Government of Western Australia
Department of Water and Environmental Regulation

Licence

Licence number	L8934/2015/1
Licence Holder	Big Bell Gold Operations Pty Ltd
ACN	090 642 809
Registered business address	Level 6, 197 St Georges Tce PERTH WA 6000
DWER file number	DER2015/002680
Duration	7/03/2016 to 6/03/2026
Date of amendment	25 May 2023
Premises details	Cue Gold Operations Big Bell – Coodardy Road, CUE WA 6640 Mining tenements M20/17, M20/99, M20/192, L20/21, L20/39, L20/40, L20/41, L21/14, M20/252, M20/307, M20/333, M20/418, M20/435, G20/1, G20/2, G20/3, G20/11, M20/103, M20/171, M20/202, M20/21, M20/22, M20/354, M20/78, M20/104, M20/256, M20/297, and M20/301 As defined by the Premises maps in Schedule 1

Prescribed premises category description (Schedule 1, *Environmental Protection Regulations 1987*)	Assessed production / design capacity
Category 6: Mine dewatering: premises on which water is extracted and discharged into the environment to allow mining or ore	5,324,556 tonnes per annual period
Category 12: Screening etc. of material	400,000 tonnes per annual period
Category 64: Putrescible landfill site	600 tonnes per annual period
Category 85: Sewage facility	50 cubic metres per day

This amended licence is granted to the Licence holder, subject to the attached conditions, on 25 May 2023, by:

Alana Kidd

Digitally signed by Alana Kidd
Date: 2023.05.25 14:41:47 +08'00'

Alana Kidd
Manager, Resource Industries
an officer delegated under section 20 of the *Environmental Protection Act 1986* (WA)

Licence history

Date	Reference number	Summary of changes
11/04/2013	W5357/2013/1	New Works Approval
3/03/2016	L8934/2015/1	New Category 6 Licence
19/12/2018	L8934/2015/1	Licence Amendment Notice 1 (AN1) to increase the throughput for category 6 dewatering. Include dewatering of the Black Swan South pit with discharge to Lake Austin.
13/03/2019	L8934/2015/1	Licence Amendment Notice 2 (AN2) to include new categories 64 for a Class II putrescible landfill, and category 85 for a sewage facility.
3/09/2020	L8934/2015/1	Licence amendment for the dewatering of mined pits at the Cuddingwarra Project with discharge to other mined pits and Lake Austin and inclusion of used tyre disposal area. Licence also amended by amalgamating AN1 and AN2 and updating the Premises name to 'Cue Gold Operations'.
16/12/2022	L8934/2015/1	Licence amendment to allow construction and operation of a Category 64 Putrescible Landfill
25/05/2023	L8934/2015/1	Licence amendment to allow operation of Category 12 mobile crushing and screening plant and administrative updates.

Interpretation

In this licence:

(a) the words 'including', 'includes' and 'include' in conditions mean "including but not limited to", and similar, as appropriate;

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;

where tables are used in a condition, each row in a table constitutes a separate condition;

any reference to an Australian or other standard, guideline, or code of practice in this licence:

(i) if dated, refers to that particular version; and

(ii) if not dated, refers to the latest version and therefore may be subject to change over time;

unless specified otherwise, any reference to a section of an Act refers to that section of the EP Act; and

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:

General

Premises operation

1. The Licence holder shall record and investigate the exceedance of any descriptive or numerical limit in this section.

2. The Licence holder shall ensure that any dewatering effluent shall only be used for dust suppression in a manner that minimises damage to surrounding vegetation.

3. The Licence holder shall ensure that dewatering effluent is discharged into dams with the relevant infrastructure requirements and at the location specified in Table 1 and identified in Schedule 1.

Table 1: Containment infrastructure

Containment point reference	Material	Infrastructure requirements
Shocker, 1600N, Jims Find, City of Chester, Coventry South, Golden Gate, Black Swan, Rheingold South, Black Swan South 5, Black Swan South 5 Junior, Black Swan South 1 and Black Swan South 4 pits	Dewatering effluent	Maintain water level at or greater than 5 metres below surface
Transfer dam	Dewatering effluent	• 0.75 mm HDPE liner to achieve a permeability of 2 x 10^{-10} metres per second; and • maintain an operational freeboard of 300 mm

4. The Licence holder shall ensure that all pipelines containing dewatering 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.

5. The Licence holder shall:

(a) undertake inspections as detailed in Table 2;

(b) where any inspection identifies that an appropriate level of environmental protection is not being maintained, take corrective action to mitigate adverse environmental consequences as soon as practicable; and

(c) maintain a record of all inspections undertaken.

Table 2: Inspection of infrastructure

Scope of inspection	Type of inspection	Frequency of inspection
Mine dewatering pipelines	Visual integrity	Daily
Transfer dam	Visual to confirm required freeboard capacity is available	Daily
Shocker, 1600N, Jims Find, City of Chester, Coventry South, Golden Gate, Black Swan, Rheingold South, Black Swan South 5, Black Swan South 5 Junior, Black Swan South 1 and Black Swan South 4 pits	Visual to confirm a minimum freeboard of 5 metres is available	Daily during dewatering operations
Sewage facility, pipelines and Irrigation field	Visual integrity	Daily

6. The Licence holder must install and undertake the works for the infrastructure and equipment:

(a) specified in Column 1; and

(b) to the requirements specified in Column 2;

of Table 3 below.

Table 3: Infrastructure and equipment requirements table

Column 1	Column 2
Infrastructure	**Requirements (design and construction)**
Duplicate dewatering pipeline to Lake Austin	• built with butt welded polyvinylchloride; • is located within the existing dewatering pipeline corridor whereby the piping will be buried, except in areas of caprock, with catch pits and bunding installed along the length of the pipeline; • discharges to the same location as the existing dewatering pipeline discharge point on Lake Austin; and • includes energy diffusion devices to minimise scouring and erosion of the lakebed.

7. The works approval holder shall immediately recover, or remove and dispose of, spills of environmentally hazardous materials including fuel, oil, or other hydrocarbons, whether inside or outside an engineered containment system.

8. The works approval holder shall ensure that all material used for the recovery, removal, and/or disposal of environmentally hazardous materials is stored in an impermeable container prior to disposal at an appropriately authorised facility.

9. The works approval holder must take all reasonable and practicable measures to prevent stormwater run-off becoming contaminated by the activities and operations undertaken at the premises.

Landfill requirements

10. The Licence holder shall only accept waste to Landfill 1, Landfill 2, Landfill 3 and the used tyre landfill if:

(a) it is of a type listed in Table 4;

(b) the quantity accepted is below any quantity limit listed in Table 4; and

(c) it meets any specification listed in Table 4.

Table 4: Waste acceptance

Category 64 landfill waste type	Quantity limit	Specification[1]
Inert Waste Type 1	600 tonnes per annum	Waste containing visible asbestos or ACM shall not be accepted
		Non-biodegradable organic materials
Putrescible Waste		Clean fill, uncontaminated fill, putrescibles
Contaminated Solid Waste		Must meet the acceptance criteria for Class II landfill
Inert Waste Type 2		Used tyres and plastics

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*.

11. The Licence holder shall ensure that wastes accepted onto Landfill 1, Landfill 2, Landfill 3, used tyre landfill and the sewage facility are only subjected to the processes set out in Table 5 and in accordance with any process limits described in that Table.

Table 5: Waste processing

Landfill and waste	Process(es)	Process limits[1, 2]
Putrescible Waste; Inert Waste Type 1; and Contaminated Solid Waste	Receipt, handling and disposal of waste by landfilling	• Disposal of waste by landfilling shall only take place within the landfill areas shown on the Landfill 1, Landfill 2, and Landfill 3 location map in Schedule 1. • The tipping area shall be no greater than 30 metres in length. • Waste shall be disposed of in a defined trench. • The tipping area shall be no greater than 30 metres in length. • Surface water drainage shall be designed and maintained to divert surface water runoff away from areas where there is waste; and water that has come in contact with waste shall be retained on the landfill. • No waste shall be burnt at the landfill area. • A minimum separation distance of 3 m is maintained between the base of the trench and the highest level of the water table aquifer; and • A firebreak of at least 3 metres shall be maintained around the landfill. • Erect and maintain suitable fencing and / or bunding around the putrescible landfill sites to control windblown waste. • Putrescible waste must be fully covered at least fortnightly.
Inert Waste Type 2 – Used tyres		• Tyres stored in a pile of up to 100 units prior to burial
Sewage	Wastewater treatment plant	• Biological and physical treatment

Note 1: Requirements for landfilling tyres are set out in Part 6 of the *Environmental Protection Regulations1987*.
Note 2: Additional requirements for the acceptance and landfilling of controlled waste (including asbestos and tyres) are set out in the *Environmental Protection (Controlled Waste) Regulations 2004*.

12. The Licence holder shall ensure that cover is applied and maintained on all accessible waste in accordance with Table 6 and that sufficient stockpiles of cover are maintained on site at all times.

Table 6: Cover requirements [1]

Waste Type	Material	Depth	Timescales
Inert Waste Type 1	Dense, inert and incombustible material or such other material as is approved in respect of a particular landfill site, and totally covered.	200 mm	Monthly or as soon as practicable after deposit.
Putrescible Waste		500mm	Fortnightly or as soon as practicable after deposit.
Inert Waste Type 2 – Used tyres			
Contaminated solid wastes		200mm	Fortnightly or as soon as practicable after deposit.

Note 1: Additional requirements for the covering of tyres are set out in Part 6 of the *Environmental Protection Regulations 1987.*

Emissions

General

13. The Licence holder shall record and investigate the exceedance of any descriptive or numerical limit specified in any part of section 2 of this Licence.

Point source emissions to surface water

14. The Licence holder shall ensure that where waste is emitted to surface water from the emission points in Table 7 and identified on the map of emission points in Schedule 1, it is done so in accordance with the conditions of this Licence.

Table 7: Emission points to surface water

Emission point reference	Description	Source including abatement
D1 - Lake Austin discharge point as shown in Schedule 1: Maps	Discharge of dewatering effluent into Lake Austin	Water from dewatering of mine pits and underground operations

15. The Licence holder shall discharge mine dewatering effluents via the discharge point in a manner which minimises erosion and scouring impacts, and reduces the likelihood of surface ponding.

16. The Licence holder shall not cause or allow point source emissions to surface water greater than the limits listed in Table 8.

Table 8: Point source emission limits to surface water

Emission point reference	Parameter	Limit (including units)	Averaging period
Lake Austin discharge	Dewatering effluent water	5,324,556 tonnes	Annual period

Point source emissions to groundwater

17. The Licence holder shall ensure that where waste is emitted to groundwater from the emission points in Table 9 and identified on the map of emission points in Schedule 1, it is done so in accordance with the conditions of this Licence.

Table 9: Emission points to groundwater

Emission point reference	Description	Source including abatement
Shocker, 1600N, Jims Find, City of Chester, Coventry South, Golden Gate, Black Swan, Rheingold South, Black Swan South 5, Black Swan South 5 Junior, Black Swan South 1 and Black Swan South 4 pits	Discharge of dewatering effluent into mined pits and transfer dam	Water from dewatering of mine pits and underground operations

Emissions to land

18. The Licence holder shall ensure that where waste is emitted to land from the emission point in Table 10 and identified on the map of emission points in Schedule 1 it is done so in accordance with the conditions of this licence.

Table 10: Emissions to land

Emission point reference	Description	Source including abatement
Irrigation field	Discharge of treated wastewater by irrigation to land	Accommodation camp sewage facility

Monitoring

General monitoring

19. The Licence holder shall ensure that:

(a) all water samples are collected and preserved in accordance with AS/NZS 5667.1;

(b) all surface water sampling is conducted in accordance with AS/NZS 5667.4 or AS/NZS 5667.6 as relevant;

(c) all wastewater sampling is conducted in accordance with AS/NZS 5667.10; 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.

20. The Licence holder shall ensure that:

(a) quarterly monitoring is undertaken at least 45 days apart;

(b) biannual monitoring is undertaken at least 90 days apart; and

(c) annual monitoring is undertaken at least 9 months apart.

21. 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 and the requirements of the Licence.

22. 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 point source emissions to surface water

23. The Licence holder shall undertake the monitoring in Table 11 according to the specifications in that table.

Table 11: Monitoring of point source emissions to surface water

Emission point reference	Parameter	Units	Reportable limit	Averaging Period	Frequency
D1 - Lake Austin dewatering discharge sampling point as shown in Schedule 1: Maps	Volumetric flow rate	m^3/day	-	Monthly	Continuous
	pH[1]	-	-	Spot sample	Quarterly (December, March, June and September)
	Total recoverable hydrocarbons		15mg/L		
	Total dissolved solids		-		
	Total Suspended Solids		100 mg/L		
	Total phosphorus		-		Biannually (March, September)
	Total nitrogen				
	Sulfate				
	Aluminum				
	Arsenic				
	Cadmium				
	Chromium				
	Cobalt				
	Copper				
	Lead				
	Manganese				
	Mercury				
	Nickel				
	Selenium				
	Zinc				

Note 1: In-field non-NATA accredited analysis permitted

Monitoring of point source emissions to groundwater

24. The Licence holder shall undertake the monitoring in Table 12 according to the specifications in that table.

Table 12: Monitoring of point source emissions to groundwater

Monitoring point reference	Parameter	Units	Limit	Averaging period	Frequency
Shocker, 1600N, Jims Find, City of Chester, Coventry South, Golden Gate, Black Swan, Rheingold South, Rheingold Transfer Dam, Black Swan South 5, Black Swan South 5 Junior, Black Swan South 1, and Black Swan South 4 pits dewatering discharge sampling point.	Volumetric flow rate	m^3/day	-	Monthly	Continuous
	pH[1]	-	-	Spot sample	Quarterly
	Total Recoverable Hydrocarbons	mg/L	15 mg/L		
	Total Dissolved Solids		-		
	Total Suspended Solids				
	Arsenic	mg/L	-	Spot sample	Annual
	Cadmium				
	Chromium				
	Cobalt				
	Copper				
	Lead				
	Nickel				
	Selenium				
	Zinc				

Note 1: In-field non-NATA accredited analysis permitted

Ambient environmental quality monitoring

25. The Licence holder shall undertake monitoring of sediment as shown in Table 13 according to the specifications in that table.

Table 13: Ambient environmental quality monitoring

Sampling point reference	Parameter	Units	Averaging Period	Frequency
D1 - Lake Austin dewatering discharge sampling point as shown in Schedule 1: Maps	pH	-	Spot sample	Prior to the commencement of dewatering discharge to Lake Austin, then biannually (March, September)
	Total phosphorus	mg/kg		
	Total nitrogen			
	Sulfate			
	Aluminium			
	Arsenic			
	Cadmium			
	Chromium			
	Cobalt			
	Copper			
	Lead			
	Manganese			
	Nickel			
	Mercury			
	Selenium			
	Zinc			

26. The Licence holder shall undertake an aquatic assessment at the locations shown in Table 14 according to the specifications in that table.

Table 14: Aquatic environmental quality monitoring

Sampling point reference	Parameter	Frequency
Lake Austin monitoring locations LA1, LA2, LA3, LA4, LA5, LA6, LA7 and LA8 as shown in Schedule 1	Assessment of the lake ecology. The assessment shall include a review of the water quality, sediment quality, phytoplankton, periphyton diatoms), macrophytes, aquatic invertebrates, fish, and the riparian vegetation	Within 6 months from the commencement of dewatering of the Black Swan South pit

Monitoring of emissions to land

27. The Licence holder shall undertake the monitoring in Table 15 according to the specifications in that table.

Table 15: Monitoring of point source emissions to land

Monitoring point reference	Parameter	Units	Frequency
Discharge to irrigation field	pH[1]	-	Quarterly
	E. coli	cfu/100mL	
	Biochemical Oxygen Demand	mg/L	
	Residual chlorine[2]		
	Total Phosphorus		
	Total Nitrogen		
	Total Suspended Solids		
	Volumes of wastewater discharged to the environment	m^3	Continuous

Note 1: In-field non-NATA accredited analysis permitted for pH measurement.
Note 2: In-field non-NATA accredited analysis permitted for residual chlorine measurement.

Information

Records

28. All information and records required by the Licence shall:

(a) be legible;

(b) if amended, be amended in such a way that the original and subsequent amendments remain legible or are capable of retrieval;

(c) except for records listed in 28 (d) be retained for at least 6 years from the date the records were made or until the expiry of the Licence or any subsequent licence; and

(d) for those following records, be retained until the expiry of the Licence and any subsequent licence:

i. off-site environmental effects; or

ii. matters which affect the condition of the land or waters.

29. The Licence holder shall complete an Annual Audit Compliance Report indicating the extent to which the Licence holder has complied with the conditions of the Licence, and any previous licence issued under Part V of the Act for the Premises for the previous annual period.

30. The Licence holder shall implement a complaints management system that as a minimum, records the number and details of complaints received concerning the environmental impact of the activities undertaken at the Premises and any action taken in response to the complaint.

Reporting

31. The Licence holder shall submit to the CEO an Annual Environmental Report within 90 calendar days after the end of the annual period. The report shall contain the information listed in Table 16 in the format or form specified in that table.

Table 16: Annual Environmental Report

Condition or table (if relevant)	Parameter	Format or form[1]
-	Summary of any failure or malfunction of any pollution control equipment and any environmental incidents that have occurred during the annual period and any action taken	None specified
Table 11	Point source emissions to surface water monitoring results	None specified
Table 12	Point source emissions to groundwater monitoring results	None specified
Table 13	Monitoring of sediment results	None specified
Table 14	Aquatic assessment monitoring results	None specified
Table 15	Point source emissions to land monitoring results	None specified
4.1.2	Compliance	Annual Audit Compliance Report (AACR)
4.1.3	Complaints summary	None specified

Note 1: Forms are in Schedule 2

32. The Licence holder shall ensure that the Annual Environmental Report also contains:

(a) any relevant process, production or operational data; and

(b) an assessment of the information contained within the report against previous monitoring results and Licence limits.

33. The Licence holder shall submit the information in Table 17 to the CEO according to the specifications in that table.

Table 17: Non-annual reporting requirements

Condition or table (if relevant)	Parameter	Reporting period	Reporting date (after end of the reporting period)	Format or form[1]
-	Copies of original monitoring reports submitted to the Licensee by third parties	Not Applicable	Within 14 days of the CEOs request	As received by the Licensee from third parties

Note 1: Forms are in Schedule 2

Notification

34. The Licence holder shall ensure that the parameters listed in Table 18 are notified to the CEO in accordance with the notification requirements of the table.

Table 18: Notification requirements

Condition or table (if relevant)	Parameter	Notification requirement[1]	Format or form[1]
8, 11 and 12	Breach of any limit specified in the Licence	Part A: As soon as practicable but no later than 5pm of the next usual working day. Part B: As soon as practicable	N1
-	Commencement of underground operations at the Black Swan South pit	Three months prior to the commencement of underground operations.	-
14	Undertake a gap analysis and review with comparison of the results from the Outback Ecology aquatic assessment of Lake Austin conducted in 2011, and the results collected from the monitoring requirements of condition 3.5.1	Within 6 months from the commencement of dewatering of the Black Swan South pit	-

Note 1: Forms are in Schedule 2

Definitions

In this Licence, the terms in Table 19 have the meanings defined.

Table 19: Definitions

Term	Definition
Act	The Environmental Protection Act 1986
annual period	means the inclusive period from 1 October until the 30 September in the following year
AS/NZS 5667.1	means the Australian Standard AS/NZS 5667.1 Water Quality – Sampling – Guidance of the Design of sampling programs, sampling techniques and the preservation and handling of samples
AS/NZS 5667.4	means the Australian Standard AS/NZS 5667.4 Water Quality – Sampling – Guidance on sampling from lakes, natural and man-made
AS/NZS 5667.6	means the Australian Standard AS/NZS 5667.6 Water Quality – Sampling – Guidance on sampling of rivers and streams
AS/NZS 5667.10	means the Australian Standard AS/NZS 5667.10 Water Quality – Sampling – Guidance on sampling of waste waters
averaging period'	means the time over which a limit is measured or a monitoring result is obtained
CEO	means Chief Executive Officer of the Department of Water and Environmental Regulation CEO for the purpose of correspondence means; Director General Department Administering the Environmental Protection Act 1986 Locked Bag 10 JOONDALUP DC WA Or: info@dwer.wa.gov.au
cfu/100mL	means colony forming units per 100 millilitres
Commission	means the process of operation and testing that verifies the works and all relevant systems, plant, machinery and equipment associated with the sewage facility and irrigation field have been installed and are performing in accordance with Table 1.3.3
freeboard	means the distance between the maximum water surface elevations and the top of retaining banks or structures at their lowest point
HDPE	means high density polyethylene
Inert Waste Type 1	has the meaning defined in Landfill Definitions
Inert Waste Type 2	has the meaning defined in Landfill Definitions
Landfill Definitions	means the Landfill Waste Classification and Waste Definitions 1996 (as amended 2018)
Licence	means this Licence numbered L8934/2015/1 and issued under the Act
Licence holder	means the person or organisation named as Licensee on page 1 of the Licence
mg/L	means milligrams per litre
m^3	means cubic metres
mm	means millimetres

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	means the area defined in the Premises Map in Schedule 1 and listed as the Premises address on page 1 of the Licence
Putrescible Waste	has the meaning defined in Landfill Definitions
quarantined storage area or container	means a hardstand storage area or sealed-bottom container that is separate and isolated from authorised waste disposal areas and is capable of containing all non-conforming waste and its constituents, these areas must be clearly marked and their access restricted to authorised personnel
quarterly	means the 4 inclusive periods from 1 October to 31 December and in the following year, 1 January to 31 March, 1 April to 30 June and 1 July to 30 September
Schedule 1	means Schedule 1 of this Licence unless otherwise stated
Special Waste Type 2	as defined in the Landfill Definitions
spot sample	means a discrete sample representative at the time and place at which the sample is taken
Waste type	identified in the Landfill Definitions, or in Schedule 1 of the Controlled Waste Regulations (as applicable)

Schedule 1: Maps

The locations of Big Bell and Cuddingwarra Prescribed Premises area shown below in Figure 1.

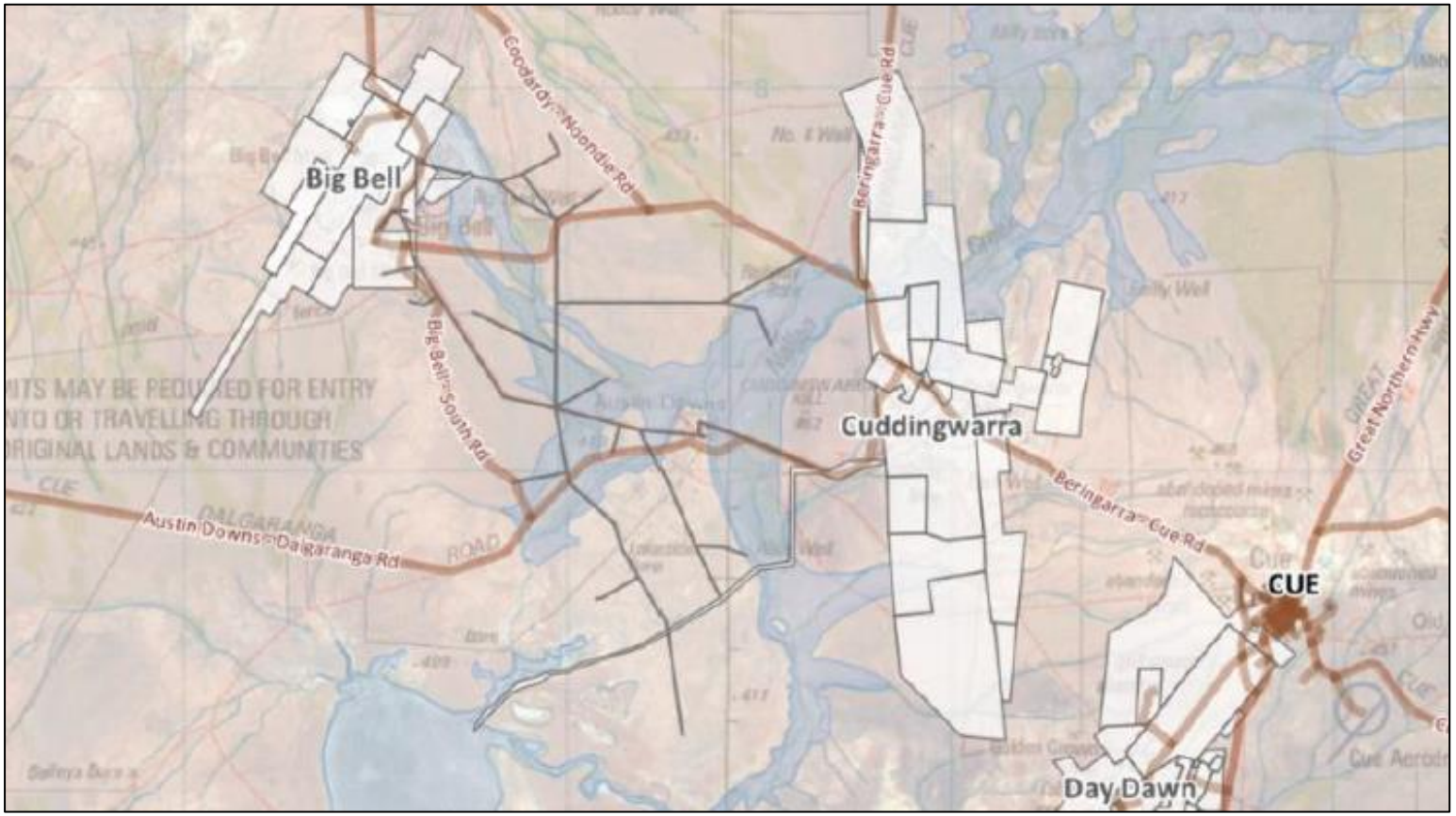

Figure 1: Premises location map

The Big Bell Project area Premises is shown in Figure 2 as identified in yellow.

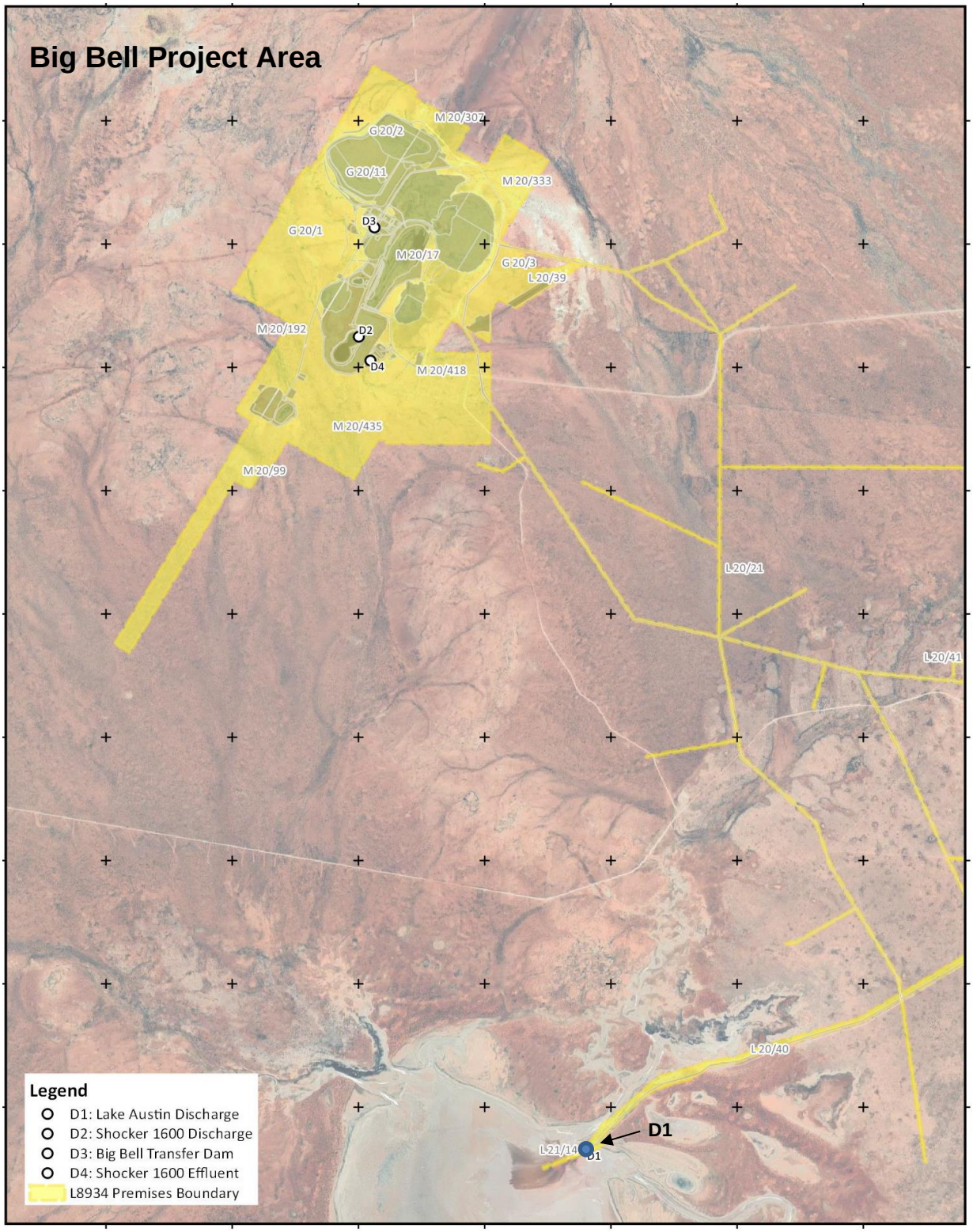

Figure 2: Big Bell Project Area and emission and monitoring point D1

The Cuddingwarre Project Area Premises is shown in the Figure 3 as identified in yellow.

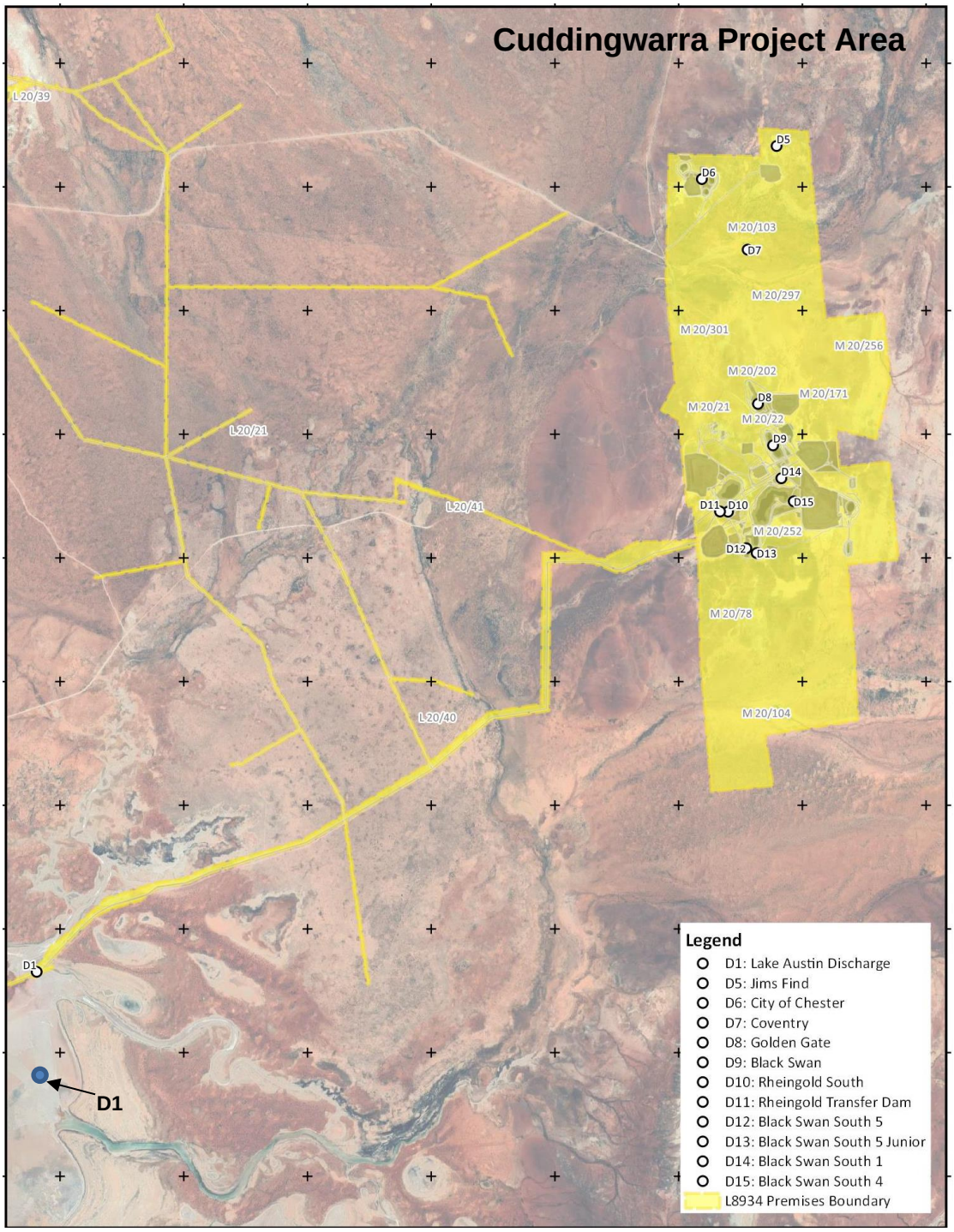

Figure 3: Cuddingwarra Project Area and emission and monitoring point D1

The location of the containment infrastructure defined in Table 1 and the emission points and monitoring locations defined in Table 9 and Table 12 are shown in Figure 4.

Figure 4: Map of containment infrastructure, emission, and monitoring points

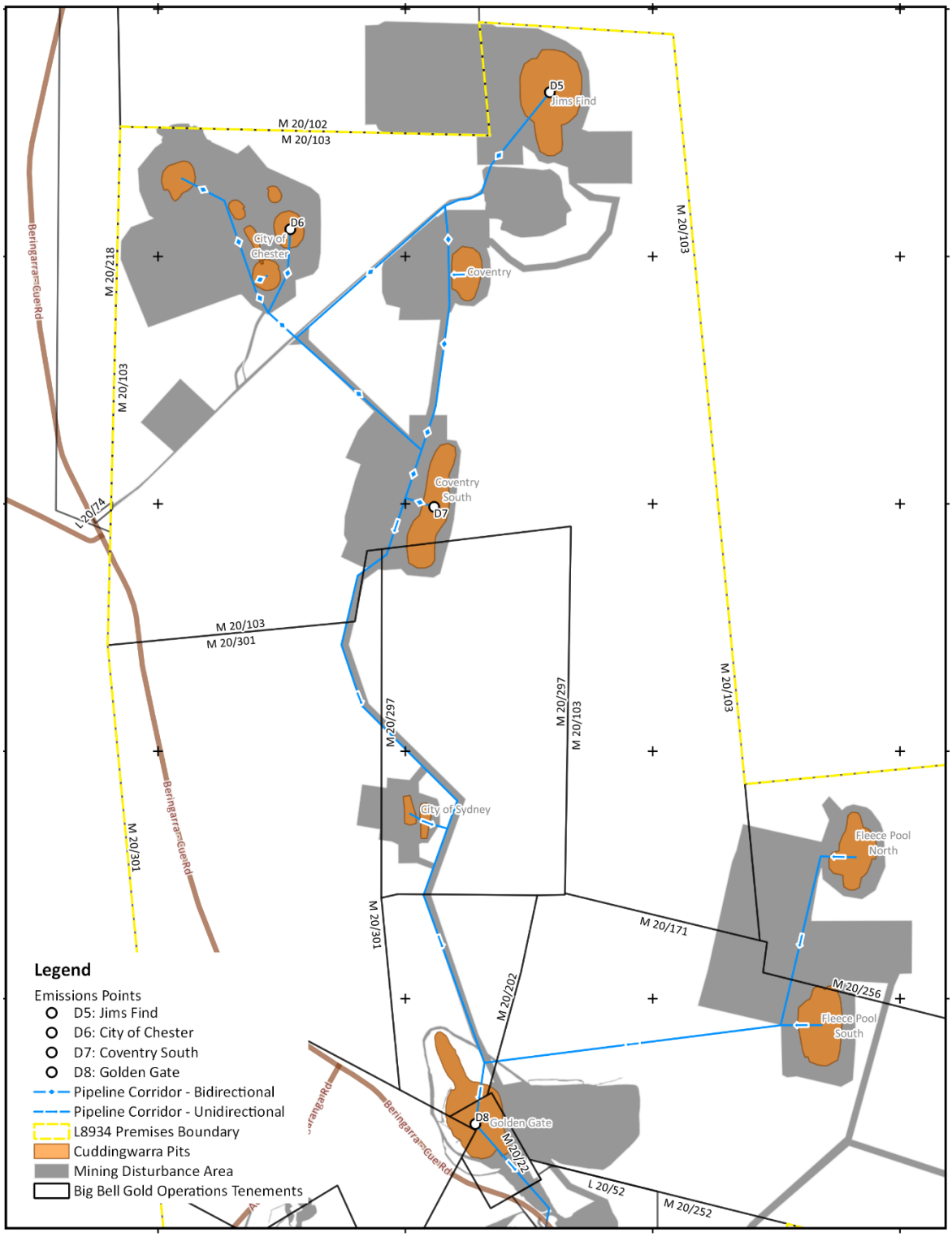

Figure 5: Cuddingwarra North dewatering infrastructure

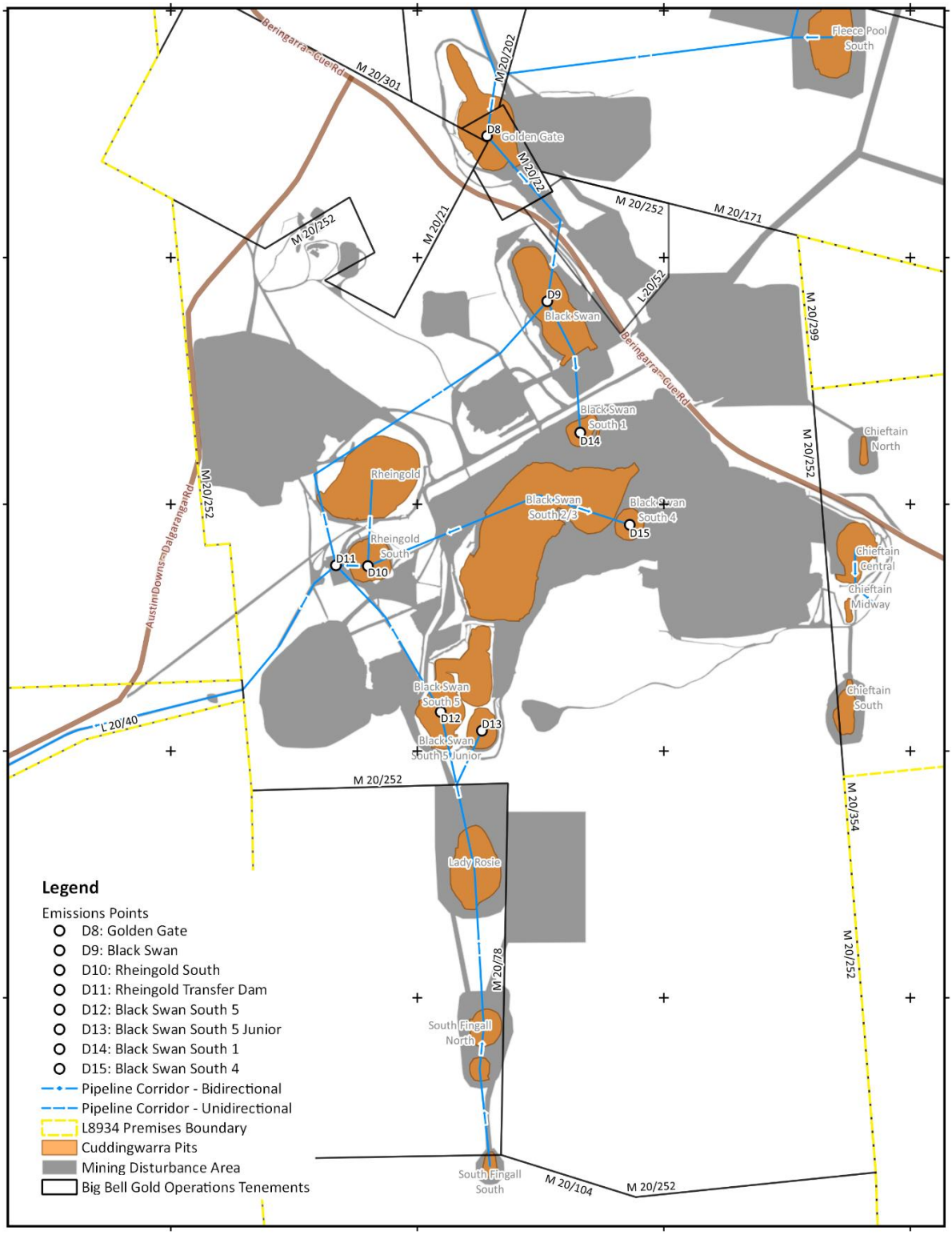

Figure 6: Cuddingwarra South dewatering infrastructure

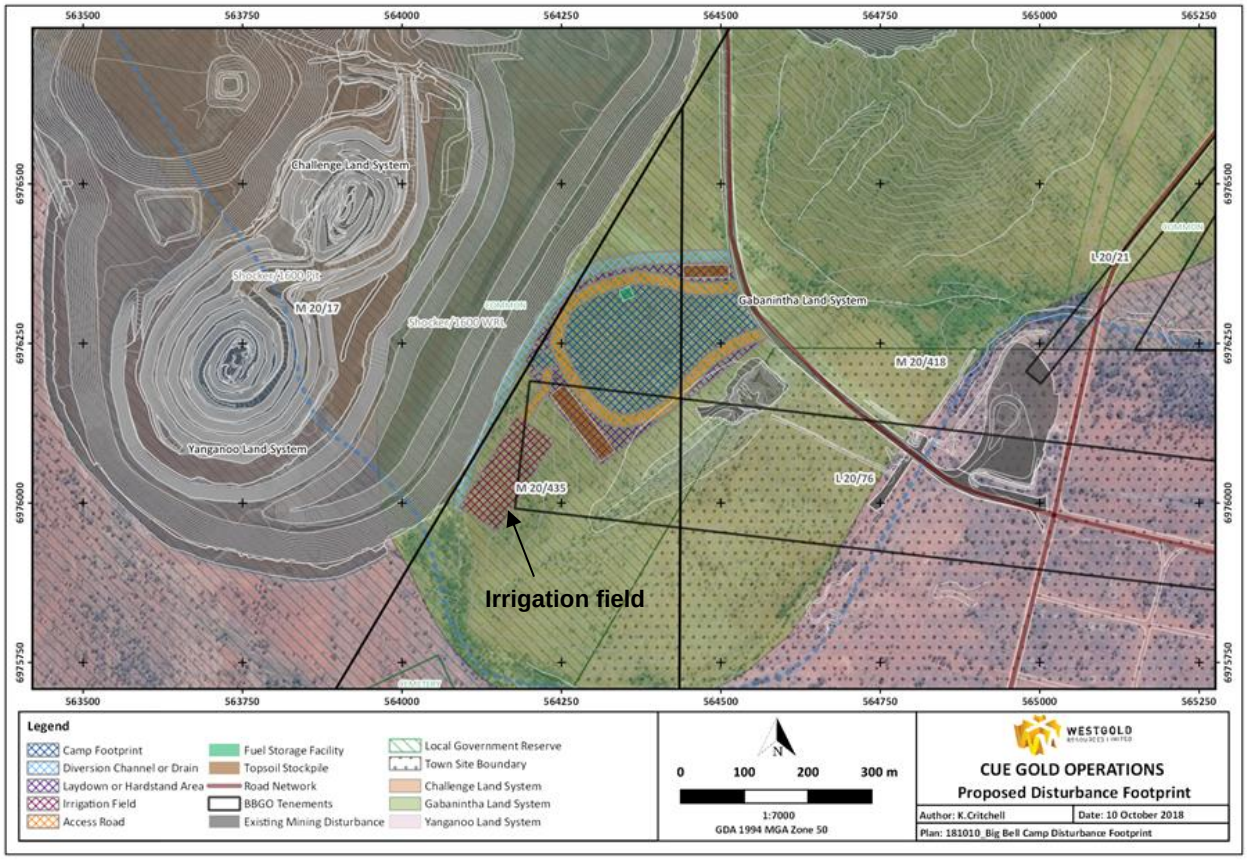

Figure 7: Irrigation field as defined in conditions 13 and 18

The locations of the Landfill 1, Landfill 2, Landfill 3, and the used tyre disposal area as defined in condition 9 is shown below.

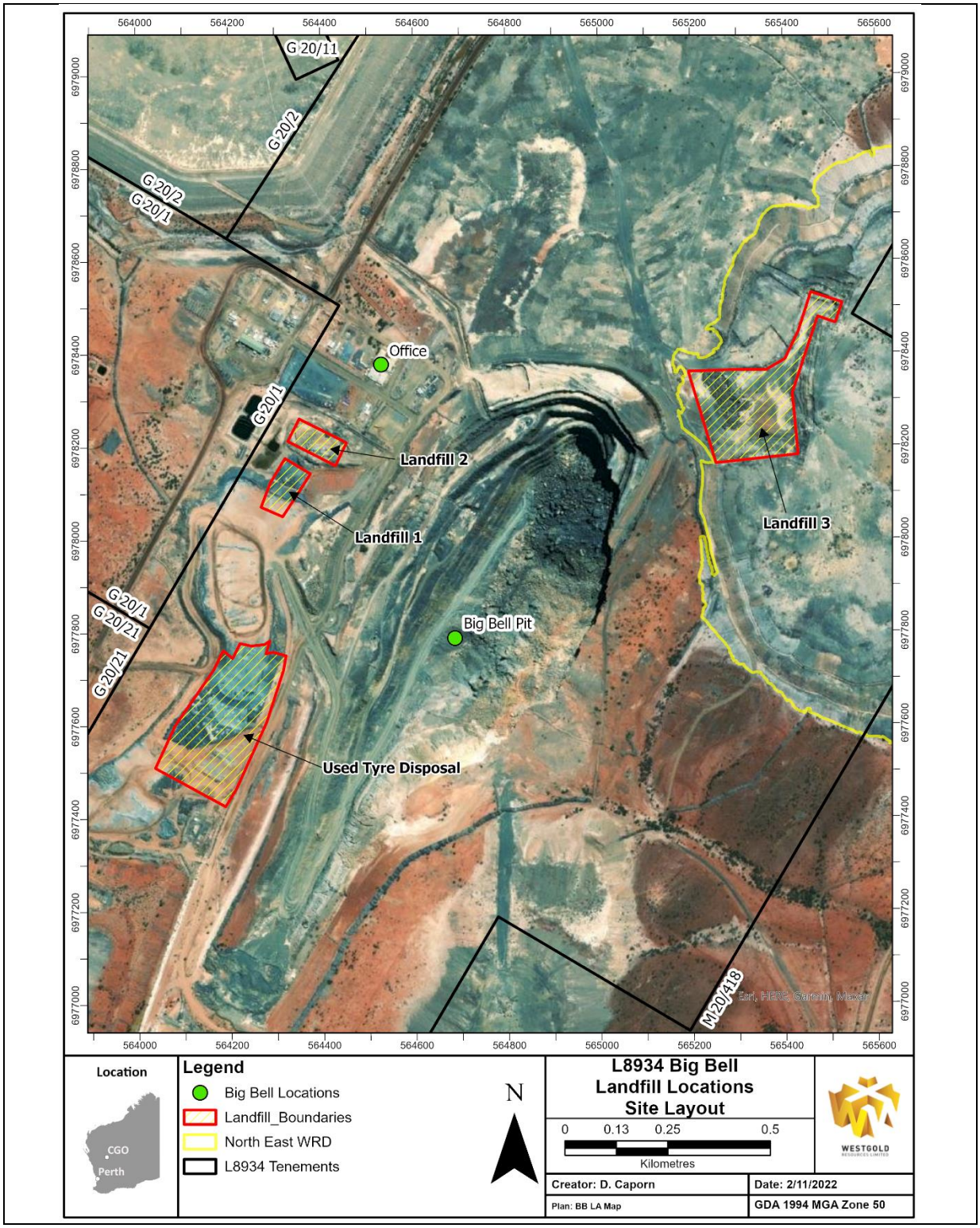

Figure 8: Landfill locations site layout map

The locations of the aquatic assessment monitoring points (LA1 to LA8) as defined in condition 27 is shown in Figure 9.

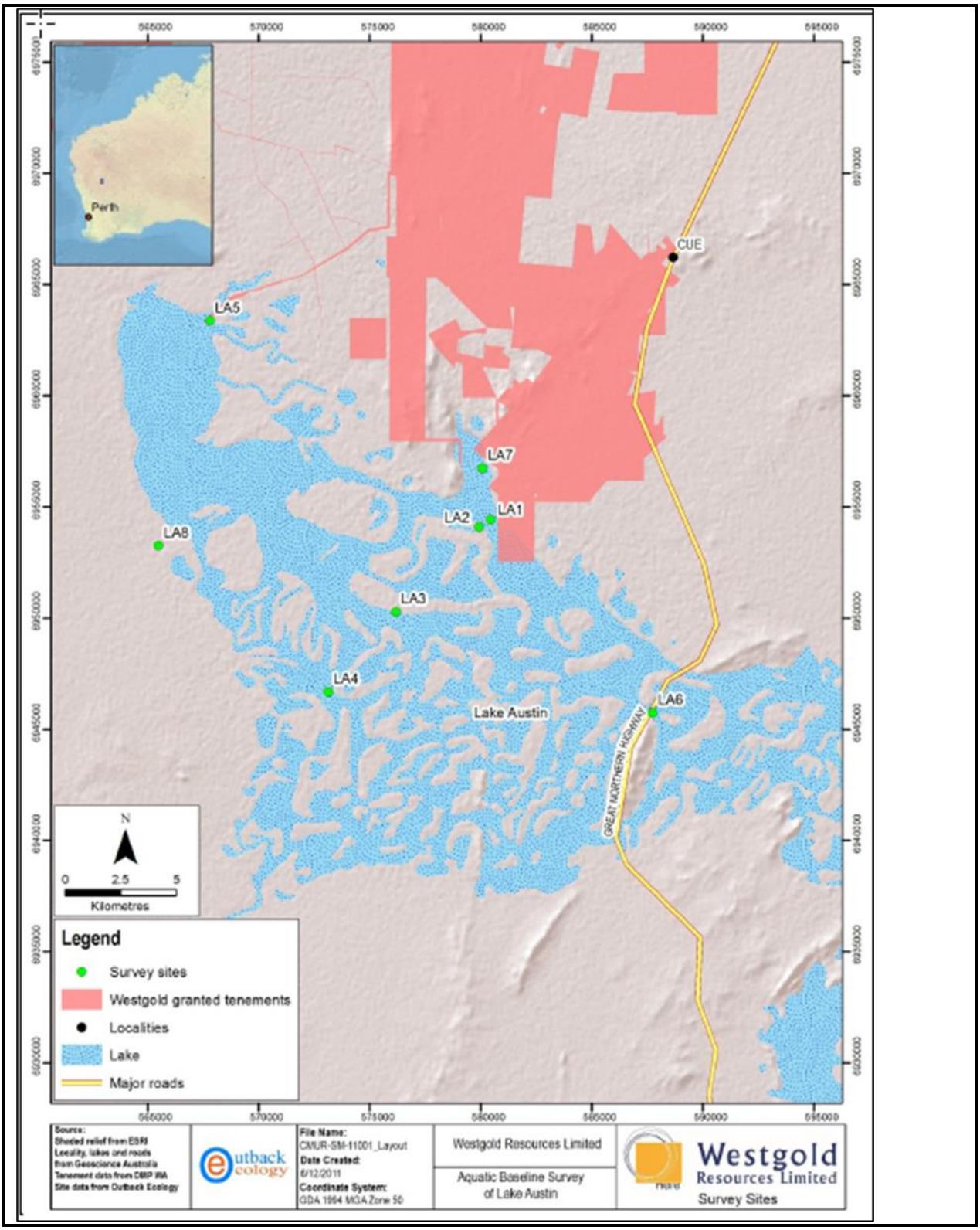

Figure 9: Map of Lake Austin aquatic assessment monitoring points

The Location of mobile plant area for crushing and screening activities is shown below in Figure 10.

Figure 10: Mobile plant crushing and screening area.