

## **Decision Report**

## **Application for Works Approval**

Part V Division 3 of the Environmental Protection Act 1986

Works Approval NumberW6697/2022/1ApplicantGolden Spur Resources Pty LtdACN161 329 933File numberDER2022/000087PremisesBellevue Gold Project – Wastewater Treatment Plant<br/>Legal description<br/>Mining tenement M36/299Date of report4 October 2022Proposed DecisionWorks approval granted

Samara Rogers A/MANAGER, RESOURCE INDUSTRIES REGULATORY SERVICES

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

## **Table of Contents**

1.	Decis	ion su	ımmary	1
2.	Scop	e of as	ssessment	1
	2.1	Regul	atory framework	1
	2.2	Applic	ation summary and overview of premises	1
	2.3	Part I	√ of the EP Act	3
3.	Risk a	assess	sment	3
	3.1	Sourc	e-pathways and receptors	3
		3.1.1	Emissions and controls	3
		3.1.2	Receptors	5
	3.2	Risk ra	atings	10
	3.3	Detail	ed risk assessment for irrigation of land by nutrient rich water	13
		3.3.1	Description of emissions risk event	13
		3.3.2	Identification and general characterisation of emission	13
		3.3.3	Description of potential adverse impact from the emission and used to assess impact	l criteria 13
4.	Cons	ultatio	on	14
5.	Conc	lusion	1	15
Refe	erence	s		16
App	endix	1: Sun	nmary of applicant's comments on risk assessment a	nd draft
cond				
Арр	endix	2: App	blication validation summary	18
Table	e 1: Pro	posed	applicant controls	3
Table	e 2: Ser	nsitive h	human and environmental receptors and distance from prescrib	ed activity.5
Table cons	e 3: Ris truction	k asses , comm	ssment of potential emissions and discharges from the premise nissioning and operation	s during 11
Table	e 4: WV	VTP inf	luent and effluent specifications	13
Table	e 5: Cor	nsultatio	on	14
Figure	·o 1· \//		vout	0

Figure 1: WWTP layout	2
Figure 2:Soils and soil sampling locations	8
Figure 2: Separitive recentors	0
Figure 5. Sensitive receptors	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 W6697/2022/1 has been granted.

## 2. Scope of assessment

#### 2.1 Regulatory framework

In completing the assessment documented in this decision report, the Department of Water and Environmental Regulation (the department; DWER) has considered and given due regard to its regulatory framework and relevant policy documents which are available at <a href="https://dwer.wa.gov.au/regulatory-documents">https://dwer.wa.gov.au/regulatory-documents</a>.

#### 2.2 Application summary and overview of premises

On 15 February 2022, the applicant submitted an application for a works approval to the department under section 54 of the *Environmental Protection Act 1986* (EP Act).

The application is to undertake construction works relating to treatment of wastewater from the accommodation camp at the premises. The premises is approximately 38 kilometres (km) north west of Leinster.

The premises relates to the category and assessed production capacity under Schedule 1 of the *Environmental Protection Regulations 1987* (EP Regulations) which are defined in works approval W6997/2022/1. The infrastructure and equipment relating to the premises category and any associated activities which the department has considered in line with *Guideline: Risk Assessments* (DWER 2020) are outlined in works approval W6997/2022/1.

#### **Bellevue Gold Project and accommodation camp**

The Bellevue Gold Project is a gold mining project requiring the construction of mineral processing and mine dewatering infrastructure. An accommodation camp is being constructed to consist of 372 rooms, a mess, wet mess, sports court, gym, and other ancillary services. A wastewater treatment plant (WWTP) is required to treat sewage generated from the accommodation camp facilities.

Water for the camp will be sourced from the Kathleen Valley Borefield, some 10km north of the camp (from mining tenement M36/162). This borefield is currently licensed for 100,000 kiloliters (kL) of water per annum. The water quality is high and will be treated via reverse osmosis with wastewater from that process sent to the pits.

#### WWTP

The design capacity of the WWTP is for the treatment of 150m<sup>3</sup>/day of waste, However the applicant advises that the expected actual throughput is estimated to be 80 - 100m<sup>3</sup>/day. The WWTP design is based on a sequencing batch reactor (SBR) system comprised of five treatment stages. Treated effluent from the WWTP will be disposed of to land via an irrigation system. (Figure 1)

#### Spray irrigation field

The spray field area has a footprint of 49,000m<sup>2</sup> to allow for irrigation of approximately 43,000m<sup>2</sup> as required to dispose of the treated effluent from the WWTP whilst maintaining at least a 5 meters (m) spray drift buffer (Figure 1).

The irrigation will be through above ground hammer type sprinklers that deliver spray over a radius of 30m and have 5mm nozzles to reduce clogging. The irrigation field will be fenced with safety signage every 50m of fencing.



Figure 1: WWTP layout

### 2.3 Part IV of the EP Act

A referral was submitted under section 38 of the EP Act for the Recommencement of Operations at the Bellevue Gold Operations. A decision on this referral was made by the Environmental Protection Authority (EPA) on 27 May 2022 to not assess the referral, with an appeal period closing on 20 June 2022. There were no appeals received in the appeal period.

### 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 1 below. Table 1 also details the control measures the applicant has proposed to assist in controlling these emissions, where necessary.

Emission	Sources	Potential pathways	Proposed controls	
Construction				
Dust	Construction and installation activities	Air / windborne pathway	<ul> <li>Dust suppression measures will include:</li> <li>Limiting area cleared.</li> <li>Using water for dust suppression.</li> <li>Only undertaking work in periods of lig wind.</li> </ul>	
Noise			Machinery engines will be maintained and serviced on a regular basis and according to the manufacturer's specifications to ensure effective operation.	
Contaminated stormwater (sediment, hydrocarbons etc)		Overland flow	• Hydrocarbons will be managed on site in accordance with Australian Standard 1940-2004: The Storage and Handling of Flammable and Combustible Liquids.	
			<ul> <li>Soil contaminated by hydrocarbons will either be treated in-situ or moved to a bioremediation area for treatment.</li> </ul>	
			<ul> <li>Spill kits will be available and personnel trained in their use.</li> </ul>	
			Spills will be cleaned up immediately.	

#### Table 1: Proposed applicant controls

Emission	Sources	Potential pathways	Proposed controls
Operation			
Odour	Wastewater treatment	Air / windborne pathway	<ul> <li>WWTP will be used within the operational parameters of the facility and influent will not exceed the volume that can be processed.</li> <li>The WWTP equipment and infrastructure will be maintained and services according to the manufacturer's specifications.</li> <li>The tanks are contained to reduce fugitive emissions.</li> </ul>
Sewage (treated, partially treated, untreated)	Spillage from plant and pipelines	Overland flow	<ul> <li>WWTP will be used within the operational parameters of the facility and influent will not exceed the volume that can be processed.</li> <li>The WWTP equipment and infrastructure will be maintained and services according to the manufacture's specifications.</li> <li>The nearby camp will be placed outside or upstream of any drainage that interest the WWTP facility or spray fields</li> </ul>
Treated effluent	Discharge to land via a sprinkler irrigation system	Air / windborne pathway: Overspray from spray field into surrounding environment Overland flow and pooling of water in the spray field.	<ul> <li>WWTP will be used within the operational parameters of the facility and influent will not exceed the volume that can be processed.</li> <li>The WWTP equipment and infrastructure will be maintained and serviced according to the manufacture's specifications.</li> <li>The nearby camp will be placed outside or upstream of any drainage that interest the WWTP facility or spray fields</li> <li>A 5m spray drift buffer is provided around the spray field to control spread of flow.</li> <li>Fauna proof fencing will be erected around the proposed spray fields</li> <li>Fauna proof fencing is positioned along both sides of the Goldfields Highway so that animals are unlikely to be crossing the highway to reach the spray field.</li> <li>Management of spray field within capacity and inspections to prevent water pooling.</li> <li>Cease operations of spray field during extreme weather events.</li> <li>Regular effluent water quality monitoring to check water quality against potential impacts.</li> </ul>

Emission	Sources	Potential pathways	Proposed controls	
			<ul><li>of 80 kL waste water per day.</li><li>The SBR tanks will be held at</li></ul>	
			approximately half full allowing for additional containment.	
			<ul> <li>The spray field can be turned on and off as the ground gets wet (e.g. during rainfall events) and different areas of the spray field can be utilised as required. Where required the discharge of wastewater will be limited or stopped to prevent ponding.</li> </ul>	
			<ul> <li>Valves can be opened and closed to direct effluent to less impacted or drier areas.</li> </ul>	
Contaminated stormwater	Stormwater coming into	Overland flow	• A 5m spray drift buffer is provided around the spray field to control spread of flow.	
	effluent with		Slope of land is less than 1:20	
	sprayfield		<ul> <li>The irrigated area is not subject to seasonal flooding</li> </ul>	
Sludge residue from wastewater treatment	Spillage from plant and pipelines	Direct discharge	No controls are specified	

#### 3.1.2 Receptors

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

Table 2, Figure 2 and Figure 3



#### Figure 2:Soils and soil sampling locations

below provides a summary of potential human and environmental receptors that may be

impacted as a result of activities upon or emission and discharges from the prescribed premises (Guideline: Environmental Siting (DWER 2020)).

Table 2: Sensit	tive human and	l environmental	receptors and	d distance from	prescribed
activity					

Human receptors	Distance from activity / prescribed premises
Yakabindie Homestead	Approximately 3.8 km north west of the WWTP Air / windborne emissions are unlikely to impact this
	potential receptor as distance from WWTP is significant.
Cosmos Nickel accommodation village	Approximately 3.8 km north east of the WWTP
	Air / windborne emissions are unlikely to impact this potential receptor as distance from WWTP is significant.
Environmental receptors	Distance from activity / prescribed premises
Violet Range (Perseverance Greenstone Belt) vegetation complexes (banded ironstone formation) – Priority Ecological Community - Priority 1	Mapped as present across the premises including WWTP. The Violet Range Land System is described as undulating stony and gravely plains and low rises, supporting mulga shrublands (Meissner and Write, 2010).
	Vegetation surveys of the area describe the vegetation unit over the irrigation field as Flat sandplains over hardpan containing: Mulga spp. Low Open Woodland to Low Woodland over <i>Eremophila forrestii</i> subsp. forrestii Mid Sparse Shrubland over <i>Eragrostis eriopoda</i> , <i>Monachather paradoxus</i> and <i>Eriachne helmsii</i> Tussock Grassland on sand over hardpan plains. The condition of the vegetation is classed as good to very good.
Soil	Soil investigations were carried out across the premises to support applications for the development of the Bellevue Gold Project, including sampling of the proposed accommodation village area (samples V1 and V2 in Figure 2). Samples from the Village and the Bullimore Land system (refer Figure 2) were assessed for Phosphorus Retention Index (PRI) and total phosphorus to assess their suitability for use as a WWTP spray field.
	The V1 sample was taken close to the area proposed for the spray field and was found to be Red Deep Sand. Red Deep Sand was described as: characterised by red sands within the top 50 cm and had little to no gravel or surface coverage (Plate 6). These soils were able to support medium sized shrubs, scattered spinifex grass and in some areas taller Eucalypts and Acacias.
	This description supports the mapped rangeland system as being a Bullimore Land System: Gently undulating sandplain with occasional linear dunes and stripped surfaces supporting spinifex grasslands with mallees and acacia shrubs.
Yakabindie calcrete groundwater assemblage	Approximately 2km west

type on Carey palaeodrainage on Yakabindie Station – Priority Ecological Community - Priority 1	
Lake Miranda east calcrete groundwater assemblage types on Carey palaeodrainage on Yakabindie Station – Priority Ecological Community – Priority 1	Approximately 5.5km south east. This distance is sufficient to make impact from the WWTP unlikely.
Underlying groundwater (non-potable purposes)	Fractured rock aquifer with water levels approximately 15 – 30m below ground level. Salinity between 17,900mg/L and 90,400mg/L total dissolved solids.
Hydrology – minor surface water flow	A minor flow line is within 116 m of the southern edge of the spray field. Another minor flowline is present to within 212m of the northernmost edge of the spray field. The northern flow line will be separated from the spray field however by the accommodation camp access roadway.
	The gradient across the spray field and WWTP area slopes from east to west (slope of land is less than 1:20) so that any flow outside of the irrigation area is unlikely to intersect the naturally occurring flow lines.
Lake Miranda Nearest	Nearest shore of lake is approximately 2km south west. This distance is sufficient to make impact from the WWTP unlikely.



Figure 2:Soils and soil sampling locations



Figure 3: Sensitive receptors

### 3.2 Risk ratings

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

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

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

Works approval W6697/2022/1 that accompanies this decision report authorises construction and time-limited operations. The conditions in the issued works approval, as outlined in Table 3 have been determined in accordance with *Guidance Statement: Setting Conditions* (DER 2015).

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. Category 54 activities. A risk assessment for the operational phase has been included in this decision report, however licence conditions will not be finalised until the department assesses the licence application.

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

Risk events	Risk events					Applicant		Justification for
Sources / activities	Potential emission	Potential pathways and impact	Receptors	Applicant controls	C = consequence L = likelihood	controls sufficient?	Conditions <sup>2</sup> of works approval	additional regulatory controls
Construction	Construction							
Construction of WWTP treatment plant	Dust	Air / windborne pathway causing impacts to	Vegetation	Refer to Section 3.1	C = Minor L = Rare <b>Low Risk</b>	Y		The Delegated Officer considers that the risk of dust and noise are not foreseeable due to
	Noise		Fauna	Refer to Section 3.1	C = Minor L = Rare <b>Low Risk</b>	Y	Nil	distance from receptors. Dust emissions will be low and of short duration during construction so risk to vegetation is not foreseeable.
Commissioning	Commissioning							
Treatment of sewage through WWTP	Sewage (treated, partially treated, untreated)	Spills and leaks from pipelines and containment infrastructure	Soil and native vegetation in proximity to the sewage treatment plant	Refer to Section 3.1	C = Minor L = Unlikely <b>Medium Risk</b>	Y	Condition 1: Design and construction/installation requirements – standard condition Condition 5: Environmental commissioning requirements – standard commissioning condition.	
Disposal of treated effluent	Nutrient rich water with pathogens	Spills and leaks from pipelines and containment infrastructure Controlled irrigation of land (spray field) causing pooling. Pooled irrigation water flowing into surface water drainage areas. Overspray from irrigation area	Soil and native vegetation in proximity to the sewage treatment plant Surface water in contact with contaminated soil.	Refer to Section 3.1	C = Minor L = Unlikely <b>Medium Risk</b>	Ν	Conditions 1 and 5 <u>Condition 5, Table 2 includes</u> <u>requirement for daily inspection of</u> <u>the spray field.</u> Condition 6: Authorised discharge points during commissioning – standard commissioning condition <u>Condition 7: Emissions and</u> <u>discharge monitoring during</u> <u>environmental commissioning</u>	Further management of the spray field is required as risk of effluent irrigation is potentially greater than estimated by the Applicant. Refer Section 3.3.

Works approval: W6697/2022/1

Risk events					Risk rating <sup>1</sup>	Applicant		Justification for	
Sources / activities	Potential emission	Potential pathways and impact	Receptors	Applicant controls	C = consequence controls L = likelihood		Conditions <sup>2</sup> of works approval	additional regulatory controls	
Operation (including	Operation (including time-limited-operations operations)								
	Sewage (treated, partially treated, untreated)		Soil and native vegetation in proximity to the sewage treatment plant Surface water in contact with contaminated soil.	Refer to Section 3.1	C = Minor L = Unlikely <b>Medium Risk</b>	Y	Condition 14: Infrastructure and equipment requirements during time limited operations – standard operating condition.		
Treatment of sewage	Nutrient rich water with pathogens	Spills and leaks from			C = Minor L = Unlikely <b>Medium Risk</b>	Y	Condition 14, Table 5: Sludge is contained within sealed sludge tanks prior too removal for disposal to a licensed disposal facility; Condition 15: Authorised discharge points – standard operating condition Condition 16 – Time limited operations – emissions limits. Condition 17: Emissions and discharge monitoring during time limited operations	The Delegated Officer considers risk is sufficient to require conditioning of Applicants' controls and further controls as necessary to manage risk. Refer Section 3.3.	
through WWTP	Chemical spills	infrastructure			C = Minor L = Unlikely <b>Medium Risk</b>	Y			
	Sludge resulting from treatment of sewage				C = Minor L = Unlikely <b>Medium Risk</b>	Ν			
Disposal of treated effluent via spray field	Nutrient rich water with pathogens	Controlled irrigation of land (spray field) causing pooling. Pooled irrigation water flowing into surface water drainage areas. Overspray from irrigation area Increased weed growth resulting from increased nutrients in soil.	Soil and native vegetation Surface water in contact with contaminated soil.	Refer to Section 3.1	C = Minor L = Unlikely <b>Medium Risk</b>	Ν	Conditions 14, Table 5 includes requirement for daily inspection of spray field. Condition 15: Authorised discharge points during commissioning – standard commissioning condition Condition 17: Emissions and discharge monitoring	Refer Section 3.3.	

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.

# 3.3 Detailed risk assessment for irrigation of land by nutrient rich water

#### 3.3.1 Description of emissions risk event

The applicant intends to irrigate a proposed area (spray field) with nutrient rich effluent from the Bellevue Gold Project accommodation village WWTP. The receptors in the area are the native vegetation across the spray field and the nearby surface water flow lines.

#### 3.3.2 Identification and general characterisation of emission

The expected specification parameters of effluent discharged during operation of the plant are provided in Table 4. These are the parameters expected once the plant is fully commissioned and in a stable state of operation. Commissioning of the plant would require approximately 12 weeks to reach a stable state of operation as the biological process used by the treatment system reaches a sustained level of reaction. During commissioning effluent parameters may not meet the expected operational levels.

Parameter	Units	Influent	Effluent
Hydraulic capacity	kL/day	150	150
BOD	mg/L	350	<20
TSS	mg/L	350	<30
TN	mg/L	60	<30
ТР	mg/L	14	<8
рН	-	6.5-8.5	6.5 - 8.5
E Coli	cfu/100mL	-	<1000
Chlorine	mg/L	-	0.2 – 2.0

Table 4: W	/WTP influent	and effluent	specifications
------------	---------------	--------------	----------------

## 3.3.3 Description of potential adverse impact from the emission and criteria used to assess impact

The design parameter for the WWTP is for a flow of 150m<sup>3</sup>/day but the actual flow is estimated to be 100m<sup>3</sup>/day. Irrigation of an area of land with WWTP effluent may result in:

- 1. Buildup of nutrients beyond the capacity of the soil to adsorb, or the vegetation to use, which can cause the death of vegetation and/or the increase in weed species.
- 2. Excess water applied to an area causing water logging of the soil which may cause death of vegetation.

The WWTP spray field is sized to irrigate effluent based on the risk category D for eutrophication risk based on soil type and location in Table 1 of the Water Quality Protection Note 22: Irrigation with nutrient rich wastewater (WQPN22). Category D is not the correct category to use as it relates to fine grained soil with a PBI (Phosphorous Buffering Index) >100. Given the landform where the spray field is proposed is assessed as sandplain, the risk category of B, relating to

sandy soil of low risk of eutrophication of surface waters, is the correct category to refer to if using this guideline. The effluent quality to be discharged exceeds the criteria for risk category B as provided in Table 2 of WPQN 22.

It is also noted in the WQPN 22 that fertigation of poorly vegetated or bare land and native vegetation acclimatized to natural rainfall patterns and low nutrient uptake is not recommended, as it fosters erosion and may harm plants accustomed to a low nutrient environment

The applicant notes that the following factors will limit impacts of the irrigation of effluent to land:

- the high evaporation rate within the region, reducing the risk of waterlogging;
- the good to very good condition of the vegetation within the spray field increasing the potential for take up of nutrients; and
- the assessment of the Bullimore land system as having a moderate PRI that may buffer the impact of excess phosphorus on the vegetation.

The department notes that these factors do not fully mitigate the risks as the soils and vegetation of the region are adapted to a low annual rainfall with an intermittent pattern.

#### Additional regulatory controls

- Monitoring details were not proposed by the Applicant but are necessary to allow evaluation of the WWTP operational effectiveness. Conditions 7 and 17 are comparable to recently granted WWTP instruments in remote areas.
- Management of irrigation to provide a drying period to minimise impact to native vegetation and growth of weeds.
- Daily inspections of spray filed during periods of irrigation.

### 4. Consultation

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

Consultation method	Comments received	Department response
Application advertised on the department's website on 11 July 2022	None received	N/A
Local Government Authority advised of proposal on 7 July 2022	None received	N/A
Department of Mines, Industry Regulation and Safety (DMIRS) advised of proposal 7 July 2022	Response received 27/07/2022: The department notes that the proponent is proposing to use a different method for the irrigation of treated wastewater. Provided that this method meets the performance criteria and closure commitments agreed to and does not create a disturbance greater than that approved under the relevant MP, then the department is unlikely to have any concerns.	It is noted that the performance criteria included in the Mining Proposal 100065 for the spray field is 'no ponding, standing water or run off'. Works approval conditions regulate these criteria. Closure commitments are outside the regulatory scope of instruments granted under Part V of the EP Act.

Tjiwarl Aboriginal Corporation advised of proposal on 7 July 2022	Response received 27/07/2022 with concerns raised listed below. A further response was provided 25/08/2022 as a joint submission by the applicant and the stakeholder (added at the end of the points in in italic text):	The initial concerns raised by the Tjiwarl Aboriginal Corporation are addressed in this report and by Golden Spur Resources during consultation with the stakeholder.	
	1. No better use being found for wastewater. Disposal of water in spray field is wasteful when it could be used so that extraction of high quality water is reduced. <i>The Tjiwarl Aboriginal</i> <i>Corporation support the</i> <i>company's commitment to</i> <i>investigating water efficiency</i> <i>throughout the project.</i>		
	2. Presence of water in proximity to the Goldfields Highway outside of seasonal rainfall causing increased risk of animals killed on the road trying to reach the water source. The spray field will be fenced to prevent fauna ingress. The Goldfields Highway is also fenced on both sides of the road.		
	3. Odour may impact the Yakabindie Homestead area. The Yakabindie homestead is approximately 5km north of the spray field. The potential for odour to impact the homestead is incredibly low.		
Applicant was provided with draft documents on 9 September 2022	Response was received 15/09/2022 and 20/09/2022. With waiver of remaining 21 day period provided on 20/09/2022.	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.
- Meissner, R. & J. Wright (2010). Flora and vegetation of banded iron formations of the Yilgarn Craton: Perseverance Greenstone Belt. Conservation Science Western Australia 7 (3): 593-604. Department of Environment and Conservation, Wanneroo, Western Australia.

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

Condition	Summary of applicant's comment	Department's response
1	Changes to the infrastructure due to availability of materials.	<ul> <li>Table 1: Design and construction/installation requirements – updated with new details.</li> <li>It is noted that the plan of the plant provided does not exactly match the written details in the document. However, the differences do not affect the environmental risk of the premises and condition 3(b) requires as built plans to be provided on completion which will allow for correct figures to be .provided prior to time limited operations.</li> </ul>
5 and 14	Updated details of spray field management.	Tables 2 and 5 updated. Requirement to rotate the sprinklers amended to require irrigation is managed to prevent ponding and pooling of effluent. Requirement for daily inspections of spray field added to allow for picking up of pooling.

## Appendix 2: Application validation summary

SECTION 1: APPLICATION SUMMARY (as updated from validation checklist)			
Application type			
Works approval	$\boxtimes$		
Date application received		15/02/2022	
Applicant and premises details			
Applicant name/s (full legal name/s)		Golden Spur Resources Pty Ltd	
Premises name		Golden Spur Resources Pty Ltd	
Premises location		M36/299	
Local Government Authority		Shire of Leonora	
Application documents			
HPCM file reference number:		DER2022/000087	
Key application documents (additional to application form):		Works approval application for the Bellevue Gold Project Wastewater Treatment Plant – supporting document Commissioning plan ASIC company extract Proof of occupier - Mineral Titles Online report Level 2 Fauna assessment – IBSA # IBSA-2020-0313 Detailed flora and vegetation assessment IBSA # IBSA-2020-0312 Baseline soil and landform assessment Site location map	
Scope of application/assessment			
Summary of proposed activities or changes to existing operations.		Construction and time limited operation of a Cat 54 sewage facility. Capacity to treat up to 150kL/day.	
Category number/s (activities that cause	se the	premises to become prescrib	ped premises)
Table 1: Prescribed premises categories			
Prescribed premises category Pro and description des		posed production or ign capacity	Proposed changes to the production or design capacity (amendments only)
Category 54: Sewage facility 150		m³/day	N/A
Legislative context and other approvals			
Has the applicant referred, or do they intend to refer, their proposal to the EPA under Part IV of the EP Act as a significant proposal? Does the applicant hold any existing Part		Yes 🛛 No 🗆	Referral decision No: Pending Managed under Part V  Assessed under Part IV  Ministerial statement No:
IV Ministerial Statements relevant to the application?			EPA Report No:

SECTION 1: APPLICATION SUMMARY (as updated from validation checklist)			
Has the proposal been referred and/or assessed under the EPBC Act?	Yes 🗆 No 🛛	Reference No:	
Has the applicant demonstrated occupancy (proof of occupier status)?	Yes 🛛 No 🗆	Mining lease / tenement ⊠ Expiry: M36/299 – 21/04/2036	
Has the applicant obtained all relevant planning approvals?	Yes 🗆 No 🗆 N/A 🖂	If N/A explain why? Operates under Mining Lease	
Has the applicant applied for, or have an existing EP Act clearing permit in relation to this proposal?	Yes 🗆 No 🛛	CPS No: N/A 0.14ha proposed under this application	
Has the applicant applied for, or have an existing CAWS Act clearing licence in relation to this proposal?	Yes 🗆 No 🛛	Application reference No: N/A Licence/permit No: N/A CAWS Act not relevant to this application	
Has the applicant applied for, or have an existing RIWI Act licence or permit in relation to this proposal?	Yes 🛛 No 🗆	Licence/permit No: GWL202924	
Does the proposal involve a discharge of waste into a designated area (as defined in section 57 of the EP Act)?	Yes ⊠ No □	Name: Goldfields Type: Proclaimed Groundwater Area Has Regulatory Services (Water) been consulted? Yes I No I N/A I Regional office: Swan Avon / Goldfields	
Is the Premises situated in a Public Drinking Water Source Area (PDWSA)?	Yes □ No ⊠	Name: N/A Priority: P1 / P2 / P3 / N/A Are the proposed activities/ landuse compatible with the PDWSA (refer to <u>WQPN 25</u> )? Yes □ No □ N/A ⊠	

SECTION 1: APPLICATION SUMMARY (as updated from validation checklist)			
Is the Premises subject to any other Acts or subsidiary regulations (e.g. Dangerous Goods Safety Act 2004, Environmental Protection (Controlled Waste) Regulations 2004, State Agreement Act xxxx)	Yes 🛛 No 🗆	<i>Mining Act 1974</i> <i>Health (Treatment of Sewage and Disposal of Effluent and Liquid Waste) Regulations 1974</i>	
Is the Premises within an Environmental Protection Policy (EPP) Area?	Yes □ No ⊠		
Is the Premises subject to any EPP requirements?	Yes □ No ⊠		
Is the Premises a known or suspected contaminated site under the <i>Contaminated Sites Act 2003</i> ?	Yes ⊠ No □	Awaiting classification Classification: N/A Date of classification: N/A	