# Amendment Report

## Application for Licence Amendment

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

| | |
|---|---|
| **Licence Number** | L6079/1988/13 |
| **Licence Holder** | Newcrest Mining Limited |
| **ACN** | 005 683 625 |
| **File Number** | DER2013/002097-1 |
| **Premises** | Telfer Gold Mine<br>Mining leases M45/6-11, M45/33, M45/203-211, M45/249, M45/631- 633, M45/709, M45/710, G45/1-4, L45/99, L45/100, L45/106<br>TELFER WA 6762<br>As depicted in Schedule 1 |
| **Date of Report** | 7 June 2022 |
| **Proposed Decision** | Granted |

**MANAGER, RESOURCE INDUSTRIES**
**INDUSTRY REGULATION**
an officer delegated under section 20 of the *Environmental Protection Act 1986* (WA)

# Table of Contents


**1. Decision summary ..... 1**

**2. Scope of assessment ..... 1**

2.1 Regulatory framework ..... 1

2.2 Application summary ..... 1

2.2.1 TSF8 operation and embankment lifts ..... 1

2.3 Part IV of the EP Act ..... 2

2.4 Consolidation of Licence ..... 2

**3. Risk assessment ..... 3**

3.1 Source-pathways and receptors ..... 3

3.1.1 Emissions and controls ..... 3

3.1.2 Receptors ..... 6

3.2 Risk ratings ..... 9

3.3 Detailed risk assessment – dewatering to Pit 13 ..... 17

3.3.1 Source ..... 17

3.3.2 Pathway and Receptor ..... 17

3.3.3 DWER assessment ..... 18

3.4 Detailed risk assessment – seepage from TSF8 ..... 19

3.4.1 Source ..... 19

3.4.2 Pathway and receptor ..... 20

3.4.3 Proposed monitoring ..... 22

3.4.4 DWER assessment ..... 25

**4. Consultation ..... 26**

**5. Conclusion ..... 27**

5.1 Summary of amendments ..... 27

**References ..... 31**

**Appendix 1: Figures ..... 32**

**Appendix 2: Summary of stakeholder comments on proposed amendments ..... 37**

**Appendix 3: Summary of Licence Holder's comments on risk assessment and draft conditions ..... 39**

**Appendix 4: Application validations summary ..... 41**

Table 1: Proposed Amendments ..... 1

Table 2: Proposed administrative amendments ..... 1

Table 3: Proposed embankment lifts ..... 1

Table 4: Licences consolidated in this amendment ..... 2

Table 5: Licence Holder controls ..... 3
Table 6: Sensitive human and environmental receptors and distance from prescribed activity ..... 7
Table 7: Risk assessment of potential emissions and discharges from the Premises during construction, commissioning and operation ..... 10
Table 8: Current Pit 13 Water quality compared to proposed dewater quality (KCB, 2021) ..... 17
Table 9: Average decant return from TSF7 and TSF8 ..... 20
Table 10: Maximum concentrations detected for monitoring undertaken for works approval W6445/2020/1 ..... 21
Table 11: DWER regulatory controls (seepage) ..... 25
Table 12: Consultation ..... 26
Table 13: Summary of licence amendments ..... 27
Table 14: Consolidation of licence conditions in this amendment ..... 29

Figure 1: Location of TSF8 ..... 1
Figure 2: Conceptual model for Pit 13 ..... 18
Figure 3: Groundwater monitoring locations ..... 23
Figure 4: Groundwater monitoring wells – zoomed extent ..... 24
Figure 5: Pit 13 location and proposed pipeline. Locations of nearby conservation significant flora and Aboriginal Heritage sites ..... 32
Figure 6: Proposed Class II landfill expansion ..... 33
Figure 7: Additional Tyre Disposal in waste rock dump area ..... 34
Figure 8: Expansion of category 63 landfill area into waste rock dump area ..... 35
Figure 9: Nearby sensitive receptors ..... 36

# 1. Decision summary

Licence L6079/1988/13 is held by Newcrest Mining Limited (Licence Holder) for the Telfer Gold Mine (the Premises), located within multiple mining tenements in Telfer, WA 6762.

This Amendment Report documents the assessment of potential risks to the environment and public health from proposed changes to the emissions and discharges during the operation of the Premises. As a result of this assessment, Revised Licence L6079/1988/13 has been granted.

The Revised Licence issued as a result of this amendment consolidates and supersedes the existing Licence previously granted in relation to the Premises. The Revised Licence has been granted in a new format with existing conditions being transferred, but not reassessed, to the new format.

# 2. Scope of assessment

## 2.1 Regulatory framework

In completing the assessment documented in this Amendment 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

The Licence Holder has submitted three applications to the department to amend Licence L6079/1988/13 under section 59 and 59B of the *Environmental Protection Act 1986* (EP Act). The applications were received by the department on 22 May 2021, 26 November 2021 and 16 February 2022. The assessments for May and November 2021 amendments were delayed by information requests and associated extensions provided to the applicant. The department will therefore assess all three amendments within this decision report and produce one amended instrument. The decision to combine the amendments was agreed upon with Newcrest in the interests of efficiency. Newcrest advised the department on 9 March 2022 that they were supportive of receiving one decision report for the three separate amendments.

The amendments being sought are shown in Table 1 and 2. Table 1 shows amendments requested which require risk assessment in this decision report and Table 2 are proposed administrative amendments, requiring no risk assessment.

**Table 1: Proposed Amendments**

| Proposed Amendment | Applicant justification |
|---|---|
| **May 2021 Proposed Amendments** | |
| **Addition of category 12**<br>• Crushing and screening: for use of mobile crushing and screening plant at Telfer, 200,000 tonnes per year | Whilst Telfer operates several fixed crushers as part of the Ore Treatment Plant, a mobile crushing plant (supplemented by a front-end loader) may be required from time to time to crush rock for use in blast stemming and road base. Crushing is proposed to be conducted on a campaign basis to crush a volume of stemming required to last a period of months or years before demobilising.<br>The crushing and screening plant is proposed to be mobile around the site and operate within the premise boundary as required. |
| **Category 63**<br>• New tyre disposal areas | To better match tyre disposal cells with areas where waste rock placement is occurring, Newcrest proposes to dispose |

| | |
|---|---|
| | used tyres in new cells to be developed in active waste rock dumps (Appendix 1, Figure 7). |
| **Category 63**<br>• New inert waste landfills active waste rock dumps | Newcrest proposes to establish new inert landfills within active waste dump areas (Appendix 1, Figure 8), allowing encapsulation of inert waste to occur as part of waste rock dumping from tip heads. |
| **November 2021 Proposed Amendments** | |
| **Category 6**<br>• Increase throughput of dewatering from 940,000 tonnes per annual period to 1,766,000 tonnes per annual period<br>• Inclusion of excess dewatering storage into Pit 13<br>• Construction of a dewatering pipeline | Newcrest are proposing to increase mine dewatering throughput by 826,000 tonnes (increasing the current throughput from 940,000 tonnes to 1,766,000 tonnes per annual period) and propose to discharge this additional amount to a new discharge point – Pit 13.<br>This will require a dedicated pipeline to be installed from the existing "raw water dam" to Pit 13. The pipeline will be installed alongside the existing Haul Road and power line corridor (Appendix 1, Figure 5). It will be constructed of HDPE and will be above ground, except where it crosses roads or tracks, where it will be buried. |
| **Category 64**<br>• Expand landfill area from 8.24ha to 13.5ha | The existing landfill facility requires expansion to meet future waste demands (Appendix 1, Figure 6) |
| **February 2022 Proposed Amendments** | |
| **Category 5**<br>• Operation of TSF8<br>• Stage 1 and 2 embankment lifts for TSF8 | Amendment required for on-going operation of TSF8 following construction of the TSF under works approval W6445/2020/1.<br>Embankment lifts to provide sufficient tailings storage capacity to support future processing operations at the Project.<br>See section 0 for further detail. |

**Table 2: Proposed administrative amendments**

| Proposed Amendment | Applicant justification | DWER outcome |
|---|---|---|
| **May 2021 Proposed Administrative Amendments** | | |
| **Category 5**<br>Condition 3.6.1, Table 3.6.1: monitoring bores<br>Remove HB154, HB248, HB249, HB250 and include new monitoring bores HB496, HB498, HB499 and HB500. | HB154, HB248, HB249, HB250 were decommissioned for construction of TSF8. These were replaced by four new bores. | Removal of bores within the footprint of the TSF and provision for new bores was assessed and addressed as part of the assessment for works approval W6445/2020/1. Compliance documentation for new groundwater monitoring bores has been previously submitted and assessed by DWER as compliant.<br>HB154, HB248, HB249 and HB250 will be removed from the licence and HB496, HB498, HB499 and HB500 have been added for groundwater monitoring. See section 3.4 for further discussion of groundwater monitoring on-site. |
| Condition 3.5.1, Table 3.5.1: process monitoring<br>To note that weekly sampling from monitoring points P1 and P2 (decant water storage) are to be conducted weekly when flowing / operational, OR<br>Remove from the licence. | Over the past several years, there have been numerous occasions when the required weekly sample at these points have not been possible due to no flow. This has then been recorded as a series of non-compliances in the Annual Audit Compliance Report.<br>Newcrest requests either modification to include “when flowing/operation” or for the monitoring points to be removed from the licence. | The condition has been modified so that sampling be undertaken “weekly when flowing/operational”.<br>A note has been placed for the licence holder to continue to record when a sample is not collected when points are not flowing or non-operational. This will allow DWER to have records with regards to process monitoring for the site. |
| Condition 2.3.1, Table 2.3.1: emissions to land<br>Amend WWTP irrigation area | Table 2.3.1 incorrectly identifies the Administration Wastewater Treatment Plant irrigation area (Emission Point L1) as being 7.4 ha in size. The actual size of the Administration WWTP irrigation area is 1.1 ha (as shown in Figure 13 of Licence L6079/1988/13) | As the irrigation area will be reduced in this correction, the risk will remain unchanged. The department notes that the current L1 irrigation area shown in the licence is 1.1 hectares.<br>No further risk assessment required. |
| Condition 1.3.13, Table 1.3.5: chemical storage<br>Amend to remove brand names/specificity | Newcrest proposes to simplify its chemicals list to identify the type of substance and remove specific brand names from the licence. | The condition will be modified to reflect only the substance name. There is no alteration in the risk profile by removing brand names from the licence.<br>No further risk assessment required. |

| | | |
|---|---|---|
| Condition 1.3.13, Table 1.3.5 chemical storage<br>Increase:<br>• transmission oil volume from 110,000L to 136,000L; and<br>• engine oil volume from 145,000L to 171,000L | Newcrest wishes to increase transmission and engine oil storage volumes to 136,000L and 171,000L respectively | Storage of hydrocarbons is predominantly regulated under the *Dangerous Goods Act*. Additional storage of 26,000L of transmission oil and 26,000L engine oil will not result in a change to the current *Environmental Protection Act Part V* licence conditions.<br>No further risk assessment required. |
| **November 2021 Proposed Administrative Amendments** | | |
| Extension of the existing premises boundary | Expansion of the existing premises boundary is required to encompass:<br>• the pipeline corridor including addition of mining lease M45/720 and miscellaneous licence L45/622; and<br>• proposed expansion of the existing class II landfill | Newcrest has provided appropriate tenement leases indicating it can accommodate the premises boundary expansion.<br>No further risk assessment required. |
| **Additional amendment request** | | |
| Condition 1.3.15, Table 1.3.7, infrastructure requirements<br>Newcrest requests an additional amendment, for the mobile batching plant to be located on low permeability outer siltstone member hardstand rather than located within concrete bunds. | Requests use “outer siltstone member” hardstand with low permeability (ranging between 1.3x10-8 to 1.5x10-8) and with a thickness of 500mm. | Addition of the mobile batching plant was assessed and conditioned as part of amendment notice 1. The assessed risk of discharge of tailings material to land due to process failure at the batching plants was given a consequence rating of “minor” with a likelihood of “possible”. Collection sumps and pumps will be present to contain spills, and groundwater depth is >35mbgl.<br>As the outer siltstone member hardstand will be 500mm thickness, with permeability ranging 1.3 x10-8 to 1.5 x 10-8 m/s, this does not significantly alter the risk profile associated with the activity.<br>The condition has been altered to allow for use of the outer siltstone member rather than concrete and includes the thickness specified. |

### 2.2.1 TSF8 operation and embankment lifts

Works approval W6445/2020/1 was granted on 8 February 2021 for construction of tailings storage facility 8 (TSF8), a paddock style facility which was constructed with a shared southern wall with tailings storage facility 7 (TSF 7) (Figure 1) and an adjoining waste rock dump to the north[1].

Compliance documentation submitted for W6445/2020/1 has been assessed as compliant for Starter A (5495 m RL) and Starter B (5499.4m RL) embankments. Newcrest now wish to amend the licence for on-going operation of TSF8 and request two additional embankment lifts summarised in Table 3 below.

**Table 3: Proposed embankment lifts**

| Stage | Embankment elevation (mRL) | Total tailings volume (Mt) |
|---|---|---|
| 1 | 5506 | 47.4 |
| 2 | 5511 | 62.9 |


**Figure 1: Location of TSF8**

[1] To the north of TSF8 are are four distinct waste rock dumps which include:

- Waste Dump 6; and
- Three areas of the Southern Waste Dump (SWD):
  - o Run of Mine (ROM C);
  - o Potential Acid Forming (PAF) Cell (PAF Cell); and
  - o Outer Siltstone Member (OSM) Stockpile (OSM Stockpile) (Figure 1).

## 2.3 Part IV of the EP Act

The premises was constructed in 1975 and was operated until November 2000, when the project was placed into care and maintenance. A proposal to recommence and expand the mining operations at Telfer Gold Mine was approved under Part IV of the EP Act in 2002 (Bulletin 1059).

Ministerial Statement (MS606) was published on 1 October 2002 and provides regulatory requirements for the following aspects:

- Flora and fauna – clearing and loss of habitat;
- Dewatering and borefield operation – drawdown effects on groundwater resources and stygofauna;
- Greenhouse gas emissions – from mining and processing;
- Acid mine drainage – management of potentially acid forming waste rock; and
- Mine closure – planning for closure and integration with existing facilities.

The above requirements of MS606 have not been duplicated within this decision report or licence L6079/1988/13.

The proposal approved under MS606 was amended via section 45C of the EP Act on 16 September 2020, to authorise the construction of TSF8 on an area previously approved for waste rock disposal (Attachment 4 of MS606). The Part V application is consistent with the 'key characteristics' for TSF8 specified in the Part IV approval.

Whilst the Ministerial Statement includes requirements for clearing and loss of habitat for flora and fauna, it does not include impacts associated with dust or tailings storage facility seepage, which will be managed under this Part V licence.

## 2.4 Consolidation of Licence

As part of this amendment package the department has consolidated the licence by incorporating changes made under an amendment notice as summarised in Table 4.

**Table 4: Licences consolidated in this amendment**

| Instrument | Issued | Summary of approval |
|---|---|---|
| L6079/1988/12 | 4/10/2012 | Licence granted |
| L6079/1988/13 | 4/12/2017 | Amendment Notice 1:<br>Addition of category 6 for pit water discharge following significant rain, construction and operation of a paste fill plant and a cemented hydraulic fill (CHF) plant for use in backfilling and stabilising stopes in the Telfer Underground mine utilising tailings, slight increase in throughput and other minor amendments. |

The obligations of the Licence Holder have not changed in consolidating the licence. The department has not undertaken any additional risk assessment of the Premises related to the amendment notice.

In consolidating the licence, the CEO has:

- updated the format and appearance of the Licence;
- deleted the redundant AACR form set out in schedule 1 of the previous licence and advised the Licence Holder to obtain the form from the department's website;

- revised the licence condition's numbers, removed any redundant conditions and realigned condition numbers for numerical consistency; and
- corrected clerical mistakes and unintentional errors.

The full consolidation of licence conditions as they relate to this Revised Licence are detailed in Section 5.1. The amendment notice will remain on the department's website for future reference and will act as a record of the department's decision making.

# 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 operation which have been considered in this Amendment Report are detailed in Table 5 below. Table 5 also details the proposed control measures the Licence Holder has proposed to assist in controlling these emissions, where necessary.

**Table 5: Licence Holder controls**

| Emission | Sources | Potential pathways | Proposed controls |
|---|---|---|---|
| **Category 5 (February 22 amendment)** | | | |
| **Construction – TSF embankment lifts** | | | |
| Dust | TSF embankment lifts | Air/windborne pathway | • Suppression with water cart |
| **Operation – TSF8** | | | |
| Seepage: water containing cyanide and elevated metals and metalloids (e.g. chromium, copper, iron, lead, mercury and nickel) | Tailings disposal into TSF8 | Seepage of contaminated water through base and embankments of TSF8 to soil and groundwater | See section 3.4 |
| Tailings and contaminated water, containing cyanide and | | Overtopping of TSF8 | No controls proposed |
| | | Pipeline leak/rupture | <u>Existing licence controls</u><br>• Condition 1.3.8 - pipelines to be equipped |

| Emission | Sources | Potential pathways | Proposed controls |
|---|---|---|---|
| elevated metals and metalloids (e.g. chromium, copper, iron, lead, mercury and nickel) | | and direct discharge to land | with telemetry, automatic cut outs and provided with secondary containment to contain any spill for a period equal to the time between routine inspections.<br><u>Proposed controls</u><br>• Catch pits to be constructed to capture accidental spills, leaks or discharge during maintenance activities |
| | | Native fauna gaining access to TSF8 (ingestion of contaminated water) | <u>Existing licence controls</u><br>• Condition 3.5.1 - existing licence controls for TSF7 include a decant limit of 50mg/L cyanide. |
| Dust (dry tailings) | | Air/windborne pathway | • Suppression with water cart |
| **Category 6 (November 21 amendment)** | | | |
| Dust | Construction and installation of dewatering infrastructure including pipeline bunding | Air/windborne pathway | • Suppression with water cart |
| Mine dewater (brackish to saline, 3,510-5,050 mg/L TDS) | Disposal of mine dewater to Pit 13 | Seepage of mine dewater through base and walls of Pit 13 to soil and groundwater | • Three pairs of piezometers are located around Pit 13 and will be used to monitor groundwater levels. |
| | | Overtopping of mine dewater from Pit 13 | • Minimum 2m freeboard<br>• Three pairs of piezometers are located around Pit 13 and will be used to monitor groundwater levels |
| | | Mine dewater discharged to environment via pipeline leak/rupture | <u>Existing licence conditions:</u><br>• Condition 1.3.8: all above ground pipelines equipped with telemetry, automatic cut-outs and secondary containment sufficient<br><u>Proposed controls:</u><br>• Scour pits will be constructed in strategic locations targeting the natural low points along the pipeline route.<br>• Pipeline to be tested prior to operation |

| Emission | Sources | Potential pathways | Proposed controls |
|---|---|---|---|
| | | | • Pipeline constructed along existing windrowed road corridor<br>• Daily inspections of pipeline |
| **Addition of category 12 – crushing and screening (May 21 amendment)** | | | |
| Dust | • crushing and screening of rock<br>• handling and stockpiling of material including loading of material into trucks<br>• vehicle movements | Air/windborne pathway | • Suppression with water cart |
| Sediment laden stormwater | | Overland run-off | No controls proposed |
| **Category 63: class I inert landfill site (May 21 amendment)** | | | |
| Dust | Disposal of used tyres into waste rock dumps (area of proposed inert landfill expansion) | Air/windborne pathway | Suppression with water cart |
| Fire risk | | Air/windborne pathway | Existing licence condition 1.3.2 requires burial of tyres |
| Contaminated firefighting water | | Overland runoff | No controls proposed |
| Leachate produced by interaction of inert waste with potentially acid forming material. | | Vertical transport through soil and contamination of groundwater causing poor vegetation health/death of adjacent native and threatened flora. | No controls proposed.<br>See Appendix 2: comments from DMIRS regarding potentially acid forming waste |
| Dust | Expand inert landfill area into the area of the waste rock dump. | Air/windborne pathway | Suppression with water cart |
| **Category 64 Class II putrescible landfill** | | | |
| **Construction – expansion of landfill cell** | | | |

| Emission | Sources | Potential pathways | Proposed controls |
|---|---|---|---|
| Dust | Expansion of landfill cell | Air/wind dispersion | Suppression with water cart |
| **Operation of expanded landfill** | | | |
| Dust | Operation of expanded Class II landfill | Air/wind dispersion | No controls proposed |
| Leachate | | via soil and groundwater | The licence holder indicates the there is an existing low permeability compacted 4m “outer siltstone member” (OSM) basal lining underlying the waste rock dump and that the expansion will not extend beyond the lining.<br>The landfill will expand into the area of the bioremediation facility which has also been lined with the OSM layer. |
| Odour | | Air/wind dispersion | <u>Existing licence conditions</u><br>• Condition 1.3.4 cover requirements for class II waste |
| Uncovered rubbish | | Access by fauna | <u>Existing licence conditions</u><br>• Condition 1.3.4 cover requirements for class II waste<br><u>Proposed controls:</u><br>• Expanded fence line proposed see Figure 6, Appendix 1. |
| Windblown rubbish | | Air/wind dispersion | <u>Existing licence conditions</u><br>• Condition 1.3.4 cover requirements for class II waste<br><u>Proposed controls</u><br>• Fence to be expanded to accommodate the landfill expansion see Figure 6, Appendix 1 |

### 3.1.2 Receptors

In accordance with the *Guideline: Risk assessments* (DWER 2020), the Delegated Officer has excluded employees, visitors and contractors of the Licence Holder’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 6 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)). The nearest human receptors are the Penmu Aboriginal community, being 100km south-east of the premises The nearest town of Nullagine is approximately 215km south-west of the premises. Given the distance of these receptors from the premises, they will not be considered as receptors under the scope of this risk assessment.

**Table 6: Sensitive human and environmental receptors and distance from prescribed activity**

| Environmental receptors | Distance from prescribed activity |
|---|---|
| Groundwater<br><br>Premises located within the Canning-Kimberley Groundwater Area proclaimed under *Rights in Water and Irrigation (RIWI) Act 1914*. | Groundwater depth:<br><br>Pre-mining groundwater levels at the project were approximately 40m to 70 metres below ground level (mbgl) with very slight hydrogeological gradient occurring toward the south of the mine (works approval application form for W6445/2020/1 submitted by applicant, dated 25 August 2020).<br><br>The groundwater levels to the north and north-west of TSF7 have generally risen between 4 m and 10 m since 2003 in response to the rising tailings elevation in TSF7. The standing groundwater level (SWL) surrounding TSF7 is generally below 35 mbgl.<br><br>Groundwater quality<br><br>Groundwater is considered fresh to brackish with 1,000-3,000 mg/L Total Dissolved Solids (TDS).<br><br>Groundwater monitoring results from the Telfer Operations 2018-2019 borefield monitoring review (works approval application form for W6445/2020/1 submitted by applicant, dated 25 August 2020) indicates groundwater quality in the Telfer Gold Mine area is neutral to alkaline at pH 6.8 - 8.14.<br><br>Groundwater monitoring results for TSF7 (located south of proposed TSF8) submitted in the Annual Environmental Reports (AER) for Licence L6079/1988/13 demonstrate historical elevations in metals and metalloids (e.g. chromium, copper, iron, lead, mercury and nickel). |
| Threatened and priority flora | • *Goodenia hartiana:* Priority 2 Flora located immediately west of TSF8, within of the prescribed premises boundary and one occurrence next to eastern portion of proposed pipeline (Figure 9),<br><br>• *Pterocaulon xenicum,* an uncommon priority 3 perennial herb is located immediately south of Pit 13.<br><br>Whilst MS606 provides regulatory control for clearing and loss of habitat, impacts associated with dust and tailings storage facility seepage has not been considered and will therefore assessed under this Part V instrument. |
| Threatened and priority fauna | The following conservation significant fauna species have been sighted (DWER Geocortex) (Figure 9):<br><br>• Bilby, *Macrotis lagotis* (VU at both state and federal level) – sighting approximately 1.77 km north and 7.34 km north-north-west of TSF8.<br><br>• Peregrine Falcon, *Falco peregrinus* (OS) – sighting approximately 1.23 km north-north-west of TSF8. |
| Native vegetation | The vegetation communities located immediately to the west and east of TSF8 fall within the Great Sandy Desert Bioregion of the Interim Biogeographic Regionalisation (IBRA) (DWER |

| | |
|---|---|
| | Geocortex).<br><br>The vegetation is comprised of sparse low tree-steppe and sparse shrub-steppe. Approximately 99% of the pre-European vegetation still exists in the IBRA Great Sandy Desert Bioregion (Government of Western Australia 2019). |
| Native fauna | Native fauna inhabits vegetated areas immediately east and west of TSF8.<br><br>The applicant undertook a desktop search of the Department of Biodiversity, Conservation and Attractions (DBCA)'s Nature Map online database, which returned results for 173 fauna records occurring within 20 km of the project area. Key families include Sicincidae (skinks) and Accipitridae (true hawks) and key genera include Ctenotus, Strophurus and Ctenophorus (Mine Earth 2020). |
| Subterranean fauna | Stygofauna are known to occur in the underlying geology, which has previously resulted in a requirement to undertake monitoring under condition 6 of Ministerial Statement MS606.<br><br>Following review of an extended history of monitoring and reporting conducted over ten years, the Office of the Environmental Protection Authority (OEPA) (now DWER) advised in April 2015 that Newcrest Mining Limited analysis of data demonstrated compliance with condition 6 of MS606 and that the objective "to increase scientific knowledge about subterranean fauna to assist in the conservation of this element to the environment" had been achieved. No further monitoring is proposed. (Talis, 2020)<br><br>The proposal approved under MS606 was amended via section 45C of the EP Act on 16 September 2020, to authorise the construction of TSF8 on an area previously approved for waste rock disposal (Attachment 4 of MS606). |

## 3.2 Risk ratings

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

Where the Licence Holder 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 Licence Holder's proposed controls to be critical to maintaining an acceptable level of risk, these will be incorporated into the licence as regulatory controls.

Additional regulatory controls may be imposed where the Licence Holder's controls are not deemed sufficient. Where this is the case the need for additional controls will be documented and justified in Table 7.

The Revised Licence L6079/1988/13 that accompanies this Amendment Report authorises emissions associated with the operation of the Premises. The conditions in the Revised Licence have been determined in accordance with *Guidance Statement: Setting Conditions* (DER 2015).

**Table 7: Risk assessment of potential emissions and discharges from the Premises during construction, commissioning and operation**

| Risk Event | | | | | Risk rating[1] C = consequence L = likelihood | Licence Holder's controls sufficient? | Conditions[2] of licence | Justification for additional regulatory controls |
|---|---|---|---|---|---|---|---|---|
| **Source/Activities** | **Potential emission** | **Potential pathways and impact** | **Receptors** | **Licence Holder's controls** | | | | |
| **Construction** | | | | | | | | |
| Construction and installation of dewatering infrastructure including pipeline bunding<br>Mobilise crusher/ screener onto site<br>TSF 8 embankment lifts | Dust | Air/wind dispersion causing impacts to adjacent threatened flora and native vegetation | Adjacent threatened flora and native vegetation | Refer to section 3.1 | C = Minor<br>L = Possible<br>**Medium risk** | Y | New condition<br>Condition 2.1.2 – dust management | The licence holders proposed control for management of dust with a water cart will be placed on the licence as a regulatory control. |
| **Category 5 – TSF8 operation** | | | | | | | | |
| Tailings and contaminated water disposal into TSF8 | TSF8 seepage (contaminated water) | Seepage of contaminated water through base and embankments to soil and groundwater causing impacts to vegetation health and associated reliant fauna | Adjacent threatened flora and native vegetation<br>Native fauna (threatened and priority) | Refer to Section 3.4 | C = Moderate<br>L = Unlikely<br>**Medium risk** | N | See Section 3.4 | See detailed risk assessment in Section 3.4 |
| | Tailings and contaminated water | Overtopping of TSF8 | Adjacent threatened flora and native vegetation<br>Native fauna (threatened and priority) | Refer to Section 5.1 | C = Moderate<br>L = Unlikely<br>**Medium risk** | N | Modifications to existing conditions<br>Condition 1.3.12 modified to include 300mm freeboard | To prevent overtopping a requirement for a minimum 300mm freeboard has been placed on the licence for both tailings storage facilities. |

| Risk Event | | | | | Risk rating[1]<br>C = consequence<br>L = likelihood | Licence Holder's controls sufficient? | Conditions[2] of licence | Justification for additional regulatory controls |
|---|---|---|---|---|---|---|---|---|
| **Source/Activities** | **Potential emission** | **Potential pathways and impact** | **Receptors** | **Licence Holder's controls** | | | | |
| | | Pipeline leak/rupture and direct discharge to land causing impacts to vegetation health and associated reliant fauna | Adjacent threatened flora and native vegetation<br>Native fauna (threatened and priority) | Refer to Section 5.1 | C = Moderate<br>L = Unlikely<br>**Medium risk** | Y | <u>Existing condition</u><br>Condition 1.3.8 – pipelines to be equipped with telemetry, automatic cut outs and provided with secondary containment to contain any spill for a period equal to the time between routine inspections. | The Delegated Officer considers the existing licence controls are sufficient to mitigate risk associated with a pipeline leak/rupture. |
| | | Native fauna gaining access to TSF8 (ingestion of contaminated water causing poor health/death) | Native fauna (threatened and priority) | Refer to Section 5.1 | C = Moderate<br>L = Possible<br>**Medium risk** | Y | <u>Modification to existing conditions</u><br>Condition 3.5.1 – modified to include TSF8 | The Delegated Officer notes that a 50mg/L WAD CN upper limit for the decant already exists for TSF7 (condition 3.5.1). This condition has been modified to include TSF8.<br>International Cyanide Management (2021) guidelines indicate that decant ponds with >50mg/L WAD CN can be lethal to birds and other wildlife. |
| | Dust (dry tailings) | Air/wind dispersion causing impacts to adjacent threatened flora and native vegetation | Adjacent threatened flora and native vegetation<br>Native fauna (threatened and priority) | Refer to Section 5.1 | C = Minor<br>L = Unlikely<br>**Medium risk** | Y | <u>New condition</u><br>Condition 2.1.2 – dust management | The licence holders proposed control for management of dust with a water cart will be placed on the licence as a regulatory control. |
| **Category 6 – mine dewatering** | | | | | | | | |

| Risk Event | | | | | Risk rating[1]<br>C = consequence<br>L = likelihood | Licence Holder's controls sufficient? | Conditions[2] of licence | Justification for additional regulatory controls |
|---|---|---|---|---|---|---|---|---|
| **Source/Activities** | **Potential emission** | **Potential pathways and impact** | **Receptors** | **Licence Holder's controls** | | | | |
| Disposal of mine dewater to Pit 13 and increase of dewatering throughput from 940,000 to 1,766,000 tonnes per annual period | Mine dewater (brackish to saline, 3,510-5,050 mg/L TDS) | Seepage of mine dewater through base and walls of Pit 13, contaminating soil and groundwater, causing poor health/death of adjacent native vegetation and threatened flora | Adjacent native vegetation | Refer to section 3.1 | C = Moderate<br>L = Unlikely<br>**Medium Risk** | Y | <u>Modifications to existing conditions:</u><br>Condition 1.3.14 – amendment to category 6 throughput<br>Condition 1.3.15 modified to include piezometer installation<br>Condition 2.3.1 – addition of Pit 13 as an emission point<br>Condition 3.3.1 – modified to include monitoring requirement for pit 13<br>Condition 3.6.1 modified to include piezometer monitoring | See detailed risk assessment in section 3.3. |
| | | Overtopping of mine dewater from Pit 13, causing poor health/death of adjacent native vegetation and threatened flora | Adjacent native vegetation | Refer to section 3.1 | C = Moderate<br>L = Rare<br>**Medium Risk** | Y | | |
| | | Mine dewater discharged to environment via pipeline leak/rupture causing poor health/death of adjacent native vegetation and threatened flora | Adjacent native vegetation<br>Threatened priority flora | Refer to section 3.1 | C = Moderate<br>L = Unlikely<br>**Medium Risk** | Y | <u>Existing conditions</u><br>Condition 1.3.8 all above ground pipelines equipped with telemetry, automatic cut-outs and secondary containment sufficient<br><u>Modifications to existing conditions</u>:<br>Condition 1.3.12 – added daily inspections of Pit 13 dewatering pipeline<br>Condition 1.3.15 – pipeline construction specifications added | The Delegated Officer considers the specific Pit 13 pipeline construction specifications (including Australian standards) and applicant proposed daily inspections necessary to complement the existing conditions on the licence, and will be placed on the licence as regulatory controls. |
| **Category 12 – crushing and screening** | | | | | | | | |

| Risk Event | | | | | Risk rating[1]<br>C = consequence<br>L = likelihood | Licence Holder's controls sufficient? | Conditions[2] of licence | Justification for additional regulatory controls |
|---|---|---|---|---|---|---|---|---|
| **Source/Activities** | **Potential emission** | **Potential pathways and impact** | **Receptors** | **Licence Holder's controls** | | | | |
| Crushing and screening of rock<br>Handling and stockpiling of material including loading of material into trucks<br>Vehicle movements | Dust | Air/windborne pathway causing poor vegetation health/death of adjacent native vegetation and threatened flora | Adjacent threatened flora and native vegetation | Refer to Section 5.1 | C = Moderate<br>L = Unlikely<br>**Medium Risk** | N | <u>New condition:</u><br>Condition 2.1.2 – dust management<br><u>Modification of existing conditions</u><br>Condition 1.3.15 – mobile crushing plant to be fitted with sprinklers | The Licence holders proposed management of dust generation using a water cart has been added to the licence as a regulatory control.<br>To further control dust emissions and protect adjacent threatened flora from on-going dust generated from crushing/screening activities, the Delegated Officer has included the requirement that the feed hopper/conveyor be fitted with sprinklers. |
| | Sediment laden stormwater | Overland runoff potentially causing poor vegetation health/death of adjacent native vegetation and threatened flora | Adjacent threatened flora and native vegetation | No controls proposed | C = Minor<br>L = Unlikely<br>**Medium Risk** | N | <u>Modification of existing conditions</u><br>Condition 1.3.15 – diversion of stormwater around operational areas | No controls have been proposed by the licence holder. To protect adjacent native vegetation/threatened flora from sediment laden stormwater, diversion of stormwater around crushing and screening operational areas has been conditioned. |
| **Category 63 – Class I inert landfill** | | | | | | | | |
| Disposal and cover of used tyres into waste rock dumps (area of proposed inert landfill expansion) | Dust | Air/windborne pathway | Adjacent threatened flora and native vegetation | Refer to Section 5.1 | C = Minor<br>L = Unlikely<br>**Medium Risk** | Y | N/A | Tyre disposal and cover in waste rock dump unlikely to result in significant additional dust. No additional regulatory control required. |
| | Leachate produced by interaction of inert waste | Vertical transport through and contamination of soil and | Adjacent threatened flora and native | No controls proposed | C = Moderate<br>L = Unlikely | N | <u>Modification of existing conditions</u><br>Condition 1.3.2 – modified | Advice received from the Department of Mines, Industry Regulation and Safety (DMIRS) indicated |

| Risk Event | | | | | Risk rating[1]<br>C = consequence<br>L = likelihood | Licence Holder's controls sufficient? | Conditions[2] of licence | Justification for additional regulatory controls |
|---|---|---|---|---|---|---|---|---|
| **Source/Activities** | **Potential emission** | **Potential pathways and impact** | **Receptors** | **Licence Holder's controls** | | | | |
| | with potentially acid forming material. | groundwater causing poor vegetation health/death of adjacent native and threatened flora. | vegetation<br>Native fauna (threatened and priority) | | **Medium Risk** | | so that no inert waste or tyres can be disposed of in areas with potentially acid forming material within the waste rock dump | concerns regarding interaction of inert waste with potentially acid forming material within the waste rock dump. To mitigate this risk, condition 1.3.2 has been modified so that no inert waste or tyres can be disposed of within potentially acid forming material. |
| | Fire risk | Air/windborne pathway | Native and threatened fauna<br>Adjacent native vegetation and threatened flora | Refer to Section 5.1 | C = Moderate<br>L = Unlikely<br>**Medium Risk** | Y | <u>Existing licence conditions</u><br>Condition 1.3.2 – requires burial of tyres – helps to mitigate fire risk | Existing licence controls sufficient to mitigate fire risk. |
| | Contaminated firefighting water | Overland runoff | Adjacent native vegetation<br>Threatened flora | Refer to Section 5.1 | C = Minor<br>L = Unlikely<br>**Medium Risk** | Y | <u>Existing licence conditions</u><br>Condition 1.3.2 – requires burial of tyres – helps to mitigate fire risk | |
| Operation of expanded inert landfill area within the area of the waste rock dump | Dust | Air/windborne pathway | Adjacent native vegetation<br>Threatened flora | Refer to Section 5.1 | C = Moderate<br>L = Unlikely<br>**Medium Risk** | Y | <u>New condition:</u><br>Condition 2.1.2 – dust management | The Delegated Officer notes that the footprint of the inert landfill is significantly larger than the existing inert landfill area. To mitigate the risk of dust emissions associated with this larger area, the Licence Holder's proposed management of dust generation using a water cart has been added to the licence as a regulatory |

| Risk Event | | | | | Risk rating[1]<br>C = consequence<br>L = likelihood | Licence Holder's controls sufficient? | Conditions[2] of licence | Justification for additional regulatory controls |
|---|---|---|---|---|---|---|---|---|
| **Source/Activities** | **Potential emission** | **Potential pathways and impact** | **Receptors** | **Licence Holder's controls** | | | | |
| | | | | | | | | control. |
| **Category 64 – Class II putrescible landfill** | | | | | | | | |
| Operation of expanded class II landfill | Dust | Air/wind dispersion | Adjacent native vegetation<br>Threatened flora | Refer to Section 5.1 | C = Moderate<br>L = Unlikely<br>**Medium Risk** | Y | N/A | The Delegated Officer considers the operation of expanded class II landfill is unlikely to result in significant additional dust. No additional regulatory controls required. |
| | Leachate | Vertical transport through soil and contamination of groundwater causing poor vegetation health/death of adjacent native and threatened flora. | Adjacent native vegetation<br>Threatened flora | Refer to Section 5.1 | C = Minor<br>L = Unlikely<br>**Medium Risk** | Y | <u>Existing licence conditions</u><br>Condition 1.3.2 – no construction/operation within 3m of the highest level of the water table aquifer | The Delegated Officer notes that the depth to groundwater is generally >35 mbgl, and the risk to groundwater from leachate is low. No additional regulatory controls required. |
| | Odour | Air/wind dispersion | No nearby human receptors | Refer to Section 5.1 | C = Slight<br>L = Unlikely<br>**Low Risk** | Y | <u>Existing licence conditions</u><br>Condition 1.3.4 cover requirements for class II waste | No nearby human receptors. No additional regulatory control required. |
| | Windblown waste | Windblown waste | Native and threatened fauna | Refer to Section 5.1 | C = Minor<br>L = Possible<br>**Medium Risk** | Y | <u>Existing licence conditions</u><br>Condition 1.3.4 cover requirements for class II waste | Existing licence holder controls for cover are considered sufficient. No additional regulatory controls required. |
| | Uncovered waste | Access by fauna | Native and threatened fauna | Refer to Section 5.1 | C = Moderate<br>L = Possible<br>**Medium Risk** | N | <u>Existing licence conditions</u><br>Condition 1.3.4 cover requirements for class II waste<br><u>Modifications to existing</u> | The Licence holders proposed fence line surrounding the Class II landfill has been added to the licence as a regulatory control. |

| Risk Event | | | | | Risk rating[1] C = consequence L = likelihood | Licence Holder's controls sufficient? | Conditions[2] of licence | Justification for additional regulatory controls |
|---|---|---|---|---|---|---|---|---|
| Source/Activities | Potential emission | Potential pathways and impact | Receptors | Licence Holder's controls | | | | |
| | | | | | | | conditions<br>Condition 1.3.2 modified to include expanded fence surrounding class II landfill | |

Note 1: Consequence ratings, likelihood ratings and risk descriptions are detailed in the *Guideline: Risk assessments* (DWER 2020).

Note 2: Proposed Licence Holder's controls are depicted by standard text. **Bold and underline text** depicts additional regulatory controls imposed by department.

## 3.3 Detailed risk assessment – dewatering to Pit 13

### 3.3.1 Source

**Proposed dewater chemistry and pit capacity**

Klohn Crippen Berger (KCB, 2021) was commissioned by Newcrest to undertake a hydrogeological site investigation at Pit 13. Proposed dewater quality is more saline (3,510-5,040mg/L) than the current Pit 13 (510 – 2,590mg/L) water quality (Table 8). Water chemistry is otherwise similar, where proposed dewater has marginally higher concentrations of cobalt and copper than Pit 13.

**Table 8: Current Pit 13 Water quality compared to proposed dewater quality (KCB, 2021)**

| | | Current Pit 13 water quality | | | Dewater quality | |
|---|---|---|---|---|---|---|
| **Parameter** | **Unit** | **HB489** | **HB491** | **HB493** | **15 May 2021** | **26 June 2021** |
| pH | pH unit | - | - | - | 8.07 | 8.02 |
| Electrical Conductivity | µS/cm | 2900 | 3920 | 821 | - | - |
| Total Dissolved Solids | mg/L | 1850 | 2590 | 510 | 3510 | 5040 |
| Mercury | mg/L | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 |
| Arsenic | mg/L | - | - | - | 0.006 | 0.010 |
| Aluminium | µg/L | 12 | 12 | <5 | 10 | 20 |
| Iron | µg/L | 353 | 3 | 2 | <50 | <50 |
| Antimony | µg/L | 0.8 | 0.8 | 0.4 | <1 | <1 |
| Selenium | µg/L | <0.2 | 5.3 | <0.2 | <10 | <10 |
| Cadmium | µg/L | <0.05 | <0.05 | <0.05 | 0.2 | 0.1 |
| Chromium | µg/L | 0.2 | <0.2 | <0.2 | <1 | 2 |
| Cobalt | µg/L | 2.1 | 2.0 | 0.3 | 44 | 26 |
| Copper | µg/L | <0.5 | 1.5 | 1.9 | 99 | 23 |
| Lead | µg/L | <0.1 | 0.2 | 0.2 | <1 | <1 |
| Manganese | µg/L | 905 | 562 | 260 | 804 | 588 |
| Nickel | µg/L | 2.4 | 3.4 | 0.6 | 32 | 13 |
| Thallium | µg/L | <0.02 | 0.05 | 0.16 | <1 | <1 |
| Zinc | µg/L | <1 | 8 | 3 | 11 | 12 |
| WAD CN | µg/L | <4 | <4 | <4 | <4 | <4 |

The total available capacity of the pit is 1,910,000m$^3$, allowing for 2m freeboard. Intermittent storage of mine water to the pit of up to 826,000m$^3$ per year is estimated to utilise up to 24% of the pit's capacity. Stormwater is managed using a diversion bund which surrounds the pit and has an upstream interception ditch which will prevent surface runoff from entering the pit. Therefore, only rainfall within the bunded area of Pit 13 will enter the pit.

### 3.3.2 Pathway and Receptor

Most of the mine dewater stored in Pit 13 is expected to drain to Orebody aquifer (which intersects Pit 13) and be transported laterally through the Puntapunta regional aquifer system (Figure 2). The groundwater flow direction in the vicinity of Pit 13 is to the west.

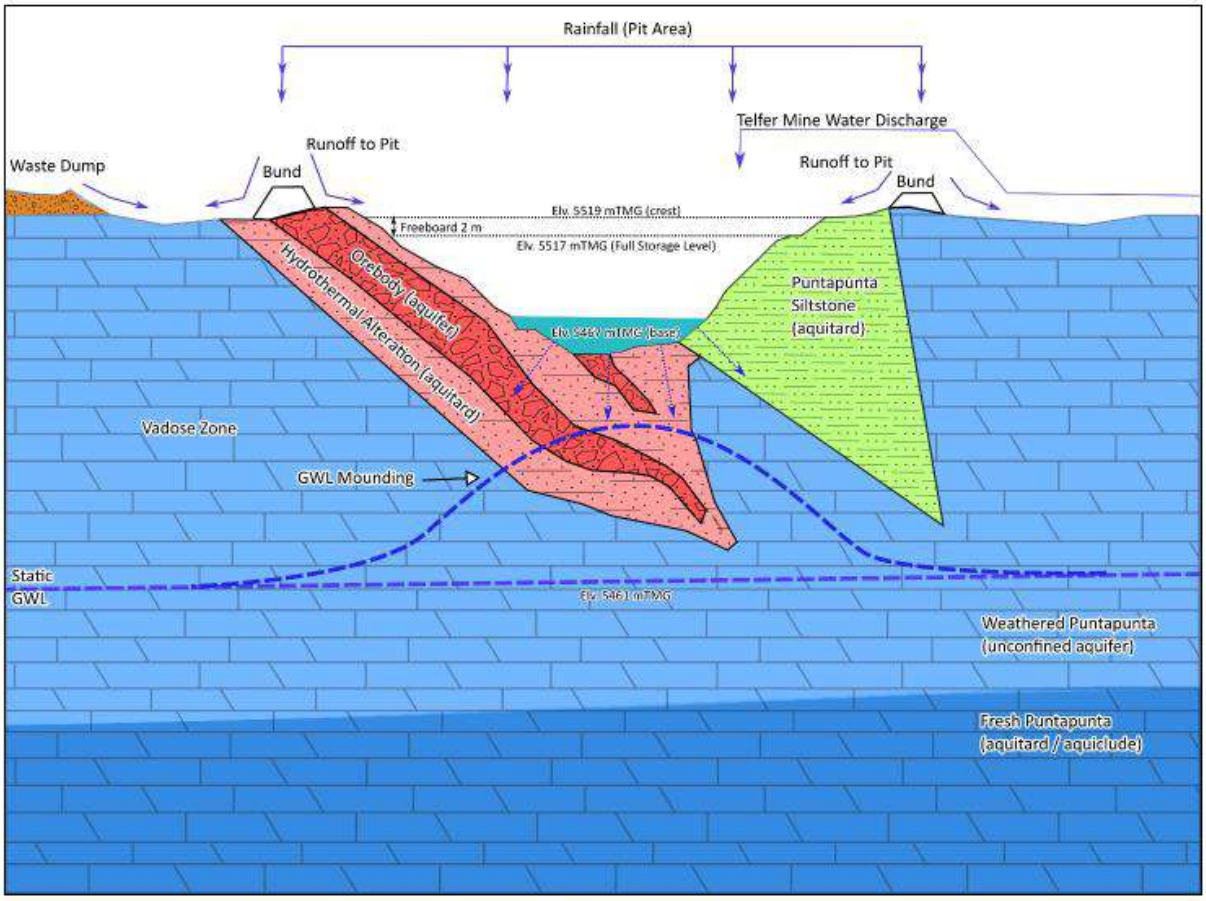


**Figure 2: Conceptual model for Pit 13**

Under the proposed mine water storage scenario of 826,000m$^3$ per year KCB (2021) has modelled the following:

- The predicted maximum stored water volume at any one time is estimated to be 461,000m$^3$;
- The pit is predicted to take approximately 9 months to drain into the aquifer after the final storage event;
- Groundwater mounding is estimated to extend approximately 1.5km south-west, 0.75km north-east and 1.3km north-west and south-east. Outside of the pit footprint, the maximum predicted water table mound is not expected to rise above 20 metres below ground level; and
- Infiltrating water will migrate up to 1km away from the pit after one year following the storage event.

There are no threatened flora or fauna within 5km of Pit 13. The main receptor for dewater to Pit 13 is adjacent native vegetation.

### 3.3.3 DWER assessment

Whilst the Pit 13 is likely to seep significantly, where drainage of the entire pit through to the aquifer may only take 9 months, groundwater in the region is deep (40-70m bgl). Groundwater mounding has been shown through modelling by KCB as unlikely to rise above 20m bgl, and therefore unlikely to impact the root zones of adjacent native vegetation. Additionally, whilst being more saline, the dewater quality is similar to water already within Pit 13. Therefore, the assessed risk of seepage to nearby sensitive receptors (adjacent native vegetation) is considered 'medium risk' with a consequence rating of 'moderate' and a likelihood of 'unlikely'.

The applicant proposes to install piezometres around Pit 13 which will be used to monitor

groundwater levels. Installation and monitoring of piezometers will be placed on the licence as a regulatory control. To monitor on-going dewater discharge quality, condition 3.3.1 will be modified to include monitoring for Pit 13 – requiring the same monitoring frequency and analytes as current discharge to Lake 11. A trigger for management action for groundwater depth rising to 6 mbgl, and a limit of 4 mbgl will be placed on the licence as regulatory controls to protect rootzones of native vegetation from any groundwater mounding associated with seepage.

As a maximum stored water volume of 461,000 $m^3$ is expected in Pit 13, where total capacity is 1,910,000 $m^3$, and where the pit is also unlikely to receive surface water drainage due to bunding, the assessed risk of overtopping is considered 'medium risk' with a consequence rating of 'moderate' and a likelihood of 'rare'.

## 3.4 Detailed risk assessment – seepage from TSF8

### 3.4.1 Source

#### Tailings characterisation

Klohn Crippen Berger (KCB, 2020) has undertaken a review of reports characterising the tailings from the Telfer deposit and found that they are predominantly non-acid forming, due to dolomite contributing to acid neutralisation. Tailings pH most commonly ranges from 6.1 to 9.2. However, there are areas of the ore body with higher sulfide content where at least 30% of samples have potential for acid generation. KCB suggested if there is any acid generation (and therefore the potential for mobilisation of metals), it is likely to be neutralised by the 40 metres of dolomite underlying TSF7 and TSF8 before reaching the deeper groundwater aquifers.

Leach tests conducted in different pH solutions for ten representative tailings samples have been submitted to the department in compliance with works approval W6445/2020/1. For the likely tailings pH scenario, between 6 and 9, the predominant metals leached to solution were cadmium (max 1,830 mg/L), magnesium (max 606 mg/L), iron (max 560 mg/L), manganese (max 38 mg/L) and copper (max 15 mg/L). The maximum concentration of arsenic detected was 1.3 mg/L. No acrylamide or weak acid dissociable cyanide were detected during leach testing.

Ten tailings pore water samples were also analysed by Chem Centre (2021), where the average pH was found to be 7.3, average sulfur was 442 mg/L, $CN_{WAD}$ average 0.85mg/L acrylamide below the limit of reporting. The highest metal concentrations detected were copper (4.2 mg/L), followed by boron (0.29 mg/L). Other metals that were identified at, or below limits of reporting were beryllium, bismuth, cadmium, chromium (III and VI), lead, mercury, silver and thallium.

#### Seepage management

Seepage from TSF8 has been modelled by KCB (2020) to be significant, with peak seepage modelled at ~4,800 $m^3$ per day, and an average foundation seepage rate of 700$m^3$ per day[2]. This is in addition to the modelled 3,900 $m^3$ per day seeping from adjacent TSF7. Seepage measured from TSF8 during lime limited operations from July 2021 to December 2021 was measured on average to be 860 $m^3$ per day, on average 2% of the tailings volume deposited.

Newcrest has built in seepage management for TSF8 by:

- lining all perimeter walls and the base with low permeability "outer siltstone member" (OSM) (600mm thickness). The shared wall between TSF7 and TSF8 has also been constructed with a compacted OSM;
- installation of a compacted, conditioned low permeability base including treatment of

[2] KCB considers that the seepage model completed as part of the TSF8 Permitting Design is representative of a life of mine seepage model, including the Stage 1 and Stage 2 embankment lifts.

more permeable foundation areas with 600mm of compacted OSM;

- maintaining even tailings distribution during deposition during cycling of spigots, allowing for tailings to consolidate and supernatant to decant from the tailings to the decant pond for recycling back to the processing plant;
- decant recovery back to the ore treatment plant by a land-based pump on the end of the decant causeway, with floating pontoons for the suction lines. Minimisation of the decant pond for TSF7 will be prioritised over TSF8, where decant will be transferred from TSF7 into TSF8 before returning to the plant;
- operate the decant ponds at “as small as possible volume”; and
- constructing a key-trench extending around the entire perimeter of the facility. The intent of the key trench is to intercept the units of residual soil and sandstone which have a high gravel content and subsequently a higher hydraulic conductivity.

No underdrains are included in the design.

Permeability testing of the underlying geological units (Coffey, 2019) indicated average permeability of the upper 5m - 15m of foundation material to be in the order of $1.3x10^{-8}$ m/s. The base TSF8 has been mapped to determine areas of higher permeability where additional foundation treatment has taken place.

Monitoring during time limited operations from July 2021 to December 2021 indicate an average decant return of 11.2% water in slurry (Table 9). It is noted that the flowmeter from TSF8 to TSF7 was out of service from August 2021.

**Table 9: Average decant return from TSF7 and TSF8**

| Month | Feed Mass | Tailings Solids (%) | Tailings liquor to TSF ($m^3$ /month) | TSF8 Decant Pump to TSF7 ($m^3$ /month) | TSF7 Decant Return to Plant ($m^3$ /month) | Actual Return (%) |
|---|---|---|---|---|---|---|
| July 2021 | 1,467,467 | 53% | 1,301,339 | 175,260 | 147,909 | 11% |
| August 2021 | 1,166,714 | 50% | 1,190,284 | 301,549 | 202,222 | 17% |
| September 2021 | 1,436,647 | 51% | 1,380,308 | N/A[5] | 144,168 | 10% |
| October 2021 | 1,356,776 | 53% | 1,198,890 | N/A[5] | 34,139 | 3% |
| November 2021 | 1,085,542 | 52% | 985,506 | N/A[5] | 84,388 | 9% |
| December 2021 | 1,353,672 | 53% | 1,189,826 | N/A[5] | 196,973 | 17% |

5 Flowmeter out of service from August 2021

Results from piezometer monitoring during time limited operations indicate that no phreatic surface has yet developed within the TSF8 foundation and all embankments are dry.

### 3.4.2 Pathway and receptor

The underlying bedrock likely comprises sandstone and siltstone of the Puntapunta Formation (PPF) and the Camp Sandstone member (CSM) of the Telfer Formation (TFM). Permeability testing of the geological units directly underlying TSF8 indicated average permeability of the upper 5m - 15m of foundation material to be in the order of $1.3x10^{-8}$ m/s (Coffey, 2019).

Groundwater aquifers in the region typically occur within fractured rock and geological faults, hosted within dolomitic limestone. In the area immediately surrounding the TSF, groundwater locally flows to the north-west (Enpoint, 2021). Regional groundwater flow direction is to the south-west.

#### Groundwater depth and quality

Groundwater levels on-site have risen between 4 m and 10 m since 2003 as a result of the rising tailings elevation in TSF7. The standing water level surrounding TSF7 is generally below ~35 mbgl and ~19 mbgl directly below TSF7. Seepage modelling undertaken by the applicant has

determined that the predicted TSF8 seepage combined with that of current TSF7 seepage will contribute to continued mounding of the groundwater table beneath TSF7 and TSF8. However, the lateral extent of mounding is not expected to extend significantly beyond the perimeter of the TSF7 and TSF8 footprints. This is supported by groundwater mounding associated with TSF7, which hasn't resulted in significant lateral seepage (KCB 2020).

Groundwater monitoring bores at the premises are shown in Figure 3 and Figure 4[3]. These include the additional six monitoring bores (HB495 – HB500) installed surrounding TSF8 to comply works approval W6445/2020/1, four of which are proposed by the licence holder for on-going monitoring (HB496, HB498, HB499 and HB500). To comply with the works approval three groundwater monitoring events (May 2021, August 2021, January 2022) were undertaken on five of the new bores (HB495, HB496, HB498, HB499, HB500). Results indicate:

- no acrylamide or weak acid dissociable cyanide were detected in any of the samples;
- antinomy, arsenic III, beryllium, bismuth, cadmium, chromium III, copper, mercury and were either at or below the limit of reporting for all samples collected;
- aluminium, arsenic V, cadmium, chromium II, iron, lead, manganese, nickel, silver, thallium, tin, vanadium and zinc were detected in one or more samples;
- boron, chromium VI, molybdenum, selenium and uranium were detected in all groundwater samples;
- total dissolved solids were lowest in HB500 to the north-east of TSF8 (1,700mg/L – 1,780mg/L) and highest in HB495 (2,470mg/L – 2,600mg/L) to the south-west of TSF8; and

See Table 10 for the maximum concentrations recorded for analytes which returned results above the limit of reporting. Of note are elevated concentrations of nitrate (max 9.91mg/L) and sulfate (504mg/L).

It should be noted that groundwater quality has already deteriorated from operation of TSF7 and that these results do not reflect true baseline quality. Rather, where possible, future monitoring should be compared with historic data from any up-stream monitoring bores that are unlikely to have been impacted by site operations.

**Table 10: Maximum concentrations detected for monitoring undertaken for works approval W6445/2020/1**

| Analyte | Max concentration detected (µg/L) |
|---|---|
| Arsenic V | 1.0 |
| Boron | 746 |
| Chromium | 8.2 |
| Cr VI | 10 |
| Iron | 11 |
| Manganese | 80.6 |
| Molybdenum | 2.0 |
| Selenium | 7.6 |
| Uranium | 13.6 |
| Vanadium | 3.6 |
| Zinc | 81 |

[3] The site also has a larger bore-field, including both monitoring and production bores (non Part V licence bores), an overview of which is given on licence Figure 16 "Overview of groundwater monitoring bore locations at the Telfer site".

| Analyte | Max concentration detected (mg/L) |
|---|---|
| Alkalinity (total CaCO3) | 241 |
| Nitrate | 9.91 |
| Sulfate | 504 |

### 3.4.3 Proposed monitoring

Newcrest proposes to add newly installed groundwater monitoring bores HB496, HB498, HB499 and HB500 to the current six monthly monitoring program listed in Table 3.6.1 of the licence for analysis of the same chemical suite. HB154, HB248 and HB250 are requested for removal as they were decommissioned, being in the construction area for TSF8.

They also propose ongoing monitoring via vibrating wire piezometers to monitor the phreatic surface and rate of seepage from the TSF landform.

Monitoring is proposed for:

- Change in seepage conditions or sudden change in water level;
- Stability of embankments and signs of erosion; and
- Visual inspection of TSF8 pipelines as per current licence condition which requires twice daily inspection.

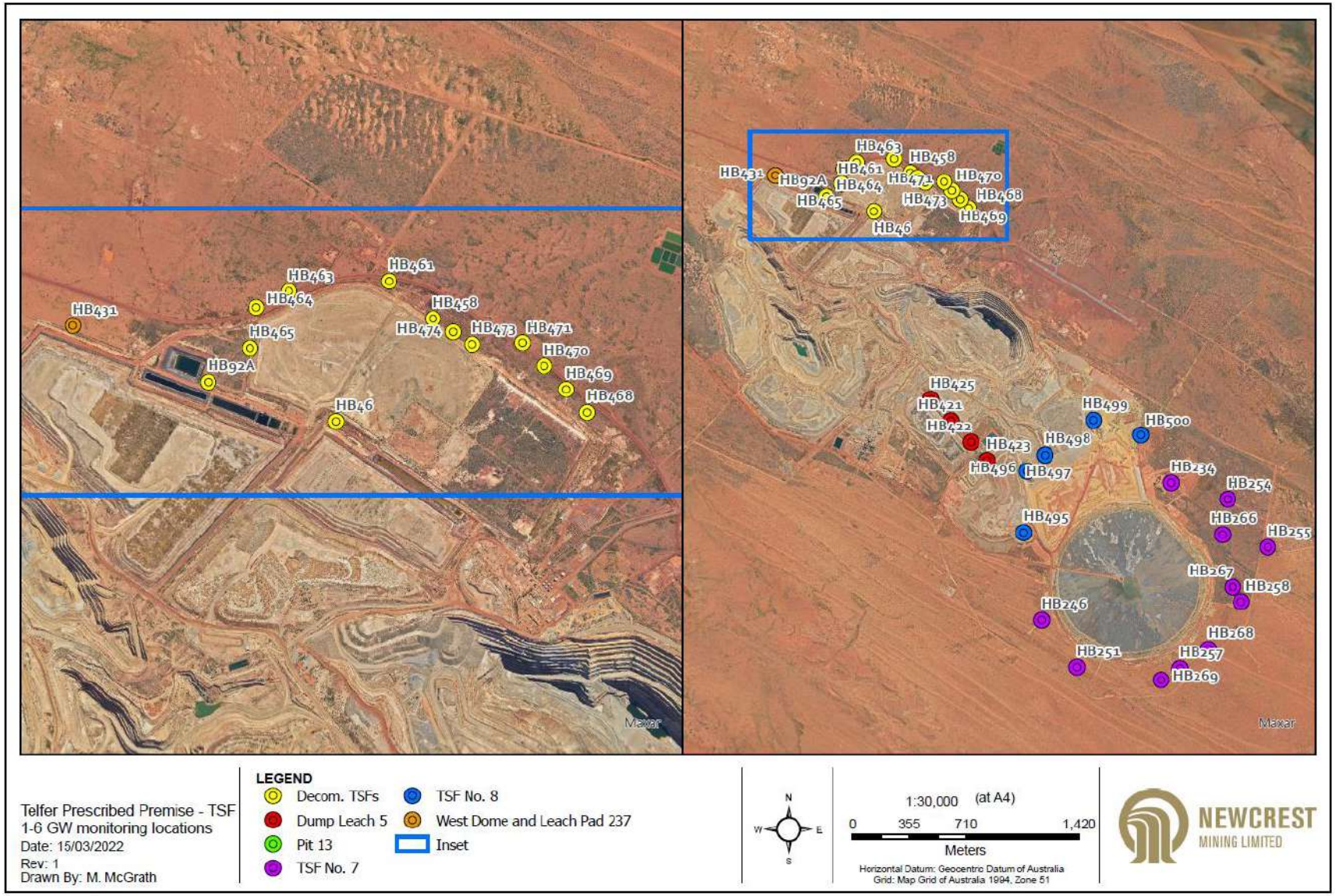


**Figure 3: Groundwater monitoring locations**

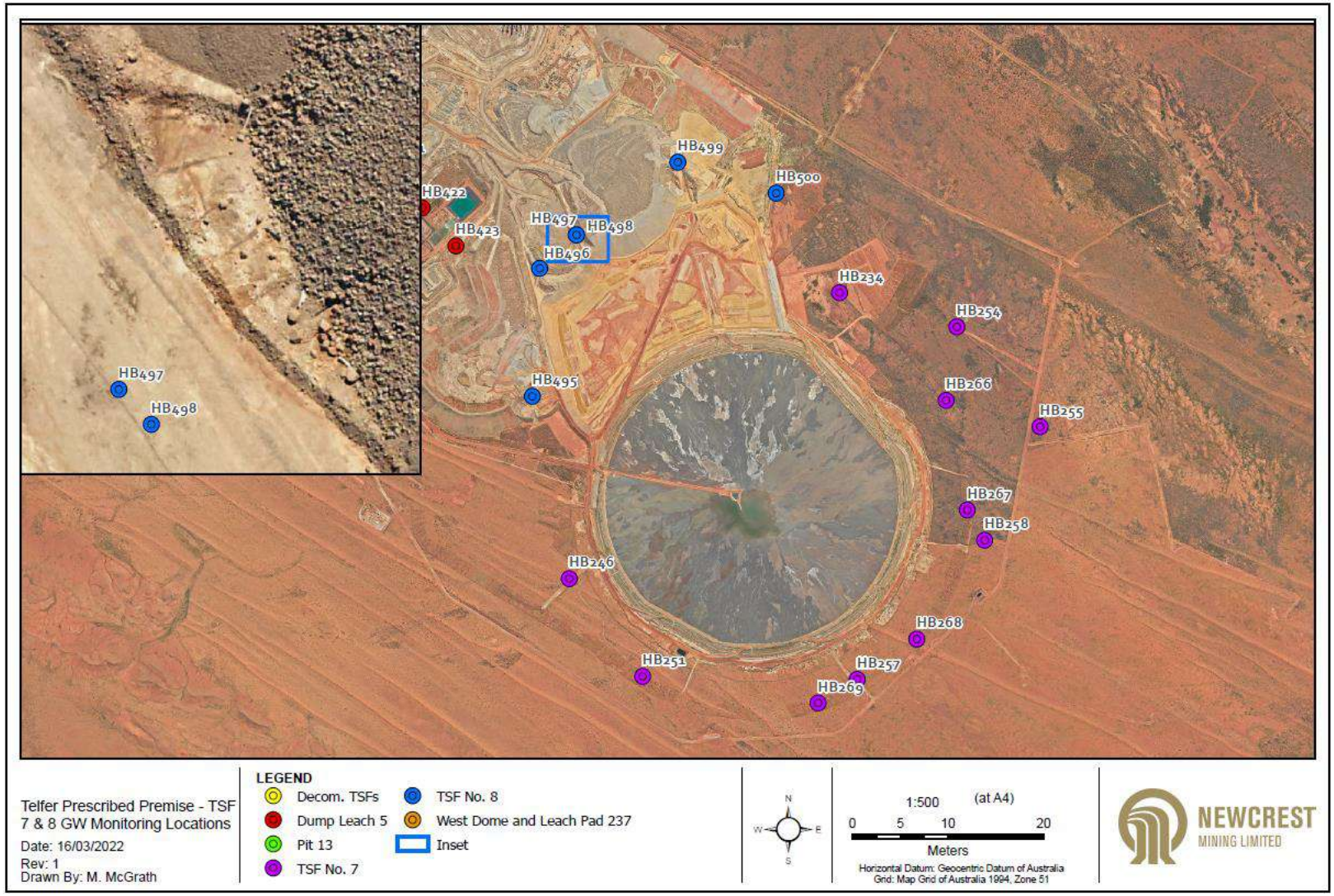


**Figure 4: Groundwater monitoring wells – zoomed extent**

### 3.4.4 DWER assessment

With no nearby beneficial users of groundwater, the receptors which could be impacted by seepage are adjacent native vegetation, threatened flora and any nearby fauna (including threatened and priority fauna) which might depend on the vegetation. Whilst predicted seepage associated with operation and embankment lifts of TSF8 is likely to be significant (peak at ~4,800 $m^3$ per day, in addition to the modelled 3,900 $m^3$ per day seeping from adjacent TSF7), groundwater is deep (generally more than 30 mbgl).

The assessed risk of seepage to nearby sensitive receptors (adjacent native vegetation and fauna) is 'medium risk' with a consequence rating of 'moderate' and a likelihood of 'unlikely'. To mitigate risk associated with seepage, DWER has placed the following regulatory controls on the licence (Table 11).

**Table 11: DWER regulatory controls (seepage)**

| Condition/control | Justification |
|---|---|
| Process monitoring<br>Condition 3.5.1 | To track tailings discharge process, TSF8 has been added to the relevant TSF process monitoring condition (process monitoring already conditioned for TSF7). |
| Groundwater monitoring<br>Modification to condition 3.6.1 (monitoring)<br>New conditions 3.7.1, 3.7.2 (monitoring limit exceedances)<br>Modification to 5.2.1 (annual reporting) | Management trigger and limit<br>As significant additional seepage is predicted from on-going operation and embankment lifts for TSF8, a trigger for management action has been placed on the licence should groundwater levels rise to 6 mbgl. A limit of 4 mbgl has also been placed to protect root zones of native vegetation and the associated reliant fauna.<br>Additional seepage from TSF8 will contribute to the already significant seepage associated with TSF7. TSF7 monitoring wells will therefore also be conditioned with the 6 mbgl management action and 4 mbgl limit.<br>Analytical suite<br>The following analytes have been included for monitoring of bores surrounding TSF7 and TSF8: alkalinity (total CaCO3), boron, calcium, chloride, magnesium, nitrate, sulfate.<br>Sulfate and nitrate were detected at significant concentrations for monitoring during TSF8 time limited operations and may be good indicators for potential lateral movement of seepage.<br>Major ions including calcium, chloride and magnesium will also be included to monitor for changes in the chemical composition of groundwater.<br>Boron was detected in tailings pore water samples and during groundwater monitoring and will be included in on-going monitoring. |
| TSF7 embankment heights<br>Modification to condition 1.3.9 | A maximum authorised embankment height has not yet been conditioned for TSF7. It is not DWER standard practice to place no restriction on an allowable upper TSF embankment height.<br>Given the ambiguity of the current licence and increased seepage for TSF7 and TSF8 cumulatively, DWER has modified condition 1.3.9 to include a maximum crest height of 5533m RL (5532.7 operating height to allow for 300mm freeboard). This is the height |

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| | stipulated for TSF7 aligning with the TSF8 starter embankments as well as TSF8 stage 1 and stage 2 lifts. The restrictions will therefore not impact on immediate construction works for stage 1 and 2 TSF8 lifts. Future lifts for TSF7 will require a licence amendment to allow for a risk assessment to be completed. |
| TSF8 lifts<br>New condition 1.3.19 – embankment heights<br>New condition 1.3.20 – reporting requirements for embankment lifts | A new condition authorising stage 1 and stage 2 lifts has been placed on the licence as a regulatory control. |
| TSF 8 monitoring<br>Modification to condition 1.3.12<br>New condition 3.8.1 (water balance monitoring)<br>Modification to condition 5.2.1 (annual reporting) | Condition 1.3.12 has been modified to include Licence Holder proposed monitoring for signs of erosion. To understand TSF conditions and associated seepage, monitoring of the location and size of decant pond relative to the total surface area has also been included.<br>To allow both the Licence Holder and DWER to monitor on-going cumulative seepage from TSF7 and TSF8, a condition for quarterly water balance monitoring has been placed on the licence. Condition 5.2.1 has been modified so that water balance monitoring is included within annual reporting. |

# 4. Consultation

Table 12 provides a summary of the consultation undertaken by the department.

**Table 12: Consultation**

| Consultation method | Comments received | Department response |
|---|---|---|
| Application advertised on the department's website 8 April 2022 | None received | N/A |
| Local Government Authority, Shire of East Pilbara, advised of proposal 6 April 2022 | None received | N/A |
| Department of Mines, Industry Regulation and Safety (DMIRS) advised of proposal on 12 August 2021 (May amendments) & 6 April 2022 (November and February amendments) | Refer to Appendix 2 | Refer to Appendix 2 |
| Licence Holder was provided with draft amendment on 26 May 2022 | Refer to Appendix 3 | Refer to Appendix 3 |

# 5. Conclusion

Based on the assessment in this Amendment Report, the Delegated Officer has determined that a Revised Licence will be granted, subject to conditions commensurate with the determined controls and necessary for administration and reporting requirements.

Newcrest is advised to continue to consult with DMIRS regarding the concerns summarised in Appendix 2 and to ensure they are not legally constrained from undertaking the proposed activities under the *Mining Act 1978*.

## 5.1 Summary of amendments

Table 13 provides a summary of the proposed amendments and will act as record of implemented changes. All proposed changes have been incorporated into the Revised Licence as part of the amendment process.

**Table 13: Summary of licence amendments**

| Condition no. | Condition summary | Proposed amendments |
|---|---|---|
| Cover page | N/A | Updated to include category 12, amended throughput for category 6 and additional mining tenements L45/622 and M45/720 |
| 1.1.1 and 1.1.2 | Interpretations and definitions | Updated with Australian Standards for polyethylene pipes |
| 1.3.2 | Management of waste | Requirement for fence included for Class II landfill expansion.<br>Modified to include inert waste disposal within waste rock dump as per areas proposed, however no disposal permitted within areas of potentially acid forming material<br>Specifies designated areas of tyre disposal |
| 1.3.9 | Containment infrastructure | TSF8 added to the containment infrastructure requirements table.<br>Maximum embankment height placed for TSF7. |
| 1.3.12 | Inspection of infrastructure | Inspections for TSF8 added.<br>Minimum freeboard of 300mm placed for both tailings storage facilities added.<br>Inspections for Pit 13 pipeline added. |
| 1.3.13 | Storage requirements | Modified to remove specific product brands. Authorised volumes of transmission oil and engine oil amended. |
| 1.3.14 | Production and capacity limits | Category 12 added. Category 6 throughput modified. |
| 1.3.15 | Construction requirements | Construction requirements added for mobile crushing/screening plant, piezometers, and pit 13 dewatering pipeline.<br>Mobile batching plant hard stand modified to “outer siltstone member”. |

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| 1.3.19 | TSF8 embankment lifts | New condition added for TSF8 embankment lifts and elevations |
| 1.3.20 | TSF8 embankment lift reporting requirements | New condition for reporting on TSF8 embankment lifts |
| 2.1.2 | Dust management | New condition added for management of dust by water cart |
| 2.3.1 | Emissions to land | L1 irrigation area amended to 1.1ha.<br>Pit 13 added as an emission point for dewatering. |
| 3.3.1 | Monitoring of emissions to land | Pit 13 added to monitoring program |
| 3.5.1 | Process monitoring | Modified to include decant and tailings and decant monitoring for TSF8<br>Note added to Table 3.5.1 |
| 3.6.1 | Monitoring of ambient groundwater quality | Modified to include monitoring for Pit 13 and TSF8. Analytes updated for both TSF7 and TSF8 monitoring.<br>Decommissioned monitoring wells removed from the licence.<br>Triggers for management action and limits for groundwater depth included. |
| 3.7.1 and 3.7.2 | Monitoring limit exceedances | New conditions for reporting and corrective actions in the event that a management action trigger or groundwater depth limit is exceeded. |
| 3.8 | Tailings storage facility water balance monitoring | New condition for monitoring and recording the water balance for the tailings storage facilities. |
| 4.2.1 | Annual environmental report | Amended to include a summary of monitoring limit exceedances and corrective actions taken.<br>Quarterly water balance monitoring included within reporting requirements.<br>Note added for the applicant to see the DWER website for AACR reporting requirements.<br>Modified format/form for Table 3.2.1 and Table 3.3.1 to remove reporting via AR1 and LR1 forms – now listed as “none specified” |
| Schedule 1 | Maps | New premises boundary figure added (Figure 1)<br>Class II landfill expansion figure added (Figure 4)<br>New inert waste landfill area added (Figure 5)<br>New tyre burial area added (Figure 6) |

| | | |
|---|---|---|
| | | New groundwater monitoring bores figures added (Figures 16, 17 and 18)<br>New pit 13 pipeline and discharge location added (Figure 20) |
| Schedule 2 | Notification forms | Deleted redundant AR1 and LR1 forms |

**Table 14: Consolidation of licence conditions in this amendment**

| Existing condition | Condition summary | Conversion notes |
|---|---|---|
| Cover page | N/A | Update prescribed premises categories to include category 6 and amend throughput of category 5 and category 57 |
| 1.1.1<br>1.1.2 | Interpretation and definitions | Amendment notice 1: definitions for 'anniversary date', 'Annual Audit Compliance Report' and 'Department' added.<br>Correspondence address updated. |
| 1.3.2<br>Table 1.3.1 | Management of waste | Number of tyres allowed for storage on-site amended |
| 1.3.7 | No waste burnt on premises | Modified to allow provision for fire fighter training |
| 1.3.9<br>Table 1.3.3 | Containment infrastructure table | TSF7 and bioremediation area requirements modified. |
| 1.3.12<br>Table 1.3.4 | Inspection of infrastructure | Modified to include tailings and fill plant pipeline inspection |
| 1.3.13<br>Table 1.3.5 | Storage requirements | Amendment to quantity of antiscalant authorised |
| 1.3.14 | Production/capacity limits | Amended to include category 6. Category 5 throughput amended |
| 1.3.15 – 1.3.18 | Construction requirements | New conditions 1.3.15 to 1.3.18 added for mobile batching plant and hydraulic fill plant construction and compliance reporting |
| 2.2.1<br>Table 2.2.1 | Emission points to air | Modified to remove A4 – A15 |
| 2.3.1<br>Table 2.3.1 | Emissions to land | Modified to include discharge to Lake 11 |
| 3.3.1 | Monitoring of emissions to land | Lake 11 added |

| Existing condition | Condition summary | Conversion notes |
|---|---|---|
| 3.6.1 | Monitoring of ambient groundwater quality | Monitoring points HB137 and MB247 removed. |
| 4.1.1 – 4.1.2<br>Table 4.1.1 | Improvement conditions | Improvement conditions removed |
| 5.1.1 – 5.3.1 | Information section | All conditions 5.1.1 – 5.3.1 renumbered to 4.1.1 - 4.3.1 following removal of improvement conditions |
| 4.2.1<br>Table 4.2.1 | Annual Environmental Report | Annual Audit Compliance reporting requirements modified |
| Table 4.3.1<br>Table 4.3.1 | Notification requirements | Modified to include reference to 3.1.4 |
| Schedule 1: Maps | Premises map | Map of emission points updated to include Lake 11<br>Class II landfill figure updated<br>Inert waste landfill figure updated<br>Tyre burial figure updated<br>Primary power station air emissions points updated<br>Discharge and monitoring required updated |
| Schedule 2<br>Reporting & notifications | Annual Audit Compliance Report<br>Form N1 Notification | Redundant attachment. Deleted from Licence<br>Forms accessed at www.dwer.wa.gov.au |

# 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. ENPOINT, 2022. Final Groundwater Monitoring Report, Tailings Storage Facility 8 – Telfer Gold Mine, Western Australia
5. KCB 2020, Klohn Crippen Berger, 2020, Telfer – Tailings Storage Facility TSF8 Permitting Design Report, West Perth, Western Australia.
6. KCB 2021, Klohn Crippen Berger, 2021. Telfer Pit 13 Water Storage Assessment
7. Talis, 2020, Telfer Golder Mine – Tailings Storage Facility 8: Application for a Works Approval

# Appendix 1: Figures

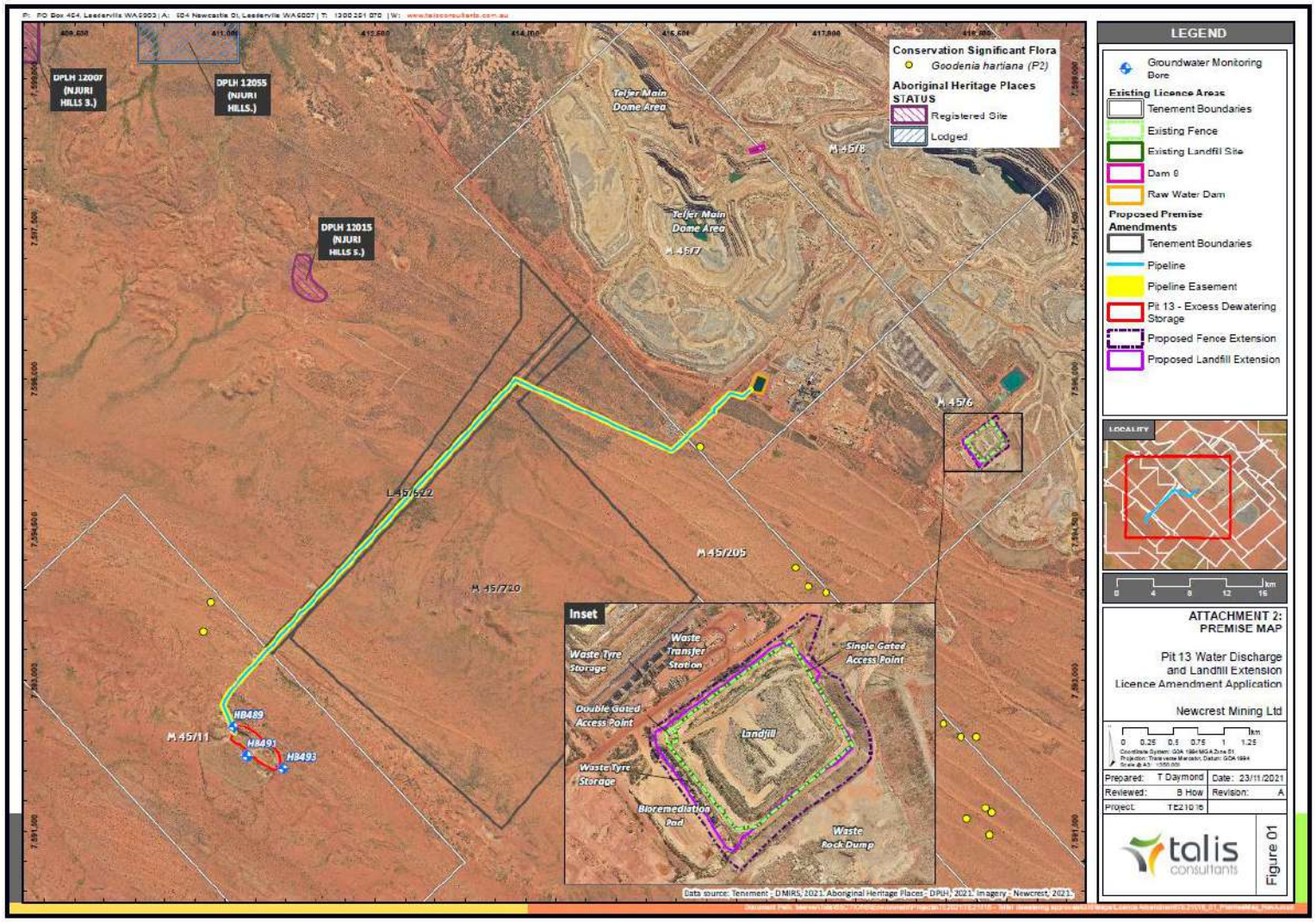


**Figure 5: Pit 13 location and proposed pipeline. Locations of nearby conservation significant flora and Aboriginal Heritage sites.**

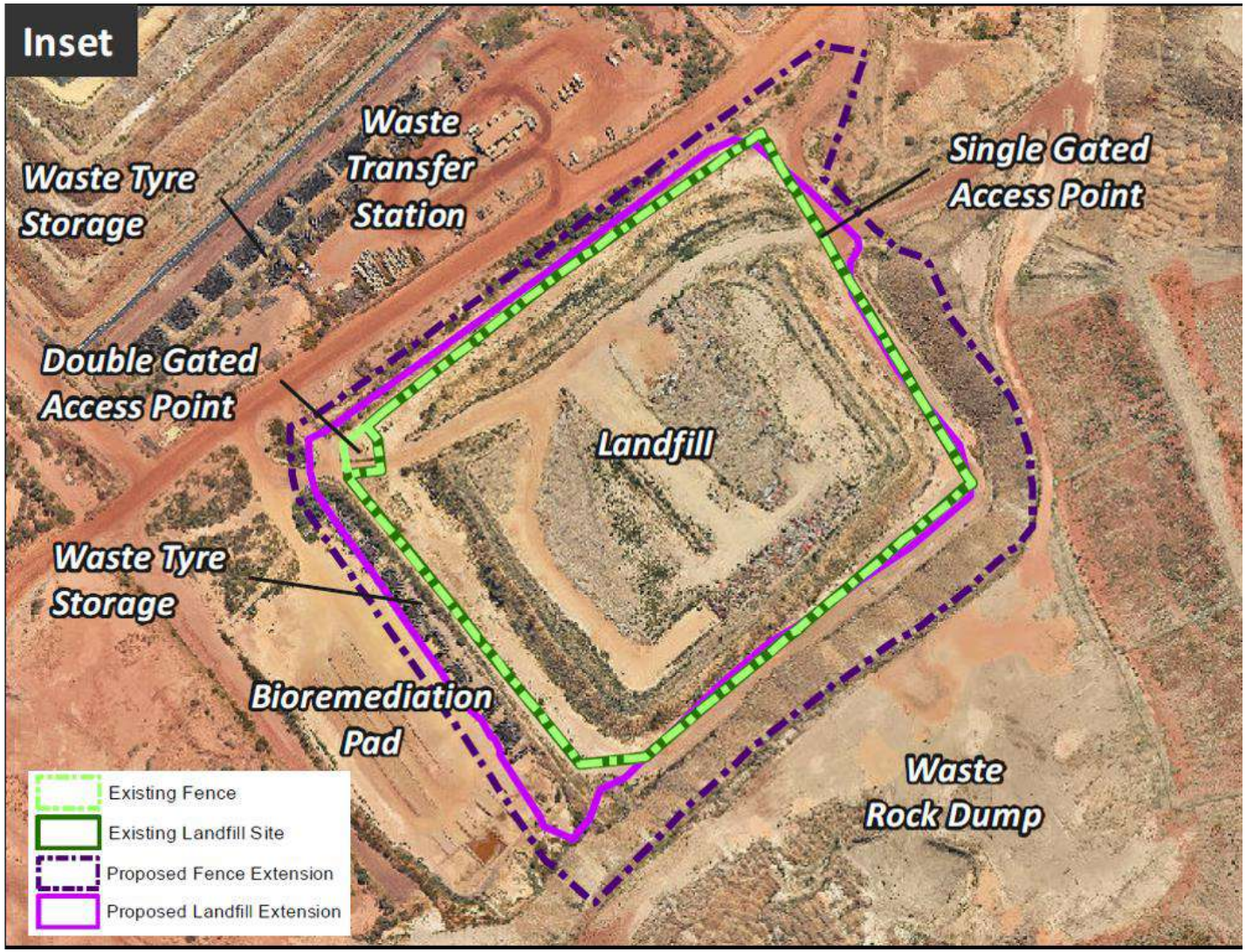


**Figure 6: Proposed Class II landfill expansion**


**Figure 7: Additional Tyre Disposal in waste rock dump area**

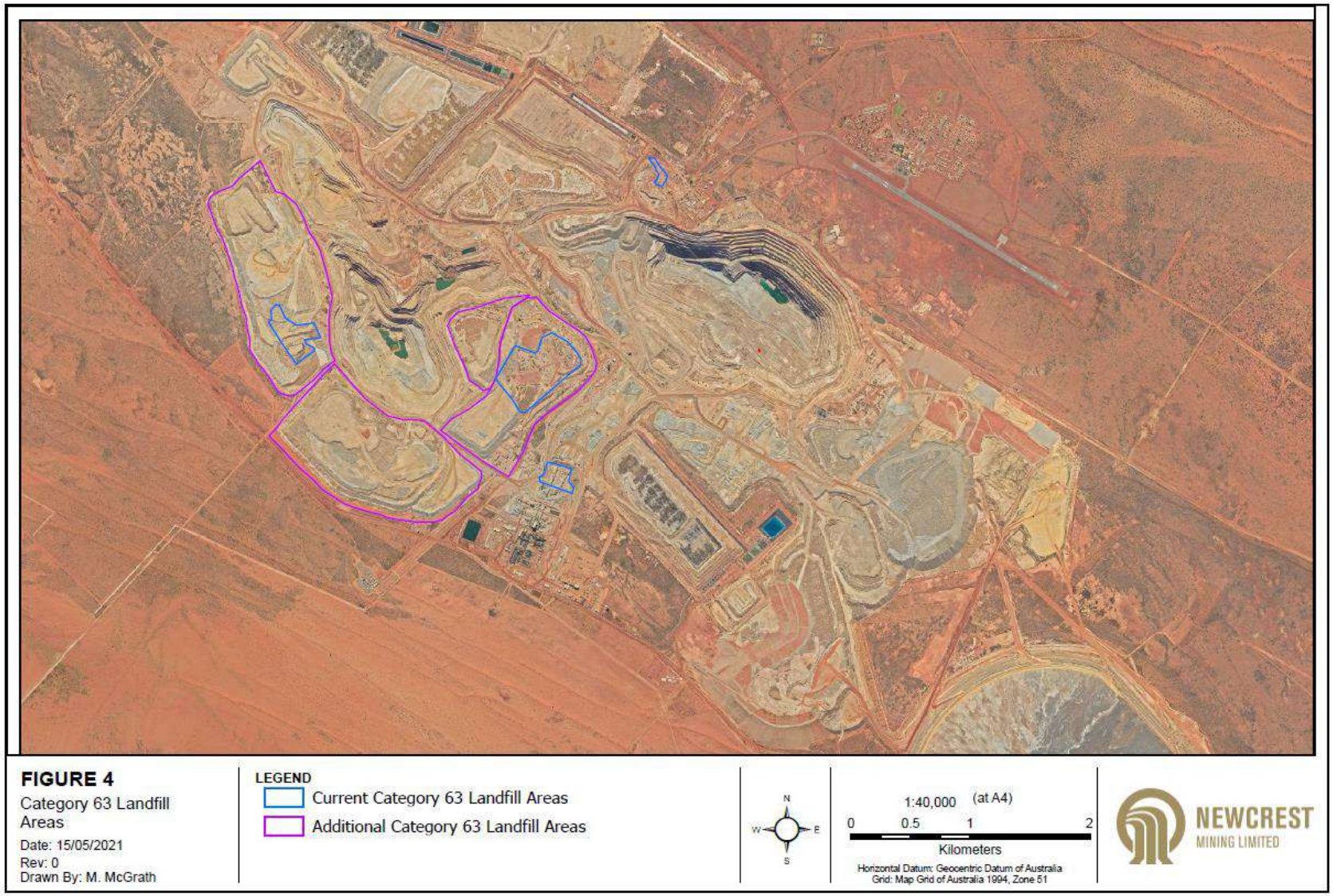


**Figure 8: Expansion of category 63 landfill area into waste rock dump area**

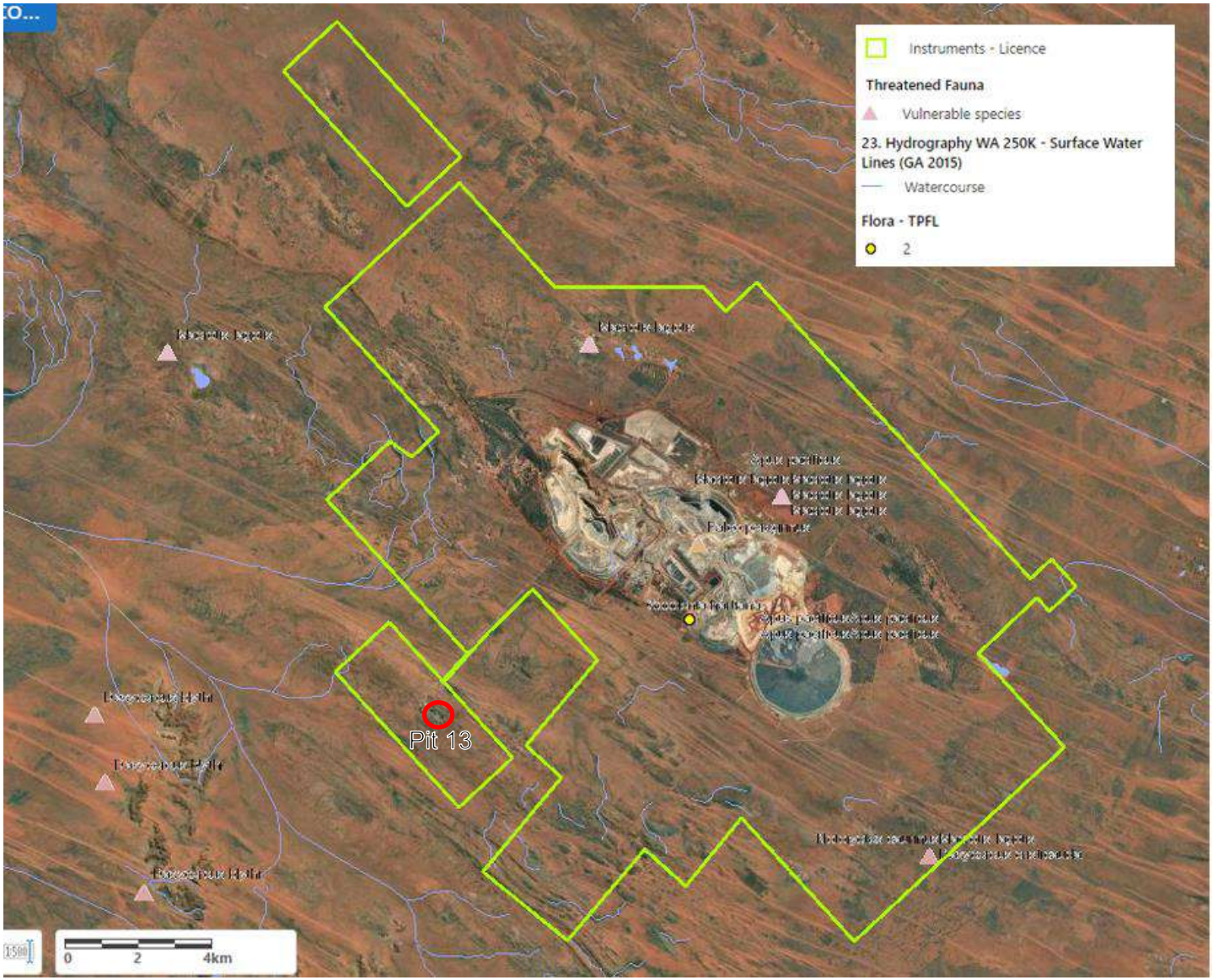


**Figure 9: Nearby sensitive receptors**

# Appendix 2: Summary of stakeholder comments on proposed amendments

| Proposed amendment | Summary of Stakeholders comment | Department's response |
|---|---|---|
| **Category 12 and Category 63** | It is likely that the disposal of inert waste and/or tyres in approved waste rock landforms and the use of mobile screening plant in some locations may be inconsistent with the currently approved activities. Newcrest should review the scope of their existing tenement conditions and the mining proposals they refer to ensure they are not legally constrained from undertaking the proposed activities under the *Mining Act 1978*. | DWER has included a recommendation that Newcrest review the scope of their existing tenement conditions and mining proposals to ensure they are not legally constrained from undertaking the proposed activities under the *Mining Act 1978*.<br><br>After consultation with DMIRS, Newcrest has advised that a small mining proposal for the mobile crushing and screening unit shall be submitted to DMIRS. |
| **Category 63** | **Potentially acid forming waste**<br>Based on past studies, while waste rock dumps and TSFs from the Old Telfer operations have been typically non-acid forming; observations and investigations into the West Dome area have indicated that PAF is present. Sulfide staining has been observed on discrete areas of the West Dome Waste Dump (specifically Waste Dumps 9, 10 and 11 – noting 9 and 11 are included within the Licence Amendment application for tyre/inert waste disposal), and geochemical analyses have indicated that samples taken from West Dome Middle Vale Siltstone, Upper Vale Siltstone, Median Sandstone Member and Rim Sandstone Member lithologies were generally classified as PAF. Accordingly WRLs within West Dome have had designated PAF cells. | To avoid interaction with potentially acidic environments, DWER has conditioned that no inert waste shall be disposed of in PAF cells. |
| **Category 63** | **Geotechnical characteristics**<br>In general the waste rock types mined at Telfer (Sandstone and Quartzite) are competent; however this is with the exception of the Outer Siltstone Material that is more prominent at West Dome and is prone to dispersion, piping and tunnelling. The incorporation of tyres and inert material into waste rock dumps could exacerbate some of these existing challenges to the landforms. While this may not have any material environmental consequences during operation, it may have consequences for the provision of a stable surface for closure and rehabilitation of the final landforms. | DWER has recommended that Newcrest liaise with DMIRS with respect to concerns regarding geotechnical/safety and to ensure they are not legally constrained from undertaking the proposed activities under the *Mining Act 1978*.<br><br>Newcrest has advised that the disposal of inert waste and tyres is an approved activity. The original Notice of Intent (Telfer Project Mine and Borefields Extension NOI/ARI 2002 Reg ID 17729) notes tyres will be buried under active waste dumping areas. Burial of tyres and inert waste is also mentioned in subsequent Mining Proposals approved by DMIRS.<br>Correspondence with DMIRS on 28 April 2022 confirms there is 'nothing untoward from an approvals perspective' regarding burying tyres and inert waste in waste rock dumps. |
| **Category 63** | **Geotechnical/safety considerations**<br>Geotechnical / safety considerations: There are instances of tyres falling out of waste rock landforms and posing a safety risk due to uncontrolled disposal practices in the past. It is noted from the | |

| Proposed amendment | Summary of Stakeholders comment | Department's response |
|---|---|---|
| | Licence amendment application that Newcrest are proposing to dispose of tyres in discrete cells with cover. The placement of tyre waste needs to be carefully managed to reduce safety risks.<br>Currently, mining infrastructure including WRLs are located outside the potential zones of instability around the pit boundaries. It is therefore unlikely that the introduction of tyres and inert waste into the West Dome WRLs could have secondary safety impacts via landform collapse into the pit. | |
| - | Newcrest should contact DMIRS to confirm whether a Mining Proposal needs to be lodged, or alternatively whether they have completed their due diligence in ensuring their current tenement conditions do not constrain them from undertaking the proposed activities. | DWER has advised Newcrest to contact DMIRS to ensure they are not legally constrained from undertaking the proposed activities under the *Mining Act 1978*.<br>Newcrest has advised DWER that they have consulted with DMIRS regarding the proposed activities. |

# Appendix 3: Summary of Licence Holder's comments on risk assessment and draft conditions

| Condition | Summary of Licence Holder's comment | Department's response |
|---|---|---|
| Premises description | Updated premises description provided to reflect current site operations | The premises description has been updated |
| 1.3.2<br>Table 1.3.1 | The licence holder requests removal of reference to figure 4 requiring the class II landfill to be fenced. They indicate "the precise location/set up will be dependent on the operational requirements of the site at the time. As such there may be some variation to the perimeter fence in Figure 4 of Schedule 1" | Variations to the fence location will not alter the risk associated with landfill activities as long as the fence is around the entire perimeter of the landfill as proposed. The condition has been modified to specify that the whole perimeter of the landfill must be fenced and reference to figure 4 has been removed from the condition.<br><br>Figure 4 will remain in Schedule 1 of the licence as it indicates the proposed fence line location. The licence holder may submit the exact fence line layout to DWER once it has been constructed. |
| 1.3.12<br>Table 1.3.4 | The licence holder requests amendment for twice daily checks "if operational" to the following pieces of infrastructure:<br>• Tailings pipeline to the cemented hydraulic fill plant<br>• Cemented hydraulic fill plant reject pipeline to the tailings storage facility<br>• Pit 13 dewatering pipeline | The licence has been amended to require twice daily inspections only if the nominated infrastructure is operational. |
| 1.3.14<br>Table 1.3.6 | The licence holder requests removal of text relating to category 6 discharge which requires a 235,000 tonne limit for each discharge event as "this is related to Lake 11 and does not apply to Pit 13". | The condition text has been amended to "235,000 tonne limit for each discharge event to Lake 11", and so now does not limit discharge to Pit 13. |
| 1.3.15<br>Table 1.3.7 | The licence holder requests removal of the requirement for the pit 13 dewatering pipeline to be fitted with pressure/volume sensors stating that "the pipelines will contain dewatering water only and as such, any loss would be low risk." | Uncontrolled discharge of saline dewater (TDS 3,510-5,040mg/L) presents a medium risk to adjacent native vegetation. As the pipeline will undergo twice daily inspections, the condition for pipeline construction has been modified to allow for the following options:<br>"d) fitted with automated pressure/volume flow sensors to detect loss of pressure in the pipelines OR<br>e) equipped with automatic cut-outs in the event of a pipeline failure; OR<br>f) provided with secondary containment sufficient to contain any spill for a period equal to the time between routine inspections." |

| Condition | Summary of Licence Holder's comment | Department's response |
|---|---|---|
| 1.3.15<br>Table 1.3.7 | Newcrest requests an additional amendment, for the mobile batching plant to be located on low permeability outer siltstone member hardstand rather than located within concrete bunds. | Addition of the mobile batching plant was assessed and conditioned as part of amendment notice 1. The assessed risk of discharge of tailings material to land due to process failure at the batching plants was given a consequence rating of "minor" with a likelihood of "possible". Collection sumps and pumps will be present to contain spills, and groundwater depth is >35mbgl.<br>As the outer siltstone member hardstand will be 500mm thickness, with permeability ranging 1.3 $x10^{-8}$ to 1.5 x $10^{-8}$ m/s, this does not significantly alter the risk profile associated with the activity. It has therefore been included within the administrative amendments listed in Table 2. |
| 1.3.19<br>Table 1.3.8 | Beach heights rather than crest heights were listed in condition 1.3.19. Crest heights have also been updated in a modified design as approved by DMIRS to 5506mRL for Stage 1 (instead of 5505mRL) and 5511mRL for Stage 2 (instead of 5510mRL). | DWER has updated the crest heights to reflect the modified design parameters. |
| 3.3.1<br>Table 3.3.1 | The licence holder queried a parameter for analysis (associated with amendment notice 2) – chlorine. | Inclusion of "chlorine" was by administrative error. The parameter has been corrected to "chloride". |
| 3.6.1<br>Table 3.6.1 | The licence holder has requested that text associated with monitoring for pit 13 vibrating wire piezometers (VWPs) be updated from "phreatic surface" to "standing water level". | The intent for the pit 13 VWPs is to monitor standing water level. The condition has been amended. |
| | The licence holder has requested confirmation for units associated with VWPs for TSF embankments, querying the use of metres below ground level where the VWPs will be installed inside the embankment walls. | The intent for TSF8 VWPs is to monitor the phreatic surface to ensure embankment stability and that adequate drainage is occurring via the underdrainage system and decant. Units for monitoring the phreatic surface of TSF8 have been modified to "pore water pressure". |
| | The units for the management action triggers and limits have been listed in m(AHD) – the licence holder requests clarification. | This has been corrected to "metres below ground level" – mbgl. Where listed, management action will be required when the standing water level reaches 6 mbgl, with a maximum limit of 4 mbgl to protect the root zones of native vegetation. |

# Appendix 4: Application validations summary

### May 2021 Validation

| SECTION 1: APPLICATION SUMMARY | | | | | |
|---|---|---|---|---|---|
| **Application type** | | | | | |
| Amendment to licence | ☒ | Current licence number: | L6079/1988/13 | | |
| | | Relevant works approval number: | | N/A | ☒ |
| Date application received | | 22 May 2021 | | | |
| **Applicant and Premises details** | | | | | |
| Applicant name/s (full legal name/s) | | Newcrest Mining Limited | | | |
| Premises name | | Telfer Gold Mine | | | |
| Premises location | | TELFER WA 6762<br>Part of Mining tenements: M45/6 to M45/11, M45/33, M45/203 to M45/211, M45/249, M45/631 to M45/633, M45/709, M45/710, G45/1 to G45/4, L45/99, L45/100 and L45/106. | | | |
| Local Government Authority | | Shire of East Pilbara | | | |
| **Application documents** | | | | | |
| HPCM file reference number: | | DER2013/001097-1<br>Application (DWERDT455572) | | | |
| Key application documents (additional to application form): | | Supporting document (includes: proposed amendment activities, replacement figures and emissions and discharges risk assessment) | | | |
| **Scope of application/assessment** | | | | | |
| Summary of proposed activities or changes to existing operations. | | **<u>Licence amendment</u>**<br>**Proposed updates to existing operations:**<br>• **Category 5**:<br>1. Table 3.6.1 (Monitoring of ambient groundwater quality):<br>a) remove four (4) decommissioned groundwater monitoring wells HB154, HB248, HB249 and HB250. The decommissioning of these wells was approved under works approval W6445/2020/1 with the construction of the new tailings storage facility (known as TSF8); and<br>b) include four (4) new groundwater monitoring wells HB496, HB498, HB499 and HB500. These new groundwater monitoring wells have been installed to monitor the perimeter of TSF8.<br>2. Table 3.5.1 (Process monitoring):<br>a) include a note that weekly sampling from monitoring points P1 and P2 (decant water storage) are to be conducted weekly when flowing/operational.<br>• **Category 54**:<br>3. amend Table 2.3.1 (Emissions to land) to reflect the actual area of the Administration Wastewater Treatment Plant (WWTP) irrigation area (emission point L1). Table 2.3.1 incorrectly identifies the Administration WWTP irrigation area as being 7.4 ha in size, the actual area is 1.1 ha.<br>• **Category 63**<br>4. amend Figure 5, establishment of four (4) new locations for disposal | | | |

| | |
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| | of used tyres into active Waste Rock Dumps; and<br>5. amend Figure 4, establishment of four (4) new inert landfills within active Waste Rock Dump.<br>• **Category 73**:<br>6. Table 1.3.5 (Storage requirements):<br>a) amend listing of chemicals to reflect type rather than specific brand names. The existing table lists specific brand names of chemicals, this high level of detail is an issue for maintaining compliance with Condition 1.3.13 due to changes in chemical suppliers (which occur during competitive tendering processes) or when supplier's change chemical names; and<br>b) increase authorised storage volumes:<br>i. transmission oil from 110,000 to 136,000 L; and<br>ii. engine oil from 145,000 to 171,000 L.<br>**Proposed new operations:**<br>• **Category 12**:<br>7. Include new category 12 operations to formalise use of mobile crushing/screening plant at the premises.<br>(A) Note: the applicant has stated that no construction or commissioning is required. |

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

**Table 1: Prescribed premises categories**

| Prescribed premises category and description | Assessed production or design capacity | Proposed changes to the production or design capacity (amendments only) |
|---|---|---|
| **Existing operations** | | |
| Category 5: Processing or beneficiation of metallic or non-metallic ore: | 26,000,000 tonnes per annual period | • Remove four (4) decommissioned groundwater monitoring wells (HB154, HB248, HB249 and HB250);<br>• Include four (4) new groundwater monitoring wells (HB496, HB498, HB499 and HB500); and<br>• Include a note that weekly sampling from monitoring points P1 and P2 (decant water storage) are to be conducted weekly when flowing/operational.<br>The proposed changes will not change the risk level and therefore these aspects have not been further considered in the risk assessment. |
| Category 6: Mine dewatering | 940,000 tonnes per annual period | No change |
| Category 7: Vat or in situ leaching of metal | 12,000,000 tonnes per annual period | No change |
| Category 54: Sewage facility | 907 cubic metres per day ($m^3$/day) | Amend Table 2.3.1 (Emissions to |

| | | |
|---|---|---|
| | | land) to reflect the actual area of the Administration Wastewater Treatment Plant (WWTP) irrigation area.<br>The proposed change will not change the risk level and therefore this aspect has not been further considered in the risk assessment. |
| Category 57: Used tyre storage (general) | 40,000 used tyres stored | No change |
| Category 63: Class I inert landfill site | 2,500 tonnes per annual period | • Establishment of four (4) new locations for disposal of used tyres into active Waste Rock Dumps.<br>• Establishment of four (4) new inert landfills within active Waste Rock Dump. |
| Category 64: Class II or III putrescible landfill site | 10,000 tonnes per annual period | No change |
| Category 73: Bulk storage of chemicals etc. | 9,000 cubic metres ($m^3$) | Increase authorised storage volumes:<br>• transmission oil from 110,000 to 136,000 L; and<br>• engine oil from 145,000 to 171,000 L.<br>Volume increase is 52,000 L, which equates to a total volume of 549,000 L proposed to be held at the premises. These quantities are well below the allowable licence limit of 9,000,000 L.<br>Existing licence conditions (1.3.13) are sufficient to mitigate storage risks.<br>The proposed volume increase will not change the risk level and therefore this aspect has not been further considered in the risk assessment. |
| **Proposed new operations** | | |
| Category 12: Screening etc. of material | 200,000 tonnes per annual period | Include new category 12 operations to formalise use of mobile crushing/screening plant at the premises. |

| **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 ☐ No ☒ | Referral decision No: N/A<br>Managed under Part V ☒<br>Assessed under Part IV ☐ |

<table>
<tr><td>Does the applicant hold any existing Part IV Ministerial Statements relevant to the application?</td><td>Yes ☒ No ☐</td><td>Ministerial statement No: 606<br>EPA Report No: 1059</td></tr>
<tr><td>Has the proposal been referred and/or assessed under the EPBC Act?</td><td>Yes ☐ No ☒</td><td>Reference No: N/A</td></tr>
<tr><td>Has the applicant demonstrated occupancy (proof of occupier status)?</td><td>Yes ☒ No ☐</td><td>Certificate of title ☐<br>General lease ☐ Expiry:<br>Mining lease / tenement ☒ Expiry: refer to table below<br>Other evidence ☐ Expiry:
<table>
<tr><th>Tenement</th><th>Expiry Date</th><th>Tenement</th><th>Expiry Date</th></tr>
<tr><td>M45/6</td><td>17/12/2024</td><td>M45/211</td><td>03/02/2028</td></tr>
<tr><td>M45/7</td><td>17/12/2024</td><td>M45/249</td><td>04/06/2029</td></tr>
<tr><td>M45/8</td><td>17/12/2024</td><td>M45/631</td><td>22/11/2036</td></tr>
<tr><td>M45/9</td><td>17/12/2024</td><td>M45/632</td><td>22/11/2036</td></tr>
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</table></td></tr>
<tr><td>Has the applicant obtained all relevant planning approvals?</td><td>Yes ☐ No ☐ N/A ☒</td><td>Approval: N/A<br>Expiry date: N/A<br>If N/A explain why? Mining tenements</td></tr>
<tr><td>Has the applicant applied for, or have an existing EP Act clearing permit in relation to this proposal?</td><td>Yes ☐ No ☒</td><td>CPS No: N/A<br>No clearing is proposed.</td></tr>
<tr><td>Has the applicant applied for, or have an existing CAWS Act clearing licence in relation to this proposal?</td><td>Yes ☐ No ☐</td><td>Application reference No: N/A<br>Licence/permit No: N/A<br>No clearing is proposed.</td></tr>
<tr><td>Has the applicant applied for, or have an existing RIWI Act licence or permit in relation to this proposal?</td><td>Yes ☒ No ☐</td><td>Application reference No: N/A<br>Licence/permit No: GWL 150758(15)</td></tr>
<tr><td>Does the proposal involve a discharge of waste into a designated area (as defined in section 57 of the EP Act)?</td><td>Yes ☐ No ☐</td><td>Name: Canning-Kimberley Groundwater Area<br>Type: Proclaimed Groundwater Area<br>Has Regulatory Services (Water) been consulted?<br>Yes ☐ No ☐ N/A ☒<br>Regional office: N/A</td></tr>
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| Is the Premises situated in a Public Drinking Water Source Area (PDWSA)? | Yes ☐ No ☐ | Name: N/A<br>Priority: N/A<br>Are the proposed activities/ landuse compatible with the PDWSA (refer to WQPN 25)?<br>Yes ☐ No ☐ N/A ☒ |
| Is the Premises subject to any other Acts or subsidiary regulations? | Yes ☒ No ☐ | • *Aboriginal Heritage Act 1972*<br>• *Environmental Protection (Controlled Waste) Regulations 2004*<br>• *Environmental Protection (Noise) Regulations 1997*<br>• *Environmental Protection (Unauthorised Discharge) Regulations 2004*<br>• *Dangerous Goods Safety Act 2004*<br>• *Rights in Water and Irrigation Act 1914* |
| Is the Premises within an Environmental Protection Policy (EPP) Area? | Yes ☐ No ☒ | N/A |
| Is the Premises subject to any EPP requirements? | Yes ☐ No ☒ | N/A |
| Is the Premises a known or suspected contaminated site under the *Contaminated Sites Act 2003*? | Yes ☐ No ☒ | Classification: N/A<br>Date of classification: N/A |

**November 2021 Validation**

| **SECTION 1: APPLICATION SUMMARY** | | | | | |
|---|---|---|---|---|---|
| **Application type** | | | | | |
| Amendment to licence | ☒ | Current licence number: | L6079/1988/13 | | |
| | | Relevant works approval number: | | N/A | ☒ |
| Date application received | | 26 November 2021 | | | |
| **Applicant and Premises details** | | | | | |
| Applicant name/s (full legal name/s) | | Newcrest Mining Limited | | | |
| Premises name | | Telfer Gold Mine | | | |
| Premises location | | TELFER WA 6762<br>Part of mining tenements: G45/1, G45/2, G45/3, G45/4, L45/99, L45/100, L45/106, M45/6, M45/7, M45/8, M45/9,M45/10, M45/11, M45/33, M45/203, M45/204, M45/205,M45/206, M45/207, M45/208, M45/209, M45/210, M45/211,M45/249, M45/631, M45/632, M45/633, M45/709 and M45/710.<br>Two additional tenements (M45/720 and L45/622), are proposed to be added to the prescribed premise boundary as part of this licence amendment application. | | |

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| Local Government Authority | Shire of East Pilbara |
| **Application documents** | |
| HPCM file reference number: | DER2013/001097-1<br>Application (DER2013/001097-1~4) |
| Key application documents (additional to application form): | Supporting document containing further detail for the proposed amendment activities. |
| **Scope of application/assessment** | |
| Summary of proposed activities or changes to existing operations. | **<u>Licence amendment</u>**<br>**Proposed updates to existing operations:**<br>• **Category 6**:<br>8. Construction of new dewatering pipeline:<br>• pipeline from the Telfer Gold Mine to the inactive pit (Pit 13), located approximately 7 km to the west of the mine;<br>• installed between the Raw Water Dam (within the Telfer Gold Mine) and Pit 13;<br>• 5 m wide construction corridor has been allowed for, traversing through the mine and then running alongside the existing powerline corridor and the Pit 13 haul road;<br>• made of welded high-density polyethylene (HDPE) pipe;<br>• above ground pipeline, with a total length of ~10 km;<br>• pipeline buried where it crosses roads or tracks;<br>• catch pits constructed to capture any spills or leaks or discharges during maintenance activities; and<br>• following completion of all construction works, the pipeline will undergo testing prior to full commissioning.<br>9. Operation of new dewatering pipeline:<br>• transport of excess mine dewater from the Telfer open pit operations to Pit 13 for storage, when there is a positive water balance during ore treatment plant shutdowns (i.e. abstraction demands are higher and/or operation water re-use demands are lower);<br>• pipeline discharge point will be at least 5 m below the Pit 13 pit rim;<br>• Pit 13 will have a minimum freeboard of 2 m;<br>• three pairs of piezometers are located around Pit 13 to monitor groundwater levels;<br>• annual mine dewater storage volumes to Pit 13 estimated up to 826,000 t/year.<br>• **Category 64**:<br>10. Expansion of existing landfill:<br>• construction proposed to commence in 2023;<br>• the current landfill occupies an area of approximately 8.4 ha. The current lift of the landfill is between 5,511-5,513 mAHD and has steep slopes with gradients at 1:1 and 1:2 (V:H);<br>• the current landfill footprint is proposed to be extended in all directions, with the final waste profile having a slope of 1:5;<br>• the extended landfill will have a final height of ~5,517 |

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| | mAHD, being approximately 17 m above existing ground level and 4-6 m higher than the current lift. The final landform height, including capping material, will be ~5,519 mAHD;<br>• re-establishment of the fauna proof perimeter fence and access gates, resulting in an extension of ~5 ha to the original landfill footprint; and<br>• construction of a surface water pond.<br>11. Operation of expanded landfill:<br>• Landfill proposed to be commissioned in 2024, with predicted capacity for up to 25 years.<br>*(B) For noting:*<br>*(C) The current licence L6079/1988/13 already covers regulatory requirements for the operation of the existing Class II putrescible landfill, these requirements are likely to remain unchanged with the proposed landfill expansion. Therefore, this aspect has not been risk assessed in section 3.* |

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

**Table 1: Prescribed premises categories**

| Prescribed premises category and description | Assessed production or design capacity | Proposed changes to the production or design capacity (amendments only) |
|---|---|---|
| **Existing operations** | | |
| Category 5: Processing or beneficiation of metallic or non-metallic ore: | 26,000,000 tonnes per annual period | No change |
| Category 6: Mine dewatering | 940,000 tonnes per annual period | Application to increase dewatering from 940,000 tonnes per annual period to 1,766,000 tonnes per annual period.<br>Therefore, a proposed increase of 826,000 tonnes per annual period. |
| Category 7: Vat or in situ leaching of metal | 12,000,000 tonnes per annual period | No change |
| Category 54: Sewage facility | 907 cubic metres per day ($m^3$/day) | No change |
| Category 57: Used tyre storage (general) | 40,000 used tyres stored | No change |
| Category 63: Class I inert landfill site | 2,500 tonnes per annual period | No change |
| Category 64: Class II putrescible landfill site | 10,000 tonnes per annual period | No change |
| Category 73: Bulk storage of chemicals etc. | 9,000 cubic metres ($m^3$) | No change |

**Legislative context and other approvals**

<table>
<tr><td>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?</td><td>Yes ☐ No ☒</td><td>Referral decision No: N/A<br>Managed under Part V ☒<br>Assessed under Part IV ☐</td></tr>
<tr><td>Does the applicant hold any existing Part IV Ministerial Statements relevant to the application?</td><td>Yes ☒ No ☐</td><td>Ministerial statement No: 606 (MS606)<br>EPA Report No: 1059</td></tr>
<tr><td>Has the proposal been referred and/or assessed under the EPBC Act?</td><td>Yes ☐ No ☒</td><td>Reference No: N/A</td></tr>
<tr><td>Has the applicant demonstrated occupancy (proof of occupier status)?</td><td>Yes ☒ No ☐</td><td>Certificate of title ☐<br>General lease ☐ Expiry:<br>Mining lease / tenement ☒ Expiry: refer to table below<br>Other evidence ☐ Expiry:<br><table><tr><th>Tenement</th><th>Expiry Date</th><th>Tenement</th><th>Expiry Date</th></tr><tr><td>M45/6</td><td>17/12/2024</td><td>M45/211</td><td>03/02/2028</td></tr><tr><td>M45/7</td><td>17/12/2024</td><td>M45/249</td><td>04/06/2029</td></tr><tr><td>M45/8</td><td>17/12/2024</td><td>M45/631</td><td>22/11/2036</td></tr><tr><td>M45/9</td><td>17/12/2024</td><td>M45/632</td><td>22/11/2036</td></tr><tr><td>M45/10</td><td>17/12/2024</td><td>M45/633</td><td>22/11/2036</td></tr><tr><td>M45/11</td><td>17/12/2024</td><td>M45/709</td><td>27/04/2037</td></tr><tr><td>M45/33</td><td>21/08/2026</td><td>M45/710</td><td>27/04/2037</td></tr><tr><td>M45/203</td><td>03/02/2028</td><td>G45/1</td><td>17/12/2024</td></tr><tr><td>M45/204</td><td>03/02/2028</td><td>G45/2</td><td>17/12/2024</td></tr><tr><td>M45/205</td><td>03/02/2028</td><td>G45/3</td><td>17/12/2024</td></tr><tr><td>M45/206</td><td>03/02/2028</td><td>G45/4</td><td>17/12/2024</td></tr><tr><td>M45/207</td><td>03/02/2028</td><td>L45/99</td><td>22/08/2021</td></tr><tr><td>M45/208</td><td>03/02/2028</td><td>L45/100</td><td>27/07/2021</td></tr><tr><td>M45/209</td><td>03/02/2028</td><td>L45/106</td><td>14/06/2022</td></tr><tr><td>M45/210</td><td>03/02/2028</td><td></td><td></td></tr></table><ul><li>M45/720 – expiry: 10/04/2037</li><li>L45/622 – expiry: 13/07/2042</li></ul>Activities relating to Category 6 amendments are located within mining tenements M45/7, M45/8, M45/11, M45/205 and M45/720 and miscellaneous licence L45/622.<br>Activities relating to Category 64 amendments are located wholly within mining tenement M45/6.</td></tr>
<tr><td>Has the applicant obtained all relevant planning approvals?</td><td>Yes ☐ No ☐ N/A ☒</td><td>Approval: N/A<br>Expiry date: N/A<br>Premises is located on mining tenure.</td></tr>
<tr><td>Has the applicant applied for, or have an existing EP Act clearing permit in relation to this proposal?</td><td>Yes ☐ No ☒</td><td>CPS No: N/A<br>MS606 manages land disturbance.<br>The licence holder has advised that a Mining Proposal for dewatering to Pit 13 has been submitted to DMIRS under the Mining Act 1978.<br>The Delegated Officer notes that this Part V licence amendment does not</td></tr>
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| | | authorise any clearing activities to be undertaken. The licence holder must seek the appropriate approvals for any proposed clearing of native vegetation outside of the areas approved under MS606.<br>**Category 6: Mine dewatering**<br>Total pipeline corridor is 5.34 ha.<br>The applicant noted that some areas may have already be cleared and therefore actual clearing required is expected be less than this amount.<br>**Category 64: Class II putrescible landfill site**<br>The landfill extension will occur on previously cleared areas. The applicant has advised that no clearing of undisturbed areas are required for the expansion of the existing landfill. |
| 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<br>Licence/permit No: N/A<br>As per above. |
| Has the applicant applied for, or have an existing RIWI Act licence or permit in relation to this proposal? | Yes ☒ No ☐ | Application reference No: N/A<br>Licence/permit No: GWL 150758(15) |
| Does the proposal involve a discharge of waste into a designated area (as defined in section 57 of the EP Act)? | Yes ☐ No ☐ | Name: Canning-Kimberley Groundwater Area<br>Type: Proclaimed Groundwater Area<br>Has Regulatory Services (Water) been consulted?<br>Yes ☐ No ☐ N/A ☒<br>Regional office: N/A |
| Is the Premises situated in a Public Drinking Water Source Area (PDWSA)? | Yes ☐ No ☐ | Name: N/A<br>Priority: N/A<br>Are the proposed activities/ landuse compatible with the PDWSA (refer to WQPN 25)?<br>Yes ☐ No ☐ N/A ☒ |
| Is the Premises subject to any other Acts or subsidiary regulations? | Yes ☒ No ☐ | • *Aboriginal Heritage Act 1972*<br>• *Dangerous Goods Safety Act 2004*<br>• *Environmental Protection (Controlled Waste) Regulations 2004*<br>• *Environmental Protection (Noise) Regulations 1997*<br>• *Environmental Protection Regulations 1987*<br>• *Environmental Protection (Unauthorised Discharge)* |

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| | | *Regulations 2004*<br>• *Mining Act 1978*<br>• *Rights in Water and Irrigation Act 1914* |
| Is the Premises within an Environmental Protection Policy (EPP) Area? | Yes ☐ No ☒ | N/A |
| Is the Premises subject to any EPP requirements? | Yes ☐ No ☒ | N/A |
| Is the Premises a known or suspected contaminated site under the *Contaminated Sites Act 2003*? | Yes ☐ No ☒ | Classification: N/A<br>Date of classification: N/A |

**February 2022 Validation**

| **SECTION 1: APPLICATION SUMMARY** | | | | | |
|---|---|---|---|---|---|
| **Application type** | | | | | |
| Amendment to licence | ☒ | Current licence number: | L6079/1988/13 | | |
| | | Relevant works approval number: | W6445/2020/1 | N/A | ☐ |
| Date application received | | 16/2/22 | | | |
| **Applicant and Premises details** | | | | | |
| Applicant name/s (full legal name/s) | | Newcrest Mining Limited | | | |
| Premises name | | Telfer Gold Mine | | | |
| Premises location | | The premises boundary of operating licence L6079/1988/13 encompasses 29 leases which cover a total area of 2,000 hectares (ha) of land, including:<br>4 general purpose leases:<br>• G45/1; G45/2; G45/4; G45/9<br>3 miscellaneous leases:<br>• L45/99; L45/100; L45/106<br>22 mining leases:<br>• M45/10; M45/11; M45/203; M45/204; M45/206; M45/207; M45/208; M45/209; M45/210; M45/211; M45/249; M45/33; M45/6; M45/631; M45/632; M45/633; M45/7; M45/709; M45/710; M45/8; M45/9<br><br>The proposed works associated with this licence amendment will lie within M45/208, M45/207, and M45/9. The TSF8 footprint will occur solely within M45/208. | | |
| Local Government Authority | | Shire of East Pilbara | | | |
| **Application documents** | | | | | |
| HPCM file reference number: | | DER2013/001097-1 | | | |
| Key application documents (additional to application form): | | TSF design report<br>• Previous geotechnical investigations | | | |

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| | • Groundwater and seepage analysis<br>• Water Balance<br>Attachment 8 – supporting documentation |
| **Scope of application/assessment** | |
| Summary of proposed activities or changes to existing operations. | Licence amendment<br>Operation of TSF8 following completion of works approval (starter embankment).<br>Application for two lifts to TSF8: Stage 1 and Stage 2 raises. |

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

**Table 1: Prescribed premises categories**

| **Prescribed premises category and description** | **Assessed production or design capacity** | **Proposed changes to the production or design capacity (amendments only)** |
|---|---|---|
| Category 5: Processing or beneficiation of metallic or non-metallic ore. | 24 Mt per annual period | 26 Mt per annual period |
| Category 7: vat or in situ leaching of metals: premises on which metal is extracted from ore with a chemical solution | 12Mt per annual period | |
| Category 52: Electric power generation | 158.2 MW | |
| Category 54: Sewage facility | 907$m^3$ | |
| Category 57: Used tyre storage | 300,000 tyres | |
| Category 63: Class I inert landfill | 2500 tonnes per annual period | |
| Category 64: Class II landfill | 10,000 tonnes per annual period | |
| Category 73: Bulk storage of chemicals | 9,000 $m^3$ in aggregate | |

**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 ☐ No ☒ | Referral decision No:<br>Managed under Part V ☐<br>Assessed under Part IV ☐ |
| Does the applicant hold any existing Part IV Ministerial Statements relevant to the application? | Yes ☐ No ☒ | Ministerial statement No: MS 606 and MS 605<br>DWERDT342051<br>EPA Report No: MS 606: 1059; MS 605: 1058 and 1127 |
| 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 ☐ | Certificate of title ☐<br>General lease ☐ Expiry:<br>Mining lease / tenement ☒ Expiry:<br>• M45/208, expiry = 3 February 2028 (contain TSF footprint) |

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| | | • M45/207, expiry = 3 February 2028<br>• M45/9, expiry = 17 December 2024 |
| Has the applicant obtained all relevant planning approvals? | Yes ☐ No ☐ N/A ☒ | Approval:<br>Expiry date:<br>If N/A explain why?<br>Exempt under the *Mining Act 1978* |
| Has the applicant applied for, or have an existing EP Act clearing permit in relation to this proposal? | Yes ☒ No ☐ | CPS No: N/A<br>Exemption under Part IV of the EP Act (Ministerial Statement MS606). |
| 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<br>Licence/permit No: N/A |
| Has the applicant applied for, or have an existing RIWI Act licence or permit in relation to this proposal? | Yes ☒ No ☐ | Application reference No:<br>Licence/permit No: GWL150758(12) |
| Does the proposal involve a discharge of waste into a designated area (as defined in section 57 of the EP Act)? | Yes ☒ No ☐ | Name: RIWI Canning-Kimberley Groundwater Area<br>Type: RIWI Groundwater Area<br>Has Regulatory Services (Water) been consulted?<br>Yes ☐ No ☒ N/A ☐<br>Regional office: North West |
| Is the Premises situated in a Public Drinking Water Source Area (PDWSA)? | Yes ☐ No ☒ | Name: N/A<br>Priority: N/A<br>Are the proposed activities/ landuse compatible with the PDWSA (refer to WQPN 25)?<br>Yes ☐ No ☐ N/A ☒ |
| 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 ☐ | The *Mining Act 1978* |
| 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 *Contaminated Sites Act 2003*? | Yes ☒ No ☐ | Classification: possibly contaminated – investigation required (PC–IR)<br>Date of classification: Date of classification: 2015 (CS ID: 2085; 8854) |