



Application for Works Approval

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

Works Approval Number	W3110/2025/1
Applicant	Gold Valley Wiluna West Pty Ltd
ACN	673 280 530
File number	APP-0031200
Premises	Wiluna West Project Sandstone-Wiluna Road, Wiluna Legal description Part of Mining Tenement L53/115, L53/146 and M53/1078 - I As defined by the coordinates in Schedule 1 of the works approval
Date of report	10 February 2026
Decision	Works approval granted

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 WWTP and dust suppression area	2
2.4 Department of Health Approval	4
2.5 Mining Act	4
3. Risk assessment	4
3.1 Source-pathways and receptors	4
3.1.1 Emissions and controls	4
3.1.2 Receptors	6
3.2 Risk ratings	10
4. Consultation	15
5. Conclusion	16
References	16
Appendix 1: Summary of stakeholders’ comments on the proposed activities	17
Table 1: Quality of treated effluent	2
Table 2: Proposed applicant controls	4
Table 3: Sensitive human and environmental receptors and distance from prescribed activity	6
Table 4: Risk assessment of potential emissions and discharges from the premises during construction, commissioning and operation	11
Table 5: Consultation	15
Figure 1: Proposed layout of the prescribed premises boundary	2
Figure 2: Proposed dust suppression area	3
Figure 3: Distance to sensitive receptors	8
Figure 4: Distance to Priority Ecological Community	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 and operation of the premises. As a result of this assessment, works approval W3110/2025/1 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 16 September 2025, the applicant (Gold Valley Wiluna West 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 relating to an aerobic wastewater treatment plant (WWTP) at the Wiluna West Accommodation Camp. The premises is approximately 34 km south -west of the town of Wiluna.

The Wiluna West Iron Ore Project, owned by Gold Valley Wiluna West Pty Ltd (GVWW), is expanding its accommodation camp to support increased mining activity across several iron ore and gold deposits. Historically, wastewater from the camp was managed through a septic tank and leach drain system, which is now inadequate due to the planned expansion to accommodation and provision for future growth. To address this, GVWW intends to install an aerobic wastewater treatment plant (WWTP). The treated effluent will be further filtered and dosed to meet quality standards, enabling its reuse for dust suppression on project roads. The proposed WWTP is designed to treat 50 m³ of wastewater per day. After treatment, the water will be transferred via a pipeline approximately 1.9 km in length to the existing storage infrastructure known as the "turkey nest." This turkey nest consists of an HDPE liner with a permeability of 1×10^{-9} m/s and covers an area of approximately 0.1 ha, based on current dimensions of about 31 m × 29 m, with a height of 2 m.

Additionally, the applicant operates an existing Reverse Osmosis (RO) plant, which can discharge up to 10 m³ of brine per day. To manage this brine, the applicant proposes blending it with treated wastewater in the turkey nest, which will primarily supply water for dust suppression activities. In addition, GVWW has indicated that treated effluent may also be transferred directly from the WWTP outlet for dust suppression purposes.

The proposed WWTP and associated infrastructure will be located on tenements L53/115, L53/146, and M53/1078, currently owned by GVWW. Although these tenements are still registered under GWR Group Limited, the transfer to Gold Valley Wiluna West Pty Ltd is in progress. A Letter of Authority from GWR authorizes GVWW to act on these tenements, confirming that GWR sold the tenements to GVWW with completion on 6 March 2024. Under the sale agreement, GVWW has been granted rights to access, develop, and manage the tenements and liaise with government bodies until it becomes the registered holder.

The premises relates to the category and assessed design capacity under Schedule 1 of the *Environmental Protection Regulations 1987* (EP Regulations) which are defined in works approval W3110/2025/1. 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 W3110/2025/1

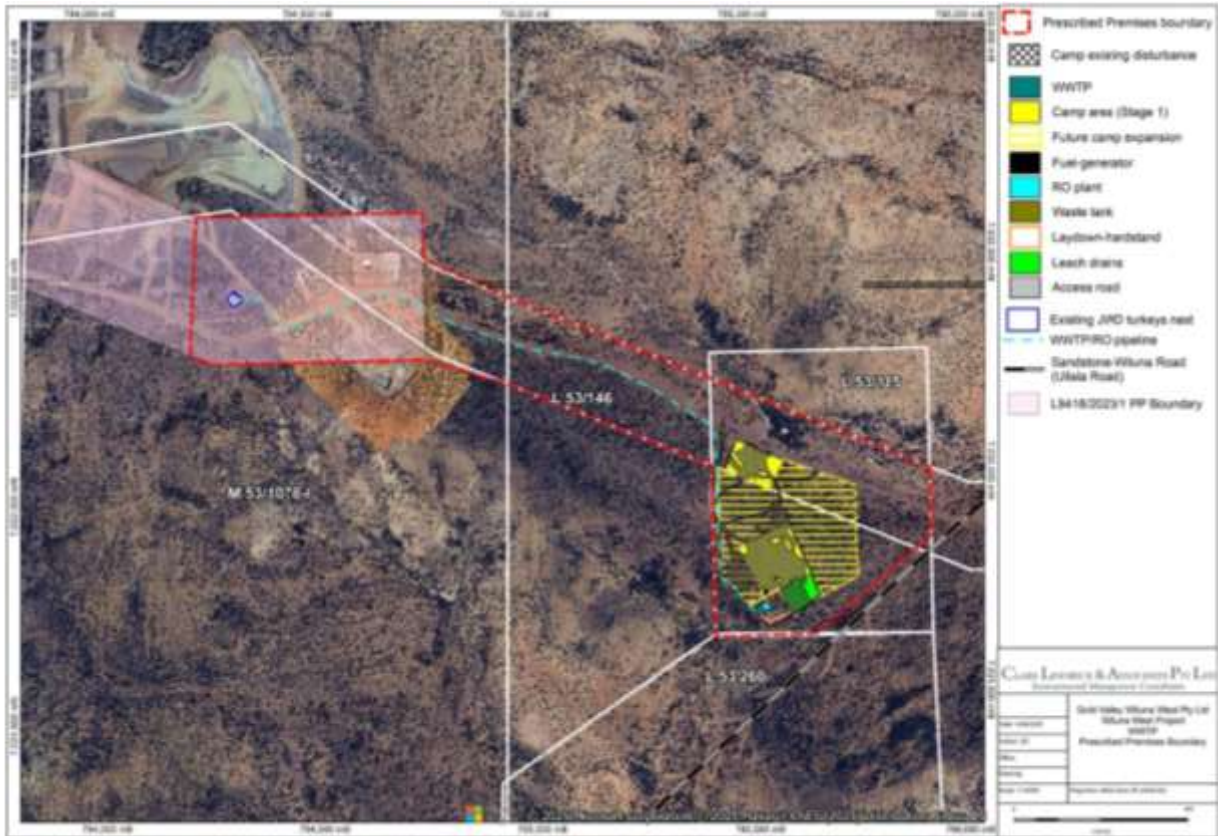


Figure 1: Proposed layout of the prescribed premises boundary.

2.3 WWTP and dust suppression area

The proposed WWTP will be a modular unit housed within a purpose-fitted container, incorporating three external tanks (balance, sludge, and irrigation), along with associated pipework and electrical cabling. It is designed to treat effluent from the village ablution and kitchen facilities. The plant will employ tertiary treatment processes, including media filtration, disinfection, and advanced monitoring systems, to ensure consistent effluent quality. The expected treated effluent target concentrations shown in Table 1 below:

Table 1: Quality of treated effluent

Parameter	WWTP discharge
Biochemical oxygen demand (BOD)	<20 mg/L
Total suspended solid (TSS)	<30 mg/L
pH	6.5 to 8.5
<i>E. Coli</i>	<10MPN or cfu/100mL
Residual free chlorine	0.2 to 2.0 mg/L
Turbidity	<5 NTU

The existing RO plant will discharge 10 m³ of RO brine into the proposed pipeline from WWTP to turkey nest, where it will blend within the existing turkey's nest before being used for dust suppression on haul and access roads within the mining tenements. Discharge from the turkey nest will occur via the existing standpipe. GVWW intends to use the treated or blended effluent exclusively on haul and access roads within its mining tenements. The road on L53/146 has a

running surface width of 8–10 m and covers an area of approximately 1.26 ha. This road was formerly used for ore haulage but is now only used by light vehicles. The road that runs through L53/148 has a running surface width of 12 m, with batters and drains on either side, and covers an area of approximately 18.96 ha. This is the main haulage route for transporting ore offsite. These areas require significantly more than 50,000 L of water per day for dust suppression.



Figure 2: Proposed dust suppression area

2.4 Department of Health Approval

Recycled water for non-potable uses is supported and regulated by the Department of Health, Western Australia (DOH) as a way to help alleviate the pressure on scarce water resources, provided public health is protected. One such application is dust suppression in industrial and commercial settings, which is classified as a medium exposure risk due to potential human contact during use.

The applicant is required to ensure compliance against the DoH recommendations, which includes confirmation of compliance against the *Health Regulations 1974* for construction and installation of the WWTP, and obtaining DoH approval as per the 'Guidelines for the Non-potable Uses of Recycled Water in WA (2011)'.

2.5 Mining Act

Mining Proposal registration number 500800, which included the installation of the wastewater treatment plant (WWTP) and further camp expansions, was approved by the Department of Mines, Petroleum and Exploration (DMPE) on 4 September 2025.

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	Construction of aerobic WWTP.	Air / windborne pathway	Water trucks will be utilised during construction activities to control dust as required. Daily visual inspections during construction activities will be undertaken to identify excessive visible dust generation. Implementation of vehicle speed limits to reduce dust generation
Noise		Air / windborne pathway	Construction activities will only occur during daylight hours. Construction activities will comply with the

Emission	Sources	Potential pathways	Proposed controls
			<i>Environmental Protection (Noise) Regulations 1997</i>
Commissioning and time limited operations			
Noise	Operation of wastewater treatment plant	Air / windborne pathway	Wastewater will be transferred via pipeline to WWTP which is containerised and enclosed
Odour	Commissioning activities Operation of wastewater treatment plant Incorrect wastewater chemical treatment balance Irrigation of treated effluent that does not meet discharge quality criteria. Sludge removal	Air / windborne pathway	Wastewater will be transferred via pipeline to WWTP which is containerised and enclosed. Use of carbon filters. Air extraction systems will be connected to carbon filters to reduce odours. Automated dosing will maintain dissolved oxygen and pH at their target levels. Sludge will be removed periodically as required by a licensed carrier to a licensed disposal site.
Spills/leaks of untreated and treated wastewater or chemicals	Operation of wastewater treatment plant Infrastructure and equipment failure Maintenance works Spills, leaks and/or discharges of untreated sewage treated effluent not meeting discharge criteria, sludge and chemicals. Storage of chemicals	Flooding/pooling/overland runoff Seepage to soil and groundwater	The area on which the WWTP is constructed will be graded towards an emergency sump (incorporating collection bunds) located adjacent to the storage tank and water cart filling area. Sludge will be removed periodically as required by a licensed carrier to a licensed disposal site. A pump will be available on the watercart to pump out the emergency sump in the event that it becomes full. Site operators will be trained in wastewater treatment processes, effluent quality monitoring, and emergency response procedures. The WWTP will undergo scheduled maintenance according to the manufacturer's recommendations, and emergency repairs will be undertaken promptly. Online plant monitoring. Chemicals are stored in accordance with Australian Standards. Spills are cleaned up as soon as practicable. Any release which is likely to cause pollution or environmental harm will be reported to the DWER in accordance with Section 72 of the <i>Environmental Protection Act 1986</i> .
Treated	Spills/leakage of	Flooding/pool	Monitoring systems to ensure consistent effluent quality. Water is not saline.

Emission	Sources	Potential pathways	Proposed controls
effluent	<p>treated wastewater from the Turkey nest and associated pipelines</p> <p>Overflow of liquid from turkeys nest to the surrounding areas</p> <p>Discharge of treated wastewater onto the project road network for dust suppression</p>	<p>ing/overland runoff</p> <p>Seepage to soil and groundwater</p>	<p>Transport of treated effluent to the turkey's nest will commence after obtaining daily samples for 7 consecutive days (starting from the commencement of environmental commissioning with wastewater). If the WWTP is operating as designed and producing effluent of the required quality, sampling and analysis will then be undertaken on a weekly basis.</p> <p>Existing JWD turkeys nest is HDPE lined and fenced.</p> <p>Daily inspections will be undertaken to ensure adequate freeboard is maintained in turkeys nest.</p> <p>Any release which is likely to cause pollution or environmental harm will be reported to the DWER in accordance with Section 72 of the <i>Environmental Protection Act 1986</i>.</p> <p>Adequately sized discharge area</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 3 and Figures 3 and 4 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
Residential Premises	No human receptors within 20 kms
Environmental receptors	Distance from prescribed activity
Priority Ecological Communities	Priority 1 Ecological Community intersects and is immediately adjacent and to the upper north-west corner of the premises boundary
Threatened and Priority Flora	0.9 km Northwest of the prescribed premises boundary
Depth to groundwater	<p>~30 m below ground level (bgl).</p> <p>Wiluna West Project area shows that the regional groundwater flow direction is in a general easterly direction toward Lake Way, although there may be some localized variations around the two Banded Iron Formation (BIF) ridges (named B and C ridges).</p>

Proclaimed <i>Right in Water and Irrigation Act 1914</i> - East Murchison Groundwater Area	The prescribed premises is located the East Murchison Groundwater Area
Minor non-perennial watercourse	Flows in close proximity to the premises boundary and intersects it at two distinct locations: one near the northwestern corner and another near the southeastern corner of the premises.



Figure 3: Distance to sensitive receptors

Works Approval: W3110/2025/1 (10/02/2026)

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

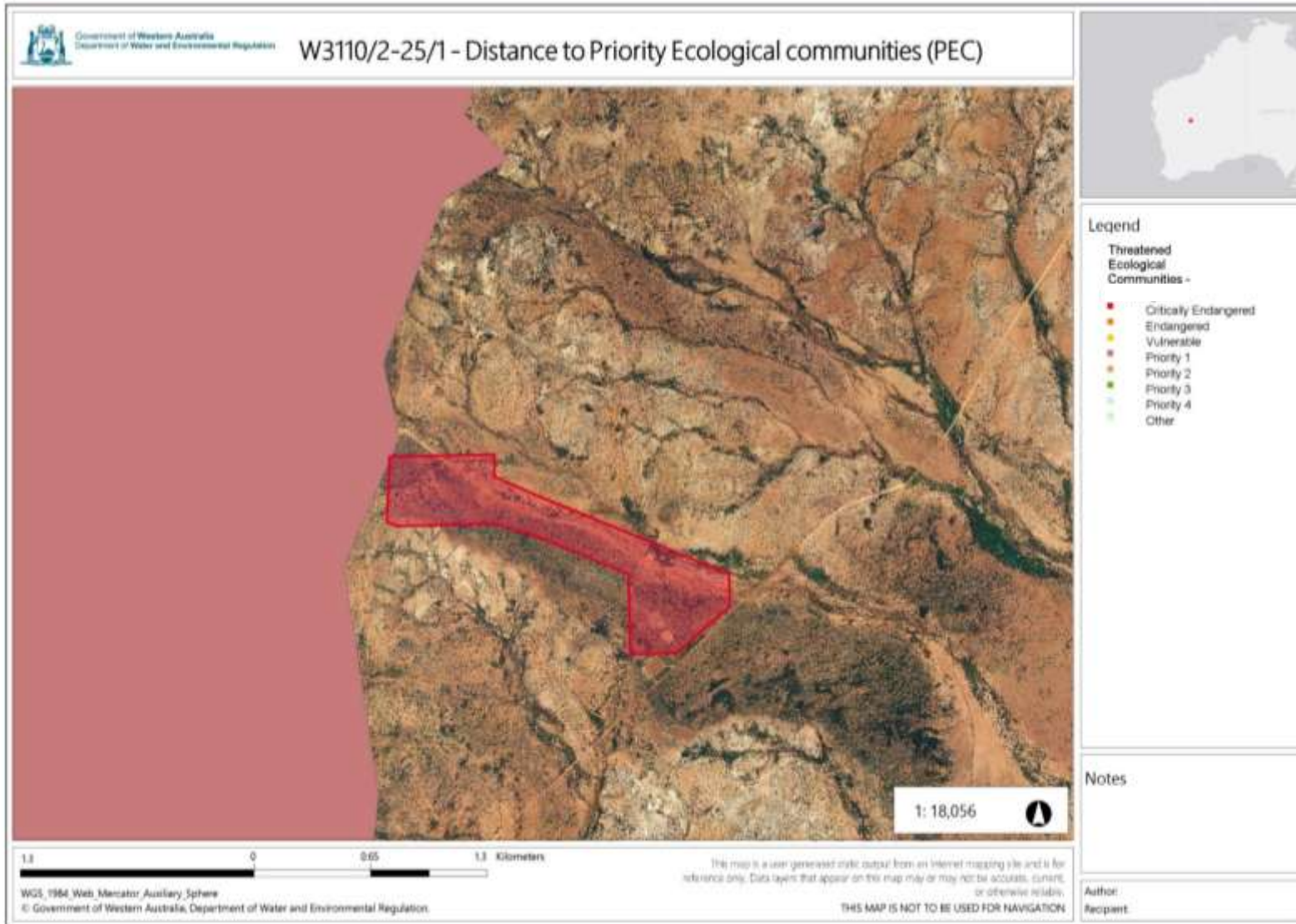


Figure 4: Distance to Priority Ecological Community

Works Approval: W3110/2025/1 (10/02/2026)

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 4.

Works approval W3110/2025/1 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, 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 / DWER comments
Sources / activities	Potential emission	Potential pathways and impact	Receptors	Applicant controls				
Construction								
Construction of aerobic WWTP.	Dust	Air / windborne pathway causing impacts to health and amenity	Priority 1 PEC intersects and is immediately adjacent to the upper north-west corner of the premises boundary. Minor non-perennial watercourse flows in close proximity to the premises boundary and intersects it at two distinct locations. Threatened and Priority Flora ~ 0.9 km Northwest of the prescribed premises boundary.	Refer to Section 3.1	C = Slight L = Unlikely Low Risk	Y	N/A	The Delegated Officer considers that dust emissions can be adequately regulated by section 49 of the EP Act during construction.
	Noise		No receptors	Refer to Section 3.1	N/A – no receptors	Y	N/A	The provisions of the <i>Environmental Protection (Noise) Regulations 1997</i> apply.
Commissioning and time limited operation								
Operation of wastewater treatment plant	Noise	Air / windborne pathway causing impacts to health and amenity	No receptors	Refer to Section 3.1	N/A – no receptors	Y	Conditions 1, 2, 3 and 22	The provisions of the <i>Environmental Protection (Noise) Regulations 1997</i> apply.
Commissioning	Odour	Air / windborne	No receptors	Refer to	N/A – no receptors	Y	Conditions	The environmental siting of the

Works Approval: W3110/2025/1 (10/02/2026)

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				
<p>activities</p> <p>Operation of wastewater treatment plant</p> <p>Incorrect wastewater chemical treatment balance</p> <p>Irrigation of treated effluent that does not meet discharge quality criteria.</p> <p>Sludge removal</p>		<p>pathway causing impacts to health and amenity</p>		<p>Section 3.1</p>		<p>1, 2, 3, 5, 6, 7, 8, 9, 10, 15, 16, 17, 18, 19, 20 and 23</p>	<p>premises and 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.</p> <p>Odour can be adequately regulated by section 49 of the EP Act.</p>	
<p>Operation of wastewater treatment plant</p> <p>Infrastructure and equipment failure</p> <p>Maintenance works</p> <p>Irrigation of treated effluent that does not meet discharge quality criteria.</p> <p>Spills, leaks and/or discharges of untreated sewage treated effluent not meeting discharge criteria, sludge and chemicals.</p> <p>Storage of</p>	<p>Spills/leakage of untreated and treated wastewater or chemicals</p>	<p>Flooding/pooling /overland runoff potentially causing ecosystem disturbance or impacting surface water quality</p> <p>Seepage through soil and to groundwater causing contamination and impacting water quality</p>	<p>Priority 1 PEC intersects and is immediately adjacent to the upper northwest corner of the premises boundary.</p> <p>Threatened and Priority Flora ~ 0.9 km Northwest of the prescribed premises boundary.</p> <p>Groundwater ~30 mbgl</p> <p>Premises is located within the Proclaimed East Murchison Groundwater area.</p> <p>Minor non-perennial watercourse flows in close proximity to the premises boundary and</p>	<p>Refer to Section 3.1</p>	<p>C = Moderate L = Unlikely Medium Risk</p>	<p>Y</p> <p>Conditions 1, 2,3, 5, 6, 7, 8, 9, 10, 15, 16, 17, 18, 19, 20 and 23</p>	<p>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.</p> <p>In the event of any spills/leaks the Delegated Officer notes that the groundwater flow is away from the Priority Ecological Community.</p>	

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				
chemicals			intersects it at two distinct locations.					
Spills/leakage of blended wastewater from the Turkey nest and associated pipelines Overflow of liquid from turkeys nest to the surrounding areas Discharge of treated wastewater onto the project road network for dust suppression	Treated wastewater or blended effluent			Refer to Section 3.1	C = Minor 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 has taken into account the design specifications of the existing turkey nest, including the installation of an HDPE liner, adequate freeboard, and sufficient storage capacity. These measures are considered effective in mitigating the risk of spills and overflow. Furthermore, the Delegated Officer has regulated treated and blended effluent to comply with low nitrogen, phosphorus, and electrical conductivity limits. Discharge is restricted to project road works, and the Delegated Officer has included additional requirements to prevent pooling and runoff, as well as a 50-metre buffer to watercourses to manage. This approach is intended to minimise potential impacts on sensitive environmental receptors in the surrounding area.
	Odour	Air / windborne pathway causing impacts to health and amenity	No receptors	Refer to Section 3.1	N/A – no receptors	Y	Condition 1, 2,3, 5, 6, 7, 8, 9, 10, 15, 16, 17, 18, 19, 20 and 23	The environmental siting of the premises and the applicant's proposed controls are considered to be effective in mitigating the impact of odour emissions from the premises during commissioning and time

Works Approval: W3110/2025/1 (10/02/2026)

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				
								limited operations. Odour can be adequately regulated by section 49 of the EP Act.

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 10 November 2025 and advertised in The West Australian on 17 November 2025.	One public comment was received; please refer to Appendix 1 for further details	Refer to Appendix 1
Local Government Authority (Shire of Wiluna)	None received.	N/A
Department of Mines, Petroleum and Exploration (DMPE) advised of proposal 5 December 2025	<p>The Department of Mines, Petroleum & Exploration (DMPE) reviewed the works approval application and confirmed that the tenure transfer from GWR Group Ltd to Golden Valley Wiluna West Pty Ltd has not yet been approved. However, under section 118A of the Mining Act 1978, GWR has authorized GVWW to undertake mining activities and make associated applications, so the tenure status does not affect this request.</p> <p>DMPE noted that the proposed WWTP was previously approved under Mining Proposal Reg ID 500800 on 4 September 2025. The scope of activities in the works approval aligns with this approval, including a 50 m³ daily treatment capacity and discharge of treated water via a 1.9 km pipeline into an HDPE-lined turkey's nest. The treated water will be used for dust suppression.</p> <p>Environmental considerations were addressed, as the pipeline and turkey's nest intersect a Priority 1 ecological community (Wiluna West vegetation complex). Clearing was approved under CPS 10630/1, and DMPE assessed the risk of environmental harm as acceptable with proposed management strategies such as V drains along the pipeline and daily inspections. Tenement conditions remain in place to manage compliance under the Mining Act 1978.</p>	Noted.
Department of Health (DoH) advised of proposal on 5 December 2025	A letter from DoH was received on 10 December 2025 advising that it had received an Application to Construct/Install an Apparatus for the Treatment of Sewage from Wiluna West Iron Ore Project, Gold Valley, Wiluna West Pty Ltd , in accordance with the <i>Health (Treatment of Sewage and Disposal of Effluent and Liquid Waste) Regulations 1974</i> . The application is currently be assessed. The information received from the	Noted. It is the Licence Holder's obligation to ensure that all government approvals are obtained prior to commencing work.

Consultation method	Comments received	Department response
	applicant aligns with the details provided in the DWER works approval application.	
Applicant was provided with draft documents on 10 February 2026	The applicant has requested that a typographical error in Condition 4 be corrected.	Corrected as requested.

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.
4. Department of Health (DOH), 2011. *Guidelines for the Non-potable Uses of Recycled Water in Western Australia*. Perth, Western Australia.
5. Gold Valley Wiluna West Pty Ltd 2025, *Works Approval Application Supporting Document. Wiluna west project accommodation camp wastewater treatment plant*

Appendix 1: Summary of stakeholders' comments on the proposed activities

Stakeholder comments	Department response
<p>Priority Ecological Communities</p> <p>The stakeholder is concerned that the application does not adequately assess indirect impacts on the Wiluna West vegetation complexes Priority Ecological Community (PEC), which is listed as Priority 1. While the applicant acknowledges that disturbance within the PEC buffer is limited to 0.3 hectares along the pipeline corridor, the assessment overlooks potential edge effects, hydrological changes, and weed invasion risks. Additionally, there is insufficient analysis of how treated effluent irrigation for dust suppression might affect groundwater quality and connectivity in Banded Iron Formation (BIF) systems, which are highly sensitive ecosystems supporting unique endemic species.</p> <p>The stakeholder recommends prohibiting treated effluent application within a specified buffer distance from the Priority 1 Ecological Community and documented Priority 3 flora populations to prevent potential ecological impacts.</p>	<p>The Department acknowledges the stakeholder's concerns regarding potential indirect impacts on the Wiluna West vegetation complexes Priority Ecological Community (PEC), and notes that the proposed premises boundary shows only a minimal overlap (85 m²) with the mapped PEC (refer to Figure 4). Furthermore, the proposed infrastructure, including the wastewater treatment plant (WWTP), pipeline, and turkey nest, does not overlap with the PEC, and the turkey nest is located more than 100 metres away from the PEC. The applicant has also proposed that treated wastewater will be applied exclusively on haul and access roads within their mining tenements.</p> <p>The proposed turkey nest is existing infrastructure and is located within the PEC 500 m buffer zone, along with a small section of the pipeline corridor (approximately 0.3 hectares). The delegated officer has carefully considered these matters during the assessment and determined that, given the distance to the PEC and the absence of infrastructure within the PEC, the risk of indirect impacts is low. To minimise risks, the delegated officer has imposed conditions in the works approval requiring the turkey nest to be maintained with a low-permeability liner and adequate freeboard to prevent unauthorised discharges. Additional conditions address spill management, leakage prevention, and overflow controls.</p> <p>The Department also notes that the Department of Mines, Petroleum and Exploration (DMPE) has applied complementary management measures, including V-drains along the pipeline and daily inspections of infrastructure, which are considered adequate to meet DMPE's environmental objectives.</p> <p>Hydrogeological information indicates that the regional groundwater flow direction is generally easterly toward Lake Way, with only minor localised variations near the Banded Iron Formation (BIF) ridges (B and C ridges). This flow pattern reduces the likelihood of treated effluent migration toward the PEC. Furthermore, conditions have been applied to ensure environmental protection, including requirements for wastewater treatment plant construction standards, treated effluent monitoring, and authorised discharge locations for dust suppression. Emission and discharge limits have been set for both the commissioning and time-limited operational phases. The proposed dust suppression areas are located well away from the PEC, further minimising risk.</p>
<p>Priority Flora Impacts</p> <p>The stakeholder raises concerns about the applicant's conclusion that clearing <i>Sida picklesiana</i> will have low to medium local impact and insignificant regional impact. The stakeholder argued that the regional population estimate is highly uncertain and based on incomplete surveys, making definitive conclusions inappropriate under the precautionary principle. The removal of over 20% of the local population is considered significant for a Priority 3 species, which may become threatened, especially given its vulnerability in arid environments where recruitment is episodic. Additionally, the cumulative impacts of other mining and clearing activities in the area have not been adequately assessed, and research indicates that sequential habitat loss can lead to sudden population collapse once critical thresholds are reached.</p> <p>The stakeholder recommends conducting a comprehensive regional survey of <i>Sida picklesiana</i> to accurately determine its conservation status and regional population size before any clearing that could impact known populations. They also propose implementing offset measures to compensate for unavoidable</p>	<p>The Department acknowledges the stakeholder's concerns regarding the potential impact of clearing <i>Sida picklesiana</i> and the uncertainty surrounding regional population estimates. It is noted that clearing for this project has already been authorised under Clearing Permit CPS 10630/1, issued by the Department of Mines, Petroleum and Exploration (DMPE). The assessment of clearing impacts, including consideration of cumulative effects and management measures, was undertaken during that permit process. Therefore, clearing is outside the scope of the current Department of Water and Environmental Regulation (DWER) works approval assessment (refer to Table 6 of the Decision Report).</p> <p>DWER's risk assessment has focused on emissions and discharges associated with the construction and operation of the wastewater treatment plant (WWTP), associated infrastructure, and the irrigation of treated effluent for dust suppression. Conditions have been applied to ensure environmental protection, including:</p> <ul style="list-style-type: none"> - WWTP construction standards (low-permeability liner, freeboard requirements, spill prevention measures); - Treated effluent monitoring for quality parameters to manage potential risks to groundwater and soil; - Designation of authorised discharge locations for dust suppression, located away from sensitive ecological

Stakeholder comments	Department response
<p>impacts on Priority 3 flora.</p>	<p>areas; and</p> <ul style="list-style-type: none"> - Emission and discharge limits for both commissioning and time-limited operational phases, based on site-specific soil characteristics. <p>These measures are intended to minimise indirect impacts on surrounding flora and ecological values, including Priority Ecological Communities and groundwater-dependent ecosystems. They also ensure that the risk of environmental harm from WWTP operations and effluent irrigation can be effectively managed.</p>
<p>Groundwater Impacts</p> <p>The stakeholder acknowledges that the project area is not within a Public Drinking Water Source Area or Groundwater Management Area but stressed the need for rigorous assessment of groundwater impacts. It was noted that groundwater in the area is fresh to moderately saline, with salinity ranging from 500 to 3,000 mg/L and electrical conductivity between 1.52 and 2.74 mS/cm. While treated effluent quality targets meet standard parameters, the comment raises concern about cumulative nutrient and salt loading from repeated application for dust suppression. Arid zone soils have low buffering capacity, and repeated effluent use could lead to salt accumulation and nutrient mobilisation during heavy rainfall events. The stakeholder also questions whether flood flow characterisation adequately considers extreme rainfall events, which are projected to increase in frequency under climate change scenarios.</p>	<p>The Department acknowledges the stakeholder's concerns regarding potential cumulative impacts on groundwater quality from treated effluent irrigation for dust suppression, particularly in an arid environment with low soil buffering capacity.</p> <p>DWER has considered these factors during its assessment. The supporting documentation indicates that topsoil in the project area dominated by sand with a low percentage of finer particles including pisolitic gravel. The applicant proposed a total of 20 hectares for dust suppression. In addition to the applicant's proposed treated effluent discharge limits, the Department has authorised treated effluent subject to concentration limits of 30 mg/L for total nitrogen and 7.5 mg/L for total phosphorus.</p> <p>The Department also noted that electrical conductivity in groundwater ranges between 1.52 and 2.74 mS/cm. To manage salinity levels, the Department has authorised the release of treated effluent and blended effluent with an electrical conductivity of less than 2,000 µS/cm.</p> <p>DWER has also applied conditions for biochemical oxygen demand (BOD), total suspended solids (TSS), E. coli, residual free chlorine, pH, and turbidity to ensure effluent quality meets environmental standards. Weekly monitoring of treated effluent quality is required under the works approval to verify compliance with these limits.</p> <p>The delegated officer has imposed conditions in the works approval requiring the turkey nest to be maintained with a low-permeability liner and adequate freeboard to prevent unauthorised discharges. Additional conditions address spill management, leakage prevention, overflow controls and weekly monitoring water quality of the treated effluent.</p> <p>With these conditions and monitoring requirements in place, the risk of groundwater contamination and soil degradation from effluent irrigation can be effectively managed.</p>
<p>Surface Water Drainage and Containment</p> <p>The stakeholder identifies ephemeral drainage lines located 430 m north and 600 m west of the WWTP area, with runoff flowing north and west/southwest. The risk assessment rates the residual risk of sludge or effluent release from the WWTP and associated infrastructure as "Medium" after controls. However, this rating appears to underestimate the consequences of a major spill or containment failure.</p> <p>Concerns include:</p> <ul style="list-style-type: none"> • Limited design details for the turkey's nest storage facility (• Design for at least a 1-in-100-year storm event with appropriate freeboard. • No consideration of preferential flow paths in fractured rock terrain typical of BIF systems, which may accelerate contaminant migration 	<p>The Department acknowledges the concerns raised regarding the risk assessment and design details for the proposed wastewater treatment plant (WWTP) and associated infrastructure. Detailed engineering specifications for the turkey nest storage facility, including freeboard requirements, liner permeability and storage capacity, were reviewed as part of the assessment. The delegated officer noted that threatened and Priority Flora are located approximately 0.9 km northwest of the prescribed premises boundary. The closest drainage lines are situated 430 metres to the north and 600 metres to the west of the WWTP area; however, these are ephemeral and only flow following heavy rainfall, directing water to the north and west/southwest. The applicant has proposed controls such as grading the WWTP construction area towards an emergency sump, with a pump available on the water cart to remove water from the sump if it becomes full.</p> <p>Additional conditions have been applied to address spill management, leakage prevention, and overflow controls to ensure environmental risks are effectively mitigated. Based on these measures and conditions, the Department is satisfied that the design and operational controls are adequate to manage potential environmental risks and protect surrounding sensitive receptors.</p>

Works Approval: W3110/2025/1 (10/02/2026)

Stakeholder comments	Department response
<ul style="list-style-type: none"> Given proximity to a Priority 1 PEC and Priority 3 flora, a more conservative containment design and detailed engineering specifications are recommended to demonstrate compliance with best practice standards. 	
<p>Climate Change Considerations</p> <p>The stakeholder raises concerns about the application includes baseline climate data but fails to address climate change impacts on the proposed WWTP in the Wiluna region.</p> <ol style="list-style-type: none"> Temperature & Evaporation: Projected increases in temperature and extreme heat will raise evaporation rates, affecting water balance and dust suppression. A sensitivity analysis for future climate conditions is recommended. Rainfall Variability: More intense rainfall events and longer dry periods could impact WWTP loading and increase containment failure risks at the turkey's nest storage. Design should consider future rainfall intensity-frequency-duration changes. Vegetation Stress: Climate change will further stress arid zone vegetation, reducing resilience of Priority 1 PEC and Priority 3 flora. This necessitates a conservative impact assessment. 	<p>The Department acknowledges the concerns raised regarding climate change implications for the proposed Wastewater Treatment Plant (WWTP) and provides the following clarifications and measures included in the Works Approval:</p> <p>Temperature & Evaporation</p> <p>The delegated officer notes that the high evaporation rates in Wiluna will reduce the risk of runoff of treated and blended wastewater from the road to the surrounding soil, vegetation, and groundwater.</p> <p>Rainfall Variability</p> <p>Operational controls include a PLC-based control system with online monitoring, alarms, and an emergency isolator. Float level switches (sensors) will be installed in dosing, holding, balance, sludge, and irrigation tanks to detect high water levels, while pressure and flow indicators will monitor system performance.</p> <p>Additionally, the turkey's nest storage facility has been designed with adequate freeboard requirements, providing additional capacity to manage extreme rainfall events and reduce containment failure risk. The Works Approval also includes conditions requiring:</p> <ul style="list-style-type: none"> All sewage storage and treatment tanks to be enclosed All sewage storage and treatment tanks, vessels, transfer pipelines, and conveyance infrastructure to be constructed of impervious material and free of leaks and defects. All sewage conveyance, storage, and treatment infrastructure to be designed and constructed to ensure stormwater does not enter the sewage treatment system or treated wastewater storage infrastructure. <p>Vegetation Stress:</p> <p>To mitigate this, treated wastewater application for dust suppression (proposed over 20 ha) will be managed under approved irrigation controls to prevent over-irrigation and salinity impacts. Wastewater quality parameters have been set based on local soil characteristics to minimize ecological risk.</p>
<p>Adequacy of Risk Assessment</p> <p>The stakeholder has raised concerns regarding the risk assessment presented in Table 9 of the applicant's supporting document. The assessment relies on qualitative ratings that appear to underestimate potential impacts. It does not adequately address cumulative or catastrophic risks, overlooks ephemeral drainage systems that support critical ecosystems, and fails to properly consider Priority 1 ecological communities (PECs) and Priority 3 flora. Best practice requires consequence ratings to reflect conservation significance and account for long-term ecological effects.</p>	<p>The Department acknowledges the concerns raised regarding the qualitative risk assessment presented in the application. To address these concerns, DWER has undertaken its own risk assessment for the proposed activities, which:</p> <ul style="list-style-type: none"> Considers Applicant Controls Sensitive Receptors: The Department has explicitly considered the proximity of sensitive environmental receptors, including ephemeral drainage systems, Priority 1 PEC, and documented populations of Priority 3 flora, in determining consequence ratings. Regulatory Controls: Additional regulatory conditions have been included in the Works Approval to minimize environmental risk. Stakeholder Input: The Department's risk assessment also considers comments received from other key stakeholders, including the Department of Health (DoH) and Department of Mines, Petroleum and Energy

Stakeholder comments	Department response
<p>Monitoring and Adaptive Management</p> <p>The stakeholder raises concerns that the proposed monitoring plan focuses primarily on operational checks and lacks a comprehensive environmental monitoring program. Key missing elements include groundwater monitoring (both up-gradient and down-gradient), soil quality assessments in effluent application areas, and ecological monitoring to evaluate vegetation health. Best practice recommends implementing a tiered monitoring framework that incorporates compliance and effects monitoring, establishes clear trigger levels, and includes adaptive management responses.</p>	<p>(DMPE), ensuring a comprehensive evaluation of potential impacts.</p> <p>The Department has reviewed the stakeholder's concerns regarding the adequacy of the proposed monitoring plan and the potential groundwater impacts associated with effluent application. The delegated officer notes that the proposed premises is located in an arid climate, characterised by hot, dry summers and mild, dry winters. This climate is associated with high evaporation rates, which will significantly reduce infiltration of treated or blended effluent and therefore minimise potential impacts to groundwater.</p> <p>In addition, the delegated officer has considered soil characteristics during the assessment and calculated appropriate nitrogen and phosphorus loading limits for treated wastewater to ensure protection of soil and groundwater quality.</p>
<p>Cumulative Impact Assessment</p> <p>The stakeholder noted that the application acknowledges overlap between the prescribed premises boundary and the licensed crushing and screening plant (L9418/2023/1) at JWD operations, as well as ongoing mining activities in the broader project area. However, it does not include a comprehensive cumulative impact assessment. Research indicates that sequential and concurrent mining developments can create cumulative effects greater than individual impacts, such as habitat fragmentation, altered hydrology, and invasive species spread. The EPA has highlighted the need for strategic cumulative impact assessments in biodiversity-rich regions. Although the current proposal is for a small facility, it forms part of a larger mining operation, and approval should consider requiring a cumulative impact management plan for the entire project area.</p>	<p>The Department acknowledges the stakeholder's concern regarding cumulative impacts.</p> <p>Under the <i>Environmental Protection Act 1986</i>, a works approval premises boundary can overlap with a licence premises boundary where the works approval authorises construction and the licence governs operations.</p> <p>Cumulative impacts are considered at a strategic level through EPA assessments and other regulatory mechanisms. This works approval relates to a small facility with a defined footprint, and the delegated officer considers the risk assessment proportionate to the scale of the activity. A cumulative impact management plan has not been required as part of this decision.</p>
<p>Ownership and Tenure Issues</p> <p>The stakeholder highlights complex ownership and tenure arrangements that raise concerns about long-term environmental management and liability. The application shows recent changes in company structure, including the purchase of the project by Gold Valley Wiluna West Pty Ltd from GWR Group Limited in 2024, with tenement transfers still in progress. Mining rights at JWD reverted to Gold Valley Iron Ore in 2025. These changes, combined with the overlap of the prescribed premises boundary with an existing licensed area, may create uncertainty regarding environmental responsibilities and remediation obligations. The stakeholder recommends ensuring clear agreements on environmental management during the transfer period and requiring financial assurances to guarantee long-term monitoring and remediation regardless of future ownership changes.</p>	<p>The applicant has provided a letter with the works approval application confirming that GWR Group Limited has sold, and Gold Valley Wiluna West Pty Ltd has acquired, the tenements listed in the schedule to that letter. Tenement transfers are being processed by the Department of Mines, Industry Regulation and Safety.</p>
<p>Wastewater Treatment System Design</p> <p>The stakeholder has raised concern that the aerobic wastewater treatment system has standard components, but key design details require clarification. No information is provided on sludge management, including expected volumes, removal frequency, receiving facility, or contingency plans for transport challenges in the remote Wiluna location. Additionally, the chlorine</p>	<p>The application adequately addresses sludge management and no further information is required. The wastewater treatment process includes screening, equalization, aeration, clarification, media filtration, and chlorine dosing, supported by PLC-based monitoring with alarms and emergency isolation to prevent spills, including those caused by sludge accumulation. Excess sludge will be thickened in a dedicated tank and removed by licensed controlled waste carriers in compliance with the <i>Environmental Protection (Controlled Waste) Regulations 2004</i>.</p>

Works Approval: W3110/2025/1 (10/02/2026)

Stakeholder comments	Department response
<p>dosing system may pose environmental risks when chlorinated effluent is used for dust suppression, as residual chlorine and by-products can harm soil microorganisms and vegetation. The stakeholder recommends providing detailed sludge management information and considering alternative disinfection methods (e.g., UV) or evidence that chlorinated effluent will not adversely affect soil ecology.</p>	<p>Disinfection is achieved through chlorination, maintaining a residual of 0.2–2.0 mg/L as outlined in the Department of Health's <i>Guidelines for the Non-potable Uses of Recycled Water in Western Australia</i>, which specify compliance values for dust suppression applications.</p>
<p>Commissioning and Time-Limited Operations</p> <p>The stakeholder considers the proposed commissioning plan inadequate. It is argued that completing environmental commissioning within one to two weeks and relying on two consecutive compliant effluent samples is insufficient to demonstrate stable system performance. Best practice for biological wastewater treatment systems requires a longer commissioning period to establish microbial populations and verify consistent performance under varying conditions such as wastewater strength, temperature, and hydraulic loading. The stakeholder recommends revising the application to include an extended commissioning period with more comprehensive performance verification before releasing treated effluent to the turkey's nest for dust suppression.</p> <p>The stakeholder recommends a requirement for commissioning period of at least six weeks with comprehensive performance verification before treated effluent is released for use in dust suppression.</p>	<p>The delegated officer has authorised an aggregate period of 90 calendar days from the date the Environmental Compliance Report is submitted to the CEO for environmental commissioning. In addition, the works approval requires the holder to submit an Environmental Commissioning Report to the CEO within 30 calendar days of completing environmental commissioning. This report must comprehensively detail all commissioning activities undertaken, including timeframes and volumes of wastewater processed, provide a summary of treated effluent monitoring results with copies of laboratory reports, compare results against discharge criteria specified in Condition 1, and assess the performance of the approved dust suppression area against operational requirements in the works approval. These requirements ensure that system performance is adequately demonstrated and verified prior to ongoing operations.</p>
<p>Ecologically Sustainable Development</p> <p>The stakeholder argues that the application does not adequately address ecologically sustainable development (ESD) principles required under the <i>Environmental Protection Act 1986</i>. It is noted that ESD involves integrating long-term environmental, social, and economic considerations, whereas the current application focuses mainly on technical aspects of wastewater treatment. The stakeholder highlights that progressive expansion of mining infrastructure at Wiluna West, including the proposed WWTP, represents incremental commitment with lasting impacts on an arid ecosystem containing Priority flora and nearby Priority Ecological Communities. It was recommended that the Department assess whether approving this application aligns with ESD principles given these ecological sensitivities.</p>	<p>The works approval relates specifically to the construction, commissioning and time limited operation of a wastewater treatment plant designed to manage wastewater in a controlled manner, reducing environmental risk and supporting safe reuse for dust suppression in accordance with Department of Health guidelines. The approval does not alter the broader environmental impact assessment of the Wiluna West project, which has been subject to separate regulatory processes addressing flora, fauna, and Priority Ecological Communities. The conditions imposed in the works approval ensure that treated effluent meets strict discharge criteria and that environmental performance is verified prior to ongoing use.</p>
<p>Precautionary Principle</p> <p>The stakeholder invokes the precautionary principle under the <i>Environmental Protection Act 1986</i>, arguing that uncertainty about the regional population size of <i>Sida picklesiana</i>—acknowledged as “very conservative” due to limited surveys—combined with the proposed removal of over 20% of the known local population, warrants stronger measures. It is recommend either rejecting the application or imposing conditions requiring comprehensive regional surveys, offset measures to compensate for unavoidable impacts, and long-term monitoring to ensure population viability.</p>	<p>Clearing for this project has already been authorised under Clearing Permit CPS 10630/1, issued by the Department of Mines, Petroleum and Exploration (DMPE). The assessment of clearing impacts, including cumulative effects and management measures, was undertaken during that permit process. Accordingly, clearing is outside the scope of the current works approval assessment by the Department of Water and Environmental Regulation (DWER).</p>

Stakeholder comments	Department response
<p>Recommendations</p> <p>The stakeholder requests significant additional information and assessments before approval, including:</p> <ul style="list-style-type: none"> • A comprehensive evaluation of indirect impacts on the Wiluna West Priority 1 Ecological Community, supported by detailed hydrological connectivity analysis. • A cumulative impact assessment considering all existing and proposed developments in the project area. • Detailed engineering specifications for the turkey's nest storage facility, including storm event design, bunding, and freeboard. • A comprehensive environmental monitoring plan covering groundwater, soil, and vegetation condition. • A detailed sludge management plan addressing sludge quality, quantity, licensed disposal facilities, and contingency storage. • A climate change risk assessment and clarification of management responsibilities during tenement transfer, including financial assurance. • Assessment of alternatives to chlorination or evidence that chlorinated effluent will not harm soil ecology or vegetation. 	<p>DWER acknowledges the stakeholder's submission and advises that all recommendations have been reviewed and addressed as outlined in the preceding rows of this table.</p>