Government of Western Australia
Department of Water and Environmental Regulation

Works Approval

Works approval number	W6780/2023/1
Works approval holder	Atlas Iron Pty Ltd
ACN	110 396 168
Registered business address	1314 Hay Street PERTH WA 6005
DWER file number	INS-0002641
Duration	17/09/2024 to 16/09/2027
Date of issue	22 September 2022
Date of amendment	23 March 2026
Premises details	McPhee Creek Project Mining tenements M45/1243-I, L46/158, L45/598 NULLAGINE WA 6758 As defined in Schedule 1

Prescribed premises category description (Schedule 1, *Environmental Protection Regulations 1987*)	Assessed production / design capacity
Category 5: Processing or beneficiation of metallic or non-metallic ore	14 million tonnes per annual period
Category 6: Mine dewatering	7.5 gigalitres per annual period
Category 12: Screening, etc. of material	1 million tonnes per annual period
Category 54: Sewage facility	140m^3/day
Category 57: Used tyre storage (general)	1,000 tyres
Category 73: Bulk storage of chemicals	2,820m^3 in aggregate
Category 89: Putrescible landfill	2,030 tonnes per annual period

This works approval is granted to the works approval holder, subject to the attached conditions, on 23 March 2026, by:

Lauren Edmands

Digitally signed by Lauren Edmands
Date: 2026.03.23 09:56:16 +08'00'

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

Works approval history

Date	Reference number	Summary of changes
17/09/2024	W6780/2023/1	Works approval granted
10/04/2025	W6780/2023/1	Licence amendment to update figures in Schedule 1 to reflect the new location of infrastructures listed in Condition 1, Table 1
22/09/2025	W6780/2023/1	Works approval amendment to: - Extend time limited operations to 360 days. - Consolidation of two mining service areas (MSA) into a single MSA. The changes required are: • Relocation of MSA Wastewater Treatment Plant • Relocation of the temporary used tyre storage facility and inclusion of a second temporary used tyre storage facility • Relocation of the fuel storage facilities • Provide additional flexibility in location of bioremediation land farm, turkey's nest and other activities • Update of figures 7, 9, 10 and 12 in consideration of above changes.
23/03/2026	W6780/2023/1 (APP-0034346)	Time limited operations duration extended

Interpretation

In this works approval:

(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 works approval:

(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 works approval requires specific conditions to be met but does not provide any implied authorisation for other emissions, discharges, or activities not specified in this works approval.

Works approval conditions

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

General

1. The works approval holder must manage dust at the premises by wetting down activities associated with the construction of the dry ore processing facility, wastewater treatment plants, landfills, bioremediation facility and mobilization of the mobile crushing/screening plant.

2. The works approval must construct temporary drains, bunds and sediment traps sufficient to capture sediment laden stormwater run-off during construction activities, prior to permanent stormwater infrastructure being installed.

Construction phase

Infrastructure and equipment

3. The works approval holder must construct and/or install the infrastructure and/or equipment listed in Table 1;

(a) in accordance with the corresponding design and construction / installation requirements; and

(b) at the corresponding infrastructure location

as set out in Table 1.

Table 1: Design and construction / installation requirements

	Infrastructure	Design and construction / installation requirements	Infrastructure location
1.	Ore Handling Plant (OHP)	(a) Installed as per indicative specifications of Figure 4 (b) Covered transfer points installed (c) Water spray system installed for dust suppression at the feed bin, stacker head chute and as required on conveyor transfer points (d) Compacted earth bunds and sedimentation traps constructed so that stormwater run-off associated with OHP and ore stockpiles will be directed to sedimentation traps (e) Sedimentation traps sized to accommodate a 10% AEP 6-hour rainfall event	As shown in Figure 3 of Schedule 1
2.	Dewatering pipelines	(a) High Density Polyethylene Pipe (HDPE) required to meet the following standards: (i) AS/NZS 2033:3008: Installation of polyethylene pipe systems; (ii) AS/NZS 4129:2008: Fittings for polyethylene (PE) pipes for pressure applications; (iii) AS/NZS 4130:2009 Polyethylene (PE) pipes for pressure applications; and (iv) AS/NZS 4131:2010: Polyethylene (PE)	As shown in Figure 5 of Schedule 1

	Infrastructure	Design and construction / installation requirements	Infrastructure location
		compounds for pressure pipes and fittings (b) Where pipelines are laid along a haul road, they are to be located within the drainage channel on one side of the road (c) Where the pipeline is laid within the stockyard area, they are to be installed within the area captured by the OHP's surface water drainage controls (d) Fitted with valves at each headworks, discharge point and branch/truckline connection to allow shutdown in the event of leaks (e) Flow meters installed at the headworks of each bore, at each discharge point and at each water user to monitor the flow volume	
3.	Mobile crushing and screening plant	(a) Water spray system installed on plant for dust suppression (b) Temporary stormwater diversion structures will be constructed at each location to divert uncontaminated stormwater around the operational area, including stockpile areas	As shown in Figure 6 of Schedule 1
4.	Main Camp Wastewater treatment plants (WWTP)	(a) Must be certified according to AS/NZ 1546.3:2017 and as per general specifications as given in Figure 8 of Schedule 1 (b) Treated effluent to the following quality performance criteria: (i) Total suspended solids: <30 mg/L; (iii) Biological oxygen demand: <20 mg/L; (iv) E. coli <1,000 cfu/100 mL; (vi) Total nitrogen: <30 mg/L; (vii) Total phosphorus: <8 mg/L; (viii) pH 6.5 – 8.5 (c) Tanks fitted with alarms to warn in the event high water levels or if a component has failed (d) To be constructed on top of compacted earth base and surrounded by compacted earth diversion bunds which will feed into sediment traps (e) A volumetric flow metre must be installed on the WWTP discharge pipe outlet (for each WWTP) to monitor out-going volume (f) The WWTP designed to have a contingency storage capacity of up to two days of normal flow in the event the discharge is suspended (g) Treatment chemicals to be stored in a bunded area to contain at least 110% of the total volume of materials stored. Spill kits to be kept at the premises (h) 1.46 hectare irrigation spray field located as shown in Figure 7, Schedule 1	As shown in Figure 7 of Schedule 1

	Infrastructure	Design and construction / installation requirements	Infrastructure location
5.	Exploration Camp WWTP	(a) Must be certified according to AS/NZ 1546.3:2017 and as per general specifications as given in Figure 8 of Schedule 1 (b) Treated effluent to the following quality performance criteria: (ii) Total suspended solids: <30 mg/L; (iii) Biological oxygen demand: <20 mg/L; (iv) E. coli <1000 cfu/100 mL; (vi) Total nitrogen: <30 mg/L; (vii) Total phosphorus: <8 mg/L; (viii) pH 6.5 – 8.5 (c) Tanks fitted with alarms to warn in the event high water levels or if a component has failed (d) To be constructed on top of compacted earth base and surrounded by compacted earth diversion bunds which will feed into sediment traps (e) A volumetric flow metre must be installed on the WWTP discharge pipe outlet (for each WWTP) to monitor out-going volume (f) The WWTP to have a contingency storage capacity of up to two days of normal flow in the event the discharge is suspended (g) Treatment chemicals to be stored in a bunded area to contain at least 110% of the total volume of materials stored. Spill kits to be kept at the premises (h) 1.64 hectare irrigation spray field located as shown in Figure 7, Schedule 1	As shown in Figure 7 of Schedule 1
6.	Mine Service Area WWTP	(a) Must be certified according to AS/NZ 1546.3:2017 and as per general specifications as given in Figure 8 of Schedule 1 (b) Treated effluent to the following quality performance criteria: (iii)Total suspended solids: <30 mg/L; (iii) Biological oxygen demand: <20 mg/L; (iv) E. coli <1000 cfu/100 mL; (vi) Total nitrogen: <30 mg/L; (vii) Total phosphorus: <8 mg/L; (viii) pH 6.5 – 8.5 (c) Tanks fitted with alarms to warn in the event high water levels or if a component has failed (d) To be constructed on top of compacted earth base and surrounded by compacted earth diversion bunds which will feed into sediment traps (e) A volumetric flow metre must be installed on the WWTP discharge pipe outlet (for each WWTP) to monitor out-going volume (f) The WWTP to have a contingency storage	As shown in Figure 7 of Schedule 1

	Infrastructure	Design and construction / installation requirements	Infrastructure location
		capacity of up to two days of normal flow in the event the discharge is suspended (g) Treatment chemicals to be stored in a bunded area to contain at least 110% of the total volume of materials stored. Spill kits to be kept at the premises (h) 0.29 hectare irrigation spray field located as shown in Figure 7, Schedule 1	
7.	Used tyre storage facility (temporary storage facilities)	(a) Constructed at the locations specified in Figure 9, Schedule 1 (b) Constructed on a compacted earth surface and surrounded by a compacted soil bund (c) Located at least 10 m away from any combustible material, wall, building or fence	As shown in Figure 9 of Schedule 1
8.	Bulk chemical storage areas	(a) Liquid chemicals to be stored within concrete bunded areas with minimum 110% containment capacity for the volume of chemicals stored	Figure 12 • New fuel storage locations to be located within the purple buffer zones depicted within Figure 12. • Existing fuel storage locations as detailed on Figure 12. • Must not be located within 50 metres of a watercourse or wetland; • Must not be located within Significant Fauna Exclusion Zone, bat cave buffer zones, Aboriginal Heritage areas (unless prior consent is obtained), or any pool area.
9.	Landfill (domestic and putrescible waste)	(a) Base of the landfill to be compacted and maintained at least 5 m above the highest seasonal groundwater level (b) Landfill cells walls must be at least 100 mm thick (c) The landfill must be located at least 100 m from any permanent or perennial watercourse (d) Surface water management structures (i.e. bunding) to be maintained to divert surface water flows away from the landfill (e) The entire perimeter of the landfill must be	As shown in Figure 11 of Schedule 1

	Infrastructure	Design and construction / installation requirements	Infrastructure location
		fenced to prevent fauna from accessing waste material (f) Signage placed to indicate the types of waste accepted for burial	
10.	Landfill (tyre disposal)	(a) Landfill cells must not be placed within areas of the waste rock dump which have potentially acid forming material (b) The landfill must be located at least 100 m from any permanent or perennial watercourse (c) Surface water management structures (i.e. bunding) to be maintained to divert surface water flows away from the landfill (d) Landfill cells walls must be at least 100 mm thick (e) Signage placed to indicate that only tyres are accepted for burial	As shown in Figure 11 of Schedule 1
11.	Bioremediation landfarms	(a) Synthetic lined to achieve a permeability of $1x10^{-9}$ m/s, including an overlying layer of clean material to prevent damage (b) Stormwater / surface water diverted so as not to flow onto the treatment facility (c) Designed so that any potentially contaminated runoff from the treatment cells is contained (d) Not to be constructed within 50 m of surface water courses (e) Appropriate signage warning of contamination placed	As shown in Figure 13 Within prescribed premise boundary. • Must not be located within 50 metres of a watercourse or wetland; • Must not be located within Significant Fauna Exclusion Zone, bat cave buffer zones, Aboriginal Heritage areas (unless prior consent is obtained), or any pool area.
12.	Turkey's nests	(a) Design specifications as per 15 Capacities ranging between 2ML and 6ML (b) For storage of uncontaminated water only (c) HDPE lined (d) Constructed to allow minimum 300 mm freeboard (e) Fenced around the perimeter	As shown in Figures 14 and 15 • Must not be located within 50 metres of a watercourse or wetland; • Must not be located within Significant Fauna Exclusion Zone, bat cave buffer zones, Aboriginal Heritage areas (unless prior

	Infrastructure	Design and construction / installation requirements	Infrastructure location
			consent is obtained), or any pool area.

Groundwater monitoring well installation

4. The works approval holder must design, construct, and install new groundwater monitoring wells in accordance with the requirements specified in Table 2.

Table 2 Groundwater monitoring well construction requirements

Infrastructure	Design, construction, and installation requirements	Monitoring well location(s)	Timeframe
One groundwater monitoring well	<u>Well design and construction:</u> Designed and constructed in accordance with *ASTM D5092/D5092M-16: Standard practice for design and installation of groundwater monitoring bores.* The well must be constructed with a screened interval from the water table to a depth of 2 metres below the water table and 1 metre above the water table.	Down hydraulic gradient from and adjacent to the putrescible landfill	Must be constructed, developed (purged) and determined to be operational no later than 30 calendar days prior to the commencement of time limited operations under condition 15.
	<u>Logging of borehole:</u> Soil samples must be collected and logged during the installation of the monitoring wells. A record of the geology encountered during drilling must be described and classified in accordance with the Australian Standard Geotechnical Site Investigations AS1726. Any observations of staining/odours or other indications of contamination must be included in the bore log.		
	<u>Well construction log:</u> Well construction details must be documented within a well construction log to demonstrate compliance with ASTM D5092/D5092M-16. The construction logs shall include elevations of the top of casing position to be used as the reference point for water-level measurements, and the elevations of the ground surface protective installations.		
	<u>Well development:</u> All installed monitoring wells must be developed after drilling to remove fine sand, silt, clay and any drilling mud residues from around the well screen to		

Infrastructure	Design, construction, and installation requirements	Monitoring well location(s)	Timeframe
	ensure the hydraulic functioning of the well. A detailed record should be kept of well development activities and included in the well construction log.		
	Installation survey: The vertical (top of casing) and horizontal position of each monitoring well must be surveyed and subsequently mapped by a suitably qualified surveyor.		
	Well network map: A well location map (using aerial image overlay) must be prepared and include the location of all monitoring wells in the monitoring network and their respective identification numbers.		

Note[1]: refer to Section 8 of Schedule B2 of the Assessment of Site Contamination NEPM for guidance on well screen depth and length.

Baseline groundwater monitoring

5. The works approval holder must monitor baseline groundwater conditions for concentrations of the identified parameters in accordance with Table 3:

(a) at the corresponding monitoring location;

(b) for the corresponding parameters;

(c) in the corresponding unit;

(d) at no less than the corresponding frequency;

(e) using the corresponding method,

as set out in Table 3.

Table 3 Monitoring of baseline groundwater conditions

Monitoring location	Parameters	Unit	Frequency
One landfill monitoring well, installed as per the requirements of condition 4	Standing water level	metres below ground level (mbgl)	A single sampling event undertaken prior to commencement of construction of the landfill.

Compliance reporting

6. The works approval holder must within 30 calendar days of an item of infrastructure or equipment required by condition 3 being constructed and/or installed:

(a) undertake an audit of their compliance with the requirements of condition 3; 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 suitably qualified engineer that the items of infrastructure or component(s) thereof, as specified in condition 3, have been constructed in accordance with the relevant requirements specified in condition 3;

(b) as constructed plans, photographs and a detailed site plan for each item of infrastructure or component of infrastructure specified in condition 3; and

(c) be signed by a person authorised to represent the works approval holder and contains the printed name and position of that person.

Compliance reporting (monitoring wells)

8. The works approval holder must, within 60 calendar days of the monitoring bores being constructed, submit to the CEO a bore construction report evidencing compliance with the requirements of condition 4.

Environmental commissioning phase

Environmental commissioning requirements and emission limits

9. The works approval holder may only commence environmental commissioning of an item of infrastructure listed in condition 10 once the Environmental Compliance Report has been submitted for that item of infrastructure in accordance with condition 6 of this works approval.

10. Any environmental commissioning activities undertaken for an item of infrastructure specified in Table 4 may only be carried out:

(a) in accordance with the corresponding commissioning requirements; and

(b) for the corresponding authorised commissioning duration.

Table 4 Environmental commissioning requirements

Infrastructure	Commissioning requirements	Authorised commissioning duration
Wastewater treatment plants (WWTP) at the Mine Camp, Exploration Camp and Mine Service Area	(a) The following minimum irrigation WWTP spray field areas to be maintained: (i) Main camp: 1.46 ha (ii) Exploration camp: 1.64 ha (iii) Mine Service Area: 0.29 ha (b) Maximum irrigation sprayfield volumes allowable: (i) Main camp: 60 kL effluent, 30 kL brine (ii) Exploration camp: 70 kL effluent, 45 kL brine (iii) Mine Service Area: 8.4 kL effluent, 4 kL brine (c) Tanks fitted with alarms to warn in the event high water levels or if a component has failed (d) Irrigation is managed to prevent ponding and pooling of effluent on the ground surface of the irrigation spray field.	For a period not exceeding 30 calendar days in aggregate.

Infrastructure	Commissioning requirements	Authorised commissioning duration
	(e) Commissioning undertaken to achieve the following effluent quality criteria before commencement of time limited operations as authorised by condition 13(b): (i) Total suspended solids: <30 mg/L; (ii) Total dissolved solids: 1,500 mg/L; (iii) Biological oxygen demand: <20 mg/L; (iv) E. coli <1000 cfu; (v) Residual free chlorine: <2 mg/L; (vi) Total nitrogen: <30 mg/L; (vii) Total phosphorus: <8 mg/L; (viii) pH 6.5 – 8.5	
Bulk chemical storage areas	(a) Any spills immediately cleaned up and disposed of appropriately: (i) if a hydrocarbon spill at the bioremediation land farm; (ii) if another chemical, for disposal off-site at an appropriately licensed waste acceptance facility. (b) Volume and location of spills to be recorded	For a period not exceeding 30 calendar days in aggregate.

Environmental commissioning compliance reporting

11. The works approval holder must submit to the CEO an Environmental Commissioning Report within 30 calendar days of the completion date of environmental commissioning for all items of infrastructure specified in Table 4.

12. The works approval holder must ensure the Environmental Commissioning Report required by condition 11 of this works approval includes the following:

(a) a summary of the environmental commissioning activities undertaken, including timeframes and amount of effluent processed;

(b) a summary of the environmental performance of each item of infrastructure or equipment as constructed or installed;

(c) a review of the works approval holder's performance and compliance against the conditions of this works approval; and

(d) where they have not been met, measures proposed to meet the manufacturer's design specifications and the conditions of this works approval, together with timeframes for implementing the proposed measures.

Time limited operations phase

Commencement and duration

13. The works approval holder may only commence time limited operations for an item of infrastructure identified in condition 3:

(a) where the item of infrastructure is not authorised to undertake environmental commissioning, the Environmental Compliance Report as required by condition

6 has been submitted by the works approval holder for that item of infrastructure; and

(b) where the item of infrastructure is authorised to undertake environmental commissioning under condition 10, the Environmental Commissioning Report for that item of infrastructure as required by condition 11 has been submitted by the works approval holder.

14. The works approval holder may conduct time limited operations for an item of infrastructure specified in condition 15 (as applicable):

(a) from the day the works approval holder meets the requirements of condition 13 for that item of infrastructure until 16 September 2027; or

(b) until such time as a licence for that item of infrastructure is granted in accordance with Part V of the *Environmental Protection Act 1986*, if one is granted before the end of the period specified in condition 14(a).

Time limited operations requirements and emission limits

15. During time limited operations, the works approval holder must ensure that the premises infrastructure and equipment listed in Table 5 and located at the corresponding infrastructure location is maintained and operated in accordance with the corresponding operational requirement set out in Table 5.

Table 5: Infrastructure and equipment requirements during time limited operations

	Site infrastructure and equipment	Operational requirement	Infrastructure location
1.	Ore Handling Plant (OHP), ore stockpiles and ROM pad	(a) OHP transfer points covered (b) water sprays applied to OHP to suppress dust lift-off (c) minimum 500 mm freeboard maintained on sedimentation basins (d) stormwater infrastructure to be sufficiently maintained to divert stormwater run-off from the OHP, ROM pad and ore stockpiles towards sedimentation basins (e) sedimentation basins to undergo periodic excavations as required to remove excess material and maintain capacity. Removed material to be deposited at the bioremediation land farm if hydrocarbon contaminated (f) Water carts used to suppress dust lift-off from ore stock-piles	As shown in Figure 3 of Schedule 1
2.	Dewatering pipelines	(a) Pipes maintained in accordance with standards: (i) AS/NZS 2033:3008: Installation of polyethylene pipe systems; (ii) AS/NZS 4129:2008: Fittings for polyethylene (PE) pipes for pressure applications; (iii) AS/NZS 4130:2009 Polyethylene (PE) pipes for pressure applications; and (iv) AS/NZS 4131:2010: Polyethylene	As shown in Figure 5 of Schedule 1

	Site infrastructure and equipment	Operational requirement	Infrastructure location
		(PE) compounds for pressure pipes and fittings (b) 12-hourly inspections (c) Earthen v-bunds maintained (d) Monitoring of flow volume using flow meters installed	
3.	Mobile crushing and screening plant	(a) Water sprays installed on plant and water cart to be used for dust suppression (b) Dust from stockpiles suppressed using water cart (c) Temporary stormwater diversion structures to be constructed at each location to divert uncontaminated stormwater around the operational areas, including stockpile areas	As shown in Figure 6 of Schedule 1
4.	Wastewater treatment plants (WWTP) and irrigation sprayfields	(a) All WWTP's must be certified according to AS/NZ 1546.3:2017; (b) Main Camp, Exploration Camp and Mine Service Area WWTP's to treat effluent to the following quality performance criteria: (i) Total suspended solids: <30 mg/L; (ii) Biological oxygen demand: <20 mg/L; (iii) E. coli <1000 cfu (iv) Total nitrogen: <30 mg/L (v) Total phosphorus: <8 mg/L (vi) pH 6.5 – 8.5 (c) The following minimum irrigation WWTP spray field areas to be maintained: (i) Main camp: 1.46 ha (ii) Exploration camp: 1.64 ha (iii) Mine Service Area: 0.29 ha (d) Maximum irrigation sprayfield volumes allowable, per day: (i) Main camp: 60 kL effluent, 30 kL brine (ii) Exploration camp: 70 kL effluent, 45 kL brine (iii) Mine Service Area: 8.4 kL effluent, 4 kL brine (e) The irrigation sprayfield must be managed to prevent ponding and pooling of effluent in the ground surface of the irrigation (f) Total dissolved solids concentration in blended treated wastewater and reverse osmosis plant brine must not exceed 1,500 mg/L prior to discharge to any irrigation field. (g) Tanks fitted with alarms to warn in the event high water levels or if a component has failed (h) To be constructed on top of compacted	As shown in Figure 7 of Schedule 1

	Site infrastructure and equipment	Operational requirement	Infrastructure location
		earth base and surrounded by compacted earth diversion bunds which will feed into sediment traps (i) A volumetric flow metre must be installed on the WWTP discharge pipe outlet (for each WWTP) to monitor out-going volume; (j) The WWTP to have a contingency storage capacity of up to two days of normal flow in the event the discharge is suspended (k) Treatment chemicals to be stored in a bunded area to contain at least 110% of the total volume of materials stored. Spill kits to be kept at the premises (l) Quarterly photographic monitoring will be conducted from fixed GPS points of the irrigation sprayfields. This will include: (i) A general environmental description of the site (ii) Record any changes to vegetation health/composition (iii) Record any new weeds not previously recorded in the area (iv) Identify high risk areas requiring harvesting/control (m) Weed harvesting/control to occur monthly via physical removal of weeds.	
5.	Used tyre storage facilities	(a) Tyres are 10 m away from any combustible material, wall, building or fence (b) Tyres are stored at least 35 m from the premises boundary (c) Tyre stacks to not exceed 3 m in height (d) Tyre stacks to not exceed 120 m^2 in area (e) Tyre stacks have a minimum separation distance of 2.5 m	As shown in Figure 9 of Schedule 1
6.	Bulk chemical storage areas	(a) Any spills immediately cleaned up and disposed of appropriately: (i) if a hydrocarbon spill at the bioremediation landfill; (ii) if another chemical, for disposal off-site at an appropriately licensed waste acceptance facility. (b) Volume and location of spills to be recorded	As shown in Figure 10 of Schedule 1
7.	Landfill (domestic and putrescible waste)	(a) The base of the landfill must be maintained at least 5 m from groundwater level, as determined by the monitoring bore required by condition 4 (b) Water cart available for dust suppression (c) The type and volume of waste disposed of to landfill facility must be recorded;	As shown in Figure 11 of Schedule 1

	Site infrastructure and equipment	Operational requirement	Infrastructure location
		(d) At the end of an operational week, waste within the landfill will be covered with a layer of cover material ~0.3 m thick (e) Fencing at the putrescible landfill facility will be inspected monthly for damage and cleared of waste (f) Authorised waste for acceptance: (i) Clean fill; (ii) Inert Type 1 waste; (iii) Inert Type 2 waste; (iv) Putrescible waste; (v) Special Type 1 waste; and (vi) Other wastes that comply with the class II criteria as defined in the Landfill Definitions.	
8.	Landfill (tyre disposal)	(a) Landfill cells must not be placed within areas of the waste rock dump which have potentially acid forming material; (b) Dust suppression with water cart (c) The type and volume of waste disposed of to landfill facility must be recorded; (d) At the end of an operational week, waste within the landfill will be covered with a layer of cover material ~0.3m thick (e) Only tyres are authorised for disposal at the WRD landfill	As shown in Figure 11 of Schedule 1
9.	Bioremediation landfarms	(a) For acceptance of hydrocarbon contaminated soils for bioremediation only; (b) Liner integrity maintained with a permeability of $1x10^{-9}$ m/s; (c) Stormwater run-off diversions maintained so as not to flow onto the treatment facility; (d) Daily visual inspection to ensure freeboard maintained (e) Appropriate signage warning of contamination placed (f) All material disposed to be recorded, include volume of material disposed; and (g) No more than 1,000 tonnes per annual period of contaminated soil must per processed.	As shown in Figure 1 of Schedule 1
10.	Turkey's nests	(a) Maintained as per the specifications listed in condition 3; (b) HDPE liner integrity maintained; (c) 300 mm freeboard maintained; (d) For storage of uncontaminated water only	As shown in Figure 14 of Schedule 1

16. The works approval holder must ensure that no waste is burnt on the premises.

17. The works approval holder must immediately notify the CEO of:

(a) any fire on the premises; and/or

(b) any accident, malfunction, or emergency which results or could result in the discharge of fire-fighting washwater or other wastes from the premises.

Emissions and discharges

18. During time limited operations, the works approval holder must ensure that the emission(s) specified in Table 6, are discharged only from the corresponding discharge point(s) and only at the corresponding discharge point location(s).

Table 6: Authorised discharge points

	Emission	Discharge point	Discharge point location
1.	WWTP (Mine Camp, Exploration Camp, Mine Service Area) treated effluent – treated to the minimum quality criteria as specified in condition 15	Sprinklers within the irrigation spray fields (Mine Camp, Exploration Camp, Mine Service Area)	As specified in Figure 7 of Schedule 1

Monitoring during time limited operations

19. The works approval holder must undertake monitoring specified in Table 7 during time limited operations for the waste water treatment plants.

Table 7 Emission monitoring during time limited operations

Monitoring points	Parameter	Performance criteria	Units	Frequency	Method
Treated wastewater and RO brine mixing tank outlet at: • Main camp WWTP • Exploration camp WWTP • Mine Service Area WWTP	Volume	N/A	kL	Continuous	N/A
	Total suspended solids	<30	mg/L	A single sampling event undertaken between 30 and 60 calendar days following commencement of time limited operations	AS/NZS 5667.1
	Total dissolved solids	<1,500			
	Biological oxygen demand	<20			
	Total nitrogen	<30			
	Total phosphorus	<8			
	E. coli	<1000	cfu/100mL		
	pH 6.5 – 8.5	6.5 – 8.5	pH units		
	E. coli	<1000	cfu/100mL		

20. The works approval holder must ensure that all monitoring equipment used to comply with condition 19 is calibrated in accordance with the manufacturer's specifications.

21. The works approval holder must ensure that all non-continuous sampling and analysis undertaken required by condition 19 is undertaken by a holder of NATA accreditation for the relevant methods of sampling and analysis.

Time limited operations compliance reporting

22. The works approval holder must submit to the CEO a report on the time limited operations within 30 calendar days of the completion date of time limited operations or 90 calendar days before the expiration date of the works approval, whichever is the sooner.

23. The works approval holder must ensure the report required by condition 22 includes the following:

(a) a summary of the time limited operations, including timeframes and amount of ore processed;

(b) a summary of monitoring results obtained during time limited operations under condition 19, including review of water quality against performance criteria in Table 7;

(c) a summary of the environmental performance of all infrastructure as constructed or installed;

(d) a summary of vegetation and weed monitoring within the irrigation fields, and any weed removal;

(e) a review of performance and compliance against the conditions of the works approval and the Environmental Commissioning Report; and

(f) where the manufacturer's design specifications and the conditions of this works approval have not been met, what measures will the works approval holder take to meet them, and what timeframes will be required to implement those measures.

Records and reporting (general)

24. The works approval holder must record the following information in relation to complaints received by the works approval 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 works approval holder to investigate or respond to any complaint.

25. The works approval holder must maintain accurate and auditable books including the following records, information, reports, and data required by this works approval:

(a) the works conducted in accordance with condition 3, 4, 5 and 15;

(b) any maintenance of infrastructure that is performed in the course of complying with condition 15;

(c) monitoring programmes undertaken in accordance with condition 19; and

(d) complaints received under condition 24.

26. The books specified under condition 25 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 works approval holder for the duration of the works approval; and

(d) be available to be produced to an inspector or the CEO as required.

Definitions

In this works approval, the terms in Table 8 have the meanings defined.

Table 8: Definitions

Term	Definition
annual period	a 12 month period commencing from 1 October until 30 September of the immediately following year.
ANSF	Ammonium Nitrate Storage Facility
AS/NZS 2033	means the Australian Standard AS/NZS 2033: Installation of polyethylene pipe systems
AS/NZS 4129	means the Australian Standard AS/NZS 4129: fittings for polyethylene (PE) pipes for pressure applications
AS/NZS 4130	means the Australian Standard AS/NZS 4130 Polyethylene pipes for pressure applications
AS/NZS 4131	means the Australian Standard AS/NZS 4131 Polyethylene compounds for pressure pipes and fittings.
AS/NZS 5667.1	means the Australian Standard AS/NZS 5667.1 *Water Quality – Sampling – Guidance on the design of sampling programs, sampling techniques and the preservation and handling of samples.*
ASTM D5092/D5092M-16	means the ASTM international standard for *Standard practice for design and installation of groundwater monitoring wells (*Designation: ASTM D5092/D5092M-16*).*
AS/NZS 1546.1	means the Australian Standard AS/NZS 1546.1:2017 On-site domestic wastewater treatment units
books	has the same meaning given to that term under the EP Act.
CEO	means Chief Executive Officer. CEO for the purposes of notification means: Director General Department administering the *Environmental Protection Act 1986* Locked Bag 10 Joondalup DC WA 6919 info@dwer.wa.gov.au
cfu	colony forming unit
Department	means the department established under section 35 of the *Public Sector Management Act 1994* and designated as responsible for the administration of Part V Division 3 of the EP Act.
discharge	has the same meaning given to that term under the EP Act.
E. coli	Escherichia coli

Term	Definition
emission	has the same meaning given to that term under the EP Act.
environmental commissioning	means the sequence of activities to be undertaken to test equipment integrity and operation, or to determine the environmental performance, of equipment and infrastructure to establish or test a steady state operation and confirm design specifications.
Environmental Commissioning Report	means a report on any commissioning activities that have taken place and a demonstration that they have concluded, with focus on emissions and discharges, waste containment, and other environmental factors.
Environmental Compliance Report	means a report to satisfy the CEO that the conditioned infrastructure and/or equipment has been constructed and/or installed in accordance with the works approval.
EP Act	*Environmental Protection Act 1986* (WA).
EP Regulations	*Environmental Protection Regulations 1987* (WA).
kL	kilolitres
m bgl	metres below ground level
mg/L	milligrams per litre
m/s	metres per second
NATA	National Association of Testing Authorities – see https://nata.com.au/
OHP	Ore Handling Plant
premises	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 works approval.
prescribed premises	has the same meaning given to that term under the EP Act.
suitably qualified engineer	Means a competent professional who: (a) holds a qualification in engineering or equivalent; and (b) has a minimum of at least three years experience working as an engineer.
time limited operations	refers to the operation of the infrastructure and equipment identified under this works approval that is authorised for that purpose, subject to the relevant conditions.
waste	has the same meaning given to that term under the EP Act.
works approval	refers to this document, which evidences the grant of the works approval by the CEO under section 54 of the EP Act, subject to the conditions.
works approval holder	refers to the occupier of the premises being the person to whom this works approval has been granted, as specified at the front of this works approval.

Term	Definition
WWTP	wastewater treatment plant

END OF CONDITIONS

Schedule 1: Maps

Premises map

The boundary of the prescribed premises is shown in the map below (Figure 2).

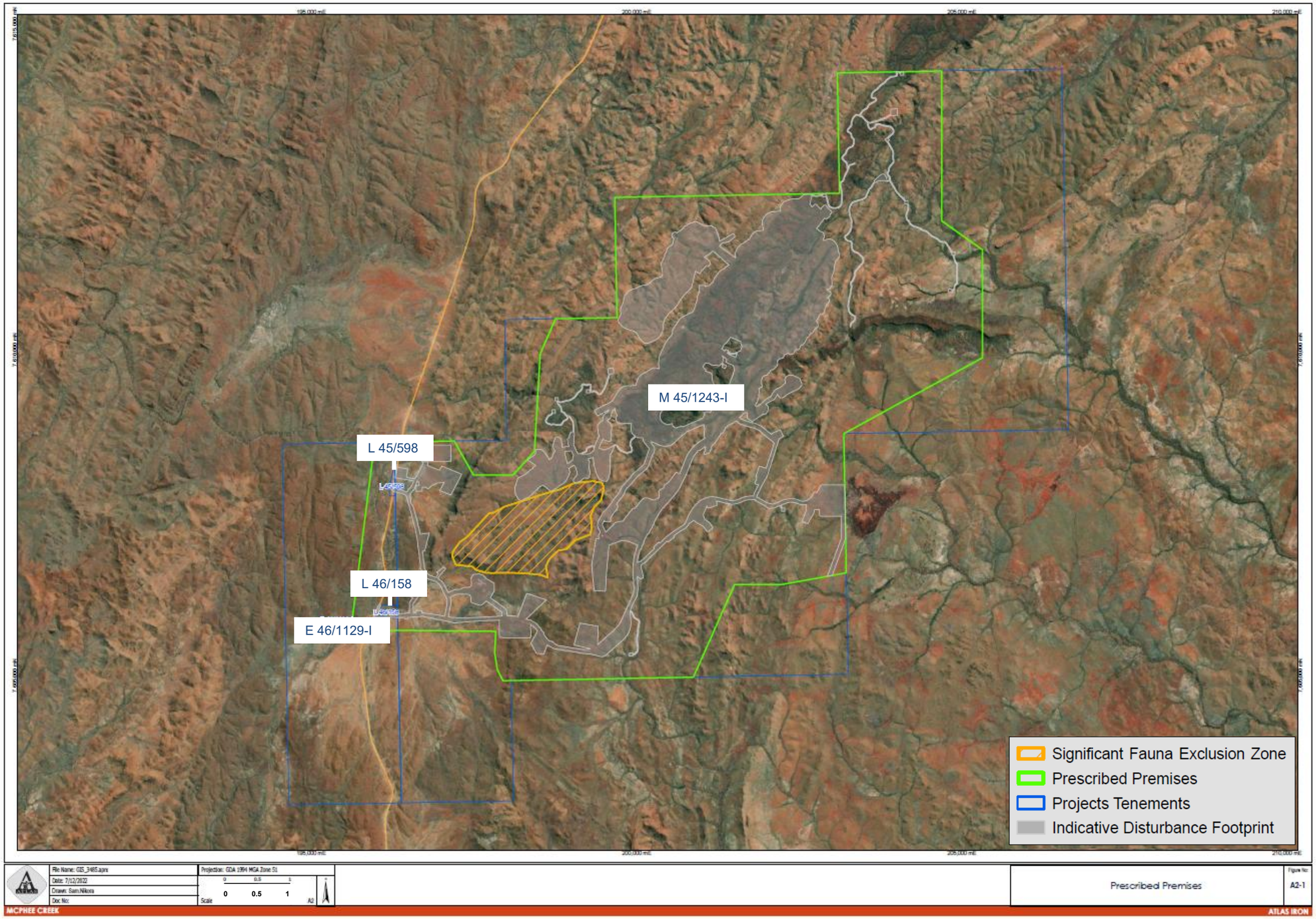

Figure 1: Map of the boundary of the prescribed premises (green outline)

GDA2020_Lat	GDA2020_Long
-21.59999021	120.0637272
-21.59999029	120.075546
-21.60474674	120.0782966
-21.60484959	120.0841547
-21.60164675	120.0874134
-21.58817605	120.0885306
-21.58332362	120.0908982
-21.58332341	120.1000245
-21.56665675	120.1000245
-21.56665675	120.1333578
-21.54999008	120.1333578
-21.54999013	120.1488291
-21.57074591	120.1484354
-21.57485944	120.1544006
-21.58981412	120.1541082
-21.59998982	120.1333428
-21.619266	120.1333216
-21.62071786	120.1236855
-21.62060131	120.1167211
-21.63332336	120.1103634
-21.63333054	120.0821183
-21.63175812	120.0813004
-21.62938091	120.0809553
-21.62645625	120.08118
-21.62607031	120.0666912
-21.62615431	120.059644

Figure 2: Prescribed premises boundary coordinates

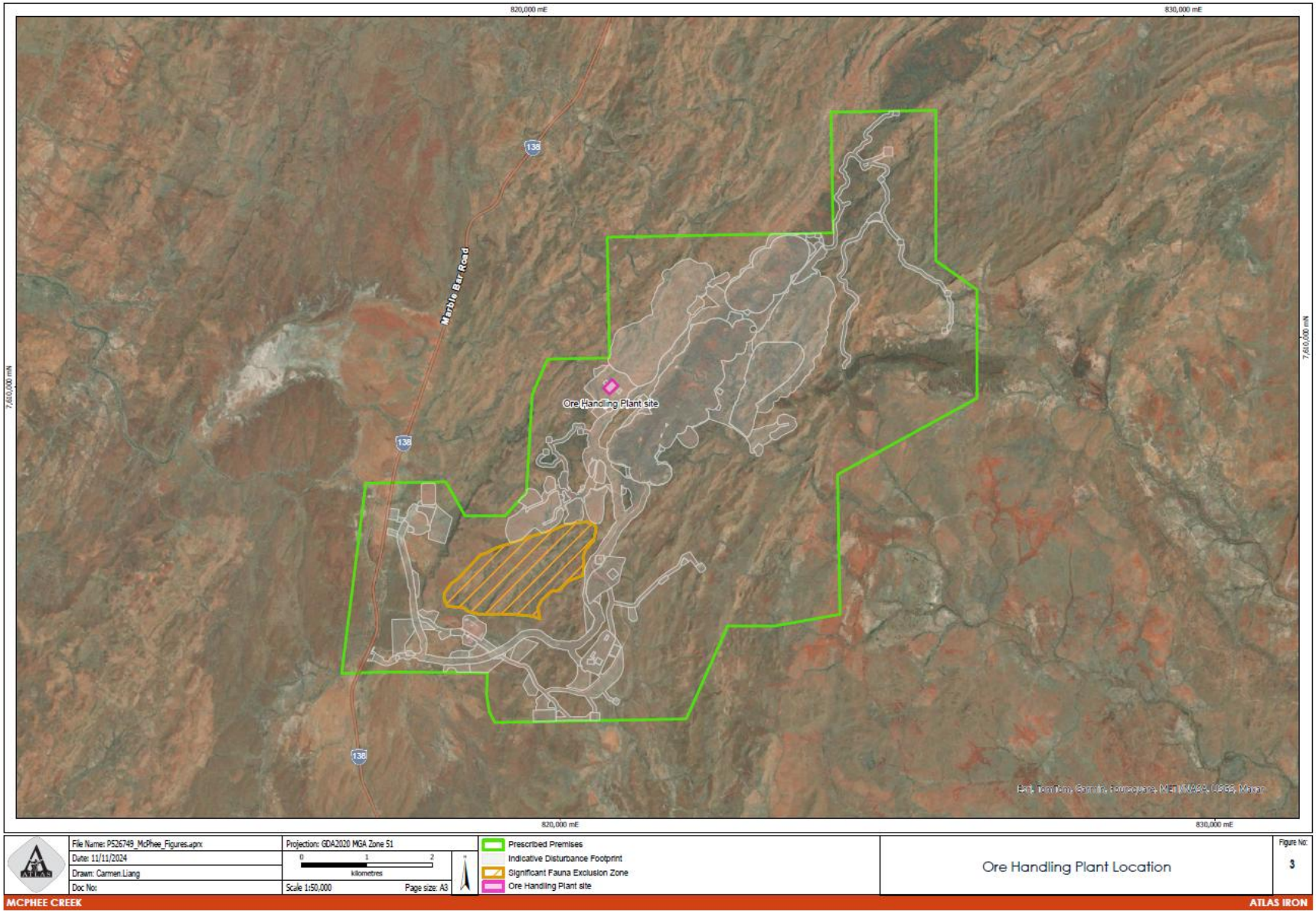

Figure 3: Ore Handling Plant Location

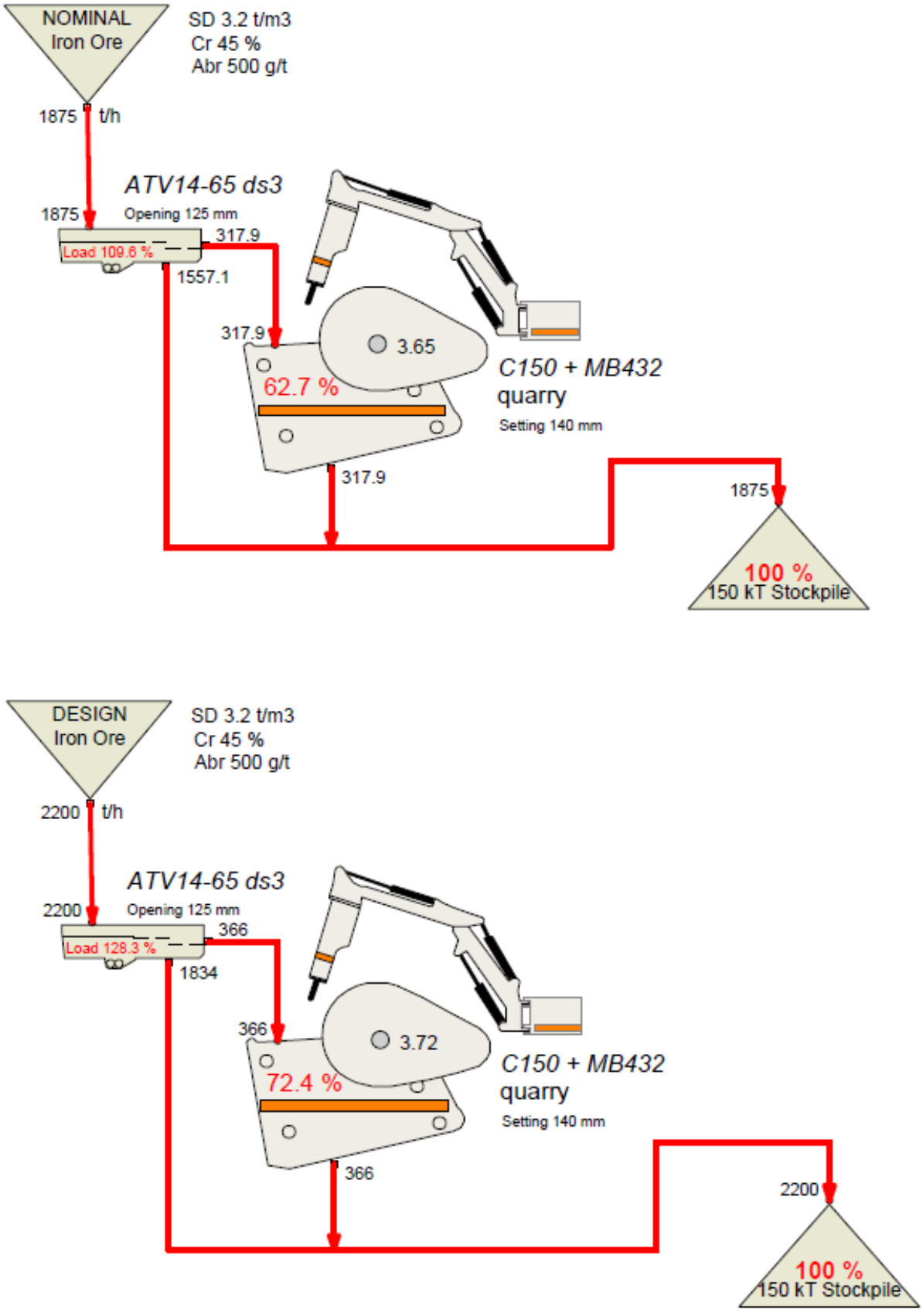

Figure 4: Ore handling plant general specification

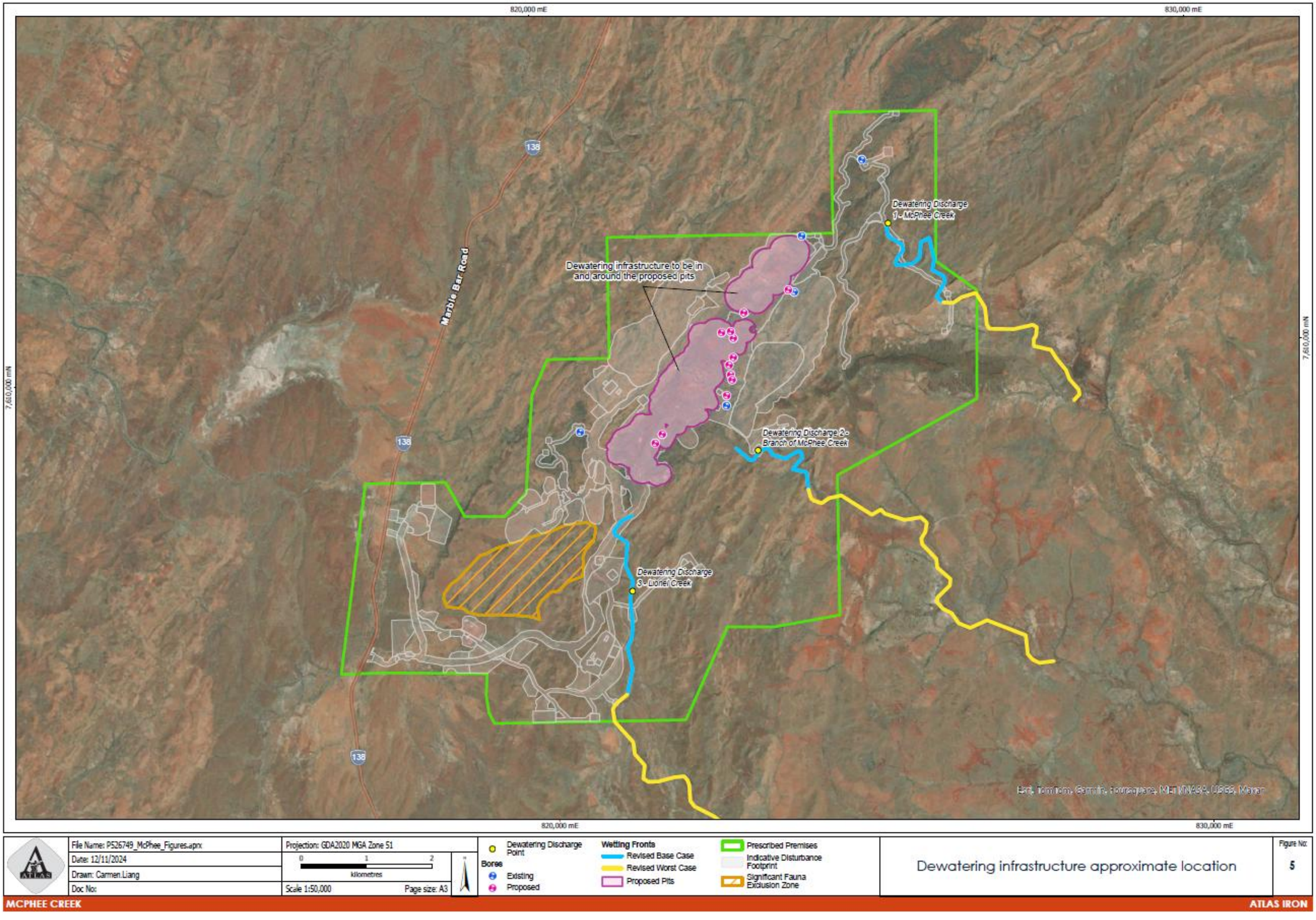

Figure 5: Dewatering infrastructure approximate location

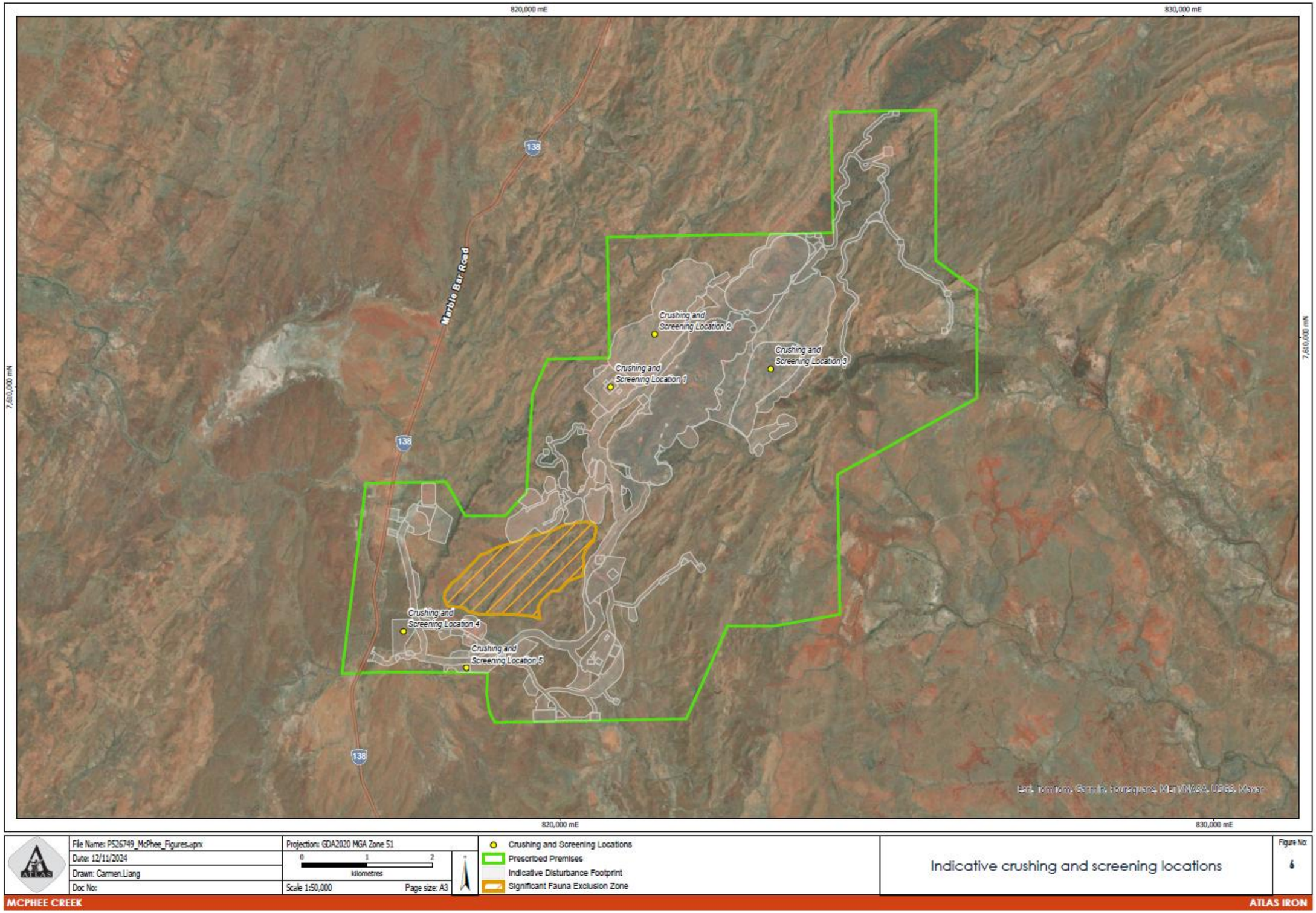

Figure 6: Indicative crushing and screening locations

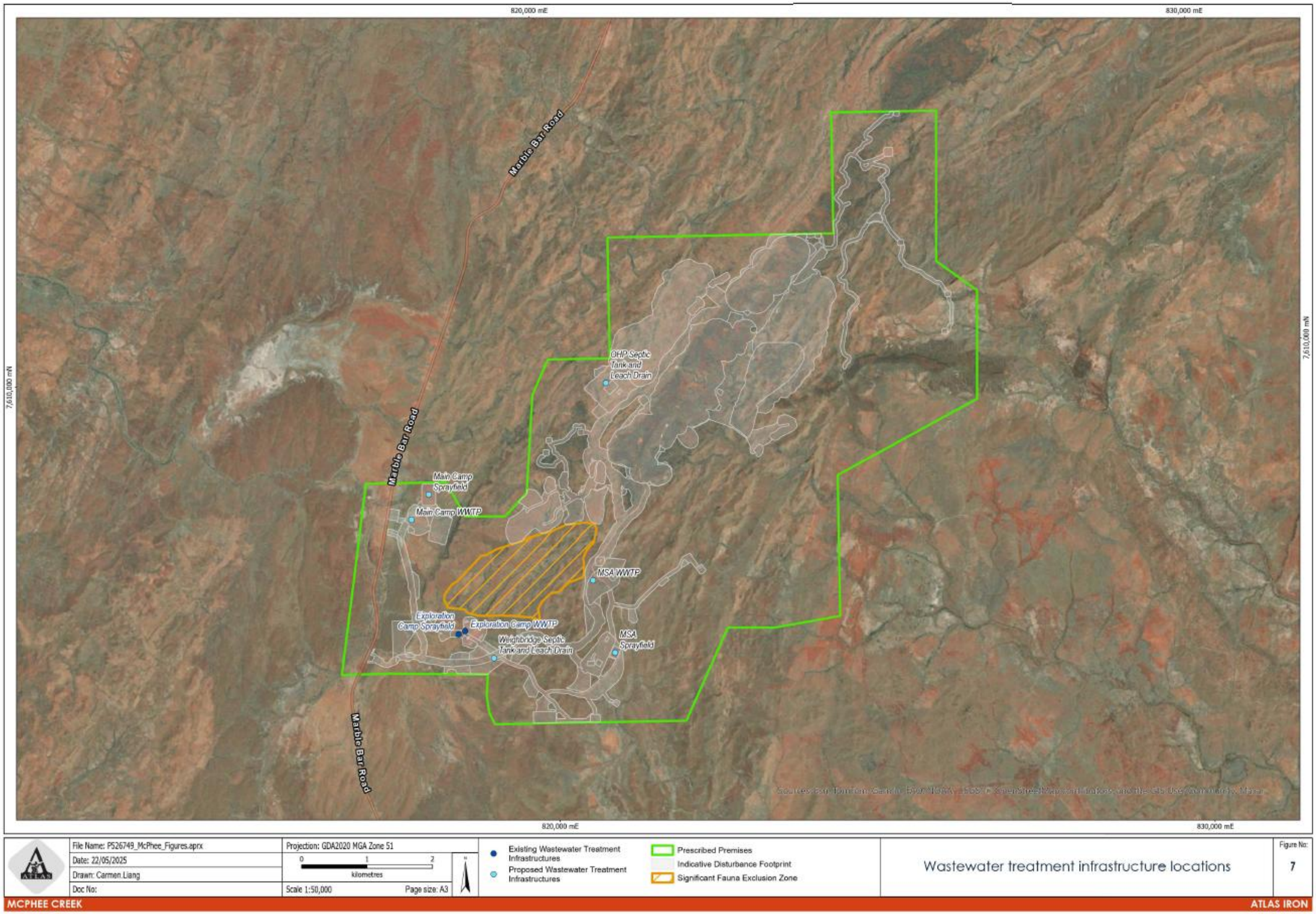

Figure 7: Wastewater treatment infrastructure locations

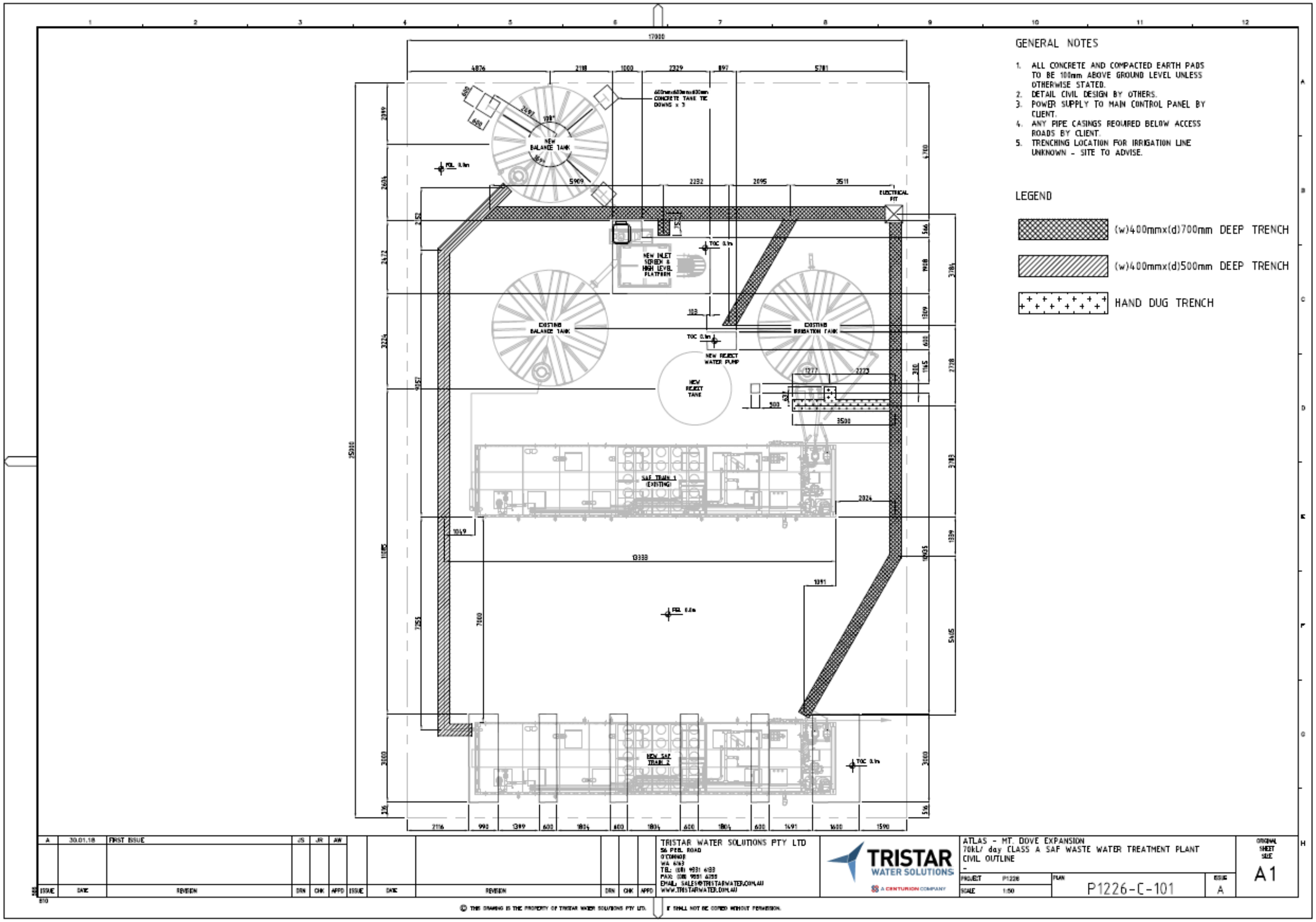

Figure 8: Wastewater treatment plant - indicative design for main camp and exploration camp

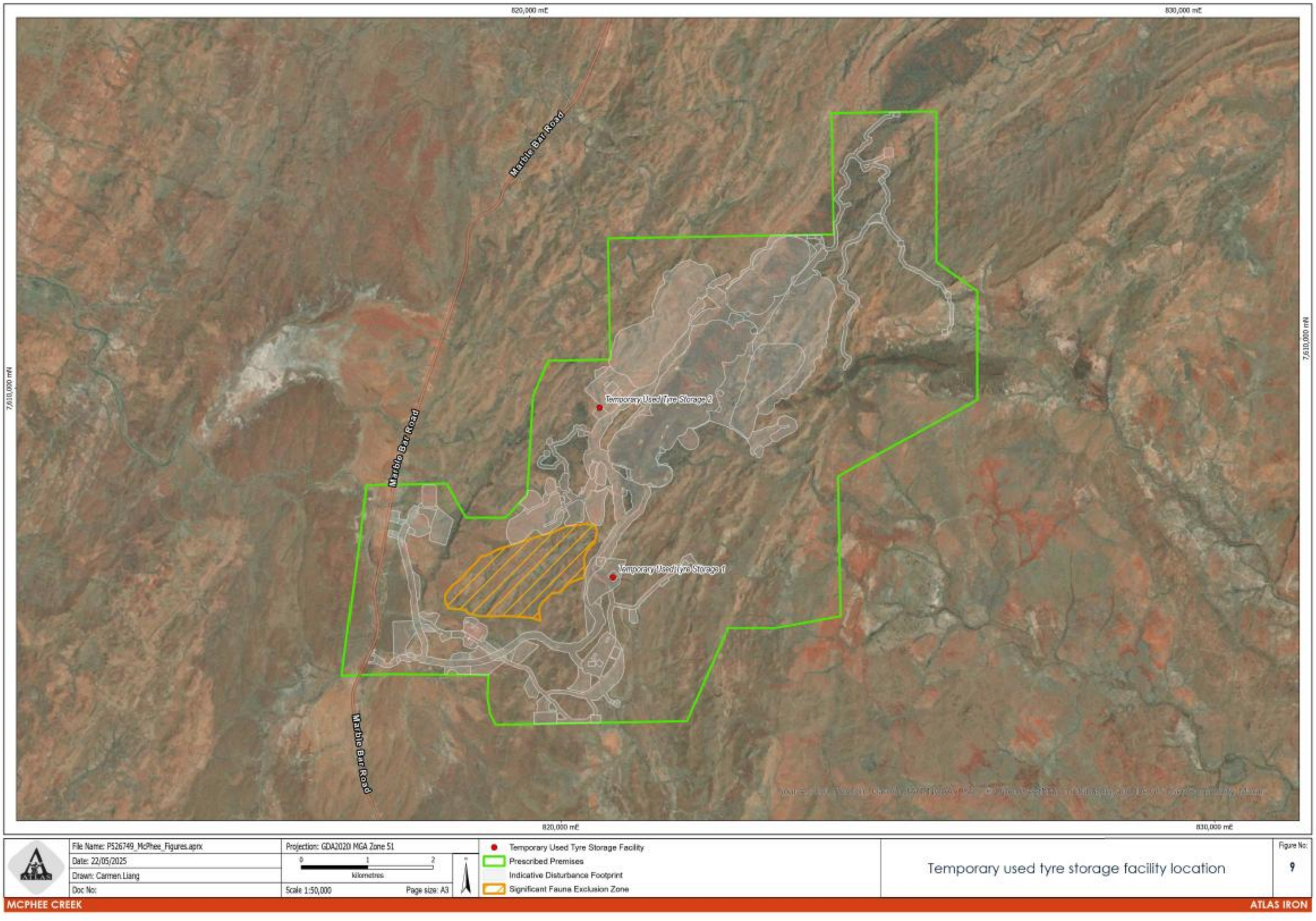

Figure 9: Used tyre storage facility location

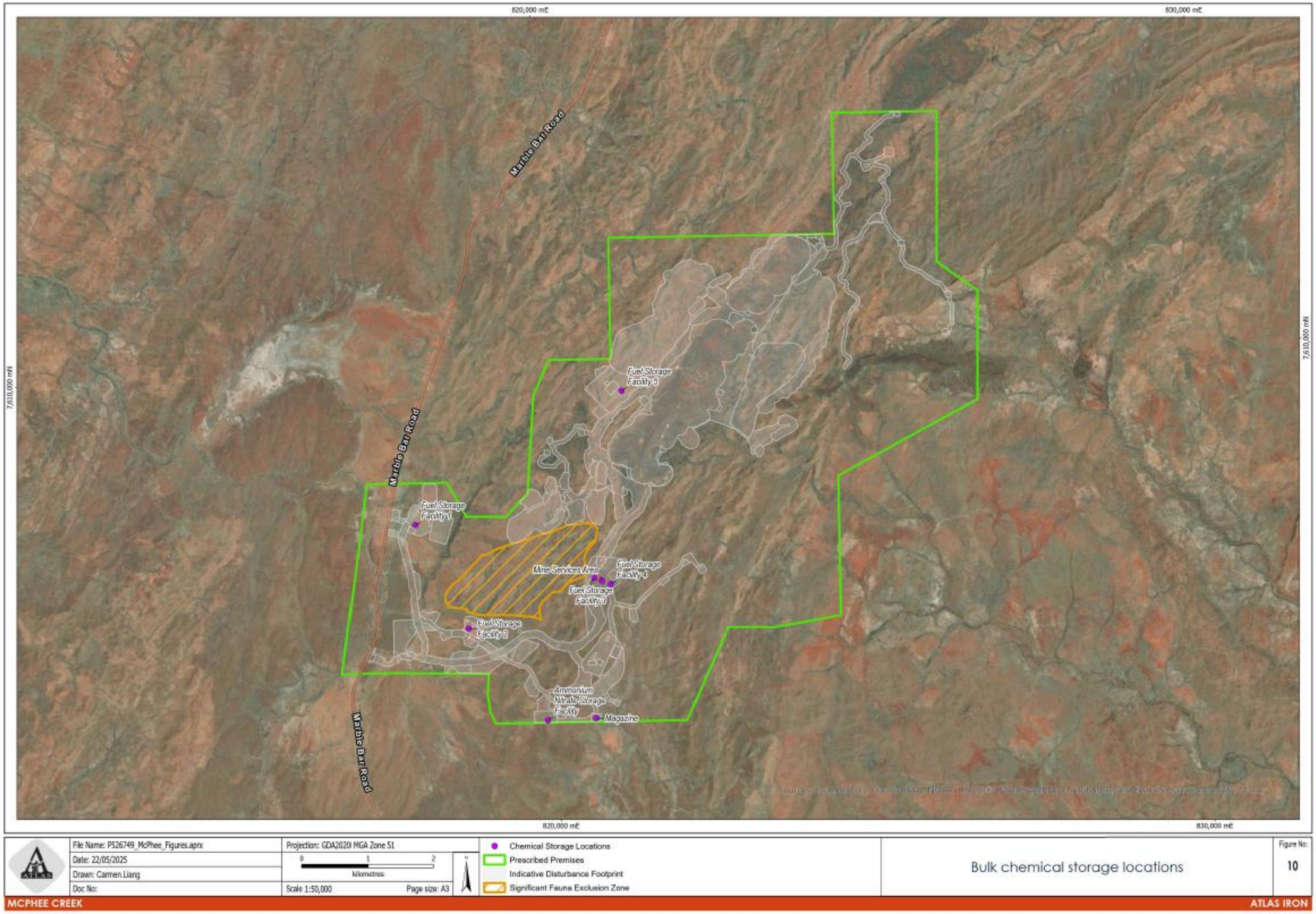

Figure 10: Bulk chemical storage locations

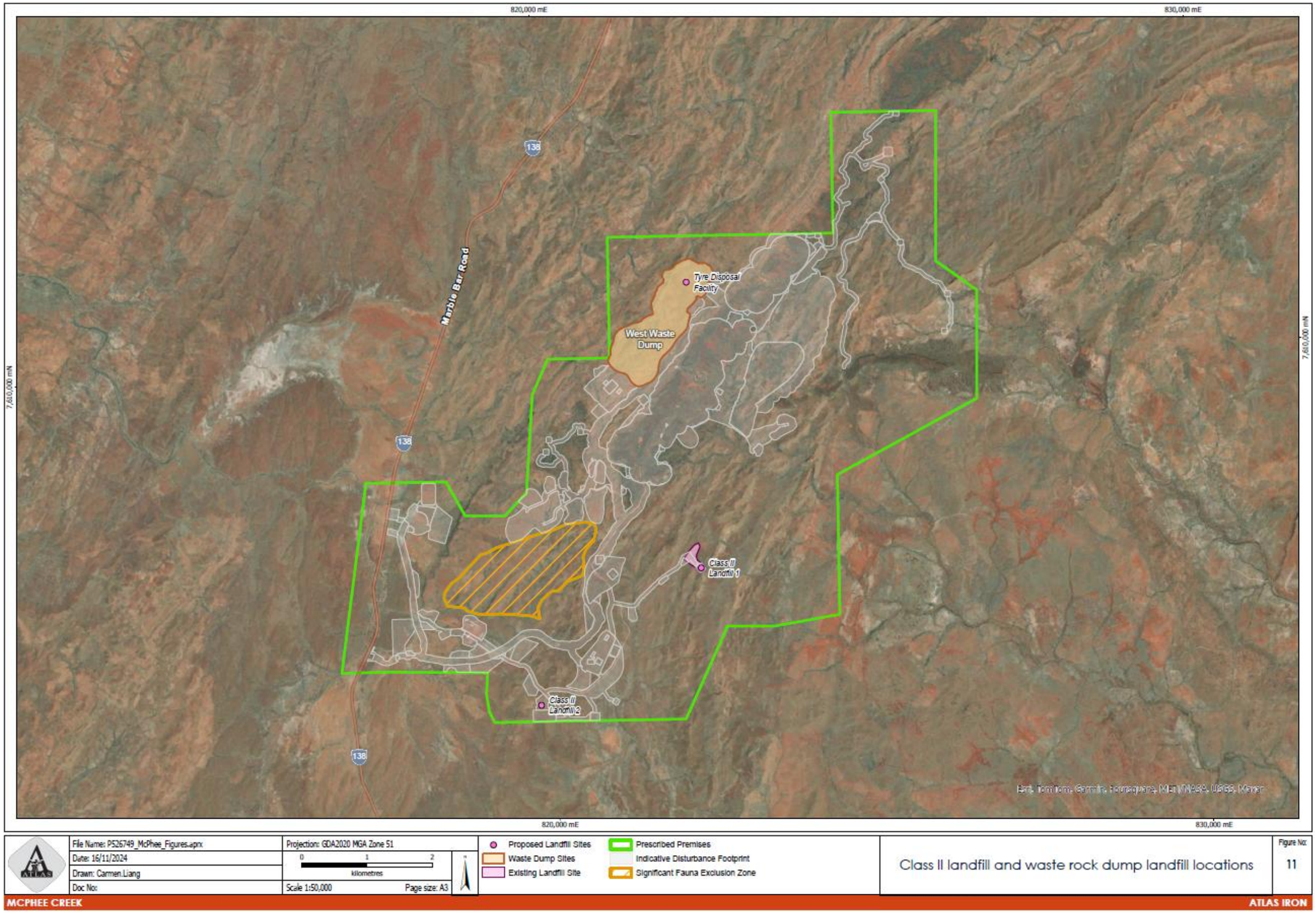

Figure 11: Class II landfill and waste rock dump landfill locations

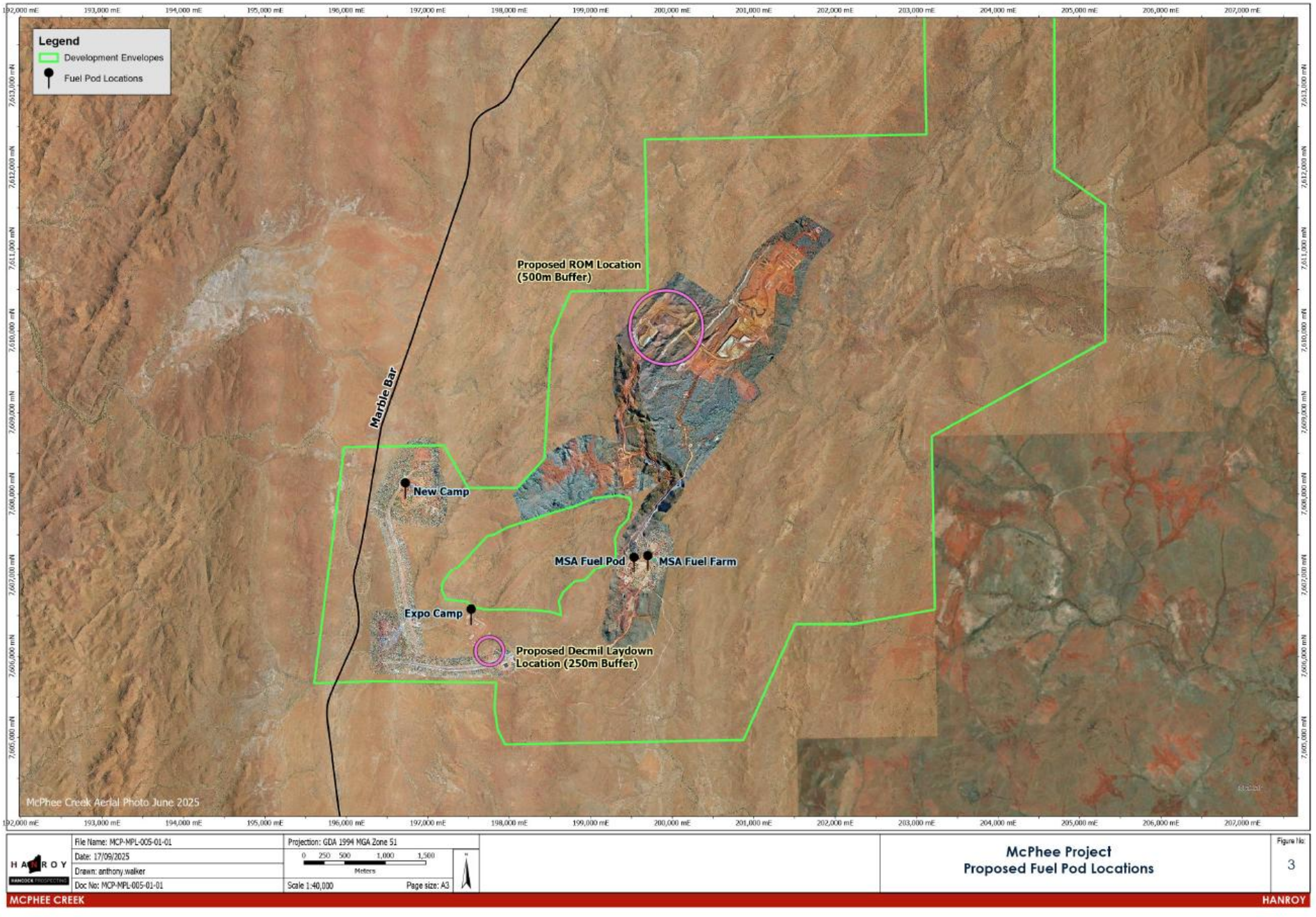

Figure 12: Locations for current and proposed fuel storage (proposed locations provided in purple buffer zone).

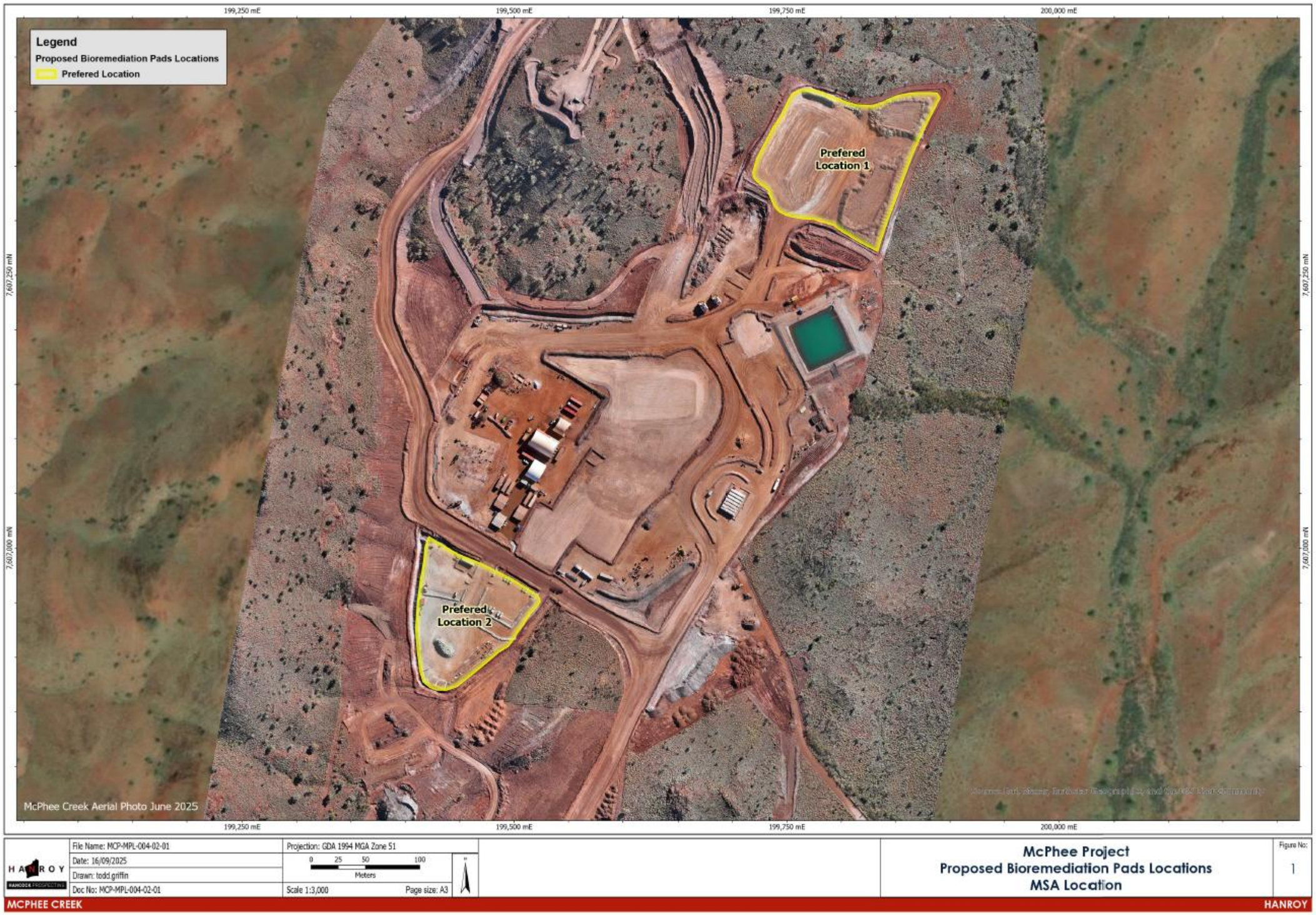

Figure 13: Bioremediation Pad Assessed Areas

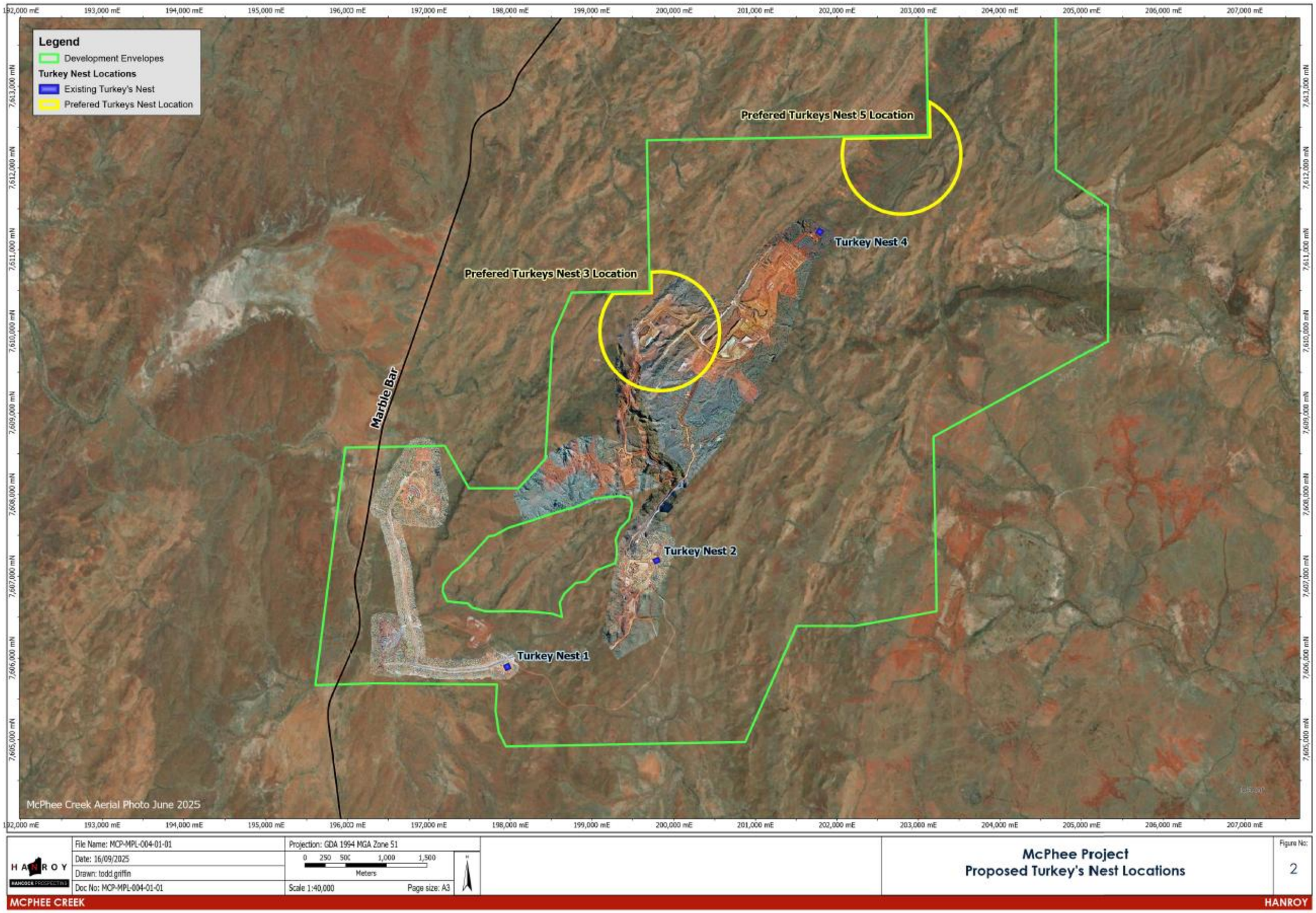

Figure 14: Existing Turkey Nest 1,2 and 4 Locations and Turkeys Nest 3 and 5 assessed locations

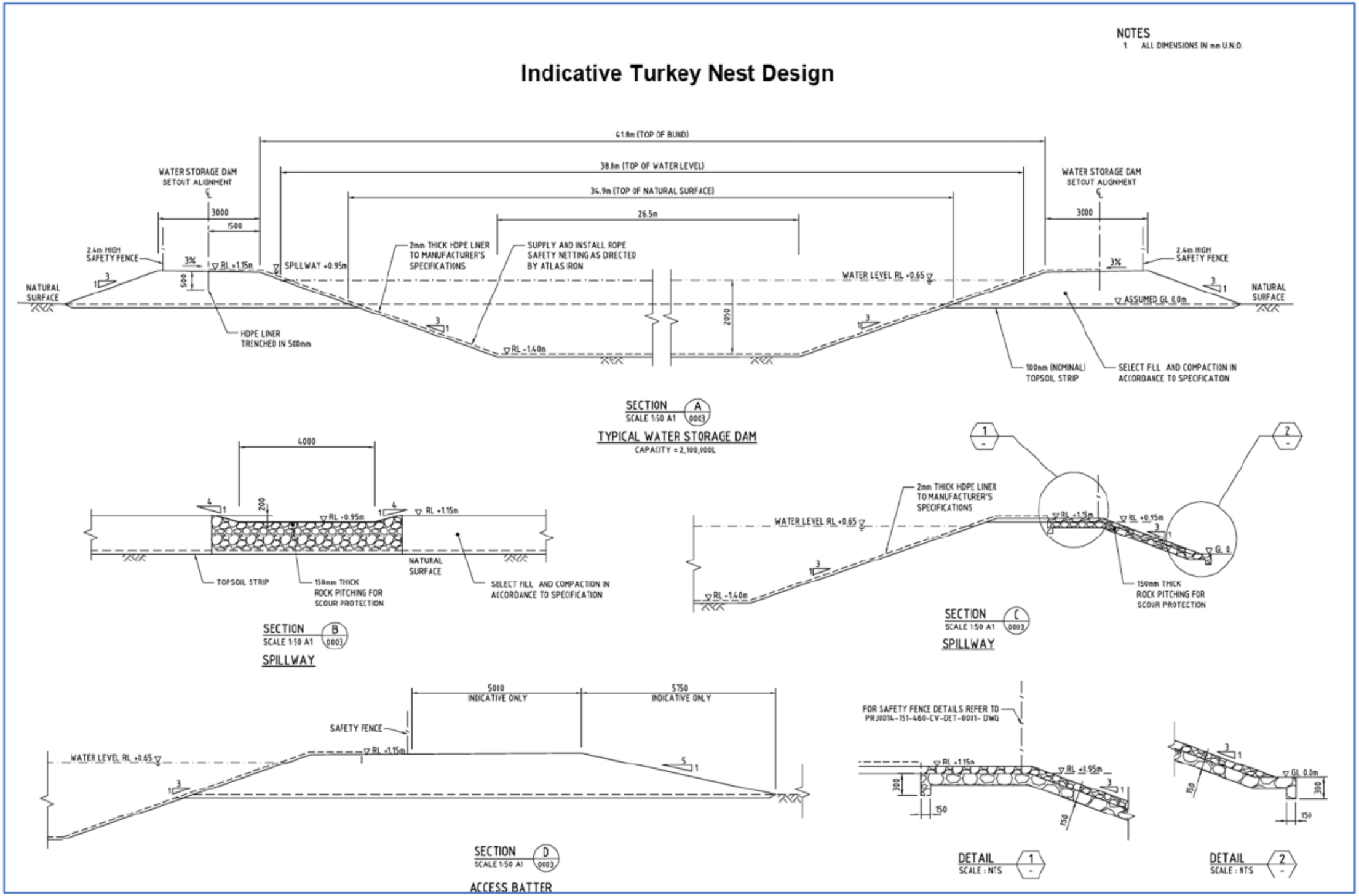

Figure 15: Indicative turkey's nest design