area.
Underlying groundwater – Superficial - Arrowsmith, Eneabba Plains subarea Yarragadee	Depth to groundwater 30 metres. The superficial formations are unsaturated at Eneabba because of the deep regional watertable (about 31 m below ground level). The Yarragadee Formation forms a major multi-layered aquifer in the region and is part of an extensive regional groundwater flow system that contains large volumes of fresh to slightly brackish groundwater in storage. The aquifer is unconfined where the superficial formations are unsaturated (as is the case at Eneabba wellfield).

Receptors	Distance from prescribed activity
Public Drinking Water Source Area (PDWSA) – Eneabba Water Reserve – Priority 2	350 m west-southwest of the WWTP. 1 km west-southwest of the irrigation spray field.
PDWSA – Eneabba Water Reserve – Priority 1	715 m west-southwest of the WWTP. 1.1 km west-southwest of the irrigation spray field.
Native vegetation – Vegetation in the area contains records of threatened fauna species and threatened and priority flora species.	800 m southwest of the WWTP 1.2 km southwest of the sprayfield

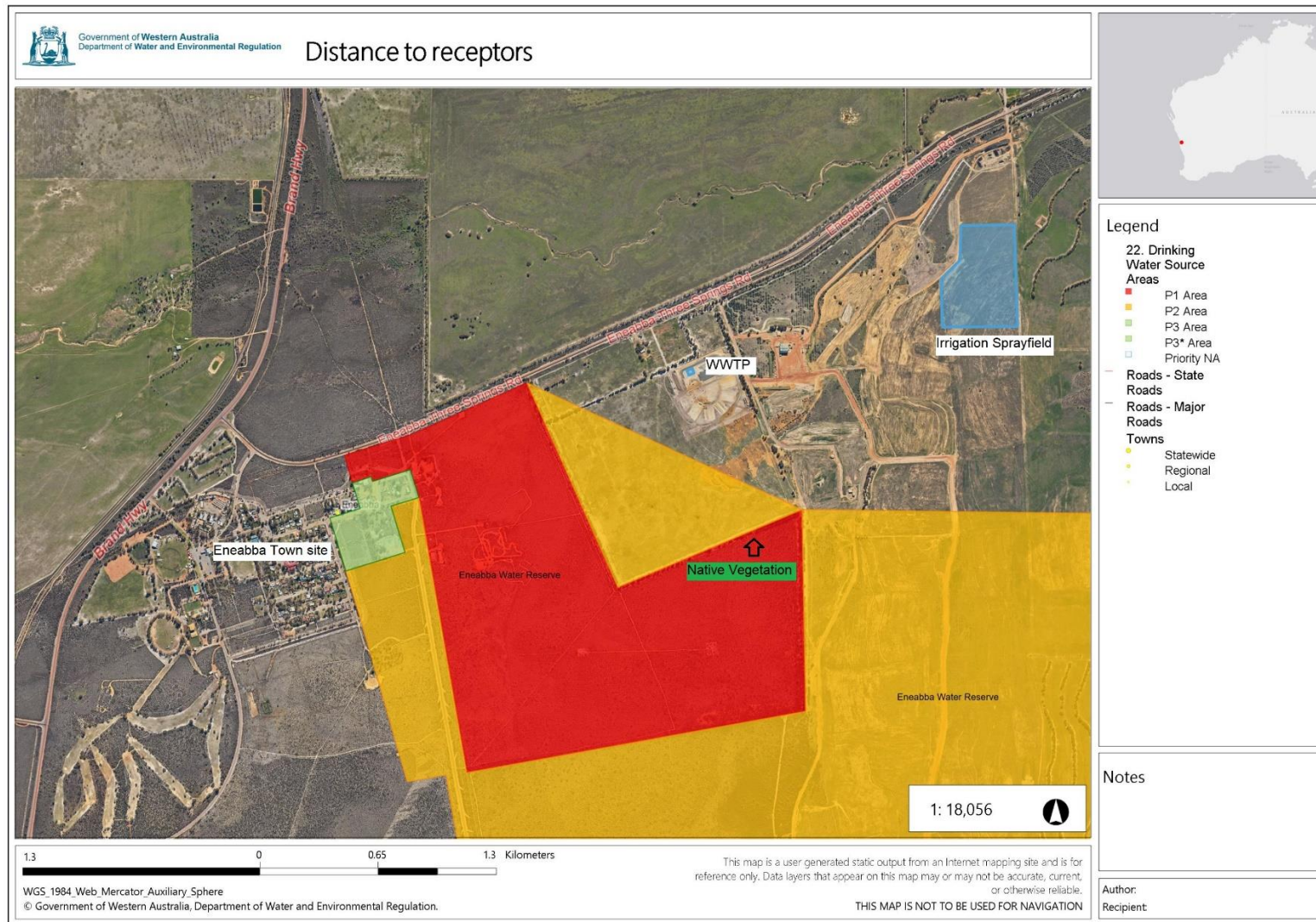


Figure 1: Distance to sensitive receptors

Works approval: W6977/2024/1

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

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 6.

Works Approval W6977/2024/1 that accompanies this decision report authorises construction and time-limited operations. The conditions in the issued works approval, as outlined in Table 6 have been determined in accordance with *Guidance Statement: Setting Conditions* (DER 2015).

A licence 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. operate the WWTP. 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 6: Risk assessment of potential emissions and discharges from the premises during construction

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				
Positioning of plant associated equipment including vehicle movements Installation of sprayfield	Dust	Air / windborne pathway causing impacts to health and amenity	Residences 1.7 km west-southwest of the WWTP	Refer to Section 3.1	C = Slight L = Unlikely Low Risk	Y	N/A	Dust is not considered likely to cause any distinguishable impacts to receptors at this distance. The Delegated Officer considers that the provisions of section 49 of the EP Act (Causing pollution and unreasonable emissions) is sufficient to regulate dust emissions from construction activities.
	Noise			Refer to Section 3.1	C = Slight L = Unlikely Low Risk	Y	N/A	Noise is not considered likely to cause any distinguishable impacts to receptors at this distance. The Delegated Officer considers that the provisions of the Noise Regulations are sufficient to regulate noise emissions from construction activities.
	Spills/unintended releases of hydrocarbons or chemicals	Surface runoff and seepage to soil and groundwater with potential impacts on native vegetation	Native vegetation	Refer to Section 3.1	C = Minor L = Unlikely Medium Risk	Y	Condition 1, 17 and 18	N/A
			Underlying groundwater		C = Major L = Rare Medium Risk			
		Migration through groundwater causing impacts to beneficial use	Eneabba Water Reserve					

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.

Table 7: Risk assessment of potential emissions and discharges from the premises during 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				
Infrastructure and equipment failure	Spills/untreated releases of partially treated wastewater or solid waste	Surface runoff and seepage to soil and groundwater resulting in elevated nutrients	Remnant native vegetation	Refer to Section 3.1	C = Minor L = Unlikely Medium Risk	Y	Conditions 1, 17 and 18	N/A
			Underlying groundwater					
		Migration through groundwater causing impacts to beneficial use	Eneabba Water Reserve		C = Major L = Rare Medium Risk			
Stormwater interaction with plant and irrigation sprayfield	Contaminated or potentially contaminated stormwater	Surface runoff and seepage to soil and groundwater with potential impacts on native vegetation	Remnant native vegetation	Refer to Section 3.1	C = Minor L = Unlikely Medium Risk	Y	Conditions 1, 5 and 12	N/A
			Underlying groundwater					
		Migration through groundwater causing impacts to beneficial use	Eneabba Water Reserve		C = Major L = Rare Medium Risk			
Chemical handling and storage	Spills/unintended release of hydrocarbons or chemicals	Surface runoff and seepage to soil and groundwater with potential impacts on native vegetation	Remnant native vegetation	Refer to Section 3.1	C = Minor L = Unlikely Medium Risk	Y	Conditions 1, 17 and 18	N/A
			Underlying groundwater					
		Migration through groundwater causing impacts to beneficial use	Eneabba Water Reserve		C = Major L = Rare Medium Risk			

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				
Irrigation sprayfield	Treated effluent	Surface runoff and seepage to soil and groundwater resulting in elevated nutrients	Remnant native vegetation	Refer to Section 3.1	C = Minor L = Unlikely Medium Risk	Y	Conditions 1, 5, 6, 7, 12, 13, 14 and 19	The Delegated Officer considers that the applicant controls, summarised in section 3.1, are generally sufficient to mitigate any impacts from discharging treated effluent on to an irrigation spray field. Those controls have been conditioned within the works approval in accordance with Guideline: Risk Assessments (DWER 2020). The applicant must maintain and manage the irrigation spray field to prevent potential pooling of treated effluent. Therefore, applicant must position the sprinklers appropriately and measure the discharge volumes continuously to prevent over discharging. These commitments have been conditioned in the issued works approval.
			Underlying groundwater		C = Major L = Rare Medium Risk			
	Partially or untreated effluent discharge	Migration through groundwater causing impacts to beneficial use	Eneabba Water Reserve	Refer to Section 3.1	C = Major L = Rare Medium Risk	N	Conditions 1, 5, 6, 7, 12, 13, 14, 17, 18 and 19	The Delegated Officer has determined that monitoring of the discharged effluent is required to ensure that nutrient overloading to soils / groundwater is not occurring during operation. Monitoring requirements are generally in line with commitments made by the applicant. However, the Delegated Officer has increased sampling during the commissioning period to fortnightly, as this is where steady state operations of the WWTP are being established.
		Surface runoff and seepage to soil and groundwater resulting in elevated nutrients	Remnant native vegetation Underlying groundwater		C = Minor L = Unlikely Medium Risk			
WWTP operations and sludge removal	Odour	Air / windborne pathway causing impacts to health and amenity	Residences 1.7 km west-southwest of the WWTP	Refer to Section 3.1	C = Minor L = Unlikely Medium Risk	Y	Conditions 1, 5, 6, 12 and 13	N/A

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: W6977/2024/1

4. Consultation

Table 8 provides a summary of the consultation undertaken by the department.

Table 8: Consultation

Consultation method	Comments received	Department response
Application advertised on the department's website on 11 November 2024	None received	N/A
Local Government Authority advised of proposal on 15 November 2024	<p>The Shire of Carnamah replied on 20 November 2024 stating:</p> <ul style="list-style-type: none"> recommend any approval limit for the camp to being temporary and only for Iluka's construction workforce the shire is bound by "Mineral Sands (Eneabba) Agreement Act 1975 (WA)" (State Agreement) which establishes certain development approval exemptions. Iluka is not obliged to seek planning approval from the Shire for any activities undertaken by the company in Eneabba. 	Noted
Department of Health (DoH) advised of proposal on 15 November 2024	None received	N/A
Bundi Yamatji Aboriginal Corporation (BYAC) advised of proposal on 15 November 2024	None received	N/A
Department of Planning, Lands and Heritage (DPLH) advised on 15 November 2024	<p>DPLH replied on 25 November 2024 stating:</p> <ul style="list-style-type: none"> no approvals under the Aboriginal Heritage Act 1972 (AHA) are required. that regular checks of Aboriginal Cultural Heritage Inquiry System (ACHIS) should be undertaken to ensure that no new Aboriginal Heritage has been reported within this property. recommend that engagement is undertaken with the traditional owner group for this location the Southern Yamatji people are represented by the Yamatji Southern Regional Corporation (YSRC). 	Noted
DWER Regional Water advised of proposal on 18	Advice received 19 December 2024 recommending the applicant:	The department advised the applicant on 30 January that the WWTP

Consultation method	Comments received	Department response
November 2024	<ul style="list-style-type: none"> move their proposed site for the WWTP to at least 200 m from the PDWSA boundary put forward a monitoring strategy to characterise the development of the effluent plume in the surficial aquifer <p>The region considers that the additional 100 kL/day volume of the second irrigation field should not pose an issue as the distance between the fields and the PDWSA should be enough to attenuate any biological components of the water to safe levels. However, there are concerns about the proximity of the WWTP to the PDWSA</p>	is required to be relocated a minimum 200 m from the PDWSA boundary. The applicant provided an updated location for the WWTP that is 350 m west-southwest of the WWTP.
Applicant was provided with draft documents on 20 March 2025	<p>Applicant replied on 9 April 2025 providing:</p> <ul style="list-style-type: none"> updated balance and sludge tank storage capacities. updated WWTP process design and general arrangement drawings 	Noted and updated.

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. Department of Environment Regulation (DER) 2015, *Guidance Statement: Setting Conditions*, Perth, Western Australia.
2. Department of Health 2011, *Guidelines for the Non-potable Uses of Recycled Water in Western Australia*, Perth, Western Australia.
3. Department of Water (DoW), Water Quality Protection Note WQPN 22: Irrigation with nutrient-rich wastewater (DoW 2008).
4. Department of Water and Environmental Regulation (DWER) 2020, *Guideline: Environmental Siting*, Perth, Western Australia.
5. DWER 2020, *Guideline: Risk Assessments*, Perth, Western Australia