



## Application for Works Approval

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

---

**Works Approval Number** W6502/2021/1

**Applicant** Northern Star (HBJ) Pty Ltd

**ACN** 127026519

**File Number** DER2021/000013

**Premises** Jubilee Gold Mine  
  
Lot 15 on Plan 58833, Lot 50 on Plan 226299 and  
Lot 51 on Plan 226303, Feysville, Lot 103 on Plan  
40395 Lot 105 on Plan 40396, Karamindie, and  
mining tenements M26/118, M26/143, M26/204 and  
M15/456

**Date of Report** 24 August 2021

**Decision** Works approval granted

**Lauren Edmands**

**MANAGER RESOURCE INDUSTRIES**

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

# Table of Contents

<b>1. Decision summary</b>	<b>1</b>
<b>2. Scope of assessment</b>	<b>1</b>
2.1 Regulatory framework	1
2.2 Application summary and overview of premises	1
2.2.1 Category 5- embankment raise of TSF3A/3B	1
2.2.2 Other related infrastructure	1
<b>3. Risk assessment</b>	<b>2</b>
3.1 Source-pathways and receptors	2
3.1.1 Emissions and controls	2
3.1.2 Receptors	3
3.2 Risk ratings	4
3.3 Detailed risk assessment- tailings seepage	6
3.3.1 Applicant controls	6
3.3.2 Rating of this risk event	7
3.3.3 Regulatory controls	7
3.4 Geotechnical review	8
<b>4. Consultation</b>	<b>9</b>
<b>5. Conclusion</b>	<b>9</b>
<b>References</b>	<b>9</b>
<b>Appendix 1: Summary of applicant’s comments on risk assessment and draft conditions</b>	<b>10</b>
<b>Appendix 2: Summary of geotechnical review undertaken by DMIRS</b>	<b>13</b>
<b>Appendix 3: Application validation summary</b>	<b>14</b>
Table 1 Proposed embankment raise stages for TSF3A/3B	2
Table 2: Proposed applicant controls	2
Table 3: Sensitive human and environmental receptors and distance from prescribed activity	3
Table 4: Risk assessment of potential emissions and discharges from the premises during construction, and operation	5
Table 5: Consultation	9
Figure 1 Proposed embankment works for TSF3	1
Figure 2 Proposed additional monitoring bores locations (pink), existing monitoring bores (blue) and existing seepage recovery bores (yellow)	1
Figure 3 Selected standing water level trends from 2019-2021	6
Figure 4 Existing production bores Bore B and Bore C south of TSF3A/3B	8

## 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 W6502/2021/1 has been granted.

## 2. Scope of assessment

### 2.1 Regulatory framework

In completing the assessment documented in this decision report, the department 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 31 December 2020, Northern Star (HBJ) Pty Ltd (applicant) submitted an application for a works approval to the department under section 54 of the *Environmental Protection Act 1986* (EP Act). Current operations at the premises are regulated under licence L5107/1988/13.

The application is to undertake construction works and time limited operations relating to embankment raises of the existing tailings storage facility (TSF3A/3B) and associated infrastructure at Jubilee Gold Mine (premises). The premises is approximately 32 km south of Kalgoorlie-Boulder. TSF3A/B is located entirely on freehold land, and therefore provisions of the *Mining Act 1978* (Mining Act) and Regulations do not apply.

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 W6502/2021/1. The infrastructure and equipment relating to the premises category and any associated activities which the department has considered in line with *Guidance Statement: Risk Assessments* (DER 2017) are outlined in works approval W6502/2021/1.

#### 2.2.1 Category 5 - embankment raise of TSF3A/3B

The existing TSF3 is above ground and consists of two cells. Cell TSF3A is currently operational, cell TSF3B has been operated as 'emergency facility' since 2015 and was filled to full capacity. The current embankment crest of both cells is RL355 m.

The current licence L5107/1988/13 requires the monitoring of ambient groundwater quality in TSF3A/3B proximity and sets out a groundwater level limit of 4 mbgl. So far, 3 exceedances of the groundwater level have been recorded in 2021:

- 8 April 2021 at JMB15 (3.92 mbgl)
- 30 June 2021 at JMB15 (2.87 mbgl) and JMB11D (3.47 mbgl)
- 13 July 2021 at JMB11 (3.18 mbgl), JMB12 (3.8 mbgl) and JMB15 (2.57 mbgl)

The exceedances recorded occurred in monitoring bores to the south and south-west of TSF3A/3B.

Seepage collection and return to the TSF of processing is required by the licence. Conditions from licence L5107/1988/13 relevant to proposed works still apply.

The applicant proposes to merge TSF3A and TSF3B and raise the embankment by upstream construction to RL364 m. Table 1 and Figure 1 shows an overview of the proposed construction stages.

The embankment raise will provide an approximate additional storage volume of 4.1 Mt. According to the applicant, construction of each embankment raise will take approximately 5 months.

**Table 1 Proposed embankment raise stages for TSF3A/3B**

Stage	Proposed raise
Stage 4	RL355 m to RL358 m
Stage 5	RL358 m to RL361 m
Stage 6	RL361 m to RL364 m

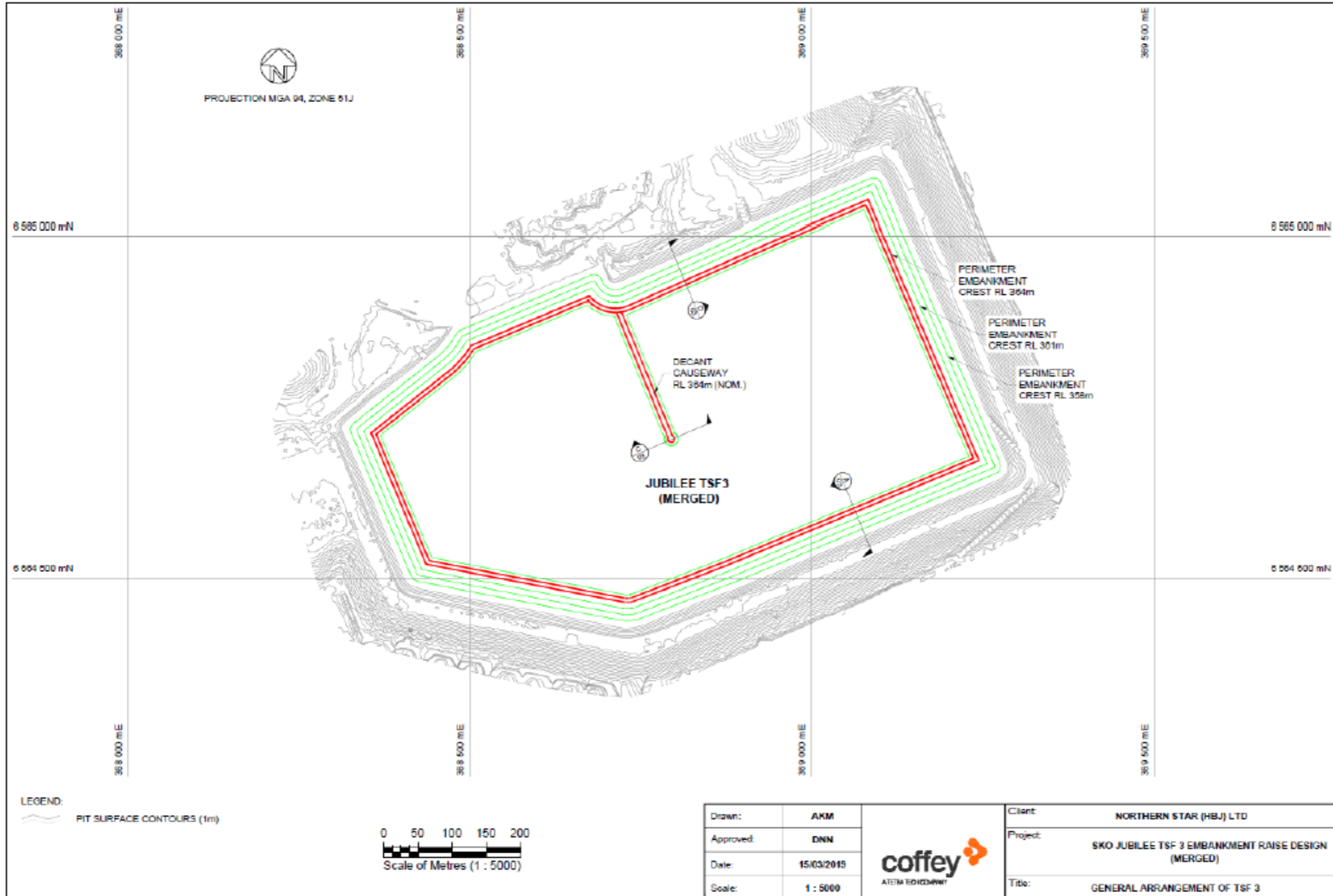
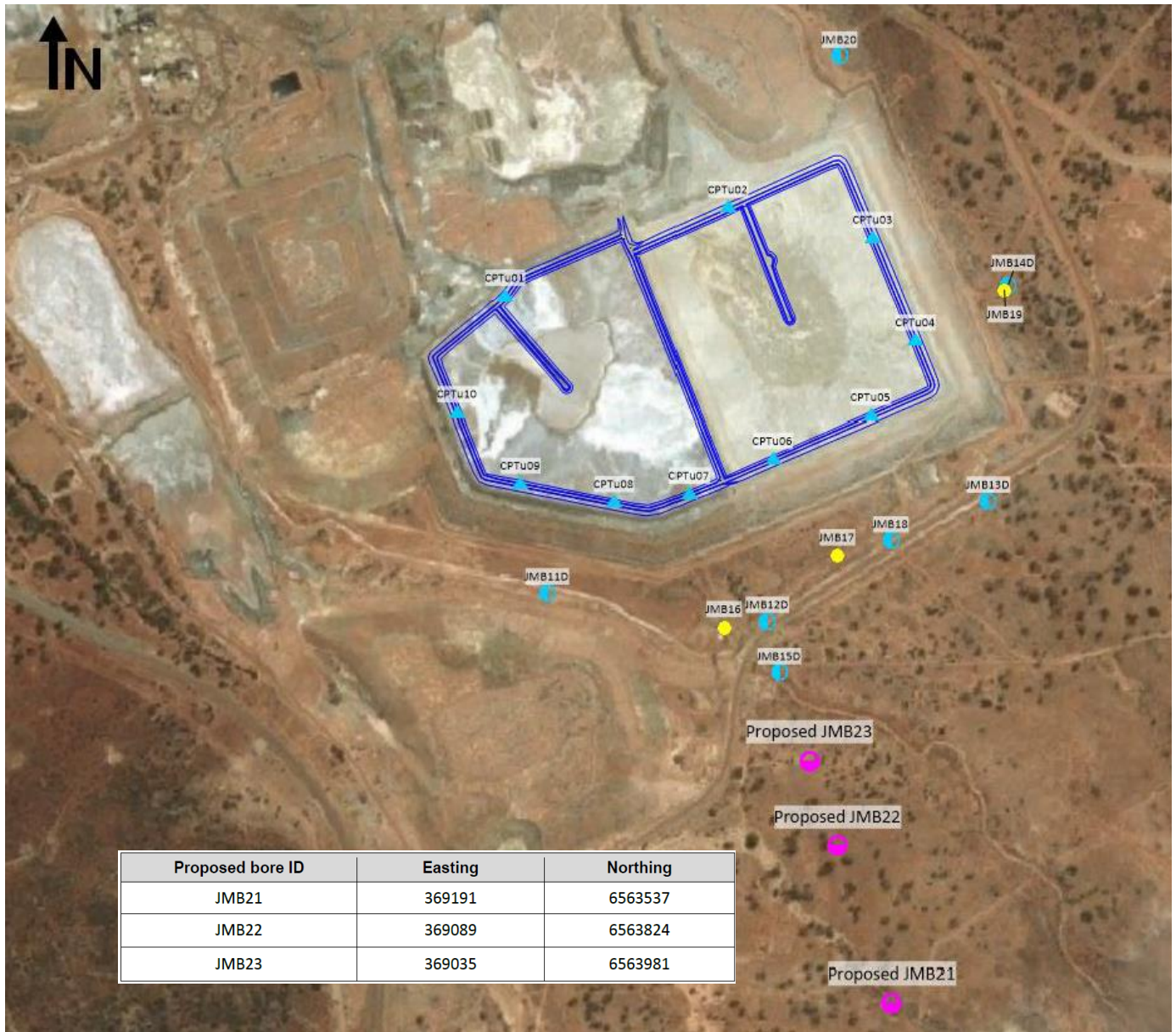


Figure 1 Proposed embankment works for TSF3

## 2.2.2 Other related infrastructure

The applicant proposes three additional monitoring bores south of the TSF3A/3B to further improve the understanding of soil and rock profile. The proposed locations are shown in Figure 2.



**Figure 2 Proposed additional monitoring bores locations (pink), existing monitoring bores (blue) and existing seepage recovery bores (yellow).**

### 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 *Guidance Statement: Risk Assessments* (DER 2017).

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 time limited operations which have been considered in this decision report are detailed in Table 2 below. Table 2 also details the proposed 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
<b>Construction</b>			
Dust	Construction, earth moving activities, vehicle movement	Air/windborne pathway	• Water carts to manage dust emissions
Noise			N/A
<b>Operation</b>			
Tailings	Tailings seepage	Direct infiltration into subsurface and groundwater	<ul style="list-style-type: none"> <li>Existing seepage network, groundwater monitoring and pipeline infrastructure requirements are set out in current licence L5107/1988/13</li> <li>Three additional groundwater monitoring bores proposed south of TSF3 (within rock aquifer)</li> <li>Additional monitoring of total cyanide (as suggested in supporting document provided with the application Coffey, 2020)</li> <li>Including Production Bore B and C in the ambient groundwater monitoring network as per L5107/1988/13</li> <li>Additional seepage recovery bores if capacity of existing wells is exceeded (as suggested in supporting document provided with the application Coffey, 2020)</li> </ul>
	Overtopping of TSF		<ul style="list-style-type: none"> <li>Sufficient storage for 1 in 100 year AEP, 72 hour storm event</li> <li>Minimum freeboard is set out in the current licence L5107/1988/13</li> </ul>

### 3.1.2 Receptors

In accordance with the *Guidance Statement: Risk Assessment* (DER 2017), the Delegated Officer has excluded employees, visitors and contractors of the applicant's 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 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 (*Guidance Statement: Environmental Siting* (DER 2016)).

**Table 3: Sensitive human and environmental receptors and distance from prescribed activity**

Human receptors	Distance from prescribed activity
Woolibar pastoral homestead	5km south-east of TSF3 The Delegated Officer considers it unlikely a risk event for dust or noise emissions will occur as a source pathway receptor linkage does not exist based on the distance from proposed activities. Therefore, this receptor is not further considered in the risk assessment below.
Environmental receptors	Distance from prescribed activity
Underlying groundwater (hypersaline)	Underlying the premises Approximately 5 – 30 mbgl; generally flowing south/south-east
Surrounding native vegetation	Within premises boundary, no priority species
Leipoa ocellate (Malleefowl)	Reported in the area, including within premises boundary (Note that proposed works are only occurring within the already disturbed mining area).



## 3.2 Risk ratings

Risk ratings have been assessed in accordance with the *Guidance Statement: Risk Assessments* (DER 2017) 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 W6502/2021/1 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 ongoing operation of the premises i.e. tailings deposition after embankment raises. 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 Event					Risk rating <sup>1</sup> C = consequence L = likelihood	Applicant controls sufficient?	Conditions <sup>2</sup> of works approval	Justification for additional regulatory controls
Source/Activities	Potential emission	Potential pathways and impact	Receptors	Applicant controls				
<b>Construction</b>								
<b>Category 5:</b> Construction of embankment raise, earth moving activities, vehicle movement	Dust	Air/windborne pathway causing adverse impacts	Native vegetation, Leipoa ocellate (Malleefowl)	Refer to section 3.1.1	C = Slight L = Possible <b>Low Risk</b>	Y	N/A	N/A
	Noise			N/A	C = Slight L = Possible <b>Low Risk</b>	Y	N/A	N/A
<b>Operation (including time-limited-operations operations)</b>								
<b>Category 5:</b> Deposition of additional tailings into TSF	Tailings	Direct infiltration of seepage into subsurface and groundwater resulting in mounding and impacting groundwater quality	Groundwater, surrounding vegetation	Refer to section 3.1.1	C = Moderate L = Likely <b>High Risk</b>	N	Condition 1, 2 <b><u>Condition 3- seepage recovery bores</u></b> <b><u>Condition 8- Time limited operations requirements</u></b>	Refer to section 3.3
		Overtopping resulting in direct infiltration of tailings into subsurface and groundwater impacting groundwater quality and vegetation		Refer to section 3.1.1	C = Moderate L = Unlikely <b>Medium Risk</b>	Y	N/A Existing condition 4 sets out freeboard requirements in current licence L5108/1988/13 sufficient.	N/A

Note 1: Consequence ratings, likelihood ratings and risk descriptions are detailed in the *Guidance Statement: Risk Assessments* (DER 2017).

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- tailings seepage

The deposition into TSF3A/3B is regulated under licence L5108/1988/13. The current licence sets out quarterly groundwater quality monitoring, and monthly monitoring of the standing water level in TSF3A/3B proximity (Figure 2). The limit as per licence for the standing water level in all groundwater bores is 4 mbgl.

Several exceedances of the standing water level have been reported to the department in 2021 (refer to section 2.2). A review of the standing water levels measures in all monitoring bores from 2019 to July 2021, indicated a steady increase of water levels (selected groundwater level trends in Figure 3). Deposition of additional tailings after the proposed embankment raise will increase the already occurring seepage and rising groundwater level. Currently, three monitoring bores (JMB16, JMB17 and JMB19) are equipped with pumps and act as seepage recovery bores. The applicant submitted a Groundwater study (Coffey, 2020) supporting the works approval application. In this report, the migration of cyanide through seepage to existing monitoring bores has been identified. Total cyanide concentrations up to 1.85 mg/L were detected in monitoring bores surrounding TSF3A/3B. Total cyanide is currently not required to be monitored under licence L5108/1988/13.

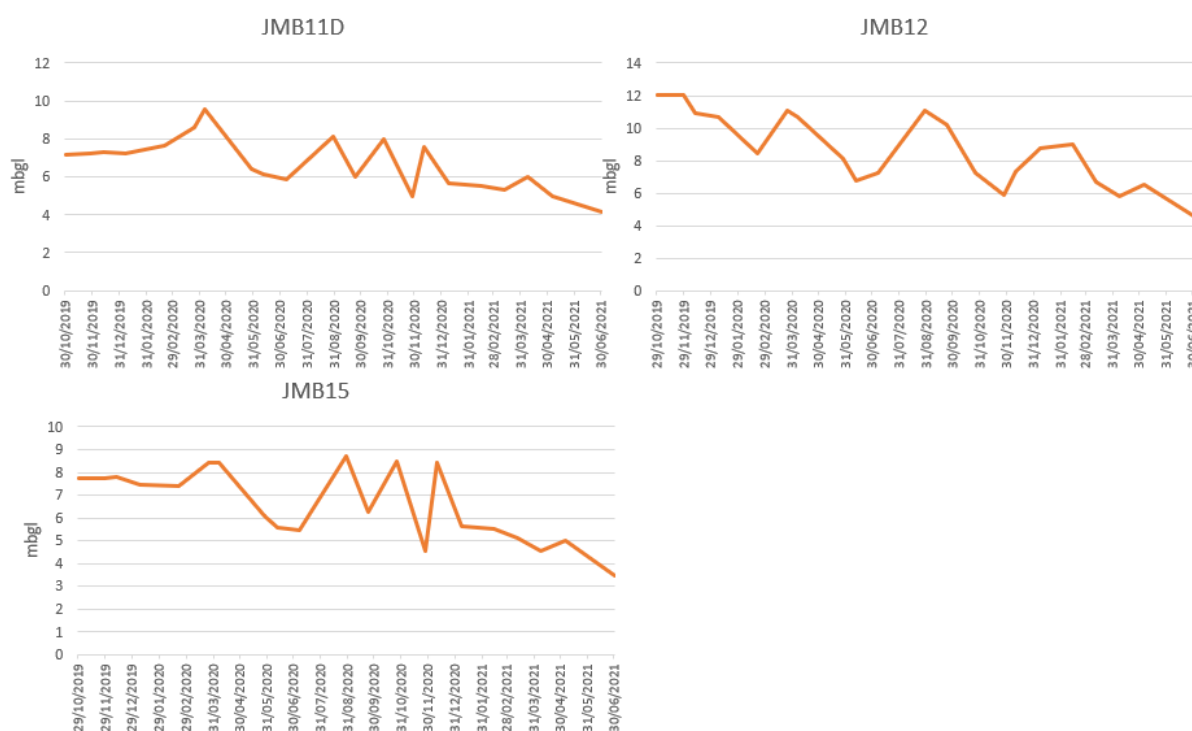


Figure 3 Selected standing water level trends from 2019-2021

#### 3.3.1 Applicant controls

The applicant proposed three additional monitoring bores south of TSF3A/3B to gain further understanding of the geology and underlying aquifers (Figure 2).

Recommendations set out in the Groundwater study (Coffey, 2020) are to include Production Bore B and Bore C (south of TSF3A/3B, Figure 4) in the current monitoring network required under L5108/1988/13 and to add total cyanide monitoring in all monitoring bores in TSF3A/3B proximity.

Further, it was proposed in the Groundwater study (Coffey, 2020) that additional seepage recovery bores will be required if seepage capacity of current bores is exceeded, to maintain groundwater levels. No additional seepage recovery bores were explicitly proposed by the applicant in this application.

The supernatant pond will be maintained around the decant pump at the centre of the facility. By limiting the size of the supernatant pond, seepage from the TSF3A/3B is reduced, according to the applicant.

### 3.3.2 Rating of this risk event

Taking into consideration that seepage is currently occurring and licence limits for groundwater level are being exceeded, the Delegated Officer has considered the consequence **Moderate**.

Deposition of additional tailings into the TSF3A/3B after embankment raises will further add to already occurring seepage and impacts. The Delegated Officer has considered the likelihood to be **Likely**.

The Delegated Officer has compared the consequence and likelihood of this risk event and determined the overall rating as **High**. Based on this rating, the risk event is subject to multiple regulatory controls.

### 3.3.3 Regulatory controls

Multiple exceedances of the groundwater level (4 mbgl) as set out in licence L5108/1988/13 have been recorded by the department in 2021. The Groundwater study (Coffey, 2020) was based on groundwater monitoring data from 2017 to 2020, where groundwater levels were measured between 5 to 30 m. In the report, additional seepage recovery bores were recommended if the capacity of current seepage recovery wells is exceeded. Based on the already occurring exceedances in 2021, the deposition of additional tailings into TSF3A/3B after the embankment raise will result in more seepage.

Additional seepage recovery bores are required to manage the current groundwater level and mitigate potential impacts from groundwater mounding and contaminant movement from tailings seepage. As part of the Environmental Compliance Report required in the works approval, justification for chosen location and number of seepage recovery bores needs to be provided and has been included as a regulatory control.



Figure 4 Existing production bores Bore B and Bore C south of TSF3A/3B.

### 3.4 Geotechnical review

TSF3A/3B is located on freehold land, and therefore the provisions of the Mining Act and Regulations do not apply. The Department of Mines Industry Regulation and Safety (DMIRS) regulates safety and stability aspects of tailings storage facilities when located on mining tenements and land as set out in the Mining Act.

DWER referred the proposed works to DMIRS to undertake a geotechnical review and included relevant conditions in the works approval based on received advice. A summary of recommendations received by DMIRS is shown in Appendix 2. Conditions based on these recommendations have been included in the works approval. Submitted compliance reports relevant to the stability and safety of the embankment raise as part of this works approval will be referred to DMIRS for review, once submitted by the works approval holder.

## 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 (5/2/2021))	None received	N/A
Department of Mines, Industry Regulation and Safety (DMIRS) advised of proposal (8/2/2021)	Refer to Appendix 2	Refer to Appendix 2
Applicant was provided with draft documents on 11 August 2021	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) 2016, *Guidance Statement: Environmental Siting*, Perth, Western Australia.
2. DER 2017, *Guidance Statement: Risk Assessments*, Perth, Western Australia.
3. DER 2015, *Guidance Statement: Setting Conditions*, Perth, Western Australia.
4. Northern Star (HBJ) Pty Ltd (2020), Works approval application and supporting documentation
5. Northern Star (HBJ) Pty Ltd (2021), Additional information provided (DWERDT465875)
6. Department of Mines Industry Regulation and Safety (2021), Geotechnical review of proposed embankment raise design (DWERDT482894)
7. Northern Star (HBJ) Pty Ltd (2021), Additional information provided, standing water level trends 2019-2021 (DWERDT485496)

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

Condition	Summary of applicant's comment	Department's response
Duration of works approval	Set duration of works approval until at least 01/06/2028 to allow the construction of the three lifts to be captured in this timeframe.	Duration has been set for a period of seven years from date of issue.
2 (Table 2) – well design and construction	<p>Amend wording to: Drilling and construction of the seepage recovery bores will be in accordance with the <i>Minimum Construction Requirements for Water Bores in Australia</i></p> <p>Justification: American (US) Standard is not relevant to Australian Drilling or Hydrogeological industries and practices. "<i>Minimum Construction Requirements for Water Bores in Australia</i>" is well understood by WA drillers and hydrogeologists and implemented without issue in Australia. Department of Water (DoW, now DWER) references and endorses the use of the Australian Guidelines for drilling production and monitoring bores. To prescribe the use of a foreign standard introduces unnecessary complexity for all involved stakeholders. Furthermore, the US Standard is not appropriate for constructing bores in consolidated material (e.g. stable formations such as weathered or fresh rock) which are typical to the Goldfields region. The US Standard also requires bore construction methods to control frost heaving/frozen ground which is not relevant to the climate in the Goldfields region, nor the climate in most of Australia.</p>	<p>Table 2 only relates to the construction of groundwater monitoring bores, not seepage recovery bores.</p> <p>The bore construction condition requires installation in accordance with <i>ASTM D5092/D5092M-16: Standard practice for design and installation of groundwater monitoring bores</i> (ASTM). The <i>National Environment Protection (Assessment of Site Contamination) Measure 1999</i> (NEPM), which is a nationally endorsed document, refers to the ASTM document. DWER includes the requirement to meet ASTM for bore installation to be aligned with NEPM where possible. ASTM is also better suited for the installation of groundwater monitoring bores compared to the <i>Minimum Construction Requirements for Water Bores in Australia</i> (MCRWBA) which apply to all types of bores (i.e. monitoring and production bores which have significant differences for design).</p> <p>This condition is and has been applied consistency to licences throughout the state for monitoring bore installation.</p> <p>The Delegated Officer notes that some aspects of ASTM may not be applicable to Australian conditions. This requirement has been modified to require the bores to be designed and constructed in accordance with ASTM where applicable.</p>
2 (Table 2) – timeframe	<p>Amend wording to: "Must be constructed, developed (purged), and determined to be operational prior to the commencement of time limited operations."</p> <p>Justification: NSR will not be in a position to have the new groundwater monitoring bores installed prior to commencement of construction. The Stage 4 construction raise is scheduled to commence in January 2022, with actual deposition likely to occur in June 2022. We are limited to the timing and availability of qualified contractors to do this work in such a</p>	Requirement has been amended as per applicant's request.

Condition	Summary of applicant's comment	Department's response
	<p>short timeframe (i.e. within the next 3 months). The bore specifications/scope of works is currently being prepared with our hydrogeologists and proposals being sought by drilling contractors. NSR is aiming to have the new bores installed by April 2022, in conjunction with other planned bores being constructed at our nearby Kanowna Belle TSF2.</p>	
<p>2 (Table 2) – logging of borehole</p>	<p>Amend wording to: "Drilling and construction of the seepage recovery bores will be in accordance with the <i>Minimum Construction Requirements for Water Bores in Australia</i>".</p> <p>Justification: Reference to AS1726 is irrelevant. The hydrogeologists we engage only use sections 6.1 and 6.2 of AS1726 as a guideline for logging of geological materials as there is no Australian Standard for hydrogeological logging. Drilling samples are logged in sufficient details to capture all information needed for a hydrogeological assessment of the subsurface but are not logged to the same level of detail as a geotechnical engineer (because they are not qualified geotechnical engineers).</p>	<p>Table 2 only relates to the construction of groundwater monitoring bores, not seepage recovery bores.</p> <p>Logging of bores as per this condition is required to be undertaken in accordance with <i>Australian Standard Geotechnical Site Investigations AS1726 (AS1726)</i>. The NEPM also makes reference to AS1726. DWER includes the requirement to meet AS1726 for bore logging to be aligned with NEPM where possible.</p> <p>The Delegated Officer notes that MCRWBA provides limited detail on how soils should be logged but acknowledges the applicant's comment regarding the high level of detail.</p> <p>In consideration of this request, the Delegated Officer has modified this condition to allow logging in accordance with MCRWBA and requiring that a thorough understanding of the geological profile is provided.</p>
<p>2 (Table 2) – well construction log</p>	<p>As per comments above</p>	<p>Incorporating the responses above, this requirement has been amended to require construction logs to demonstrate compliance with ASTM where applicable for well design and construction.</p>
<p>3 (Table 3) – timeframe</p>	<p>Amend wording to: "Must be constructed and determined to be operational by no later than 90 calendar days from the commencement of time limited operations for items 1, 2 and 3 as set out in Condition 8."</p> <p>Justification: NSR may not be in a position to have new seepage recovery bores installed prior to commencement of time limited operations. As noted in comments above, we are limited to the availability of qualified contractors to complete this work. Furthermore, we are aiming to install the three new groundwater monitoring bores by April 2022. Monitoring data collected from these new bores will improve our understanding of the soil/rock profile, and importantly help inform our hydrogeologists of</p>	<p>In consideration of the applicant's request, the Delegated Officer agrees that the data from the groundwater monitoring bores would be beneficial in determining the location and number of seepage recovery bores. This requirement has been updated as requested.</p>



Condition	Summary of applicant's comment	Department's response
	suitable locations of any additional seepage recovery bores that may be required.	
Decision Report – section 3.3	ANZECC, 2000 Guidelines are not an appropriate point of reference for trigger values in this setting. The groundwater is hypersaline and there is no beneficial use other than mining. The groundwater does not support fresh or marine ecosystems and the water is not used for consumption (human or animal). In addition, the groundwater does not support vegetation. The values listed in Appendix D (Table 7; Column 6) of DER (now DWER) document " <i>Assessment and management of contaminated sites. Contaminated sites guidelines, December 2014</i> " would be a more appropriate point of reference to use for the risk assessment of tailings seepage and devising any resulting regulatory controls.	Reference to this Guideline has been removed from the Decision Report.

## Appendix 2: Summary of geotechnical review undertaken by DMIRS

Summary of DMIRS recommendation	Department's response
Construction of TSF3A/3B to be supervised by an engineering or geotechnical specialist.	Condition 1 requires the construction of the embankment raise to be undertaken under supervision of a suitably qualified geotechnical engineer.
Correct construction, quality control testing, the basis of any method specification adopted and any significant modifications to the original design including their justification for modifications to be submitted.	Conditions 3 and 4 require the works approval holder to submit an Environmental Compliance Report to the department, including certification by a suitably qualified geotechnical engineer that the embankment construction has been completed in accordance with requirements set out in the works approval and the submitted design report.
TSF3A/3B to be inspected daily during periods of deposition to ensure the facility is functioning as per the design intent.	Conditions set out in L5107/1988/13 for existing operations, require daily inspections of the tailings pipelines, return water pipelines and embankment freeboard. These conditions still apply for TSF3A/3B.
Annual audit and review of TSF3A/3B by engineering or geotechnical specialist is required. This includes past performance, validate the design, examine tailings management and review results of monitoring. The audit and review report, including recent survey pick-up of the facility and an updated tailings storage data sheet should be referred to DMIRS for review.	This requirement will be included as part of the licence amendment following the completion of works authorised under this works approval.
At the time of decommissioning of the TSF3A/3B and prior to rehabilitation, a further review report by a geotechnical or engineering specialist shall be submitted to DMIRS. The report should review the status of structure and it contained tailings, examine and address the implications of the physical and chemical characteristics of the materials, and present and review the results of all monitoring. The rehabilitation stabilisation works proposed and any on-going remedial requirements are also to be addressed.	This requirement will be included as part of the licence amendment following the completion of works authorised under this works approval.

## Appendix 3: Application validation summary

SECTION 1: APPLICATION SUMMARY	
<b>Application type</b>	
Works approval	<input checked="" type="checkbox"/>
Date application received	31/12/2020
<b>Applicant and Premises details</b>	
Applicant name/s (full legal name/s)	Northern Star (Hampton Gold Mining Areas) Limited Please note this is confirmed in A1974082, which supersedes the application form. This entity is the freehold owner of Lot 15 on Deposited Plan 58833. The existing L5107 is in the name of the holder of the surrounding leases. Both entities are subsidiaries of Northern Star Resources. At the next licence amendment, need to ensure that legal access to both types of tenure is established.
Premises name	South Kalgoorlie Operations - Jubilee Gold Mine
Premises location	Lot 15 on Deposited Plan 58833 Feysville
Local Government Authority	City of Kalgoorlie-Boulder
<b>Application documents</b>	
HPCM file reference number:	DER2021/000013
Key application documents (additional to application form):	<ul style="list-style-type: none"> <li>• Works Approval Supporting Document: Jubilee TSF3A/3B Merged Embankment Raises Stages 4 to 6, prepared by Northern Star Resources Ltd.</li> <li>• Appendix A – SKO: Design for TSF3 Raising, prepared by Coffey Services Australia.</li> <li>• Appendix B – SKO: TSF3 Groundwater Study, prepared by Coffey Services Australia.</li> <li>• Appendix C – SKO: 2019-20 Annual Tailings Storage Facility Audit and Management Review, prepared by Coffey Services Australia.</li> </ul>
<b>Scope of application/assessment</b>	
Summary of proposed activities or changes to existing operations.	<p><i>Works approval</i></p> <p>Construction of Jubilee TSF3 (3A &amp; 3B merged embankment raise) and associated infrastructure – pipelines, monitoring/seepage bores.</p> <p>The existing Jubilee TSF3A and TSF3B will be merged and raised in stages (Stages 4 to 6) by upstream construction techniques using 3 x 3 m lifts, from the existing Stage 3 upstream raised embankment (nominal crest RL 355m) to the proposed final Stage 6 crest level of RL 364m.</p>

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

**Table 1: Prescribed premises categories**

Prescribed premises category and description	Proposed production or design capacity
Category 5: Processing or beneficiation of metallic or non-metallic ore	1,650,000 tonnes per year – as per current licence

**Legislative context and other approvals**

Has the applicant referred, or do they intend to refer, their proposal to the EPA under Part IV of the EP Act as a significant proposal?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Referral decision No: Managed under Part V <input type="checkbox"/> Assessed under Part IV <input type="checkbox"/>
Does the applicant hold any existing Part IV Ministerial Statements relevant to the application?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Ministerial statement No: EPA Report No:
Has the proposal been referred and/or assessed under the EPBC Act?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Reference No:
Has the applicant demonstrated occupancy (proof of occupier status)?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Certificate of title <input checked="" type="checkbox"/>
Has the applicant obtained all relevant planning approvals?	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>	If N/A explain why? Mining Tenure
Has the applicant applied for, or have an existing EP Act clearing permit in relation to this proposal?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	CPS No: N/A No clearing is proposed.
Has the applicant applied for, or have an existing CAWS Act clearing licence in relation to this proposal?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Application reference No: N/A Licence/permit No: N/A No clearing is proposed.
Has the applicant applied for, or have an existing RIWI Act licence or permit in relation to this proposal?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Application reference No: Licence/permit No: GWL 106836
Does the proposal involve a discharge of waste into a designated area (as defined in section 57 of the EP Act)?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Is the Premises situated in a Public Drinking Water Source Area (PDWSA)?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Is the Premises subject to any other Acts or subsidiary regulations (e.g. <i>Dangerous Goods Safety Act 2004, Environmental Protection (Controlled Waste) Regulations 2004, State Agreement Act xxxx</i> )	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	

Is the Premises within an Environmental Protection Policy (EPP) Area?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Is the Premises subject to any EPP requirements?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Is the Premises a known or suspected contaminated site under the <i>Contaminated Sites Act 2003</i> ?	Yes <input type="checkbox"/> No <input type="checkbox"/>	Classification: awaiting classification (HPECM reference DEC2388)