



<b>Licence number</b>	L8422/2010/2
<b>Licence holder</b>	Edna May Operations Pty Ltd
<b>ACN (if applicable)</b>	136 365 001
<b>Registered business address</b>	Level 1, 130 Royal Street, East Perth WA 6004
<b>DWER file number</b>	DER2017/000298-1
<b>Duration</b>	02/05/2013 to 01/05/2028
<b>Date of issue</b>	2 May 2013
<b>Date of amendment</b>	3 November 2021
<b>Premises details</b>	Edna May Gold Project Warrachuppin Road, WESTONIA WA 6423  Legal description - M77/88, M77/110, M77/124, G77/122 and L77/18

Prescribed premises category description (Schedule 1, <i>Environmental Protection Regulations 1987</i> )	Assessed production / design capacity
Category 5: Processing or beneficiation of metallic or non-metallic ore	3,200,000 tonnes per annual period
Category 6: Mine dewatering	1,900,000 tonnes per annual period
Category 61: Liquid waste facility	Up to 1,255 KL per annual period
Category 64: Class II or III putrescible landfill site	5,000 tonnes per annual period

This licence is granted to the licence holder, subject to the attached conditions as amended on 3 November 2021, by:

**Lauren Edmands**

**MANAGER – RESOURCE INDUSTRIES**

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

## Licence history

Date	Reference number	Summary of changes
W4546/2009/1	02/07/2009	Works Approval to construct category 5 and 6
W4546/2009/1	24/12/2009	Amendment to Works Approval to include additional conditions relating to the Operational Management Plan
L8422/2010/1	30/04/2010	Licence issued for category 5 and 6
W4718/2010/1	17/09/2010	Works Approval for category 64.
W4718/2010/1	22/10/2010	Amendment to Works Approval – change of address
L8422/2010/1	10/03/2011	Amendment to Licence to include category 64 (landfill) and associated conditions
L8422/2010/1	17/04/2011	Amendment to increase production or design capacity of mine dewatering from 1 900 000 to 3 200 000 tonnes per year
W4898/2011/1	17/04/2011	Works Approval for category 70 (Screening, etc. of material)
W5015/2011/1	03/11/2011	Works Approval for category 5 – changes to original proposal.
W5015/2011/1	02/02/2012	Amendment to Works Approval – update Licensee name
L8422/2010/2	02/05/2013	Licence re-issue
L8422/2010/2	10/03/2016	Amendment relating to liquid waste acceptance and format conversion.
L8422/2010/2	20/12/2018	Amendment Notice 1: construction of three new ponds and increase the septage limit.
L8422/2010/2	21/09/2020	Installation of leach feed thickener, close circuiting of the existing cone crusher, installation of chemical storage facilities and processing new ore source.
L8422/2010/2	04/11/2020	Relocation of the bioremediation pad and landfill.
L8422/2010/2	29/01/2021	Re-assessment of leachate controls associated with the relocation of the landfill and bioremediation pad.
L8422/2010/2	3/11/2021	Amendment for category 5 activities – three 3m embankment lifts to the tailings storage facility

## Interpretation

In this licence:

- (a) the words 'including', 'includes' and 'include' in conditions mean "including but not limited to", and similar, as appropriate;
- (b) where any word or phrase is given a defined meaning, any other part of speech or other grammatical form of that word or phrase has a corresponding meaning;
- (c) where tables are used in a condition, each row in a table constitutes a separate condition;
- (d) any reference to an Australian or other standard, guideline, or code of practice in this licence:
- (e) if dated, refers to that particular version; and
- (f) if not dated, refers to the latest version and therefore may be subject to change over time;
- (g) unless specified otherwise, any reference to a section of an Act refers to that section of the EP Act; and
- (h) unless specified otherwise, all definitions are in accordance with the EP Act.

**NOTE:** This licence requires specific conditions to be met but does not provide any implied authorisation for other emissions, discharges, or activities not specified in this licence.

## Licence conditions

The licence holder must ensure that the following conditions are complied with:

### Infrastructure and equipment

1. The licence holder shall ensure that all pipelines containing tailings slurry, decant water, dewatering water or effluent are either:
  - (a) equipped with telemetry systems and pressure sensors along pipelines to allow the detection of leaks and failures;
  - (b) equipped with automatic cut-outs in the event of a pipe failure; or
  - (c) provided with secondary containment sufficient to contain any spill for a period equal to the time between routine inspections.
2. The licence holder shall ensure that any saline dewatering effluent used for dust suppression is applied in a manner that avoids damage to surrounding vegetation.
3. The licence holder shall ensure that tailings, decant water, dewatering water and effluent are only discharged into containment cells, dams and ponds with the relevant infrastructure requirements and at the locations specified in Table 1.

**Table 1: Infrastructure and equipment requirements**

Site infrastructure and equipment	Operational requirement	Infrastructure location see Figure 1, Schedule 1
Tailings Storage Facility	Compacted in-situ clay material	E1
Bioremediation facility	Compacted in-situ clay material	E2
Liquid waste ponds	Compacted in-situ clay material	E3
Evaporation ponds	Compacted in-situ clay material	E4

4. The licence holder shall manage containment cells and ponds in Table 1 such that a minimum top of embankment freeboard of 300mm or a 1 in 100 year / 72 hour storm event (whichever is greater) is maintained.
5. The licence holder must:
  - (a) construct the infrastructure and equipment;
  - (b) in accordance with the corresponding design and construction requirements; and
  - (c) at the corresponding infrastructure location as set out in Table 2.

**Table 2: Design and construction requirements**

Infrastructure	Design and construction requirements	Infrastructure location
Landfill	1.2 metre high security fence around the perimeter of the landfill.	Schedule 1: Maps, Figure 3
Bioremediation facility	Compacted in-situ clay material 20 metres length by 10 metres width and be contained by a 1 metre high bund and a 0.4 metre high roll over bund. 1.2 metre high security fence around the perimeter of the bioremediation pad.	Schedule 1: Maps, Figure 3

6. The licence holder must within 30 calendar days of an item of infrastructure or equipment required by condition 5 being constructed:
  - (a) undertaken an audit of their compliance with the requirements of condition 5; and
  - (b) prepare and submit to the CEO an Environmental Compliance Report on that compliance.
7. The Environmental Compliance Report required by condition 6, must include as a minimum the following:
  - (a) certification by a civil or geotechnical engineer, that the bioremediation facility as specified in condition 5, have been constructed in accordance with the relevant requirements specified in condition 5;
  - (b) as constructed plans and a detailed site plan for each item of infrastructure or component of infrastructure specified in condition 5; and
  - (c) be signed by a person authorised to represent the licence holder and contains the printed name and position of that person.
8. The licence holder shall only accept waste onto the Premises if:
  - a) it is of a type listed in Table 3;
  - b) the quantity accepted is below any quantity limit listed in Table 3; and
  - c) it meets any specification listed in Table 3.

**Table 3: Waste acceptance**

Waste	Quantity limit	Infrastructure location see Figure 1, Schedule 1
Clean fill Inert Waste Type 1 Inert Waste Type 2 Putrescible Waste (including green waste) Special Waste Type 1 (Asbestos Waste) Special Waste Type 2 (Biomedical Waste) Scrap Metal Other recyclables	Combined total of up to 5,000 tonnes per annual period	E2 (Landfill and bioremediation facility)
Septage wastes (Sewage) – domestic wastes from apparatus for the treatment of sewage	1255KL per annual period	E3 (Liquid waste ponds)
Waste from grease traps	15,000L per annual period	E3 (Liquid waste ponds)

Note 1: Additional requirements for the acceptance of controlled waste (including asbestos and tyres) are set out in the *Environmental Protection (Controlled Waste) Regulations 2004*

9. The licence holder shall, at the landfill and bioremediation facility (E2):
  - (a) ensure that no waste is placed closer than 35 metres to the landfill boundary;
  - (b) place waste within a defined trench;
  - (c) landfill trenches are to be no more than 30 metres width, 30 metres total length, and 2 metres depth.
  - (d) cover waste with at least 150 mm of cover material every week the site is open;
  - (e) cover waste within one week of delivery;

- (f) stockpile sufficient cover material to allow waste to be covered in accordance with part (d) and (e) of this condition and to cover waste in the event of a fire;
  - (g) shall manage the active landfill area such that at no time does landfilling result in an exposed face exceeding two metres in vertical height;
  - (h) shall cover waste with a final soil cover of at least one metre; and
  - (i) the active tipping area is wet down as required to minimise dust generation associated with vehicle movement and during waste and cover placement.
- 10.** The licence holder shall implement the following security measures at the Landfill and bioremediation facility (E2):
- (a) maintain a wire stock fence, at least 1.2 metres high, around the perimeter of the landfill; and
  - (b) securely lock any entrance to the landfill when the landfill is unattended.
- 11.** The licence holder shall take all reasonable and practical measures to ensure that no wind-blown waste escapes landfill and bioremediation facility (E2).
- 12.** The licence holder shall manage the Tailings Storage Facility (E1) such that:
- (a) a seepage collection and recovery system is provided and used to capture seepage from the TSF; and
  - (b) seepage is returned to the TSF or the process.
- 13.** The licence holder must construct and install the infrastructure listed in Table 4, in accordance with;
- (a) the corresponding design and construction requirement; and
  - (b) at the corresponding infrastructure location.
- as set out in Table 4.

**Table 4: Design and construction requirements**

Infrastructure	Design and construction requirement	Infrastructure location
Liquid Oxygen storage facility	Liquid oxygen concrete pad storage and pipework to comply with AS1894-1997	Schedule 4
Lead Nitrate storage facility	Bunding around the lead nitrate to be double skinned storage tank as well as concrete bunding that drains to an existing concrete sump.  The sump discharges to a thickener feed hopper. Pumping for the lead nitrate is to be placed in the existing plant bunding. Lead nitrate delivery utilises an existing concrete delivery pad.	Schedule 4

- 14.** The Licence Holder must undertake downhole geophysical logging using a natural gamma probe for groundwater monitoring wells surrounding the TSF (at a minimum MB07, MB08, MW9, MW10, MW11, MW12, MB13 and MB18), as depicted in Figure 4 of Schedule 2) to determine the presence of any sandy horizons at shallow depth within the geological profile.

15. The Licence Holder is required to undertake a vegetation health assessment of the threatened eucalypt woodland along the southern boundary of the premises for each lift 9, 10 and 11 (three assessments) according to the timeframe set out in Table 5

**Table 5 Vegetation health assessment timeframes**

TSF lift stage	Timeframe
9	No later than 60 days following <u>completion</u> of the embankment lift
10	No sooner than 180 days and no later than 60 days prior to the <u>commencement</u> of the embankment lift
11	

16. The vegetation health assessment for condition 15 must be undertaken by a suitably qualified botanist and a vegetation health assessment report submitted no more than 45 calendar days after the botanist's in-field assessment. The report must include the following at a minimum for each native vegetation monitoring point:
- (a) Location (including distance and direction from the tailings storage facility); and
  - (b) Photographs and records demonstrating the presence and condition of native vegetation features;
  - (c) A comparison with any previous vegetation health assessments or surveys; and
  - (d) Any action taken to preserve or rehabilitate distressed vegetation.
17. Subsequent to completing the requirements of conditions 15 and 16, the Licence Holder is authorised to:
- (a) construct embankment raises for IWL/TSF to the construction height; and
  - (b) operate IWL/TSF until the end of Stage 11 to the operating height,
- as specified in Table 6.

**Table 6 Integrated Waste Landform/Tailings Storage Facility (IWL/TSF) operating heights**

Stage	Embankment elevation (mRL)	Maximum operating height (mRL) – with freeboard
Stage 9 Lift <sup>1</sup>	1365.0	1364.7
Stage 10 Lift	1368.0	1367.7
Stage 11 Lift	1371.0	1370.7

1. Condition 15 allows the stage 9 lift to commence prior to completion of the vegetation survey.

18. The licence holder must within 30 days of each staged lift of condition 17 being constructed:
- (a) undertake an audit of their compliance with the requirements of condition 17; and
  - (b) prepare and submit to the CEO an environmental compliance report on that compliance.
19. The environmental compliance report required by condition 18 must:
- (a) be certified by a suitably qualified and experienced engineer (eligible for membership in the Institute of Engineers, Australia) that the stage of infrastructure, as specified in condition 17, have been constructed in accordance with the relevant requirements specified in condition 17; and

- (b) as constructed plans and a detailed site plan for each embankment lift as specified in condition 17; and
- (c) be signed by a person authorised to represent the licence holder and contain the printed name and position of that person within the company.

## Emissions and discharges

- 20. The licence holder must ensure that no visible dust generated from the primary activities crosses the boundary of the premises.
- 21. The licence holder must ensure that the emissions specified in Table 7, are discharged only from the corresponding discharge point and only at the corresponding discharge point location.

**Table 7: Authorised discharge points**

Emission	Discharge point	Infrastructure location see Figure 1, Schedule 1
Process tailings	Tailings storage facility	E1
General mining operations	Landfill and bioremediation facility	E2
Septage waste from the licence holder's village waste water treatment plant and grease waste from the licence holder's village kitchen grease trap and site septic tanks. Town of Westonia septic tanks.	Liquid waste ponds	E3
Mine dewater	Evaporation ponds	E4

## Monitoring

- 22. The licence holder shall ensure that:
  - (a) all water samples are collected and preserved in accordance with AS/NZS 5667.1;
  - (b) all wastewater sampling is conducted in accordance with AS/NZS 5667.10;
  - (c) all groundwater sampling is conducted in accordance with AS/NZS 5667.11; and
  - (d) all laboratory samples are submitted to and tested by a laboratory with current NATA accreditation for the parameters being measured [unless indicated otherwise in the relevant table].
- 23. The licence holder shall ensure that:
  - (a) monthly monitoring is undertaken at least 15 days apart; and
  - (b) quarterly monitoring is undertaken at least 45 days apart.
- 24. The licence holder shall ensure that all monitoring equipment used on the Premises to comply with the conditions of this licence is calibrated in accordance with the manufacturer's specifications.
- 25. The licence holder shall, where the requirements for calibration cannot be practicably met, or a discrepancy exists in the interpretation of the requirements, bring these issues to the attention of the CEO accompanied with a report comprising details of any modifications to the methods.



**Monitoring of emissions to land**

- 26.** The licence holder shall undertake the monitoring in Table 8 according to the specifications in that table.

**Table 8: Emissions and discharge monitoring**

Emission point reference	Parameter	Units	Frequency
E1 (TSF)	Water balance (site rainfall, site evaporation rate, decant water recovery volumes, seepage recovery volume and volume of tailings deposited and estimate of seepage loss)	kL	Annually
E2 (Landfill and bioremediation facility)	Solid waste to landfill	tonnes	Annually
	Contaminated soil		
E3 (Liquid waste ponds)	Septage waste		
	Grease trap waste		
E4 (Evaporation ponds)	Mine dewater discharged to the Evaporation ponds.	kL	

**Ambient monitoring**

- 27.** The Licensee shall undertake the monitoring in Table 9 according to the specifications in that table and record and investigate results that do not meet any limit specified.

**Table 9: Monitoring of ambient groundwater quality and tailings decant concentrations**

Emission point reference	Parameter	Units	Frequency	Limit
MB01, MB02, MB7-8 MB11-16, MB 18	Standing Water Level (SWL)*	m(AHD) and m(BGL)	Monthly	3m(BGL)
	Total dissolved Solids (TDS)	mg/L	Quarterly	None specified
	Electrical Conductivity (EC)	uS/cm		
	pH	pH units		
	Weak acid dissociable cyanide (WAD cyanide)	mg/L		<0.5 mg/L
	Total cyanide			None specified
	Arsenic			
	Lead			
	Mercury			
	Molybdenum			
	Silver			
	Aluminum			
	Barium			
	Boron			
	Cadmium			

Emission point reference	Parameter	Units	Frequency	Limit
	Calcium			
	Sodium			
	Potassium			
	Magnesium			
	Chloride			
	Bicarbonate			
	Sulfate ions			
	Tungsten			
	Vanadium			
	Cobalt			
	Nickel			
	Chromium			
Decant (supernatant) pond of the Tailings Storage Facility	Weak acid dissociable cyanide	mg/L	Quarterly	50

Note: \*SWL shall be determined prior to collection of water samples

- 28.** The licence holder must undertake leaching tests of the ore from Tampia mine site including:
- (a) Short-term leaching tests using a liquid that has the same chemical composition, salinity and cyanide concentration to that which is present in the TSF; and
  - (b) Sub-aqueous (saturated) column leaching tests (see *e.g.* Watson *et al.*, 2016; Søndergaard *et al.*, 2018) on Tampia processed ore materials using liquid with the same chemical composition, salinity and cyanide concentration to that which is present in the TSF.
- 29.** The licence holder must submit the results of the leaching tests as instructed in condition 28, in writing to the CEO within 30 days of completion of the testing.
- 30.** The licence holder must monitor vegetation according to the specifications in Table 10:
- (a) at the corresponding monitoring location;
  - (b) at no less that the corresponding frequency;
- as set out in Table 10.

**Table 10 Monitoring of vegetation**

Parameter	Monitoring location	Frequency
Photographs of vegetation	Every 50m along the southern boundary of the IWL/TSF	Quarterly <sup>1</sup>

1. monitoring is undertaken in each quarterly period such that there are at least 45 days in between the days on which samples are taken in successive quarters

## Records and reporting

- 31.** The licence holder must within 7 days of become aware of any non-compliance with condition 27, of this licence notify the CEO in writing of that non-compliance and include in that notification the following information:

- (a) which condition was not complied with;
  - (b) the time and date when the non-compliance occurred;
  - (c) if any environmental impact occurred as a result of the non-compliance and if so what the impact is and where the impact occurred;
  - (d) the details and result of any investigation undertaken into the cause of the non-compliance;
  - (e) what action has been taken and the date on which it was taken to prevent the non-compliance occurring again; and
  - (f) what action will be taken and the date by which it will be taken to prevent the non-compliance occurring again.
- 32.** The licence holder must record the following information in relation to complaints received by the licence holder (whether received directly from a complainant or forwarded to them by the Department or another party) about any alleged emissions from the premises:
- (a) the name and contact details of the complainant, (if provided);
  - (b) the time and date of the complaint;
  - (c) the complete details of the complaint and any other concerns or other issues raised; and
  - (d) the complete details and dates of any action taken by the licence holder to investigate or respond to any complaint.
- 33.** The licence holder must:
- (a) undertake an audit of their compliance with the conditions of this licence during the preceding annual period; and
  - (b) prepare and submit to the CEO by no later than 28 days after the end of that annual period an Annual Audit Compliance Report in the approved form.
- 34.** The licence holder must maintain accurate and auditable books including the following records, information, reports, and data required by this licence:
- (a) the calculation of fees payable in respect of this licence;
  - (b) the works conducted in accordance with conditions 5 and 13 of this licence;
  - (c) monitoring programmes undertaken in accordance with conditions 26, 27 and 28 and 30 of this licence; and
  - (d) complaints received under condition 32 of this licence.
- 35.** The books specified under condition 34 must:
- (a) be legible;
  - (b) if amended, be amended in such a way that the original version(s) and any subsequent amendments remain legible and are capable of retrieval;
  - (c) be retained by the licence holder for the duration of the licence; and
  - (d) be available to be produced to an inspector or the CEO as required.
- 36.** The licence holder must submit to the CEO by no later than 60 days after the end of each annual period, an Annual Environmental Report for that annual period for the conditions listed in Table 11, and which provides information in accordance with the corresponding requirements set out in **Error! Not a valid bookmark self-reference..**

**Table 11: Annual Environmental Report requirements**

Condition	Requirement
26 and Table 8	Water balance and annual recording of waste
27 and Table 9	Groundwater monitoring results Tabulated groundwater monitoring data results and time series graphs for each monitoring well showing concentrations of all parameters over a 4 year period.
30	Vegetation monitoring: photographs and annual monitoring summary
31	Non-compliance notifications
32	Complaints summary
33	Compliance

## Definitions

In this licence, the terms in Table 12 have the meanings defined.

**Table 12: Definitions**

Term	Definition
ACN	Australian Company Number
Annual Audit Compliance Report (AACR)	means a report submitted in a format approved by the CEO (relevant guidelines and templates may be available on the Department's website).
annual period	a 12 month period commencing from 1 July until 30 June of the immediately following year.
AS/NZS 5667.1	means the Australian Standard AS/NZS 5667.1 <i>Water Quality – Sampling – Guidance of the Design of sampling programs, sampling techniques and the preservation and handling of samples</i>
AS/NZS 5667.11	means the Australian Standard AS/NZS 5667.11 <i>Water Quality – Sampling – Guidance on sampling of groundwaters</i>
AS1894-1997	The storage and handling of non-flammable cryogenic and refrigerated liquids
books	has the same meaning given to that term under the EP Act.
CEO	means Chief Executive Officer of the Department. “submit to / notify the CEO” (or similar), means either:  Director General Department administering the <i>Environmental Protection Act 1986</i> Locked Bag 10 Joondalup DC WA 6919  or:  <a href="mailto:info@dwer.wa.gov.au">info@dwer.wa.gov.au</a>
Civil or geotechnical engineer	Means a person holding current certification from the Institution of Engineers Australia (IEAust)
Department	means the department established under section 35 of the <i>Public Sector Management Act 1994</i> (WA) and designated as responsible for the administration of the EP Act, which includes Part V Division 3.
discharge	has the same meaning given to that term under the EP Act.
emission	has the same meaning given to that term under the EP Act.
EP Act	<i>Environmental Protection Act 1986</i> (WA)
EP Regulations	<i>Environmental Protection Regulations 1987</i> (WA)

Term	Definition
freeboard	means the distance between the maximum water surface elevations and the top of retaining banks or structures at their lowest point
hardstand	means a surface with a permeability of $10^{-9}$ metres/second or less
Inert Waste Type 1	as defined in the Landfill Definitions.
Inert Waste Type 2	as defined in the Landfill Definitions.
Inert Waste Type 3	as defined in the Landfill Definitions.
Landfill Definitions	<i>Landfill Waste Classification and Waste Definitions 1996</i> (as amended from time to time).
licence	refers to this document, which evidences the grant of a licence by the CEO under section 57 of the EP Act, subject to the specified conditions contained within.
licence holder	refers to the occupier of the premises, being the person specified on the front of the licence as the person to whom this licence has been granted.
monthly period	means a one-month period commencing from the first day of a month until the last day of the same month.
NATA	means the National Association of Testing Authorities, Australia
NATA accredited	means in relation to the analysis of a sample that the laboratory is NATA accredited for the specified analysis at the time of the analysis
premises	refers to the premises to which this licence applies, as specified at the front of this licence and as shown on the premises map Figure 1 in Schedule 1 to this licence.
prescribed premises	has the same meaning given to that term under the EP Act.
waste	has the same meaning given to that term under the EP Act.
waste type	waste types identified in the Landfill Definitions, or in Schedule 1 of the Controlled Waste Regulations (as applicable).
spot sample	means a discrete sample representative at the time and place at which the sample is taken
TSF	Tailings storage facility

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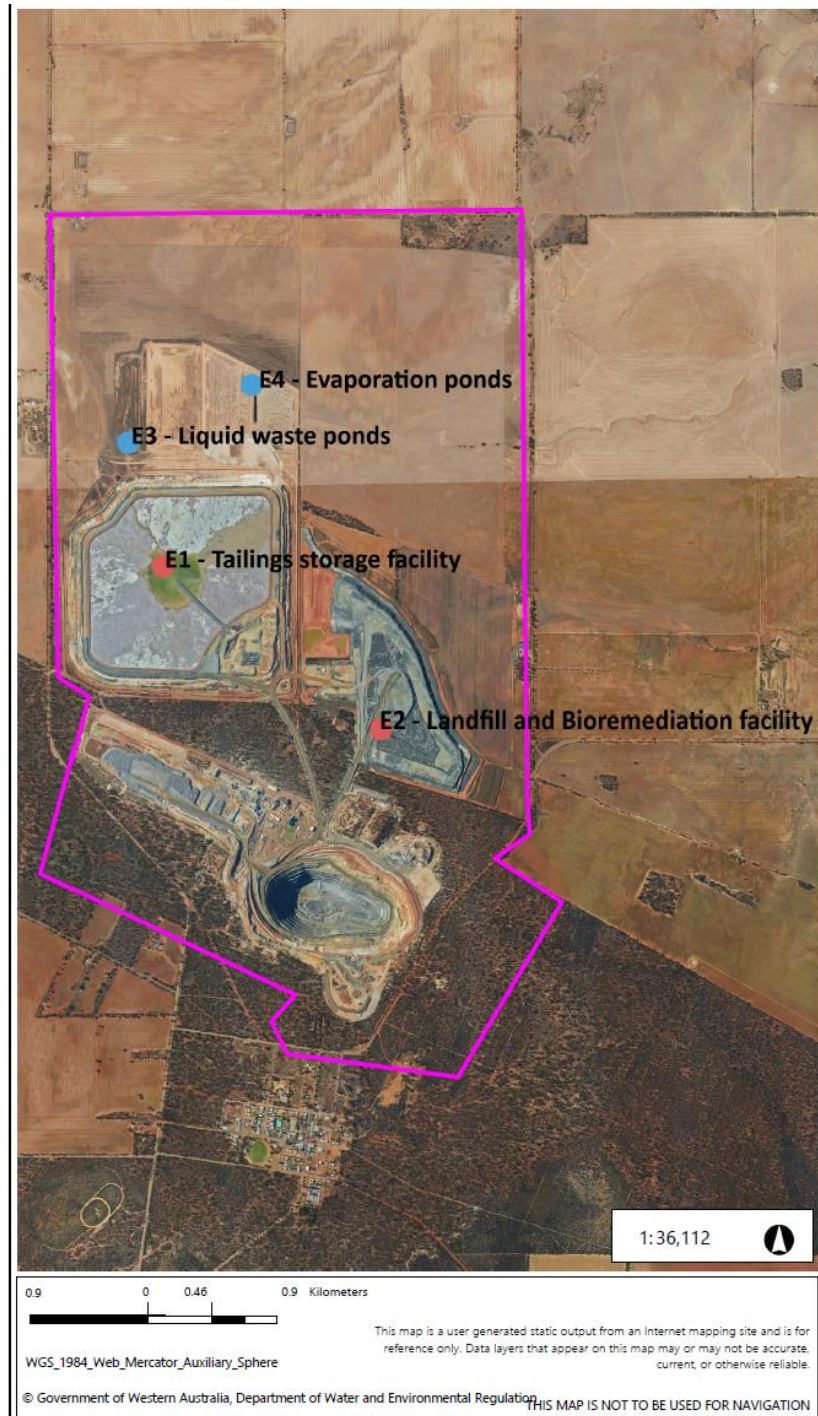
## END OF CONDITIONS



## Schedule 1: Maps

### Premises map

The boundary of the prescribed premises is shown in the map below (Figure 1)



**Figure 1: Premises boundary**

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Figure 2: Site layout

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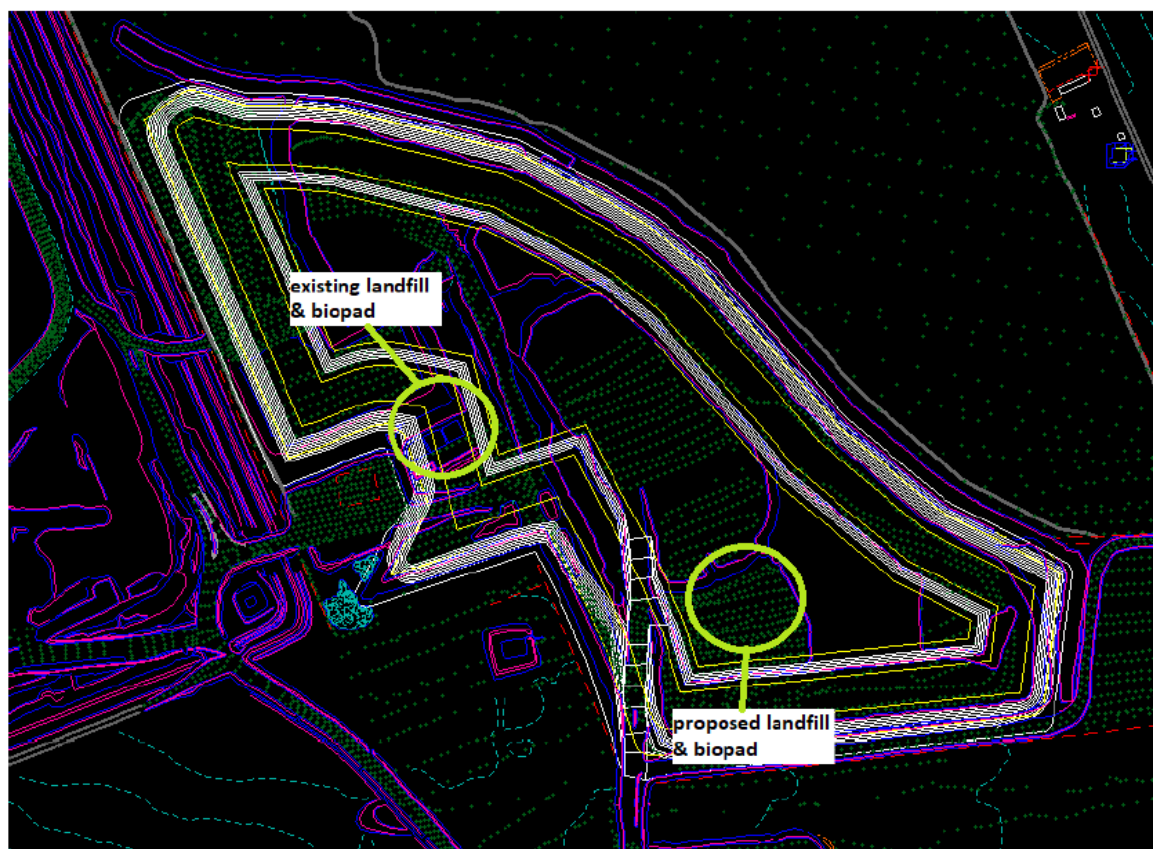


Figure 1. Map of Proposed Landfill/Bioremediation area (Corsini Waste Rock Dump)

**Figure 3: New location of landfill and bioremediation area**

## Schedule 2: Map of monitoring locations



**Figure 4: Monitoring locations**



Schedule 3: Map of evaporation ponds



## Schedule 4: Plant redesign

