Licence

Licence number	L9280/2021/1
Licence holder	Atlas Iron Pty Ltd
ACN	110 396 168
Registered business address	Level 17, 300 Murray Street PERTH WA 6000
DWER file number	DER2020/000597
Duration	04/08/2021 to 26/05/2037
Date of amendment	29 May 2023
Premises details	Sanjiv Ridge G45/339, L45/408, L45/407, L45/410 and M45/1257 NULLAGINE WA 6758

Prescribed premises category description (Schedule 1, *Environmental Protection Regulations 1987*)	**Assessed design capacity**
Category 5: Processing or beneficiation of metallic or non-metallic ore	7,000,000 tonnes per annual period
Category 85: Sewage facility	45 cubic metres per day (m^3/day) of effluent, plus 60 m^3/day of RO brine
Category 89: Putrescible landfill site	450 tonnes per annual period

This licence is granted to the licence holder, subject to the attached conditions, on 29 May 2023, by:

Alana Kidd

Digitally signed by Alana Kidd
Date: 2023.05.29 15:27:16 +08'00'

Alana Kidd
MANAGER, RESOURCE INDUSTRIES
REGULATORY SERVICES
an officer delegated under section 20 of the *Environmental Protection Act 1986* (WA)

Licence history

Date	Reference number	Summary of changes
04/08/2021	L9280/2021/1	New Licence granted for the operation of the crushing and screening plant, WWTP and putrescible landfill.
29/05/2023	L9280/2021/1	Amendment for an increase in design capacity for Category 5, an increase in the discharge for category 85 RO brine, the addition of two new discharge points for RO brine and the addition of two tyre disposal facilities.

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:

  (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;

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

(f) 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 must ensure that the site infrastructure and equipment listed in Table 1 and located at the corresponding infrastructure location is maintained and operated in accordance with the corresponding operational requirement set out in Table 1.

Table 1: Infrastructure and equipment requirements

Site infrastructure and equipment	Operational requirement	Infrastructure location
Category 5 activities – Screening etc. of material		
Crushing and screening plant comprising: • 1 x Feeder and grizzly • 1 x Jaw (Primary) crusher • 2 x cone crusher (secondary and tertiary) • 2 x twin deck sizing screens • Pan feeders • 2 x radial sackers • 2 x cross belt samplers • Weightometers • Metal detection units	• Fitted with telescopic chute at the discharge • Water sprays and water cannons installed on the feed bin, and at strategic conveyor transfer points and on stacker head chutes. • Located on the ROM hardstand area.	Located on the Run of Mine (ROM) pad within Mining Tenement G45/339.
Run of Mine (ROM) pad	Earth bunded ROM pad with stormwater sedimentation basins designed to hold a 1 in 5 year rainfall event. Sedimentation basin to maintain a rock armoured spillway. Stormwater diversion structures to prevent stormwater ingress. Water cart use for dust suppression	
Hydrocarbon storage container	Must meet AS1940:2017	
Category 85 – Wastewater treatment plant		
Wastewater Treatment Plant Class 3 low risk bardnepho process Iconic Wastewater Solution Unit comprising: • A pump well • balance tank • anaerobic and anoxic tank	• Treatment capacity of up to 45 m^3/day. • Discharge capacity of up to 105 m^3/day. • Located within an earthen bunded area to contain run off within the facility	Located within Mining Tenement M45/1257, as shown on Figure 2 in Schedule 1.

Site infrastructure and equipment	Operational requirement	Infrastructure location
• two aeration tanks • clarifier tank • settling tank • waste activated sludge tank • chlorine contact tank • three treated wastewater irrigation storage tanks • flow meters (influent and effluent)	• Stormwater diversion structures constructed and maintained to prevent stormwater ingress. • Installed with level alarms linked to process control instrumentation to allow the recording of overflows. • Comprise contingency tanks and an evacuation sump and pump. • Aboveground pipework, where practicable	
1.7 ha Irrigation Spray Field	• Fenced to prevent site access • Comprise a 5 m buffer between the sprayfield area and perimeter fence • Comprise healthy vegetation cover at all times	Located within Mining Tenement M45/1257, as shown on Figure 3 in Schedule 1
Category 89 activities – Landfill and tyre disposal		
Landfill trenches	• boundary fencing constructed with sufficient height and strength to prevent the access of cattle, horses and other fauna; • lockable gate to prevent unauthorised access; • signage and a logbook at the landfill entry stating permitted and prohibited waste streams; • 3 m wide fire break around the boundary fence of the landfill facility; • stormwater diversion structures to divert stormwater runoff around and away from the facility; • the tipping face (i.e. the landfill face) will not exceed 30 m in length or 2 m above ground level in height; • the base of the landfill cell will be separated from the highest level of the water table aquifer at the site by at least 3 m; • cells must be rehabilitated within 6 months after the final disposal to that cell has occurred.	Located within Mining Tenement M45/1257, as shown on Figure 2 in Schedule 1.
Tyre Disposal: 1- Runway Waste Rock Dump (WRD) 2- Split Rock WRD	• Used tyres may be disposed of in Runway and Split Rock Waste Rock Dumps.	Located within Mining Tenement M45/1257, as shown on Figure 4 in Schedule 1.

Premises Operation

Waste management

2. The licence holder must ensure that where wastes produced on the premises are not taken offsite for lawful use or disposal, they are managed in accordance with Table 2.

Table 2: Waste Processing

Facility	Waste type	Process(es)	Process limits[1]
Landfill	Clean Fill; Putrescible Waste; and Inert Waste Type 1	Handling and disposal of waste by landfilling	No more than 400 tonnes of waste to be disposed of to the landfill per annual period. No more than 50 tonnes of tyres to be disposed of per annual period Disposal of waste by landfilling shall only take place within the Landfill Facility area on Mining Tenement M45/1257 shown on the Premises' activities map (Figure 2, Schedule 1). Must meet the acceptance criteria for a Class II landfill (as defined in Landfill Definitions).
Tyre Disposal: Runway WRD Split Rock WRD	Inert Waste Type 2[1] (Tyres only)	Handling and disposal of tyres	Used tyres may be placed within Runway WRD and Split Rock WRD as shown in Figure 4, Schedule 1). Tyres buried in waste rock dumps will: - be in batches separated from each other by at least 100 mm of soil and each consisting of not more than either 40 m^3 of tyres reduced to pieces or 1,000 whole tyres. - have a 1,000 mm cover of topsoil or waste rock applied as soon as practicable following completion of the final waste levels in the area of tyre disposal.
(Accommodation village) wastewater treatment plant	Sewage	Biological, physical and chemical treatment	Maximum treatment capacity 45 m^3/day Chlorination of treated effluent Sludge to be disposed of to a licensed facility Treated wastewater to be disposed of to the Irrigation Spray Field

Note 1: Requirements for landfilling tyres are set out in Part 6 of the *Environmental Protection Regulations 1987* and the *Environmental Protection (Controlled Waste) Regulations 2004*.

3. The licence holder must ensure that cover is applied and maintained on landfilled wastes in accordance with Table 3 and that sufficient stockpiles of cover are maintained on site at all times.

Table 3: Waste Cover Requirements

Waste Type	Material	Depth	Timescales
Putrescible Waste Inert waste Type 1	Inert and incombustible material	Sufficient to ensure the waste is completely covered and that no waste is exposed	Fortnightly, or as soon as practicable after deposit and prior to compaction.
Tyre disposal (in tyre disposal sites Runway WRD and Split Rock WRD)	Topsoil or waste rock	100 mm cover	Between each batch deposited
		1,000 mm	As soon as practical following the achievement of final waste levels in the area(s) in which Inert Waste Type 2 are deposited.

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

4. The licence holder must:
   (a) erect and maintain suitable fencing around the irrigation areas and landfill facilities that acts as an effective barrier to unauthorised persons, cattle, horses and other stock; and
   (b) undertake regular inspections of all security measures and repair damage as soon as practicable.

5. The licence holder must ensure that wind-blown waste is:
   (a) contained within the fenced landfill area; and
   (b) returned to the tipping area on at least a monthly basis.

Emissions and discharges

Discharges to land

6. The licence holder must ensure that where waste is emitted to land from the emission points in Table 4, it is done so in accordance with the conditions of this licence.

Table 4: Discharges to land

Emission point and location reference	Description	Source including abatement
Irrigation Spray Field area (Located within Mining Tenement M45/1257, as shown on Figures 2 and 3 in Schedule 1)	1.7 ha irrigation spray field area	Treated effluent from the WWTP; or Blended treated effluent from the WWTP and RO plant reject water (brine)
Irrigation Camp lawn (Located withing Mine tenement M45/1257 as shown on Figure 3)	Camp lawn watered with RO brine	RO plant reject water (brine)
Turkey's Nest (Located withing Mine tenement M45/1257 as shown on Figure 5)	Storage or use of RO brine for dust suppression	RO plant reject water (brine) Use in areas away from vegetation, creek lines and other sensitive receptors.

7. The licence holder must ensure that when irrigating via the WWTP Irrigation Spray Field or/ Camp lawn in Figure 3:

   (a) raw reverse osmosis brine is not discharged undiluted;
   (b) no irrigation generated runoff or discharge occurs beyond the boundary of the WWTP Irrigation Spray Field or camp lawn areas;
   (c) irrigation does not occur on land that is waterlogged, including following rain;
   (d) wastewater is evenly distributed over the irrigation areas, and that no ponding or pooling occurs;
   (e) no soil erosion occurs;
   (f) irrigation does not occur over leach drains or areas receiving stormwater drainage;
   (g) no livestock is permitted to graze the irrigation area; and
   (h) a healthy vegetation cover is maintained over the irrigation area.

8. The licence holder must ensure that only diluted RO wastewater, as specified in Schedule 3, is used for dust suppression on pre-disturbed locations throughout the prescribed premises including haul roads, access roads, ROM pads and waste dumps associated with the mine and crushing plant and construction areas.

Monitoring

General monitoring conditions

9. The licence holder shall ensure that:

   (a) all water samples are collected and preserved in accordance with AS/NZS 5667.1 unless otherwise indicated in the relevant table;
   (b) all wastewater sampling is conducted in accordance with AS/NZS 5667.10; and
   (c) all samples are submitted to and tested by a laboratory with current NATA accreditation for the parameters to be measured unless otherwise indicated in the relevant table.

10. 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.

11. 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.

12. 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 inputs and outputs

13. The licence holder shall undertake the monitoring in Table 5 according to the specifications in that table.

Table 5: Monitoring of inputs and outputs

Input/output	Parameter	Units	Averaging period	Frequency
Waste Inputs	Inert Waste Type 1 Inert Waste Type 2 (tyres) Clean Fill Putrescible Waste	m^3 or tonnes	N/A	Each load disposed of on site
	WWTP influent	m^3/day	Monthly	Continuous
	RO reject water (brine) directed to the WWTP Irrigation system for discharge	m^3/day	Monthly	Continuous
Waste outputs	Volume of treated wastewater and RO brine irrigated of the Irrigation Spray Field	m^3/day	Monthly	Continuous
	Volume of RO brine irrigated to Camp lawn or used for dust suppression (Turkey's Nest or tank)	m^3/day	Monthly	Continuous

Discharges to land monitoring

14. The licence holder must monitor discharges to land in accordance with the specifications listed in Table 6.

Table 6: Discharge to land monitoring

Discharge point	Parameter	Frequency	Unit	Method
Irrigation Spray Field (Located within Mining Tenement M45/1257, as shown on Figures 2 and 3 in Schedule 1)	Biochemical Oxygen Demand (BOD)	Quarterly	mg/L	Spot sample taken in accordance with AS5667.1and AS5667.10
	Total Suspended Solids (TSS)		mg/L	
	Total Nitrogen (TN)		mg/L	
	Total Phosphorus (TP)		mg/L	
	E.coli		cfu/100 ml	
	pH[1]		-	
	Total Dissolved Solids (TDS)		mg/L	
Camp Lawn (As shown in Figure 3, Schedule 1) Turkey's Nest (dust suppression) (As shown in Figure 5, Schedule 1)	Total Dissolved Solids (TDS)	Quarterly	mg/L	Spot sample taken in accordance with AS5667.1and AS5667.10

Note 1: In-situ non-NATA accredited sampling is permitted

15. The licence holder shall undertake monitoring of the vegetation within the Irrigation Spray Field area in accordance with the specifications in Table 7.

Table 7: Vegetation condition monitoring

Monitoring location	Parameter	Requirements	Method	Frequency
WWTP Irrigation Spray Field (as shown by the blue shaded area on Figure 4 in Schedule 1).	Vegetation condition for evidence of stressed vegetation/ waterlogging	The licence holder shall: a. take photographic images annually from the same four (4) fixed GPS points[1]; b. provide a general environmental description of the site; and c. record any changes to vegetation health or composition.	Visual inspection and photographs	Annual, within 2 months of the end of the wet season

Note 1: GPS locations must comprise of 3 monitoring locations within the discharge zone, and one control site.

Records and reporting

16. 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) any maintenance of infrastructure that is performed in the course of complying with condition 1 of this licence;
    (c) monitoring programmes undertaken in accordance with conditions 13, 14 and 15 of this licence; and
    (d) complaints received under condition 18 of this licence.

17. The books specified under condition 16 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.

Complaints Management

18. 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.

Annual Audit Compliance Report

19. 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 30 days after the end of that annual period an Annual Audit Compliance Report in the approved form.

Annual Environmental Report

20. The licence holder must submit to the CEO by no later than 30 days after the end of each annual period, an Annual Environmental Report (AER) for that annual period for the conditions listed in Table 8, and which provides information in accordance with the corresponding requirement set out in Table 8.

Table 8: Annual Environmental Report

Condition or table (if relevant)	Parameter
-	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
-	Any relevant information relating to the calibration of monitoring equipment, or reports comprising details of any modified calibration methods.
Condition 13, Table 5	Waste inputs and outputs
Condition 14 Table 6	Discharge to land monitoring results, including: • volume (in kL) of brine received at the RO brine tank for the Accommodation Camp WWTP in monthly cumulative volumes presented in table format; • volume (in kL) of treated wastewater applied daily to WWTP Irrigation spray field and monthly cumulative volumes presented in table format; • volume (in KL) of RO brine applied WWTP Irrigation spray field, Irrigation of Camp lawn and for dust suppression, and monthly cumulative volumes presented in table format; • treated wastewater monitoring data in tabulated and graphical form including the sampling date; • tabulated quarterly and annual loadings of nitrogen, phosphorus and BOD applied to each irrigation area, including an explanation of the basis for determining loading rates; • an assessment and comparison of the wastewater quality monitoring data required by Condition 14 against the discharge water quality criteria prescribed in the Works Approval W6043/2017/1 (attached as Table 10 in Schedule 3); • an assessment and interpretation of the data, including comparison to historical trends; and • if monitoring undertaken in accordance with Condition 14 indicates recommended discharge water quality criteria have been exceeded for three consecutive monitoring events, the licence holder must provide a report on the investigation(s) undertaken to determine the cause of the exceedances and any actions taken to prevent future exceedance(s).

Condition or table (if relevant)	Parameter
Condition 15 Table 7	Vegetation condition monitoring results
Condition 2	Details of any licence limit exceedances observed during the reporting period and any specified actions undertaken to resolve
Condition 20	Complaints summary

Definitions

In this licence, the terms in Table 9 have the meanings defined.

Table 9: 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.
AS1940:2017	means the Australian Standard AS/NZS 1940 – The storage and handling of flammable and combustible liquids
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/NZS5667.10	means the Australian Standard AS/NZS 5667.11 Water Quality – Sampling – Guidance on sampling of wastewater
AS/NZS 5667.11	means the Australian Standard AS/NZS 5667.11 Water Quality – Sampling – Guidance on sampling of groundwaters
averaging period	means the time over which a limit is measured or a monitoring result is obtained
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 *Environmental Protection Act 1986* Locked Bag 10 Joondalup DC WA 6919 or: info@dwer.wa.gov.au
Cfu/100ml	Colony forming unit per 100 millilitres.
Clean Fill	has the meaning given in Landfill Definitions
Department	means the department established under section 35 of the *Public Sector Management Act 1994* (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.
E.coli	means the bacteria named *Escherichia coli*

Term	Definition
emission	has the same meaning given to that term under the EP Act.
environmentally hazardous material	Means material (either solid or liquid raw materials, materials used in the process of manufacture, manufactured products, products used in the manufacturing process, by-products and waste) which, if discharged to the environment, from or within the premises, may cause pollution or environmental harm.
EP Act	*Environmental Protection Act 1986* (WA)
EP Regulations	*Environmental Protection Regulations 1987* (WA)
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 document titled "*Landfill Waste Classification and Waste Definitions 1996 (as amended 2019)*" published by the Chief Executive Officer of the Department of Water and Environmental Regulation 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.
mg/L	milligrams per litre
monthly period	means a one-month period commencing from day 1 of a month until the last day of that same month.
NATA	National Association of Testing Authorities.
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.
Putrescible	has the meaning defined in Landfill Definitions
RO	means Reverse Osmosis
waste	has the same meaning given to that term under the EP Act.
wet season	means the months December in each year and January, February and March in the following year
WWTP	means Wastewater Treatment Plant.

END OF CONDITIONS

Schedule 1: Maps

Premises map

The boundary of the prescribed premises is shown in pink in the map below.

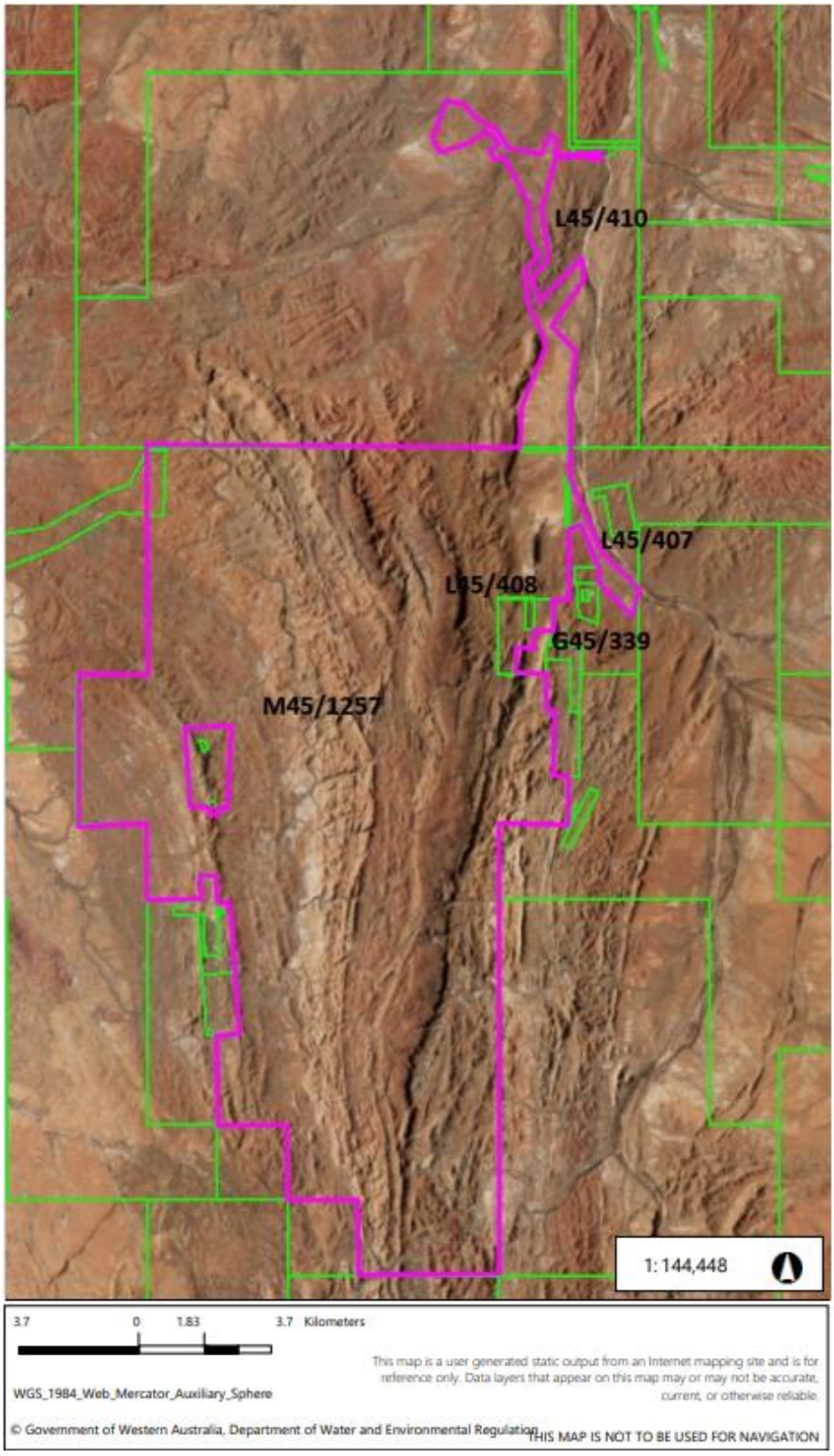

Figure 1: Prescribed premises boundary

Premises' activities map

The location of the prescribed activities on the premises is shown below.

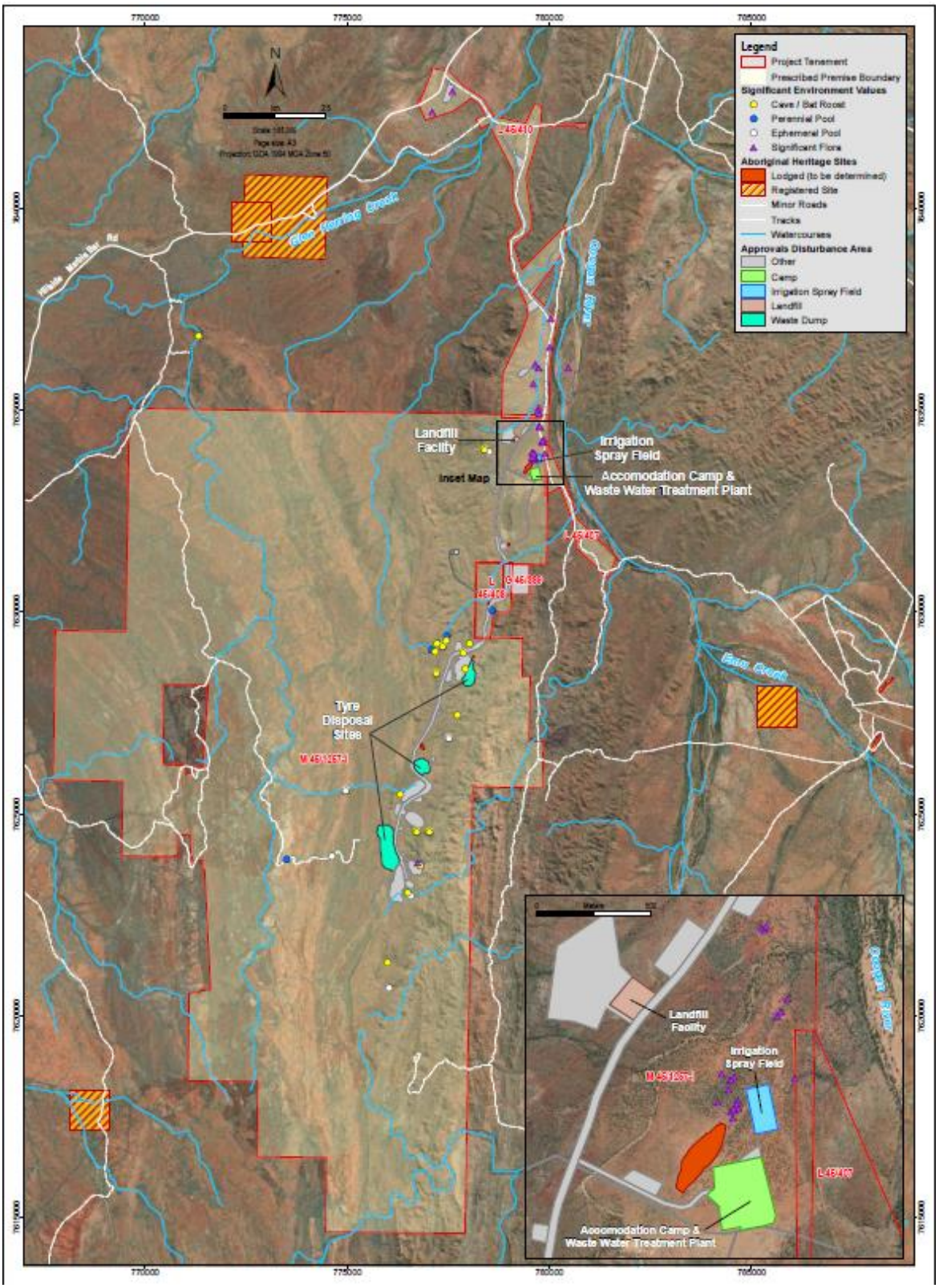

Figure 2: Prescribed premises activities map

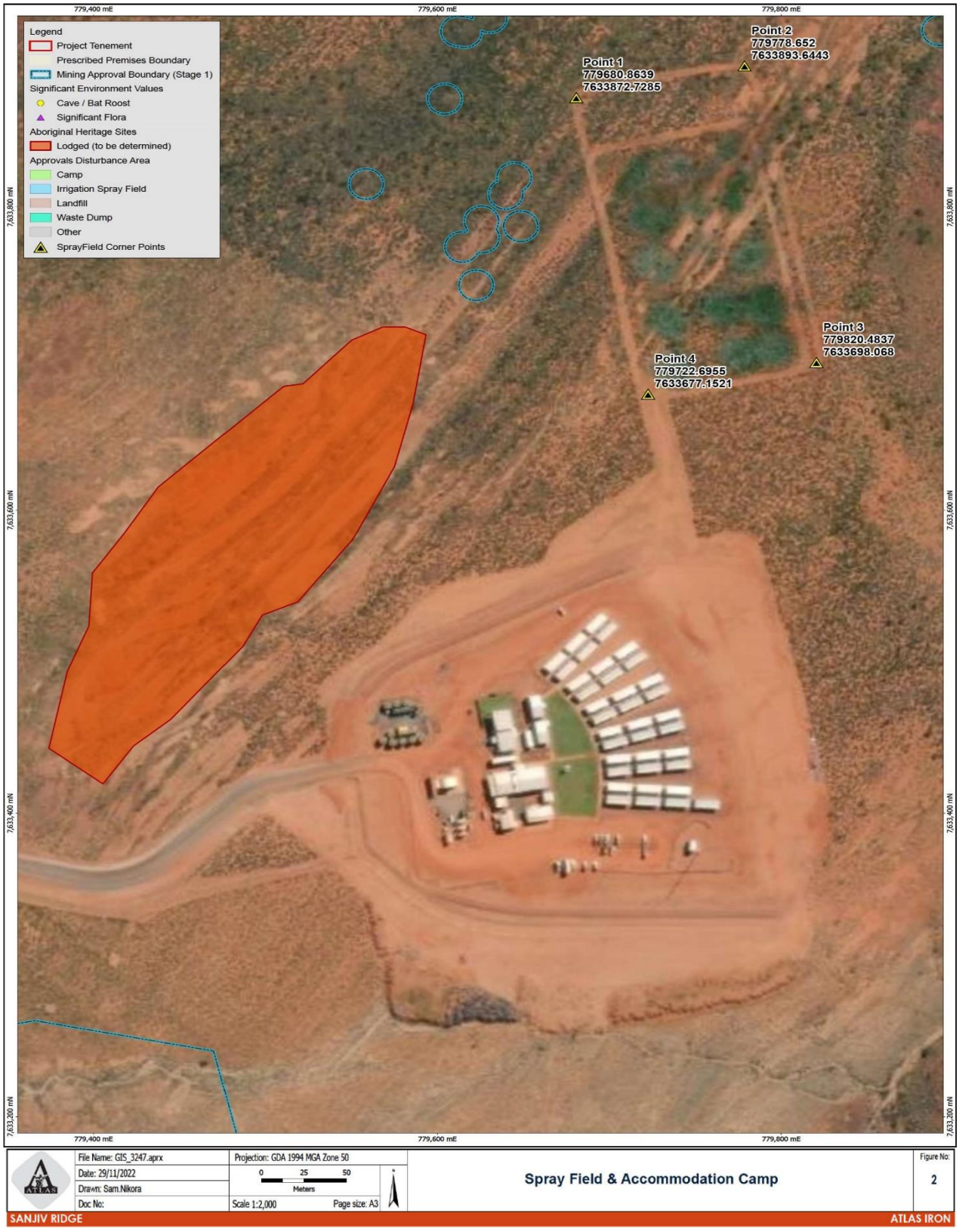

Figure 3: Spray field irrigation area and irrigation camp lawn

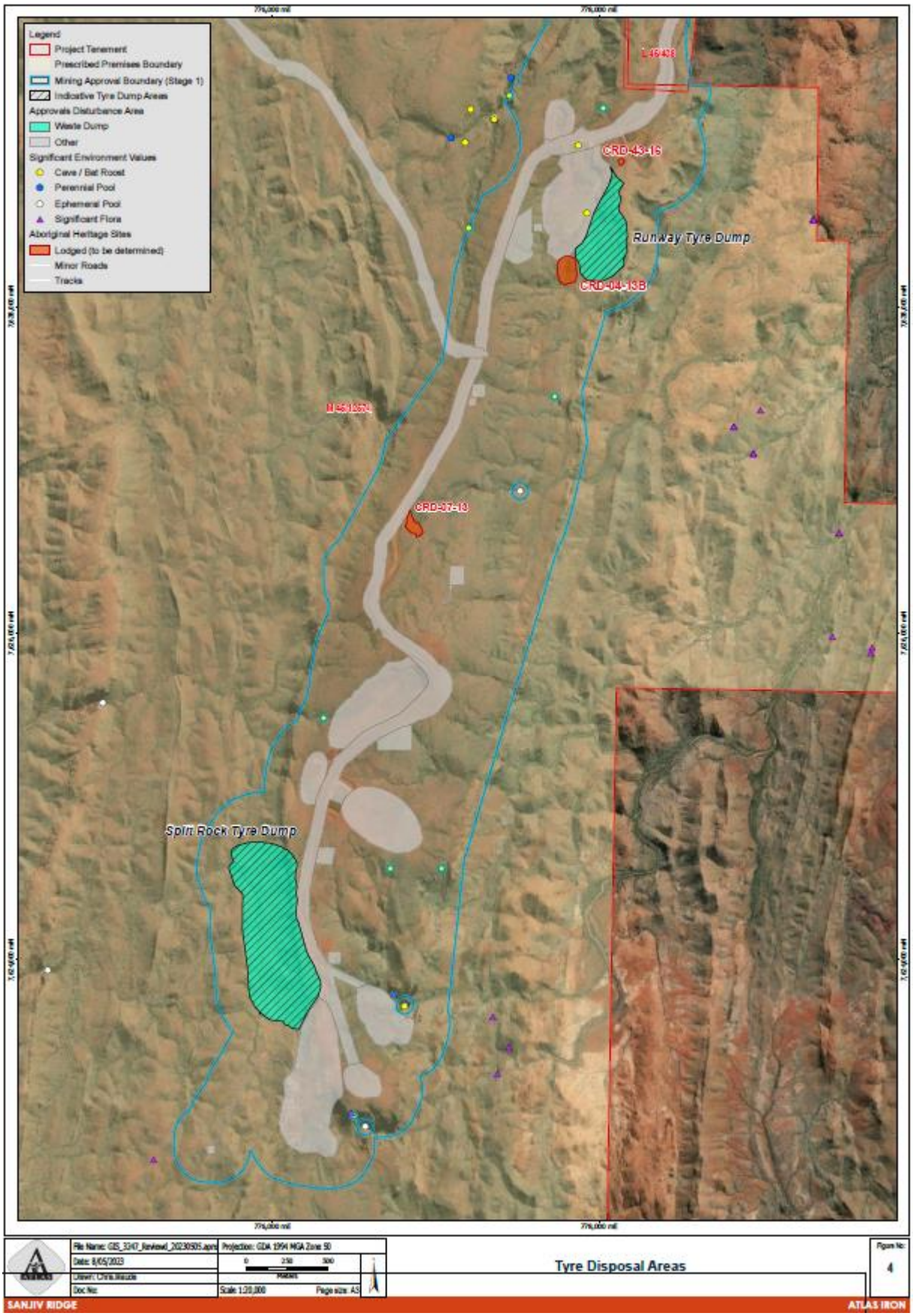

Figure 4: Tyre disposal areas

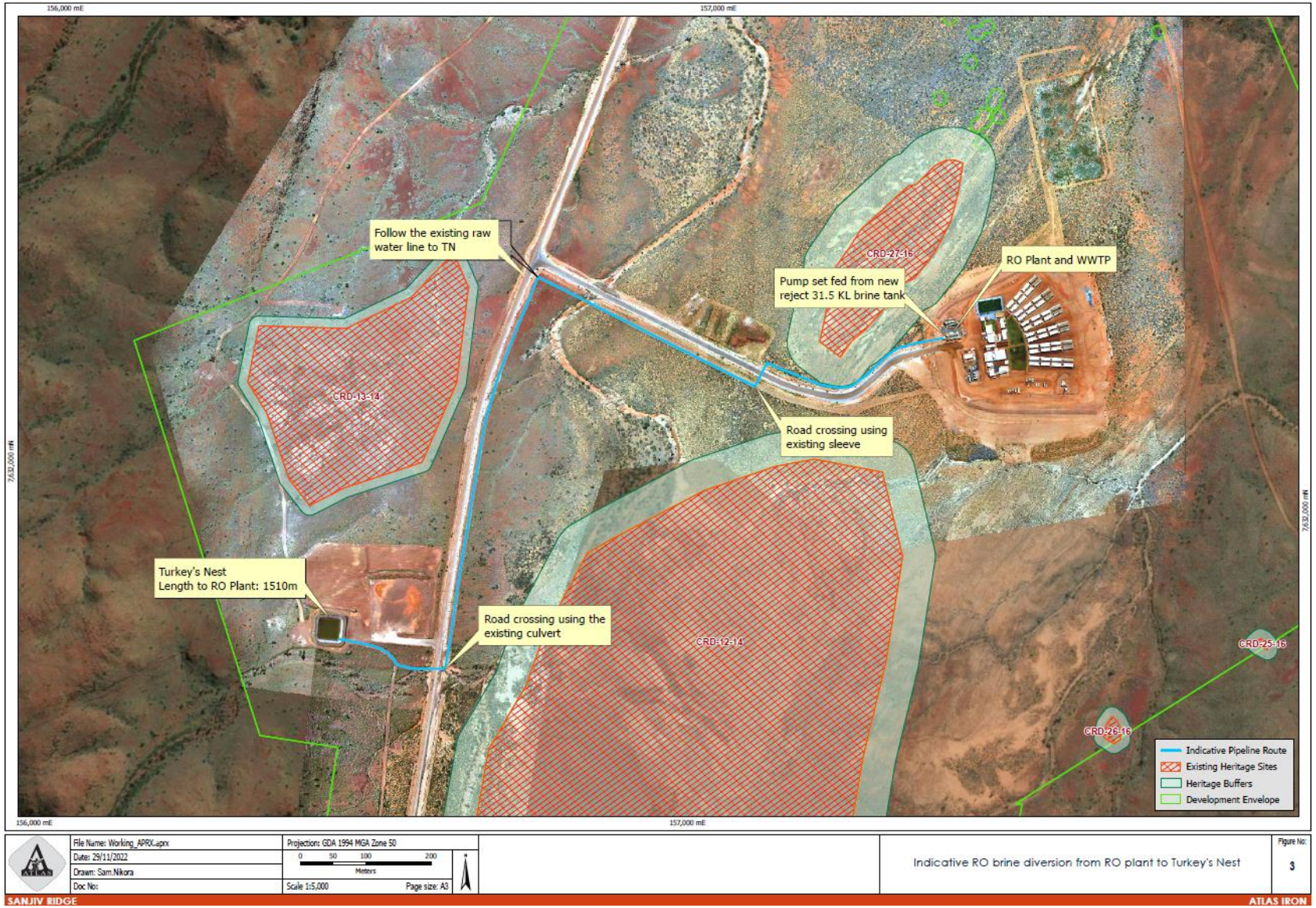

Figure 5: RO brine diversion from RO plant to Turkey's Nest with proposed pipeline.

Schedule 3: Discharge water quality

Table 10: Discharge to land limits

Discharge point	Parameter	Limit	Units	Averaging period
Irrigation Spray Field (defined in Table 1)	Total Nitrogen (TN)	480	kg/ha/year	Annual
	Total Phosphorus (TP)	120		
	Biochemical Oxygen Demand (BOD)	20	mg/L	Spot sample taken in accordance with AS/NZS5667.1 and AS/NZS5667.10
	Total Suspended Solids (TSS)	30	mg/L	
	Total Dissolved Solids (TDS)	2,500	mg/L	
	Total Nitrogen (TN)	30	mg/L	
	Total Phosphorus (TP)	10	mg/L	
	E.coli	1,000	cfu/100ml	
	pH	6.5-8.5	-	
Camp lawn	Total Dissolved Solids (TDS)	2,500	mg/L	Spot sample taken in accordance with AS/NZS5667.1 and AS/NZS5667.10
Dust suppression (Turkey's nest and/or tank)				