Government of Western Australia
Department of Water and Environmental Regulation

Licence

Licence number	L7798/1993/6
Licence holder	Silver Lake (Deflector) Pty Ltd
ACN	101 224 999
Registered business address	Suite 4, Level 3, South Shore Centre 85 South Perth Esplanade South Perth WA 6151
DWER file number	2010/003052-1 INS-0001540
Duration	01/12/2013 to 30/11/2026
Date of amendment	05/06/2025
Premises details	Gullewa Gold-Copper Operations M59/49, L59/49, L59/64, M59/68, M59/132, M59/294, M59/356, M59/391, M59/392, M59/335, M59/442, L59/35, M59/507, M59/336, M59/522, L59/71, L59/158, L59/159 and L59/160 Morawa – Yalgoo Road

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	877,000 tonnes per annual period
Category 6: Mine dewatering	1,540,000 tonnes per annual period
Category 64: Class II landfill site	4,000 tonnes per annual period
Category 54: Sewage facility	110 cubic metres per day

This amended licence is granted to the licence holder, subject to the attached conditions, on 05 June 2025, by:

Fiona Westcott
Digitally signed by Fiona Westcott
Date: 2025.06.05 09:32:41 +08'00'

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
8/10/2002	L7798/1993/1	New application
3/11/2003	L7798/1993/2	Licence re-issue
3/08/2004	L7798/1993/3	Licence re-issue
26/10/2006	L7798/1993/4	Licence re-issue
25/07/2008	L7798/1993/5	Licence amendment to transfer the licence from ATW (Aust) Pty Ltd to Mutiny Gold Ltd
27/11/2008	L7798/1993/5	Licence re-issue
02/08/2012	W5188/2012/1	Works Approval to rebuild the Gullewa processing plant
21/11/2013	L7798/1993/6	Licence re-issue
18/12/2014	W5188/2012/1	Works Approval amendment to relocate the processing operations to a site adjacent to the Deflector mine site within the same boundary area of the Premises.
21/01/2016	L7798/1993/6	Licence amendment to change the occupier name to Deflector Mining Ltd; include dewatering to the Golden Stream Pit and convert Licence to template version 2.9.
11/06/2018	L7798/1993/6	Amendment Notice 1: Increase production of category 5 to 700,000 tonnes per annual period, addition of category 64 class II putrescible landfill, addition of category 85 sewage facility and extension of the prescribed premises boundary.
20/07/2018	L7798/1993/6	Amendment Notice 2: Increase dewatering discharge to the Salt River discharge location while alternative methods of disposal are planned and implemented.
16/10/2018	L7798/1993/6	Amendment Notice 3: Construction of an embankment lift at the Gullewa Tailings Storage Facility and the installation of an in-pit TSF at the Monarch Pit.
10/12/2019	L7798/1993/6	Amendment Notice 4: Increase in throughput for category 5 and 85, relocation of dewatering discharge outlet, reduce SWL limit and install new groundwater monitoring bores and a recovery bore at the existing TSF.

16/02/2020	L7798/1993/6	Licence updated via amendment to resolve any clerical errors, miscalculations, or misdescriptions identified, as authorised under Section 59(1)(e) of the EP Act. Removal of Condition 4.1.2 as the condition is not enforceable and the requirements for compliance are not clear, as authorised under Section 59(1)(f) of the EP Act. Update of figures in Schedule 1: Maps, as authorised under Section 59(1)(g) and 59(1)(h) of the EP Act. Consolidation of licence to include previous amendment notices, as authorised under Section 59(2) of the EP Act. Removal of the Salt River emission point from Condition 2.2.1, Table 2.2.1, as intended via Amendment Notice 4, in which transition to the new Condition 2.4 that authorises discharges of surface water has been undertaken, as authorised under Section 59(2) of the EP Act.
20/04/2023	L7798/1993/6	Licence updated via amendment to increase through put for categories 5, 6 and 85. Inclusion of the CIP Circuit and TSF2 constructed under W6407/2020/1. Include Special Waste type 2 and a sludge drying bed. Removal of requirements related to the historical flood plain discharge location.
05/06/2025	L7798/1993/6	Licence amendment to replace Category 85 with Category 54 to increase the throughput of the sewage facility to 110 cubic metres per day.

Interpretation

In this licence:

(a) the words ‘including’, ‘includes’ and ‘include’ in conditions mean “including but not limited to”, and similar, as appropriate;

(b) where any word or phrase is given a defined meaning, any other part of speech or other grammatical form of that word or phrase has a corresponding meaning;

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

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

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

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

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

(h) unless specified otherwise, all definitions are in accordance with the EP Act.

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

Licence conditions

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

Infrastructure and equipment

General conditions

1. The Licence Holder shall install and maintain mechanisms to ensure that stormwater from the following areas, is diverted to facilities for treatment and disposal or reuse:

(a) Process plants;

(b) Washdown bays;

(c) Refuelling areas; and

(d) Mechanical workshops.

Premises operation

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

3. The Licence Holder shall carry out the Authorised Activities on the Premises in accordance with the requirements set out in Table 1.

Table 1: Authorised Activities

Authorised Activity	Process(es)	Process limits
Category 5	Processing or beneficiation of metallic or non-metallic ore	Processing of material at the premises shall not exceed 877,000 tonnes of ore per annual period.
Category 6	Mine dewatering	Dewatering discharge at the premises shall not exceed 1,540,000 tonnes per annual period to Salt River.
Category 64	Class II putrescible landfill	4,000 tonnes per annual period.
Category 54	Sewage facility: premises a) on which sewage is treated (excluding septic tanks); or b) from which treated sewage is discharged onto land or into waters.	110 cubic metres per day.

4. The Licence Holder shall ensure that waste material is only stored and/or treated within vessels or compounds provided with the infrastructure detailed in Table 2.

Table 2: Containment infrastructure for management of waste

Storage vessel or compound as shown on the Premises map in Schedule 1	Material	Management Strategy	Requirements
Gullewa TSF	Tailings and slurry	Containment in the TSF	The Licence Holder must: (i) maintain all installed toe drains and associated cut offs along the external toe of the TSF perimeter embankments, so that any liquid matter resulting from seepage or breach of the TSF embankments is contained and recovered; (ii) maintain a minimum top of embankment freeboard of 300 mm; and (iii) divert stormwater away from the TSF to minimise threat of accidental loss of stored matter due to flooding or erosion.
TSF2	Tailings and slurry	Containment in the TSF	The Licence Holder must: (i) maintain all installed a) toe drains and associated cut off trench (1.2 mbgl) along the external toe of the TSF2 perimeter embankments; and b) seepage recovery system, so that any liquid matter resulting from seepage or breach of the TSF2 embankments is contained and recovered; (ii) maintain a minimum top of embankment freeboard of 500 mm; (iii) maintain tailings >40% w/w solids; (iv) pump return water to a HDPE-lined pond with a permeability of 1 x 10-8 m/s or less for reuse in the processing plant; (v) maintain the installed a) surface bunds 1 m high and 6 m from the toe of the embankments; and b) drainage channel 0.7 m deep to divert stormwater away from the TSF2 embankments to minimise threat of accidental loss of stored matter due to flooding or erosion.
Monarch in-pit TSF	Tailings and slurry	Containment within the pit	The Licence Holder must: (i) ensure the final consolidated tailings bed is greater than 5 metres below the predicted post mining groundwater level of 292 mRL; and (ii) divert stormwater away from the Monarch in-pit TSF to minimise threat of accidental loss of stored matter due to flooding or erosion.
Golden Stream Pit and Settlement Pond/s	Dewater	Containment in the Golden Stream Pit and Settlement Pond/s prior to discharge to Salt River	Prior to discharge to Salt River, the Licence Holder must: (i) direct dewater to the Golden Stream Pit and Settlement Pond/s; and (ii) retain dewater in Golden Stream Pit and Settlement Pond/s for a sufficient time to reduce Total Suspended Solids to less than 5,000 mg/L. The Licence Holder must maintain a minimum top of embankment freeboard of 300 mm.

5. The licence holder must ensure that the site infrastructure and equipment listed in Table 3 and located at the corresponding infrastructure location is maintained and operated in accordance with the corresponding operational requirement set out in Table 3.

Table 3: Infrastructure and equipment requirements

Site infrastructure and equipment	Operational requirement	Infrastructure location
WWTP and Irrigation sprayfield	• Pipelines inspected daily to confirm whether any leaks or spills occuring • Spills of wastewater or chemicals outside containment infrastructure must be cleaned up immediately • All wastewater storage and treatment tanks, vessels, transfer pipelines and conveyance infrastructure must be maintained to be impermeable and free of leaks or defects • Irrigation managed to prevent waterlogging and pooling of effluent on the surface of the sprayfield. • Original decommissioned WWTP to be kept onsite as backup in case of failure of the new WWTP	Figure 3 in Schedule 1

6. The Licence Holder shall ensure that all pipelines containing tailings, recovered decant or dewatering effluent are either:

(a) equipped with automatic cut-outs in the event of a pipe failure; or

(b) provided with secondary containment sufficient to contain any spill for a period equal to the time between routine inspections; or

(c) provided with telemetry systems and pressure sensors along pipelines carrying environmentally hazardous materials to allow the detection of leaks and failures.

7. The Licence Holder shall only accept waste on to the 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;

(c) it meets any specification listed in Table 4; and

(d) it conforms to the description in the documentation supplied by the producer and holder.

Table 4: Waste Acceptance

Waste	Quantity Limit	Specification
Clean fill	None specified.	None specified.
Inert Waste Type 1	Combined total of 4,000 tonnes per annual period.	None specified.
Putrescible waste		

Waste	Quantity Limit	Specification
Inert Waste Type 2	100 used tyres are stored.	Used tyres only.
Type 2 Special Waste (biomedical waste only)	Less than 1 tonne/year.	Supervised burial: • Disposal to take place under the supervision of the licensee or their nominated representative; • Shall not to be deposited within 2 m of the final tipping surface of the landfill(s); and • No works shall be carried out on the landfill(s) that could lead to biomedical and clinical wastes being excavated or uncovered.

8. The Licence Holder shall ensure that cover is applied to waste in the tipping area in accordance with Table 5 and that sufficient stockpiles of cover are maintained on site at all times for the tipping area of the site to be covered, in accordance with this condition, at least twice.

Table 5: Cover requirements

Waste type	Material	Depth	Timescale
Putrescible Wastes	Inert and incombustible material	A minimum of 200 mm. No waste is to be left exposed after covering.	Cover shall be applied fortnightly

9. 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 6.

Table 6: Infrastructure and equipment requirements table

Column 1	Column 2
Infrastructure	**Requirements (design and construction)**
Stage 5 Gullewa TSF embankment lift and associated infrastructure	2.0 metre lift of the Gullewa TSF embankment wall, utilising an upstream construction method, from the current height of 327.5 mRL to a final crest level of 329.5 mRL
Stage 6 Gullewa TSF embankment lift and associated infrastructure	2.0 metre lift of the Gullewa TSF embankment wall, utilising an upstream construction method, from the current height of 329.5 mRL to a final crest level of 331.5 mRL
Stage 7 Gullewa TSF embankment lift and associated infrastructure	2.0 metre lift of the Gullewa TSF embankment wall, utilising an upstream construction method, from the current height of 331.5 mRL to a final crest level of 333.5 mRL
Stage 8 Gullewa TSF embankment lift and associated infrastructure	2.0 metre lift of the Gullewa TSF embankment wall, utilising an upstream construction method, from the current height of 333.5 mRL to a final crest level of 335.5 mRL

10. 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 7.

Table 7: Infrastructure and equipment requirements table

Column 1	Column 2
Infrastructure	**Requirements (design and construction)**
Clarification modular unit	• Installed on a purpose built bunded concrete pad graded to a sump to capture any spills; • Designed to manage up to 50 L/s; and • Equipped with a high level alarm which automatically activates a diversion valve to direct the underground inflow straight to the Golden Stream open pit in the event of a malfunction in the Clarifier.
Ore sorter at processing plant	• Fitted with dust suppression systems
Dewatering discharge outlet at Salt River	• Construction of a 20 m long, 0.5 m deep, rock lined trapezoidal drain perpendicular to the river bank that extends over the riverbank and terminates in the bed of the Salt River; • The rock lined drain is lined with a geotextile fabric to minimise seepage; • Dewatering discharge outlet onto rock drain is fitted with an energy diffusion device; and • All dewatering discharge infrastructure is designed to withstand a 1 in 20

Column 1	Column 2
Infrastructure	**Requirements (design and construction)**
	year flood event.
Dewatering pipelines	• equipped with automatic cut-outs in the event of a pipe failure; or • provided with secondary containment sufficient to contain any spill for a period equal to the time between routine inspections; or • provided with telemetry systems and pressure sensors along pipelines carrying environmentally hazardous materials to allow the detection of leaks and failures.
Carbon in Pulp Leach circuit	• Comprises of: ○ cyanidation unit ○ regrind mill ○ regrind cyclone/gravity concentrator ○ 2x leach tanks ○ 6x absorption tanks with screens and agitators ○ Fine carbon bin ○ CIP tails hopper ○ Oxygen vessels ○ Leach thickener and overflow tank ○ Gold room ○ Elution/acid wash column, electrowinning cells ○ Carbon regeneration kiln ○ Tailings hopper ○ Associated infrastructure such as screens, chutes and pumps. • Potentially contaminated stormwater is directed to an existing event pond (volume of 1,320 m^3) to the south of the facility.
Reagent Storage at the Processing Plant	• All reagents, storage tanks, mixing tanks, pumps and pipes are located within concrete bunds designed and constructed in accordance with AS 1940:2017.
Sludge Drying bed with pipelines at the WWTP.	• Construction of two concrete lined cells with steel reinforced concrete walls, sealed and waterproof coated, 50 mm fall from feed end to discharge end of floor level to treat an estimated 9000 litres of material per month from the existing 22,500 litre sludge tank. • Freeboard limit of 300 mm and is to be included in existing daily inspections of the WWTP. • Material from the sludge tanks shall be transferred to the drying beds via bunded pipeline & water returned to the WWTP balance tank. • Dried material is to be disposed to an appropriate offsite facility via a controlled waste contractor, therefore no discharge to the environment is authorised.

Emissions and discharges

General

11. The Licence Holder shall record and investigate the exceedance of any descriptive or numerical limit specified in relation to emissions and discharges of this Licence.

Emissions to land

12. The Licence Holder shall ensure that where waste is emitted to land from the emission points in Table 8 and identified on the map of emission points in Schedule 1 it is done so in accordance with the conditions of this Licence.

Table 8: Emissions to land

Emission point reference on Map of emission points	Description	Source including abatement
Irrigation spray field	Discharge of treated wastewater by irrigation to land	Treated wastewater from the wastewater treatment facility.

Emissions to air

13. The Licence Holder shall ensure that where waste is emitted to air from the emission points in Table 9 and identified on the map of emission points in Figure 4 it is done so in accordance with the conditions of this Licence.

Table 9: Emissions to air

Emission point reference on Map of emission points	Description	Source including abatement
TSF Evaporators	Six turbo mist evaporators	Water supplied to the evaporators is provided via the TSF decant water feed.

14. The Licence Holder shall actively manage windblown tailings dust from the Gullewa TSF so that tailings are not discharged beyond the footprint of the facility.

Emission to surface water

15. The Licence Holder shall ensure that where waste is emitted to surface water 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 surface water

Emission point reference on Map of emission points	Description	Source including abatement
Salt River discharge point as shown in Schedule 1	Dewatering effluent	Water from dewatering of mine. Approved to discharge a maximum of 1,540,000 tonnes per annual period. Dewatering effluent discharged via an energy dissipater which consists of a 20 m long, 0.5 m deep, geotextile lined drain perpendicular to the riverbank with rock armouring extending to the riverbed.

Emission to groundwater

16. The Licence Holder shall ensure that where waste is emitted to groundwater from the emission point in Table 11 and identified on the map of emission points in Schedule 1 it is done so in accordance with the conditions of this Licence.

Table 11: Emissions to groundwater

Emission point reference on Map of emission points	Description	Source including abatement
Golden Stream Pit	End of pipe discharge	Water from dewatering of mine.

Monitoring

General monitoring

17. 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 groundwater sampling is conducted in accordance with AS/NZS 5667.11;

(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;

(e) all wastewater sampling is conducted in accordance with AS/NZS 5667.10; and

(f) all microbiological samples are collected and preserved in accordance with AS/NZS 2031.

18. The Licence Holder shall ensure that:

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

(b) six monthly monitoring is undertaken at least 5 months apart.

19. 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.

20. The Licence Holder shall, where the requirements for calibration cannot be practicably met, or a discrepancy exists in the interpretation of the requirements, bring these issues to the attention of the CEO accompanied with a report comprising details of any modifications to the methods.

Monitoring of emissions to land

21. 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 land

Discharge point	Monitoring location	Parameter	Units	Frequency
Irrigation field	WWTP outlet (final effluent tank)	pH[1]	-	Quarterly
		E. coli	cfu/100 mL	
		Biochemical Oxygen Demand	mg/L	
		Residual chlorine[2]		
		Total Phosphorus		
		Total Nitrogen		
		Total Suspended Solids		
		Total Dissolved Solids		
	Flow meter to irrigation field	Cumulative volumetric flow rate	m^3/day	Daily or continuous online

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.

Process monitoring

22. The Licence Holder shall undertake the monitoring in Table 13 according to the specifications in that table.

Table 13: Process monitoring

Monitoring point reference	Process description	Requirements	Frequency	Method
Gullewa, TSF, TSF2 and Monarch in-pit TSF	Tailings and slurry contained in TSF for drying and storage	The Licence Holder shall undertake daily visual inspections of the Gullewa TSF, TSF2 and the Monarch in-pit TSF. As a minimum the following shall be inspected: (i) tailings delivery lines; (ii) return water lines; (iii) tailings deposition; (iv) ponding on the surface of the Gullewa TSF, TSF2 and the Monarch in-pit TSF; (v) internal embankment freeboard; and (vi) the external walls of the Gullewa TSF and TSF2. Monthly records of: (i) Volume of tailings discharged; (ii) Volume of decant recovered; and (iii) Tailings solid content. The Licence Holder shall ensure a logbook is kept for all visual inspections. The logbook shall be signed by the person undertaking the inspection and shall indicate any problems noted. The Licence Holder shall ensure the logbook is retained in the plant control room and is made available to an inspector on request.	Daily	Visual inspection
Dewatering Pipeline and discharge points	Dewatering water	The Licence Holder shall undertake daily visual inspections of the dewatering pipeline and discharge points to: (i) identify any potential or actual pipeline failures and any erosion of the discharge sites; and (ii) identify any seepage, spills or leaks. The Licence Holder shall ensure a log book is kept for all visual inspections of the dewatering pipeline and discharge points.	Daily	Visual inspection

Ambient environmental quality monitoring

23. The Licence Holder shall undertake the monitoring in Table 14, Table 15, Table 16 and Table 17 according to the specifications in those tables and present this information in the Annual Environmental Report, including a comparison against the appropriate ANZG 2020 water quality trigger values and previous years' monitoring data.

Table 14: Monitoring of ambient groundwater quality

Monitoring point reference and location as depicted in Schedule 1	Parameter	Units	Limit	Averaging Period	Frequency
Monitoring bores: TSFMB08, TSFMB09, TSFMB10, TSFMB11, TSF2 MB01, TSF2 MB02, TSF2 MB03, TSF2 MB04, TSF2 MB05, TSF2 MB06, SMW1; SMW2; SMW3; WB1; and WB2	Standing Water Level1	m(AHD)	4 mbgl	Spot sample	Monthly
	pH2	-	-	Spot sample	Quarterly
	Major ions and metals – Aluminium Arsenic Bicarbonate Cadmium Calcium Chloride Chromium Cobalt Copper Iron Lead Magnesium Manganese Mercury Molybdenum Nickel Nitrate Potassium Selenium Sodium Sulfate Thallium Zinc	mg/L			
	Total dissolved solids				
	Weak Acid Dissociable Cyanide (WADCN)		0.5 mg/L		

Note 1: To be recorded prior to the collection of samples for other parameters

Note 2: Infield non-NATA accredited analysis permitted

Table 15: Monitoring of ambient vegetation quality

Monitoring point reference and location as depicted in Schedule 1	Parameter	Requirements	Frequency	Method
Gullewa TSF Monitoring: EMP01, EMP02, EMP03, and EMP04	Vegetation health (i.e., decline in Vegetation or change in composition)	-The Licence Holder shall on a monthly basis: (i) take photographic images; (ii) provide a general Environmental description of the site; and (iii) record any changes to vegetation health or composition which may have been induced by seepage from the Gullewa TSF or TSF2.	Quarterly	Visual inspection and photographs
TSF2 Monitoring TSF2 MB01, TSF2 MB02, TSF2 MB03, TSF2 MB04, TSF2 MB05, and TSF2 MB06.				

Table 16: Monitoring of ambient soil quality

Monitoring point reference and location as depicted in Schedule 1	Parameter	Units	Investigation Value	Averaging period	Frequency	Method
Salt River sampling sites: SR01, SR02, SR03, SR04, SR05, SR06, SR07, SR08, BL01, BL02, BL03, BL04, and BL05	Cadmium Copper Nickel	mg/kg	N/A	Spot sample	Quarterly	N/A
	Chromium Reducible Sulphur in the top portion of sediment which is exposed to oxygen.	%S (equivalent sulphur)	0.06	Spot sample	Annually	Oven-dry basis

Table 17: Monitoring of ambient surface water quality

Monitoring point reference and location as depicted in Schedule 1	Parameter	Units	Averaging period	Frequency
Salt River sampling sites: SR01, SR02, SR03, SR04, SR05, SR06, SR07, SR08, BL01, BL02, BL03, BL04, and BL05	pH	pH units	Spot sample	Quarterly when water is present.
	TDS TSS	mg/L		
	Major ions and metals – copper, sodium, chloride, chromium, aluminium, cadmium, iron, magnesium, nickel, calcium, potassium, manganese, selenium, arsenic, lead and zinc.			
	Aquatic ecology – diversity and abundance	-		Following a flood event (river flow)

Monitoring of emissions to groundwater

24. The Licence Holder shall undertake the monitoring in Table 18 according to the specifications in that table.

Table 18: Monitoring of point source emissions to groundwater

Emission point reference	Parameter	Units	Averaging Period	Frequency
Golden Stream Pit	Volumetric flow rate	m^3/day	Monthly	Continuous
	Aluminium, arsenic, cadmium, chloride, copper, iron, lead, magnesium, manganese, mercury, molybdenum, nickel, potassium, selenium, sodium, zinc	mg/L	Spot sample	Quarterly
	Standing water level in pits	mbgl		
	Total dissolved solids	mg/L		
	Total recoverable hydrocarbons	mg/L		
	pH[1]	pH units		

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

Monitoring of emission to surface water

25. The Licence Holder shall undertake the monitoring in Table 19 according to the specifications in that table and present this information in the Annual Environmental Report, including a comparison against previous years' monitoring data.

Table 19: Monitoring of emissions to surface water

Emission point reference	Parameter	Units	Investigation value	Frequency
Salt River As shown in Map of emission points in Schedule 1.	Cumulative volume	kL	Not specified	Continuous
	pH[1]	pH units		Quarterly
	Total Dissolved Solids	mg/L		
	Total Suspended Solids			
	Cadmium	mg/L	0.036	
	Copper		0.07	
	Nickel		0.56	
	Zinc		0.20	
	Major ions and metals – sodium, chloride, aluminium, chromium, iron, magnesium, calcium, potassium, manganese, selenium, arsenic, and lead.	mg/L	Not specified	

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

Records and reporting

Specified Action

26. The licence holder must include the following information in the report referred to in conditions 23 and 25 in relation to any exceedances of any of the investigation values identified in those conditions:

(a) the nature, volume, and characteristics of the emissions or ambient concentrations exceedance;

(b) the time and date when the exceedance occurred;

(c) whether any environmental impact occurred as a result of the exceedance and, if so, what that impact was and where the impact occurred;

(d) the details of any management actions taken in response to the exceedance;

(e) the details and result of any investigation undertaken into the cause of the exceedance; and

(f) the details of any action or specified measures that have been taken, or will be taken, to prevent the exceedance occurring again and for the purpose of minimising the likelihood of pollution or environmental harm.

Records

27. 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 27(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.

28. 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 90 days after the end of that annual period an Annual Audit Compliance Report in the approved form.

29. 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.

30. 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 conditions 1, 4, 5 and 6 of this licence;

(c) monitoring programmes undertaken in accordance with conditions 21 to 25 of this licence; and

(d) complaints received under condition 29 of this licence.

31. The books specified under condition 30 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.

Reporting

32. The Licence Holder shall submit to the CEO an Annual Environmental Report by 31 March each year. The report shall contain the information listed in Table 20 in the format or form specified in that table.

Table 20: Annual Environmental Report

Condition or table	Parameter	Format or form
-	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.
-	Provide an annual water balance for all active TSFs, which includes records detailing the TSF2 water balance including: • site rainfall; • evaporation; • decant water recovery volumes; • seepage recovery volumes from recovery bores; • toe drainage recovery volumes; • volumes of tailings deposited; • tailings solid content (w/w %); • volume of water in tailings; • TSF2 remaining filling capacity – determined via tailings level (mRL); and • Calculated seepage.	
-	Provide a report on the tailings stored in TSF2, which includes records detailing the: (i) volume of tailings deposited; (ii) tailings density; and (iii) tailings solid content.	
-	Report on the effectiveness of seepage recovery measures around all active TSFs.	
Table 1	Actual throughput for the annual period for Categories 5, 6, 64 and 85.	
Table 12	All discharge to irrigation area monitoring parameters specified in Table 12.	
Table 13	Summary of the TSF inspections including details on any seepage, spills or leaks and corrective measures undertaken to rectify any issues identified	
Table 13	Summary of the dewatering pipeline and discharge point inspections including details on any identified pipeline failures, seepage, spills or leaks and corrective measures undertaken to rectify any issues identified.	
Table 14	All ambient groundwater quality monitoring parameters specified in Table 14.	
Table 15	All ambient vegetation quality monitoring parameters specified in Table 15.	

Condition or table	Parameter	Format or form
Table 16	All ambient soil quality monitoring parameters specified in Table 16.	
Table 17	All ambient surface water quality monitoring parameters specified in Table 17.	
Table 18	All emission to groundwater monitoring parameters specified in Table 18.	
Table 19	All emission to surface water monitoring parameters specified in Table 19.	
Condition 26	Specified Action reporting required under conditions 23 and 25	
Condition 28	Compliance.	Annual Audit Compliance Report (AACR)
Condition 29	Complaints summary.	None specified

33. The Licence Holder shall ensure that the Annual Environmental Report also contains:

(a) any relevant process, production or operational data recorded under Condition 19; and

(b) an assessment of the information contained within the report against previous monitoring results and Licence limits, including discussion of any trends identified over time.

34. The Licence Holder shall submit the information in Table 21 to the CEO according to the specifications in that table.

Table 21: Non-annual reporting requirements

Condition or table (if relevant)	Parameter	Reporting period	Reporting date	Format or form
-	Copies of original monitoring reports submitted to the Licence Holder by third parties	Not Applicable	Within 14 days of the CEOs request	As received by the Licence Holder from third parties

Notification

35. The Licence Holder shall ensure that the parameters listed in Table 22 are notified to the CEO in accordance with the notification requirements of the table.

Table 22: Notification requirements

Condition or table	Parameter	Notification requirements[1]	Format or form
Condition 3, Condition 13, Condition 23, Condition 25 and Condition 27	Breach of any limit or investigation values 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
Table 6	Geotechnical Investigation Report certifying each item of infrastructure or component of infrastructure specified in Column 1 of Table 6 has been constructed with no material defects and to the requirements specified in Column 2. The report must be prepared or reviewed by a person with tertiary qualifications in Civil or Geotechnical Engineering and at least two years employment in geotechnical structures.	Within 60 days of the completion of each stage of the works specified in Column 1 of Table 6.	None specified
Table 7	Construction Compliance Report certifying each item of infrastructure or component of infrastructure specified in Column 1 of Table 7 has been constructed with no material defects and to the requirements specified in Column 2.	Within 60 days of the completion of each Stage of the Works specified in Column 1 of Table 7.	None specified
Condition 20	Calibration report.	As soon as practicable.	None specified
Condition 22 Table 13	The Licence Holder shall notify the CEO of any TSF pipeline failures and provide an estimate of the tailings and slurry lost due to the failure within one week of the incident.	As soon as practicable but no later than 5pm of the next usual working day. Volume estimate provided within one week of the incident.	None specified
Condition 22 Table 13	The Licence Holder shall notify the CEO of any dewatering pipeline failures and provide an estimate of the mine dewatering water lost due to the failure within one week of the incident.	As soon as practicable but no later than 5pm of the next usual working day. Volume estimate provided within one week of the incident.	None specified

Note 1: Notification requirements in the Licence shall not negate the requirement to comply with s72 of the Act
Note 2: Forms are in Schedule 2

Definitions

In this licence, the terms in Table 23 have the meanings defined.

Table 23: Definitions

Term	Definition
Act	means the Environmental Protection Act 1986.
ACN	Australian Company Number.
Anniversary Date	means 30 June of each year.
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	means the inclusive period from 1 January until 31 December.
ANZG 2020	means the most recent version and relevant parts of the *Australian and New Zealand Guidelines for fresh and marine water quality*
AS/NZS 2031	means the Australian Standard AS/NZS 2031:2001 - Selection of containers and preservation of water samples for microbiological analysis.
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.*
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.

Term	Definition
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
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.
emission	has the same meaning given to that term under the EP Act.
EP Act	*Environmental Protection Act 1986* (WA).
EP Regulations	*Environmental Protection Regulations 1987* (WA).
freeboard	means the distance between the maximum water surface elevations and the top of retaining banks or structures at their lowest point.
kL	means kilolitres.
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.
m(AHD)	means metres Australian Height Datum.
mg/L	means milligrams per litre.
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	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.

Term	Definition
prescribed premises	has the same meaning given to that term under the EP Act.
quarterly	means the 4 inclusive periods from 1 April to 30 June, 1 July to 30 September, 1 October to 31 December and in the following year, 1 January to 31 March.
Schedule 1	means Schedule 1 of this Licence unless otherwise stated.
Schedule 2	means Schedule 2 of this Licence unless otherwise stated.
six monthly	means the 2 inclusive periods from 1 July to 31 December and in the following year, 1 January to 30 June.
spot sample	means a discrete sample representative at the time and place at which the sample is taken.
Standard Methods for Examination of Water and Wastewater	means the most recent edition of the Standard Methods for Examination of Water and Wastewater as published by the American Public Health Association (APHA), the American Water Works Association (AWWA) and the Water Environment Federation (WEF), generally abbreviated to APHA-AWWA-WEF.
TSF	means tailings storage facility.
waste	has the same meaning given to that term under the EP Act.

END OF CONDITIONS

Schedule 1: Maps

Premises map

The Premises is shown in the map below. The red lines depict the Premises boundary (Figure 1).

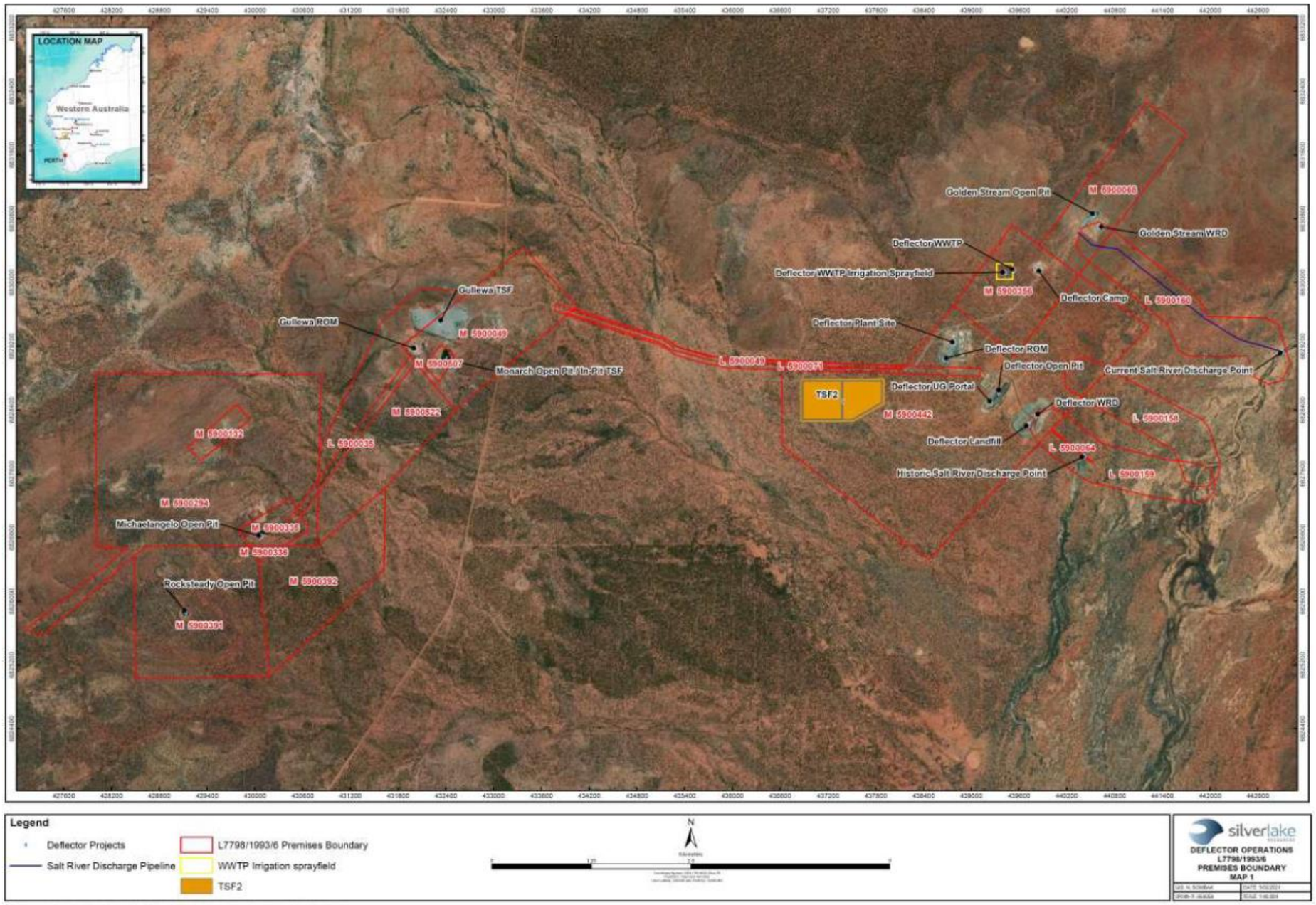

Figure 1: Map of the boundary of the prescribed premises

Map of emission and monitoring points

Map of containment infrastructure for the Gullewa TSF and Monarch in-pit TSF as defined in Table 2 is shown below (Figure 2).

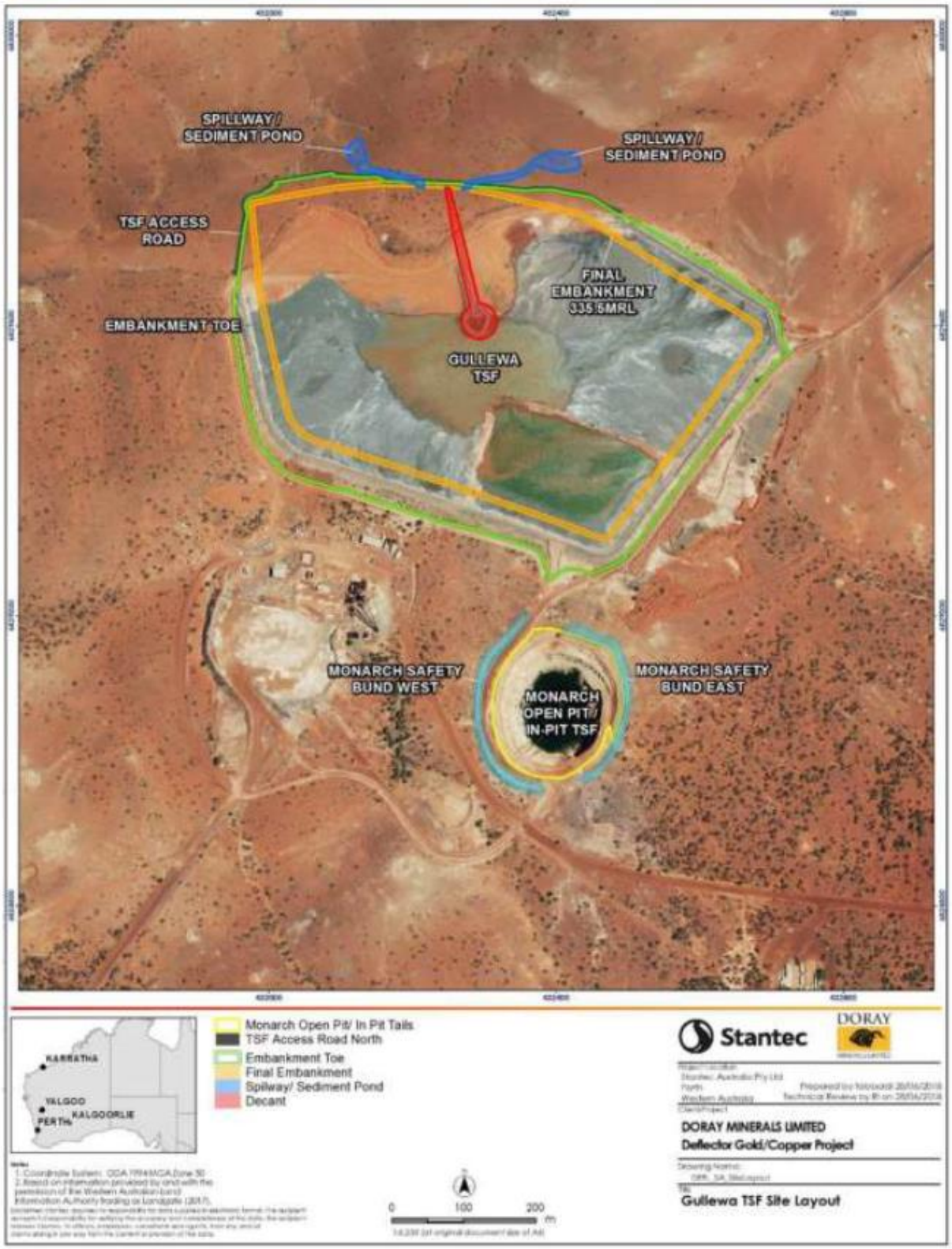

Figure 2: The Gullewa TSF and Monarch in-pit TSF containment infrastructure.

The location of the irrigation spray field defined in Table 8 is shown in the map below (Figure 3).

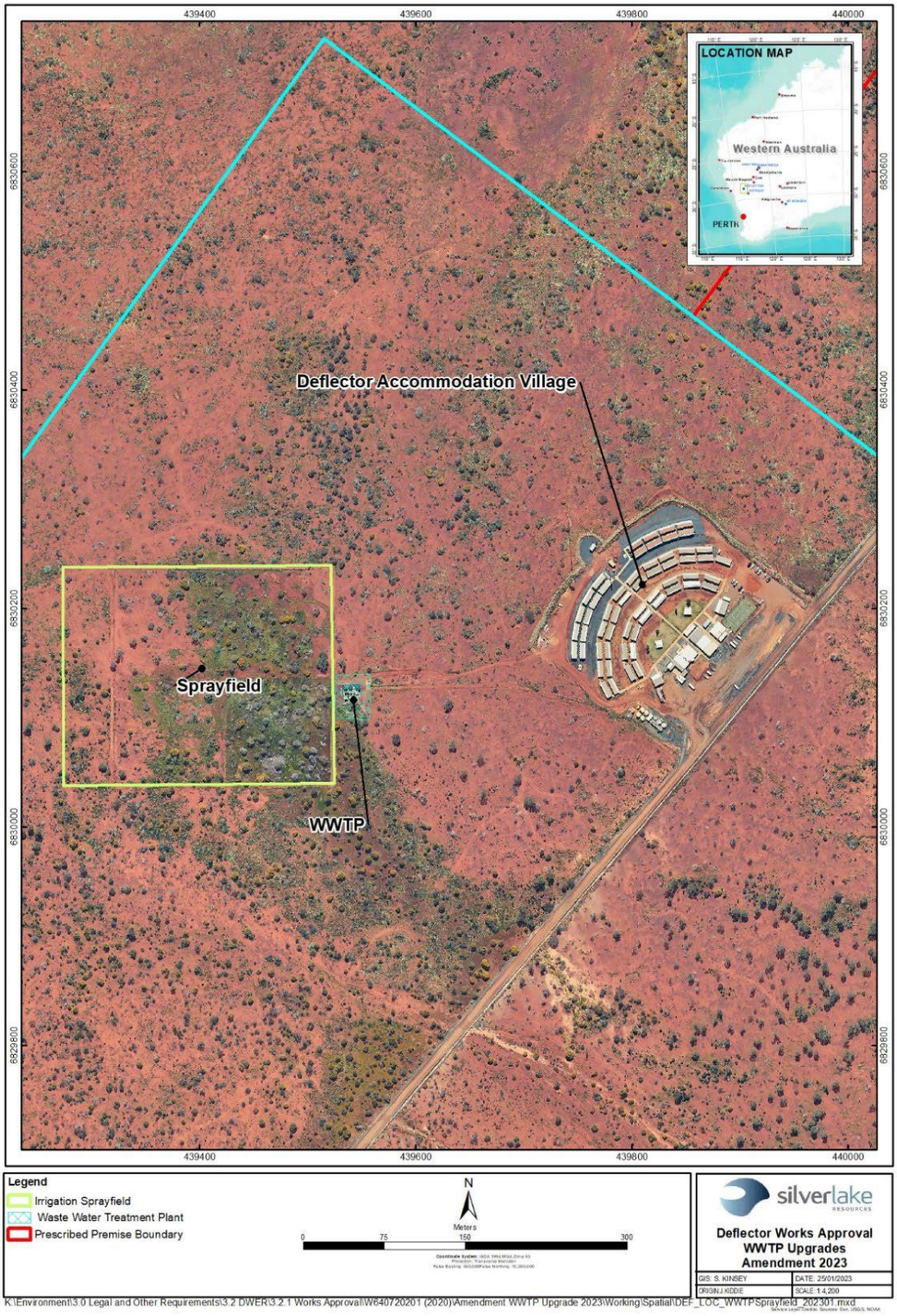

Figure 3: The location of the irrigation spray field.

The location of the air emission points defined in Table 9, groundwater monitoring points in Table 14, vegetation monitoring points in Table 15 is shown in the map below (Figure 4).

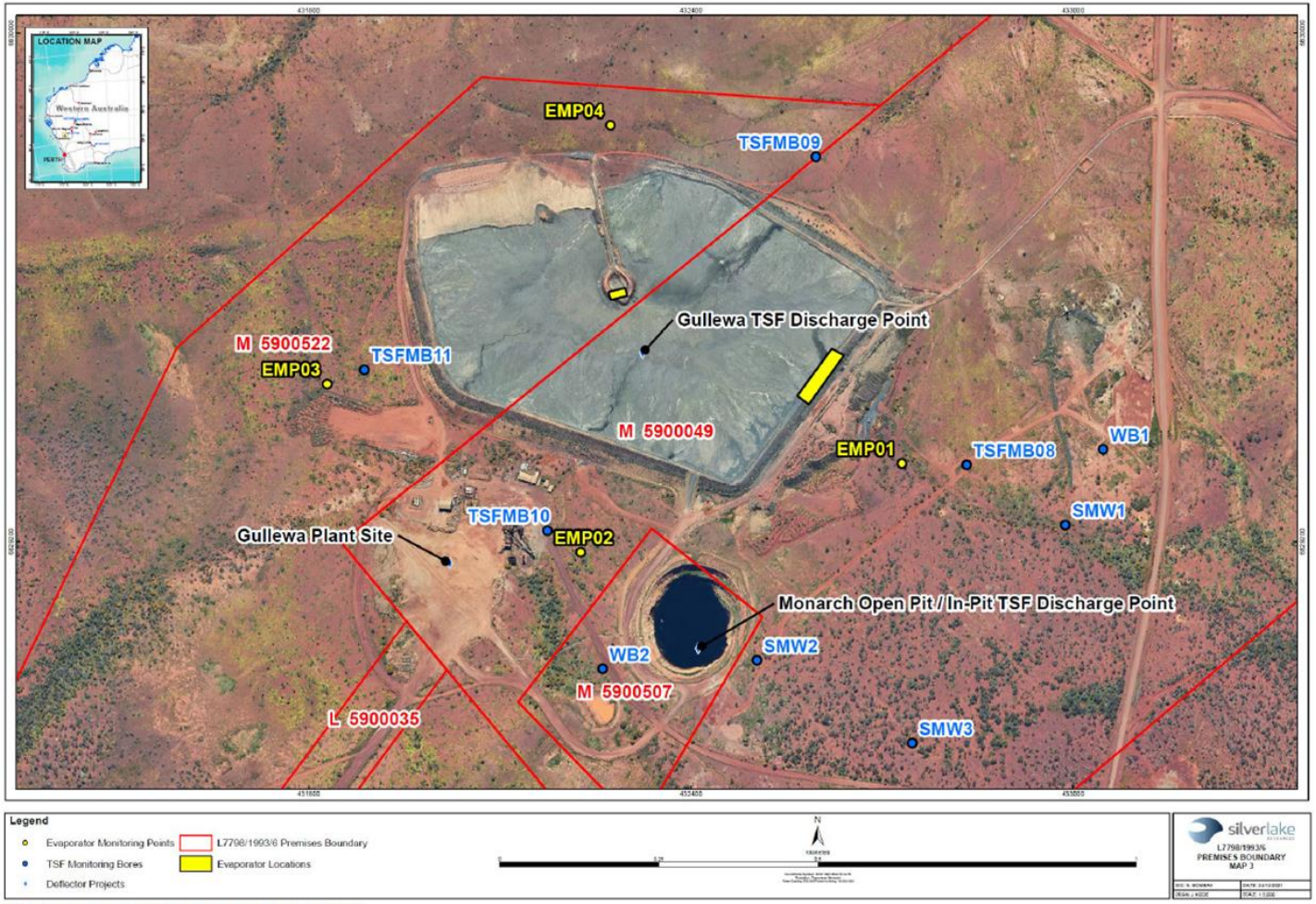

Figure 4: Emission and monitoring point locations.

The location of the dewatering discharge to Salt River defined in Table 10 is shown below (Figure 5).

Figure 5: Salt River Pipeline Route

The location of the dewatering discharge point defined in Tables 9 and 10 is shown below (Figure 6).

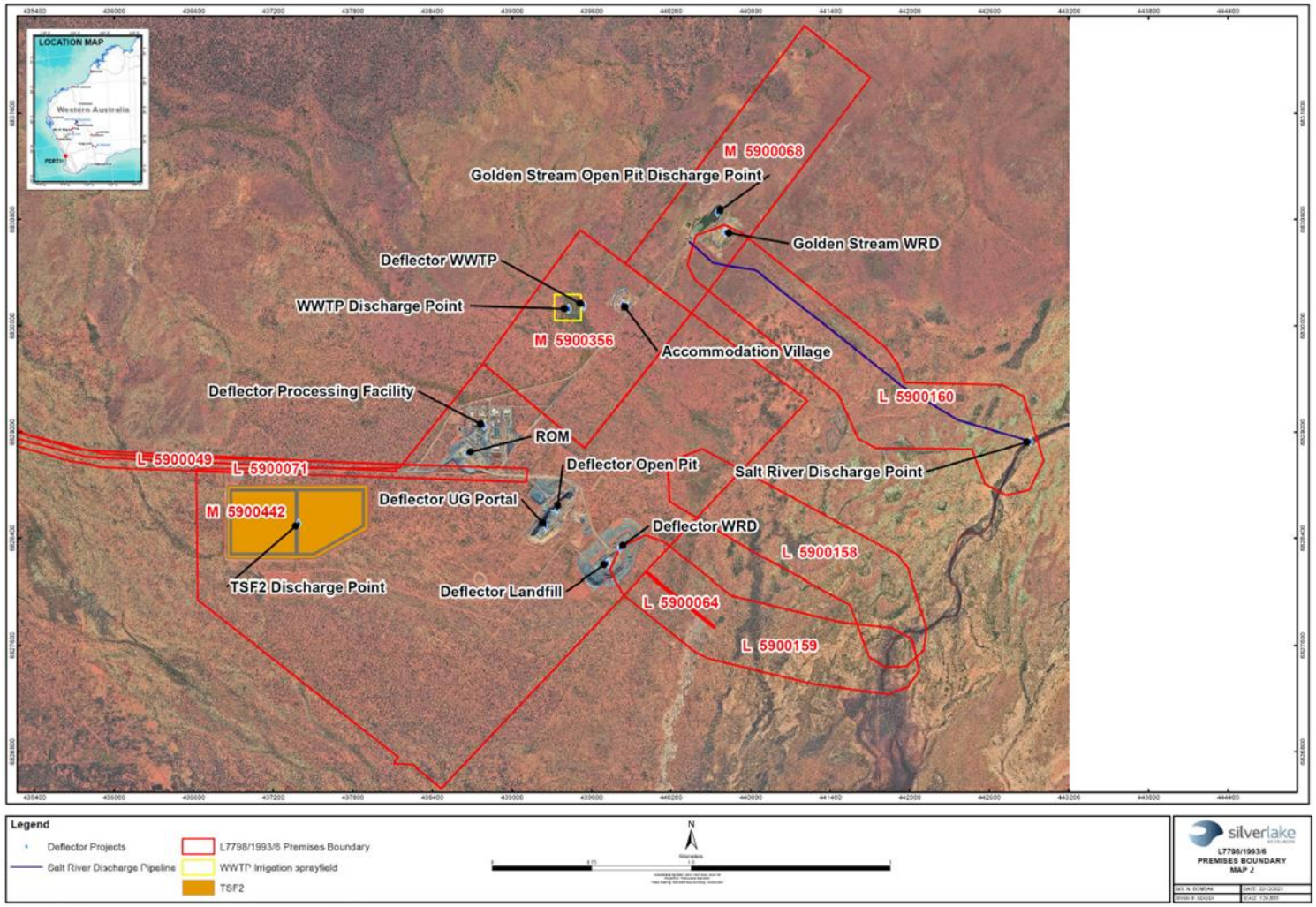

Figure 6: Dewatering discharge point locations.

The location of the TSF2 Discharge Point, pipeline, and monitoring bore locations (Figure 7).

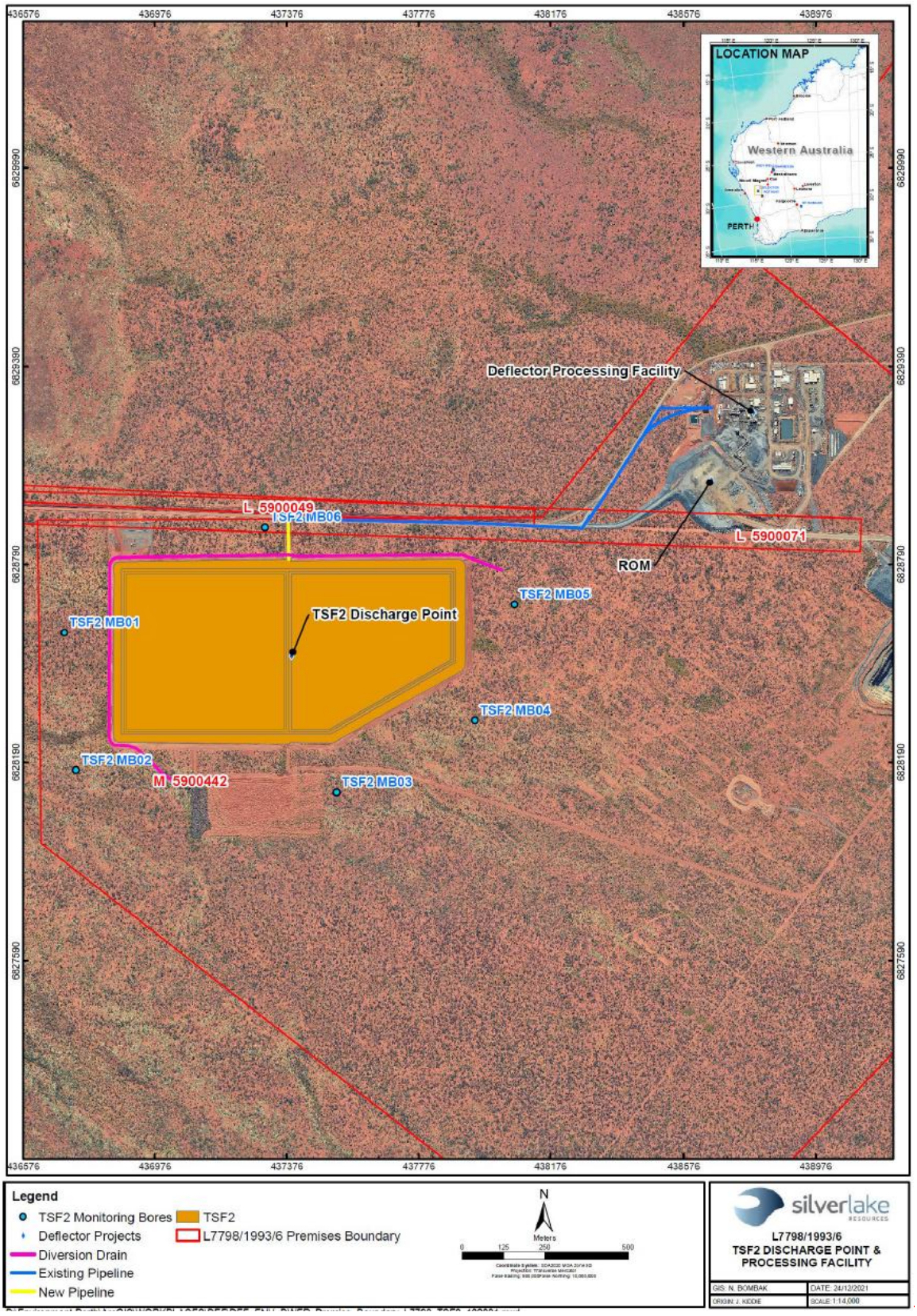

Figure 7: TSF2 and associated infrastructure locations.

The location of the CIP Plant and reagents store is shown below in Figure 8.

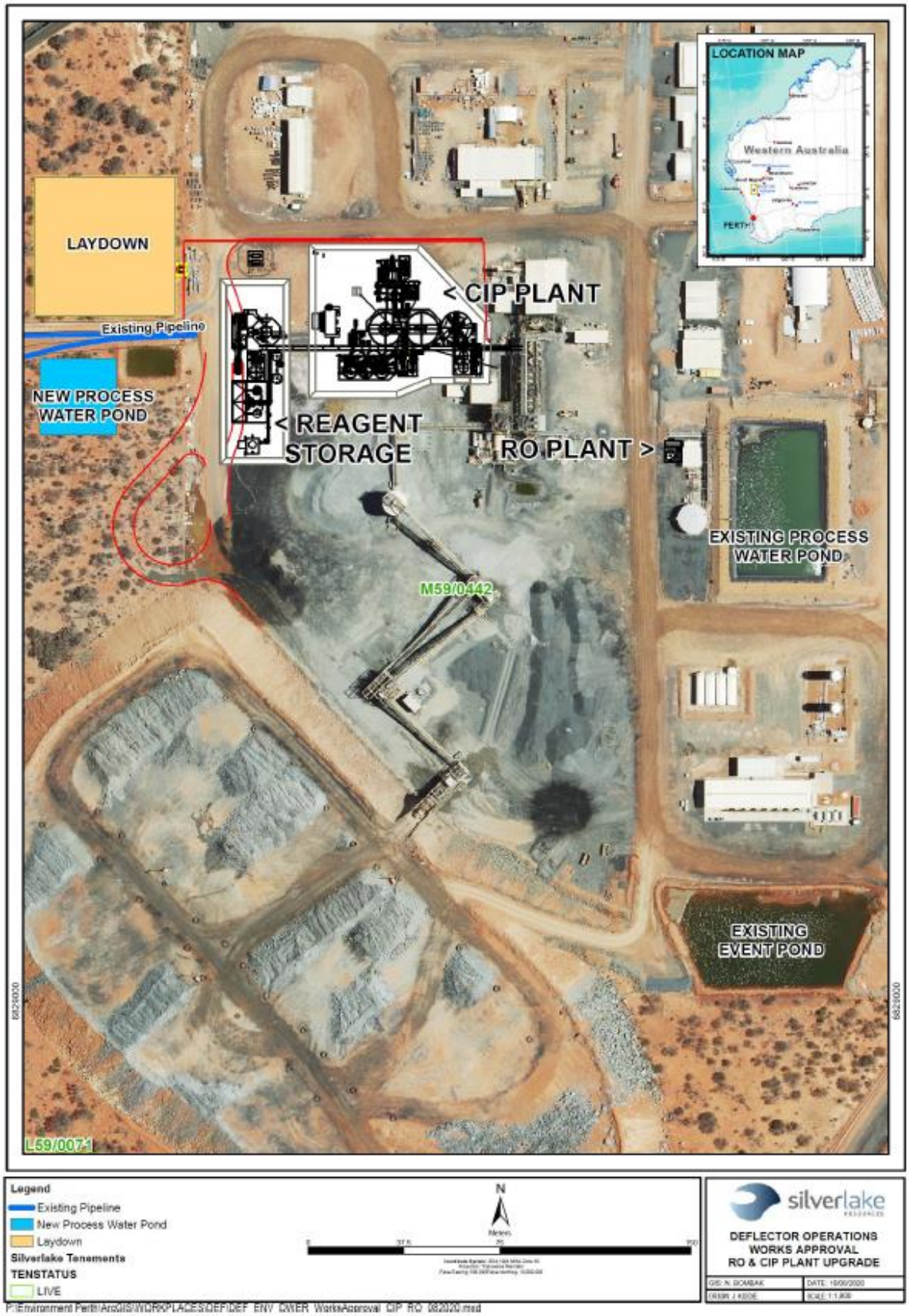

Figure 8: Map of the CIP circuit

The location of the Salt River sampling sites monitoring points defined in Table 19 are shown below (Figure 9).

Figure 9: Salt River sampling sites monitoring point locations.

The location of the sludge drying bed is shown below (Figure 10).

Figure 10: Sludge drying bed location.

The side and top-down schematics of the sludge drying bed (Figure 11).

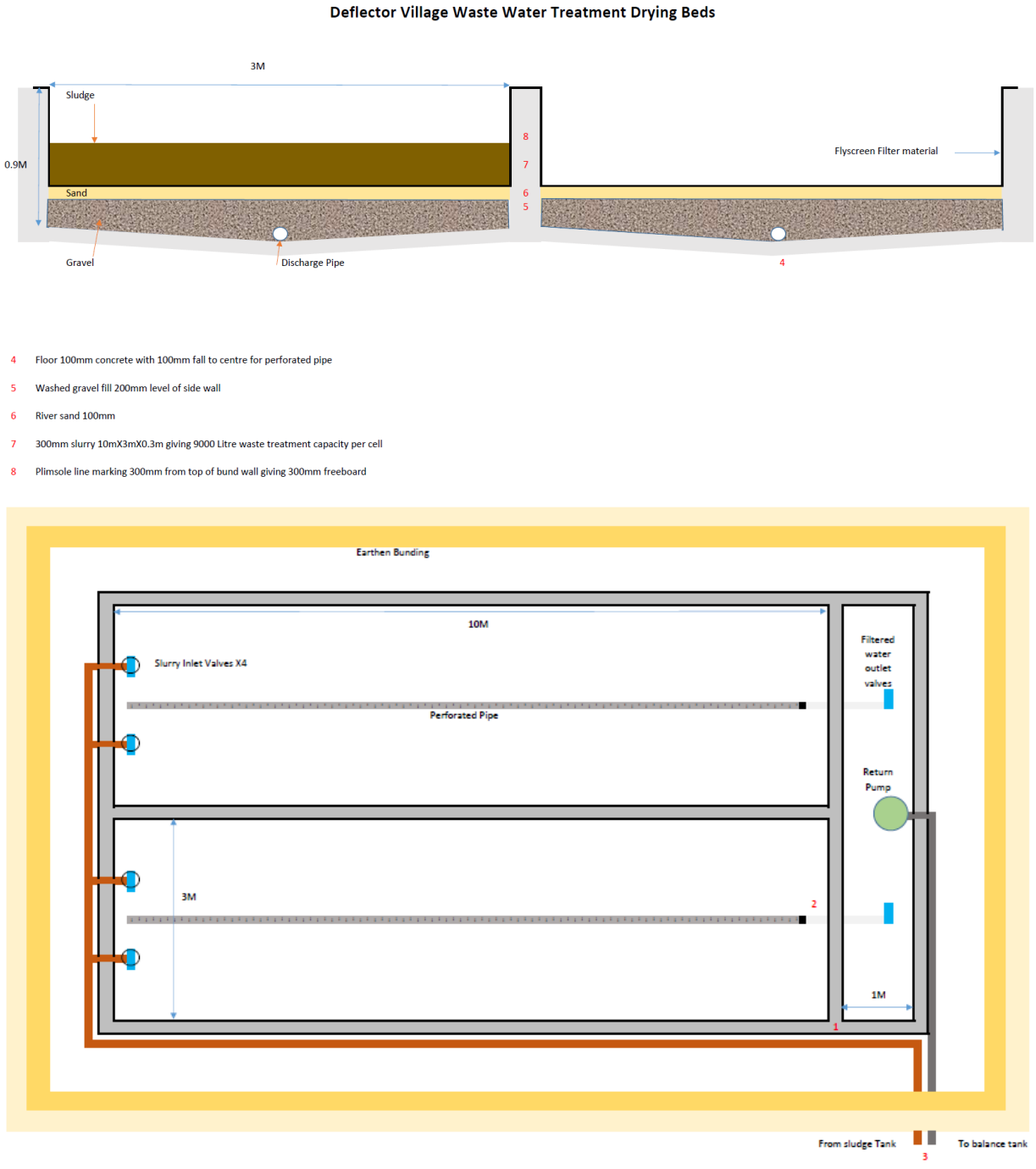

Figure 11: Sludge drying bed schematics.

Schedule 2: Reporting & notification

Schedule 2: Reporting & notifications

Government of Western Australia
Department of Water and Environmental Regulation

Licence: Licence holder:
Form: N1 Date of breach:

Notification of detection of the breach of a limit.

These pages outline the information that the operator must provide.

Units of measurement used in information supplied under Part A and B requirements shall be appropriate to the circumstances of the emission. Where appropriate, a comparison should be made of actual emissions and authorised emission limits.

Part A

Licence number	
Name of operator	
Location of premises	
Time and date of the detection	

Notification requirements for the breach of a limit	
Emission point reference/source	
Parameter(s)	
Limit	
Measured value	
Date and time of monitoring	
Measures taken, or intended to be taken, to stop the emission	

Part B

Any more accurate information on the matters for notification under Part A.	
Measures taken, or intended to be taken, to prevent a recurrence of the incident.	
Measures taken, or intended to be taken, to rectify, limit or prevent any pollution of the environment which has been or may be caused by the emission.	
The dates of any previous N1 notifications for the Premises in the preceding 24 months.	

Name	
Post	
Signature on behalf of licence holder	
Date	