Government of Western Australia
Department of Water and Environmental Regulation

Decision Report

Application for Works Approval

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

Works Approval Number	W3192/2026/1
Applicant	Gumala Enterprises & Developments Pty Ltd
ACN	687 866 253
File number	APP-0033171
Premises	Karijini Eco Retreat Off Weano Road, Karijini National Park Legal description - Reserve number 30082 Karijini National park Lease number 2412/100 as defined in the granted Works Approval
Date of report	13 March 2026
Decision	Works approval granted

Table of Contents

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 W3192/2026/1 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 19 December 2025, the applicant (Gumala Enterprises and Developments Pty Ltd) 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 for a Wastewater Treatment Plant (WWTP) and an irrigation sprayfield area at the premises. The premises is located within Karijini National Park, approximately 57 km northeast of the town of Tom Price.

Gumala Enterprises and Developments Pty Ltd operates eco-retreat accommodation within Karijini National Park (Reserve No. 30082). The applicant currently operates an existing Wastewater Treatment Plant (WWTP). The proposed WWTP aims to upgrade the existing system and expand the currently approved irrigation sprayfield. The new WWTP will be containerised and of the same external dimensions as the existing 40-foot unit, with two new tanks installed adjacent to it. All infrastructure, including the tanks and the containerised Sequencing Batch Reactor (SBR) unit, will be positioned within an existing cleared area. The new SBR container will be installed in the same location as the existing unit once the current system is removed.

The existing WWTP is approved by the Department of Health (DoH) to treat 16.8 kL/day and irrigate treated wastewater over a 0.4 ha sprayfield area. The proposed new WWTP is designed to treat 25 kL/day with the applicant proposing to expand the sprayfield area by an additional 0.18 ha, resulting in a total sprayfield area of 0.58 ha.

The applicant has requested an environmental commissioning phase under this works approval, as they expect to achieve sufficient water quality for discharge to the sprayfield within approximately 10–15 days. They intend to import seed sludge to promote and expedite the commissioning process. The applicant did not request Time Limited Operations (TLO) under this works approval; however, DWER has included TLO activities in the works approval to allow for operation of the infrastructure and sufficient time to submit an application for a registration or licence under the *Environmental Protection Act 1986*.

The Works Approval application included native vegetation clearing elements associated with the expanded sprayfield area. However, the applicant has since withdrawn the clearing component from the Works Approval and is instead progressing the clearing through the separate clearing referral process.

The premises relates to the category and assessed production / design capacity under Schedule 1 of the *Environmental Protection Regulations 1987* (EP Regulations) which are defined in works approval W3192/2026/1. 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 W3192/2026/1.

2.3 WWTP

The proposed Sequencing Batch Reactor (SBR) wastewater treatment plant has a treatment capacity of 25 m³/day. It is an aerated biological treatment system designed to provide nitrification, denitrification, and phosphorus removal. The proposed SBR wastewater treatment plant comprises the following equipment:

- 1 x 2.5mm Bar Inlet Screen;
- 1 x 50m^3 Balance Tank;
- 1 x Balance Pump;
- 1 x Balance Mixer Pump;
- 2 x Aerators;
- 1 x 49m^3 SBR Tank;
- 1 x Decant pump;
- 1 x Sludge Pump;
- 1 x 11m^3 Irrigation Tank;
- 1 x 50m^3 Sludge Tank;
- 1 x Irrigation pump;
- 1 x Recirculation pump; and
- 1 x Chemical dosing system including:
    - 40L Poly Aluminium Chloride (PAC) (20%);
    - 40L Sucrose;
    - 40L Caustic Soda (50%); and
    - 40L Sodium hypochlorite (12.5%).

The expected treated effluent target concentrations shown in Table 1 below:

Table 1: Quality of treated effluent

Parameters	WWTP discharge
Biochemical oxygen demand (BOD)	<20 mg/L
Total suspended solid (TSS)	<30 mg/L
Total nitrogen	<20 mg/L
Total Phosphorous	<6 mg/L
pH	6.5 – 8.5
E. Coli	<1000 cfu/100mL
Residual free chlorine	0.2 to 2.0 mg/L

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 2 below. Table 2 also details the control measures the applicant has proposed to assist in controlling these emissions, where necessary.

Table 2: Proposed applicant controls

Emission	Sources	Potential pathways	Proposed controls
Construction			
Dust	Replacement of existing WWTP with a new WWTP Construction of new spray field area Vehicle movement	Air / windborne pathway	The tanks and containerized SBR unit will be placed in an existing cleared area. Works are expected to be short duration with limited dust generation potential.
Noise		Air / windborne pathway	No proposed controls. Works are expected to be short duration with
Commissioning and time limited operation			
Noise	Operation of Wastewater treatment plant	Air / windborne pathway	WWTP which is containerised and enclosed.
Odour		Air / windborne pathway	The WWTP will be operated in accordance with the *Installation, Operation and Maintenance Manual* and will incorporate the following controls: - The system is fully containerised and enclosed, helping to limit odour release and improve operational containment; and - The operator will monitor the SBR tank for any odour emissions.
Spills/leakage of untreated and treated wastewater, treatment chemicals or		Seepage to soil and groundwater	The WWTP will be operated in accordance with the *Installation, Operation and Maintenance Manual* and will incorporate the following controls:

Emission	Sources	Potential pathways	Proposed controls
contaminated stormwater			- The system is fully containerised and enclosed - A caustic dosing system (sodium hydroxide, NaOH) will support the reduction of odour emissions by increasing wastewater pH. - Staff responsible for operating and maintaining the plant will have qualifications appropriate to the tasks they perform. - Operator will conduct daily observation for sludge tank
Treated wastewater	Discharge of treated wastewater onto the spray field area	Flooding/pooling/overland runoff Seepage through soil and to groundwater	The sprayfield is to be appropriately sized and includes 5-metre buffers, fencing, and signage as required. Regular observations of sprinkler performance will be undertaken to ensure functionality meets required specifications.

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 3 and Figure 1 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 3: Sensitive human and environmental receptors and distance from prescribed activity

Human receptors	Distance from prescribed activity
Eco Retreat hotel and accommodation	130 m southeast of the premises boundary
Environmental receptors	**Distance from prescribed activity**
DBCA Legislated Lands and Water	Premises located within the Karijini National Park
Minor surface waterline	80 m southwest of the premises boundary
RIWI Act -Proclaimed surface water area	Premises located within the Pilbara surface water area
RIWI Act -Proclaimed groundwater area	Premises located within the Pilbara Groundwater area

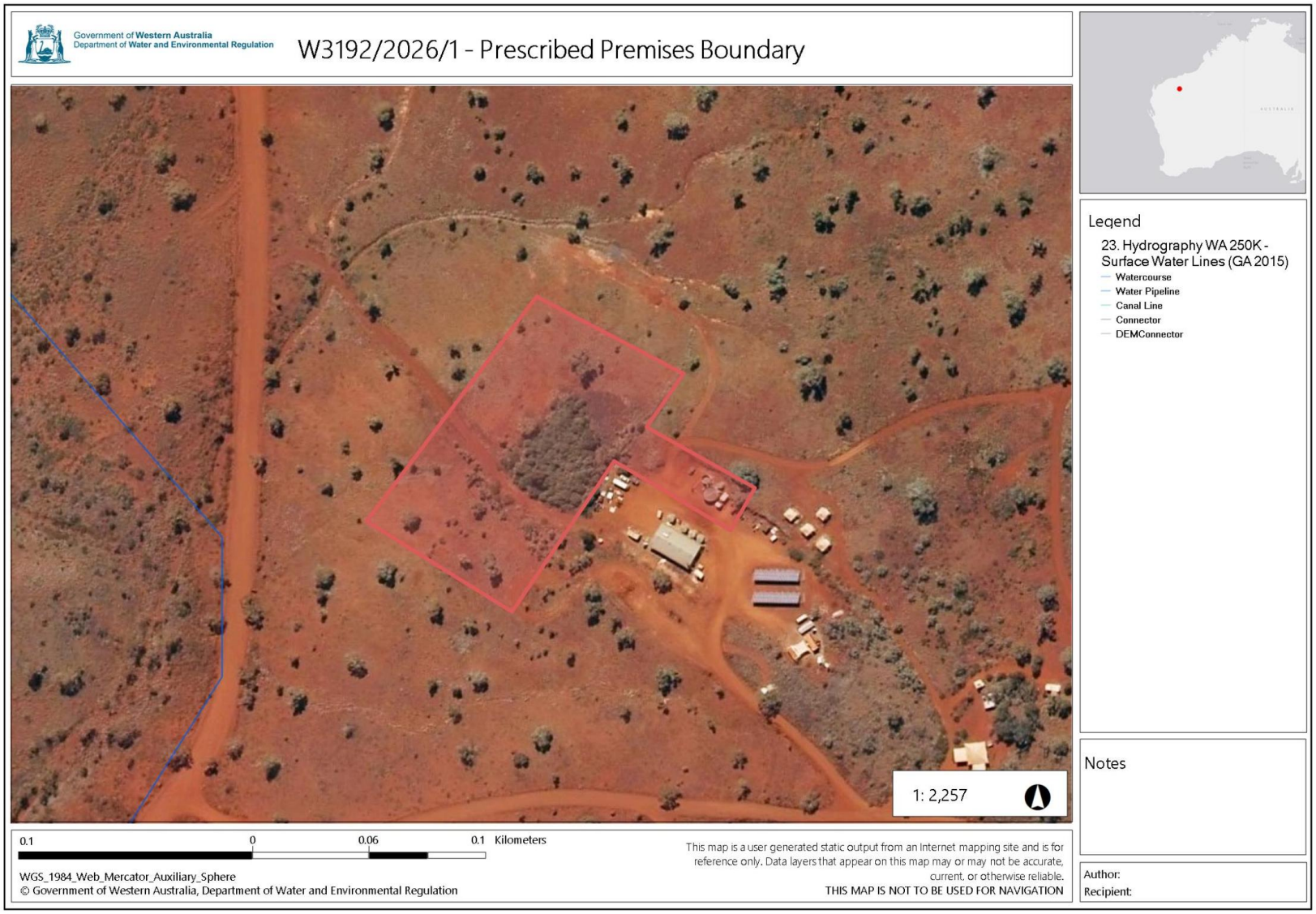

Figure 1: Premises layout

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 4.

Works approval W3192/2026/1 that accompanies this decision report authorises construction and time-limited operations. The conditions in the issued works approval, as outlined in Table 4 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 operation of the premises. 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 4: Risk assessment of potential emissions and discharges from the premises during construction and operation

Risk events					Risk rating [1] C = consequence L = likelihood	Applicant controls sufficient ?	Conditions [2] of works approval	Justification for additional regulatory controls / DWER comments
Sources / activities	**Potential emission**	**Potential pathways and impact**	**Receptors**	**Applicant controls**				
Construction								
Replacement of existing WWTP with a new WWTP Construction of new spray field area Vehicle movement	Dust	**Pathway:** Air/windborne pathway **Impact:** Health and amenity	Eco Retreat hotel and accommodation ~ 130 m south-east of the premises boundary Premises located within the Karijini National Park	Refer to Section 3.1	C = Minor L = Rare **Low Risk**	Y	Condition 23	The Delegated Officer considers that dust emissions can be adequately regulated by section 49 of the EP Act during construction.
	Noise		Eco Retreat hotel and accommodation~ 130 m south-east of the premises boundary	Refer to Section 3.1	C = Minor L = Rare **Low Risk**	Y	Condition 23	The provisions of the *Environmental Protection (Noise) Regulations 1997* apply.
Operation (including time-limited-operations operations)								
Operation of Wastewater treatment plant	Noise	**Pathway:** Air/windborne pathway **Impact:** Health and amenity	Eco Retreat hotel and accommodation~ 130 m south-east of the premises boundary	Refer to Section 3.1	C = Minor L = Rare **Low Risk**	Y	Condition 1, 2, 3 and 23	The provisions of the *Environmental Protection (Noise) Regulations 1997* apply.
	Odour	**Pathway:** Air/windborne pathway **Impact:** Health and amenity	Eco Retreat hotel and accommodation~ 130 m south-east of the premises boundary	Refer to Section 3.1	C = Moderate L = Unlikely **Medium Risk**	Y	Conditions 1, 2, 3, 5, 6, 7, 8, 9, 10 15, 16, 17, 18, 19, 20 and 23	The applicant's proposed controls are considered to be effective in mitigating the impact of odour emissions from the premises during commissioning and time limited operations. Odour can be adequately regulated by section 49 of the

Risk events					Risk rating [1] C = consequence L = likelihood	Applicant controls sufficient ?	Conditions [2] of works approval	Justification for additional regulatory controls / DWER comments
Sources / activities	**Potential emission**	**Potential pathways and impact**	**Receptors**	**Applicant controls**				
								EP Act.
	Spills/leakage of untreated and treated wastewater, treatment chemicals or contaminate stormwater	**Pathway:** Flooding/pooling/overland runoff **Impact:** Ecosystem disturbance or impacting surface water quality and human health **Pathway:** Seepage through soil and to groundwater **Impact:** Contamination and impacting water quality	Eco Retreat hotel and accommodation ~ 130 m south-east of the premises boundary Premises located within the Karijini National Park Minor surface waterline ~ 80 m south-west of the premises boundary Premises located within RIWI Act proclaimed Pilbara surface water area and Pilbara Groundwater area	Refer to Section 3.1	C = Moderate L = Unlikely **Medium Risk**	Y	Conditions 1, 2, 3, 5, 6, 7, 8, 9, 10 15, 16, 17, 18, 19, 20 and 23	The Delegated Officer considers that the proposed infrastructure and applicant's controls are likely to be sufficient to mitigate spills of untreated and treated wastewater or chemicals and seepage of treated wastewater during commissioning and time limited operations.
Discharge of treated wastewater onto the spray field area	Treated wastewater			Refer to Section 3.1	C = Moderate L = Unlikely **Medium Risk**	Y	Condition 1, 2, 3, 5, 6, 7, 8, 9, 10 15, 16, 17, 18, 19, 20 and 23	The delegated officer reviewed that proposed irrigation area and determined that it is sufficiently sized to accept the proposed nitrogen and phosphorous levels in the treated water, with a 5-metre buffer in place and the area fenced with appropriate signage. The Delegated Officer further considers that the proposed infrastructure and the applicant's operational controls are likely to be adequate to mitigate the risks of flooding, pooling, or overland runoff of treated wastewater during commissioning and time-limited operations.

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.

4. Consultation

Table 5 provides a summary of the consultation undertaken by the department.

Table 5: Consultation

Consultation method	Comments received	Department response
Application advertised on the department's website on 20 February 2026	None received	N/A
Local Government Authority (Shire of Ashburton) advised of proposal	None received	N/A
Department of Biodiversity, Conservation and Attractions (DBCA) advised of proposal	None received	N/A
Department of Health (DoH) advised of proposal on 6 March 2026	The Department of Health (DOH) has confirmed receipt of an Application to Construct or Install an Apparatus for the Treatment of Sewage submitted in accordance with the *Health (Treatment of Sewage and Disposal of Effluent and Liquid Waste) Regulations 1974*. The application and supporting information provided to the DOH are consistent with the DWER Works Approval application. The DOH application represents the final stage of approval and is currently awaiting the outcome of the DWER Works Approval before construction approval can be issued (DOH application number: 296.25)	Noted. On 11 March 2026, the applicant requested amendments to irrigation infrastructure during the consultation period. The proposed changes included a reduction in the daily treatment capacity from 25 kL/day to 20 kL/day, a reduction in the size of the irrigation area and a change from above ground spray irrigation to surface laid drip irrigation. These comments were received after advice had already been provided by the Department of Health (DOH) on the application. As such, it is the applicants responsibility to notify the Department of Health of all proposed changes to the daily treatment capacity and irrigation system and obtain approval from the Department of Health before construction begins.
Applicant was provided with draft documents on 11 March 2026	Refer to 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. Department of Environment Regulation (DER) 2015, *Guidance Statement: Setting Conditions*, Perth, Western Australia.
2. Department of Water and Environmental Regulation (DWER) 2020, *Guideline: Environmental Siting*, Perth, Western Australia.
3. DWER 2020, *Guideline: Risk Assessments*, Perth, Western Australia.

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

Condition	Summary of applicant's comment	Department's response
Condition 1 Table 1 – item 1	The applicant has requested the removal of the bunding requirement around the WWTP due to concerns that heavy rainfall could cause ponding within the bund, restricting access to tank valves, scouring concrete pads supporting above-ground pipework, and impeding access to the SBR control doorway.	The delegated officer has considered the applicant's request to remove the bunding requirement around the WWTP and has amended the condition accordingly.
Condition 1 Table 1 – item 2	The applicant has requested an amendment to Table 1 - item 2 to reduce the sprayfield area requirement based on a revised maximum discharge of 20,000 L/day and a change from above-ground spray irrigation to surface - laid drip irrigation. The proposed irrigation area of approximately 4,221 m² meets the hydraulic loading and application rate criteria identified in the Site and Soil Evaluation Report and avoids the need to clear additional native vegetation.	The delegated officer reviewed the information provided and recalculated the irrigation land area based on a revised maximum discharge of 20,000 L/day and agreed to both the reduced discharge rate and the change from above-ground spray irrigation to surface-laid drip irrigation. Accordingly, the assessed production and design capacity has been reduced from 25 kL/day to 20 kL/day, and all relevant conditions have been amended.
Condition 3	The applicant has requested that Condition 3(a), which requires certification by a civil engineer, be amended, as the applicant considers this requirement inappropriate and has advised that a structural engineer, rather than a civil engineer, has the appropriate qualifications and experience to certify the WWTP infrastructure.	The delegated officer has amended the certification requirement to allow certification by a suitably qualified engineer and has added a definition of suitably qualified engineer to the definitions table. The requirement to ensure the infrastructure has been installed in accordance with the works approval specifications remains.
Decision report - Section 3.2 Risk Assessment	The applicant has requested a review of the risk rating in Table 4 for spills and leakage from WWTP operations, proposing a reduction from medium to low risk. This request is based on the containerised design of the proposed WWTP, the absence of recorded spills over the past 12 years from the existing plant, and the higher construction standard of the new facility.	DWER has considered the applicant's request to amend the risk rating for spills and leakage associated with WWTP operations. The risk assessment was undertaken in accordance with the *Guideline: Risk Assessments* and reflects risks inherent to WWTP operation. As such, the risk rating is considered appropriate and will not be amended.