Government of Western Australia
Department of Water and Environmental Regulation

Works Approval

Works approval number	W6407/2020/1
Works approval 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	DER2020/000240
Duration	26/11/2020 to 25/11/2025
Date of issue	25/11/2020
Date of amendment	20/03/2024
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 YALGOO WA 6635

Prescribed premises category description (Schedule 1, *Environmental Protection Regulations 1987*)	**Assessed production or design capacity**
Category 5: Processing or beneficiation of metallic or non-metallic ore	760,000 tonnes per annual period
Category 54: Sewage facility	110 cubic metres a day

This works approval is granted to the works approval holder, subject to the attached conditions, on 20 March 2024, by:

Lauren Edmands
Digitally signed by Lauren Edmands
Date: 2024.03.20 15:41:21 +08'00'

A/SENIOR MANAGER, RESOURCE INDUSTRIES

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

Works approval and licence history

Date	Reference number	Summary of changes
25/07/2008	L7798/1993/6	Licence amendment to transfer the licence from ATW (Australia) Pty Ltd to Mutiny Gold Ltd
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 Salt River, and convert the licence to template version 2.9
11/06/2018	L7798/1993/6	Amendment Notice 1 Increase the production of category 5 from 300,000 tonnes 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 current amount being discharged at the Salt River discharge location while alternative methods of disposal are planned and implemented.
16/10/2018	L7798/1993/6	Amendment Notice 3 Amendment to allow 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 Amendment to allow an increase in the throughput for category 5 and 85, relocation of the dewatering discharge outlet, reduce the SWL limit and install new groundwater monitoring bores and a recovery bore at the TSF.
25/11/2020	W6407/2020/1	Works approval to construct a new Tailings Storage Facility (TSF2), Carbon in Pulp (CIP) Leach Upgrade circuit and a new Wastewater Treatment Plant.
17/05/2021	W6407/2020/1	Modify condition 21 relating to time limited operations until licence issued.
9/03/2022	W6407/2020/1	Modifications to the tailings sampling requirements.
27/04/2023	W6407/2020/1	Amendment to upgrade the Deflector Accommodation Camp Wastewater Treatment Plant (WWTP) with expansion of the irrigation sprayfield.

Date	Reference number	Summary of changes
20/03/2024	W6407/2020/1	Amendment to replace a 30 m^3/day containerised wastewater treatment plant with a 50 m^3/day containerised wastewater treatment plant. Works approval also updated by removing conditions that relate to infrastructure that has now been completed and is regulated under *Environmental Protection Act 1986* (WA) licence L7798/1993/6

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:

Construction phase

Infrastructure and equipment

1. The works approval holder must construct and/or install the infrastructure:

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

   (b) at the corresponding infrastructure location,

   as set out in Table 1.

2. The works approval holder must construct the critical containment infrastructure:

   (c) in accordance with the corresponding design and construction requirements; and

   (d) at the corresponding infrastructure location,

   as set out in Table 2

3. The works approval holder is authorised to construct embankment raises for TSF2 Cell A and Cell B to the crest height as specified in Table 3.

Compliance reporting

4. The works approval holder must within 30 calendar days of an item of infrastructure or equipment required by condition 1 being constructed and/or installed:

   (a) undertake an audit of their compliance with the requirements of condition 1; and

   (b) prepare and submit to the CEO an Environmental Compliance Report on that compliance.

5. The Environmental Compliance Report required by condition 4, must include as a minimum the following:

   (a) certification by a suitably qualified and experienced Engineer (eligible for membership of the Institute of Engineers, Australia) that the items of infrastructure or component(s) thereof, as specified in condition 1, have been constructed in accordance with the relevant requirements specified in condition 1;

   (b) as constructed plans and a detailed site plan for each item of infrastructure or component of infrastructure specified in condition 1;

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

   (d) where an item of infrastructure has been certified as not being located or constructed, or does not comply with the corresponding requirements, the works approval holder must correct the non-compliant or defective works, prior to re-certifying, or provide to the CEO a description of, and explanation for, any departures from the requirements specified in Table 1 that do not require relocation or rectification and do not constitute a material defect along with the Environmental Compliance Report.

Table 1: Design and construction / installation requirements

<table>
<tr><th>Infrastructure</th><th>Design and construction requirements</th><th>Infrastructure location</th></tr>
<tr><td rowspan="5">WWTP</td><td>WWTP installed and designed to process up to 110 KLD.</td><td rowspan="5">Figure, Figure 2, Figure 3, Figure 4, Figure 5 and Figure 6 in Schedule 1</td></tr>
<tr><td>Effluent quality to be:
<table>
<tr><th>Parameter</th><th>Limit</th></tr>
<tr><td>pH</td><td>6.5 to 8.5</td></tr>
<tr><td>E. coli</td><td>1000</td></tr>
<tr><td>Biochemical Oxygen Demand</td><td>20</td></tr>
<tr><td>Residual chlorine</td><td>0.2 to 2</td></tr>
<tr><td>Total Phosphorus</td><td>12</td></tr>
<tr><td>Total Nitrogen</td><td>30</td></tr>
<tr><td>Total Suspended Solids (TSS)</td><td>30</td></tr>
</table></td></tr>
<tr><td>A rental containerized 50 KLD Activated Sludge Process facility comprised of the following:
Three 9 m^3 Balance tanks
Poly Aluminum Chloride dosing pump
Sucrose dosing pump
Sequence Batch Reactor (SBR) tank
Two submersible Aerators/Mixers
Decant pump
Two 9 m^3 Sludge Tanks and pump
Recirculation pump
Sodium hypochlorite dosing pump
Irrigation Tank and pump
All wastewater storage components, transfer pipelines and conveyance infrastructure of the WWTP must be impermeable and free of leaks and defects.</td></tr>
<tr><td>50 KLD containerised WWTP facility to be located on a low permeability compacted base covered with a Non-Acid Forming rock (NAF) rock wearing course.</td></tr>
<tr><td>Incorporate an alarm system for:
pump/s fails
high tank levels
tank/s overflows.
Flowmeter to monitor discharge to 6 ha irrigation sprayfield.</td></tr>
</table>

Table 2: Critical containment infrastructure design and construction requirements

Infrastructure	Design and construction requirements	Infrastructure location
TSF2 embankment raises 1 and 2 - Water reclamation	Install a gravity decant structure with decant accessways within each cell	Figure 7, Figure 8 and Figure 9 of Schedule 1
	Decant structures and decant accessways to be raised by centreline construction	
TSF2 - Embankment raises 1 and 2	Upstream construction using compacted clayey borrow material or compacted dried tailings	Figure 7, Figure 8 and Figure 9 of Schedule 1
	Two raises	
	Heights as per condition 3	

Table 3: **Staged construction and operating heights**

Raises	Raise 1 crest height (mRL)	Raise 2 crest height (mRL)
Cell A	293.50	296.75
Cell B	292.00	295.25

6. The works approval holder must, within 60 calendar days of the critical containment infrastructure identified by condition 2 being constructed:

   (a) undertake an audit of compliance with the requirements of condition 2; and

   (b) prepare and submit to the CEO a Critical Containment Infrastructure Report on that compliance.

7. The Critical Containment Infrastructure Report required by condition 6 must include as a minimum the following:

   (a) certification by a suitably qualified Tailings Dam Design Engineer or their delegate such that each item of critical containment infrastructure or component thereof, as specified in condition 2, has or has not been built and installed in accordance with the requirements specified in condition 2, and is fit for its intended purpose;

   (b) as-constructed plans and a detailed site plan showing the location and dimensions for each item of critical containment infrastructure or component thereof, as specified in condition 2;

   (c) as-constructed permeability of the embankment, foundation, liner around each decant structure and the process water pond;

   (d) photographic evidence of the installation of the infrastructure;

where an item of infrastructure has been certified as not being located or constructed, or does not comply with the corresponding requirements, the works approval holder must correct the non-compliant or defective works, prior to re-certifying, or provide to the CEO a description of, and explanation for, any departures from the requirements specified in

(e) Table 2 that do not require relocation or rectification and do not constitute a material defect, along with the Critical Containment Infrastructure Report; and

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

Environmental commissioning phase

Environmental commissioning requirements

8. The works approval holder may only commence environmental commissioning of an item of infrastructure listed in condition 1 once the Environmental Compliance Report has been submitted for that item of infrastructure in accordance with conditions 4 and 5 of this works approval.
9. Any environmental commissioning activities undertaken for an item of infrastructure specified in condition 1 may only be carried out:

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

    (b) for the corresponding authorised commissioning duration,

    as set out in Table 4.
10. The works approval holder may only commence environmental commissioning for an item of critical containment infrastructure listed in condition 11:

    (a) where the CEO has notified the works approval holder that the Critical Containment Infrastructure Report for that item of infrastructure as required by conditions 6 and 7 meets the requirements of those conditions; or

    (b) where at least 10 business days have passed after the Critical Containment Infrastructure Report for that item of infrastructure as required by conditions 6 and 7 has been submitted to the CEO.
11. Any environmental commissioning activities undertaken for an item of critical containment infrastructure specified in condition 2 may only be carried out:

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

    (b) for the corresponding authorised commissioning duration,

    as set out in Table 5.
12. During environmental commissioning, the works approval holder must ensure that the emissions specified Table 6, are discharged only from the corresponding discharge point and only to the corresponding discharge point location.

Table 4: Environmental commissioning – infrastructure

Infrastructure	Commissioning requirements	Authorised commissioning duration
WWTP and Irrigation sprayfield	All storage and treatment tanks, vessels, transfer pipelines and conveyance infrastructure must be free of leaks or defects	12 weeks from completion of construction of the WWTP
	Have a sealed connection point for pumping-out tank sludge	
	Spills of wastewater or chemicals outside containment infrastructure must be cleaned up immediately	
	50 KLD WWTP facility to be hydrostatically tested with potable water prior to accepting sewage.	

Infrastructure	Commissioning requirements	Authorised commissioning duration
	Irrigation managed to prevent waterlogging and pooling of effluent on the surface of the sprayfield	
	Not more than 110 m^3 per day of treated effluent to be discharged to the irrigation sprayfield	

Table 5: Environmental commissioning – critical containment infrastructure

Critical containment infrastructure	Commissioning requirements	Authorised commissioning duration
TSF2 embankment raises 1 and 2	Record volumes of tailings deposited during commissioning	12 weeks
	Tailings discharged sub-aerially and cyclically in layers not exceeding 300 mm	
	Freeboard total 500 mm: • Minimum 300 mm operational freeboard • Beach freeboard of 200 mm • Allowance for 1:100 yr, AEP 72 hour rain event (159 mm)	
	Manage decant ponds to be less than 150 m in diameter	

Table 6: Authorised discharge points during commissioning

Emission	Discharge point	Discharge point location
Discharge of treated effluent to irrigation field.	Irrigation field	Figure 2 and Figure 6 in Schedule 1

Monitoring during environmental commissioning

13. The works approval holder must monitor emissions during environmental commissioning in accordance with Table 7.

Table 7: Emissions and discharge monitoring during environmental commissioning

Discharge point	Monitoring location	Parameter	Frequency	Averaging Period	Unit
Irrigation field	Flow meter to irrigation field	Cumulative volumetric flow rate[1]	Daily or continuous online	N/A	m^3/day
	WWTP outlet (final effluent tank)	*E. coli*	At least once during commissioning	Spot sample	cfu / 100mL
		pH[1]		N/A	N/A
		Biochemical Oxygen Demand			mg/L
		Total Suspended Solids			
		Total Dissolved Solids			
		Total nitrogen			
		Total phosphorus			
		Residual chlorine[1]			

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

14. For the monitoring activity required by condition 13, the works approval holder must:

    (a) record the results;

    (b) handle and preserve all water samples collected during the monitoring of the WWTP in accordance with *Australian Standard 5667.1:1998 Water Quality – Sampling*; and

    (c) ensure that analysis of samples is conducted by a laboratory with current NATA accreditation for the parameters specified, unless indicated otherwise in Table 7.

Environmental commissioning reporting

15. The works approval holder must submit to the CEO an Environmental Commissioning Report within 60 calendar days of the completion date of environmental commissioning for each item of infrastructure or critical containment infrastructure specified in condition 9 and condition 11.

16. The works approval holder must ensure the Environmental Commissioning Report required by condition 15 of this works approval includes the following:

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

    (b) the point-source emissions monitoring results recorded in accordance with condition 13;

    (c) a summary of the environmental performance of each item of infrastructure or equipment as constructed or installed, which at minimum includes records detailing:

        (i) the treated effluent monitoring results specified in condition 13, with a summary on the vegetation health within the irrigation area; and

        (ii) the amount of tailings disposed to the TSF2;

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

    (e) 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

17. The works approval holder may only commence time limited operations for an item of infrastructure identified in condition 1:

    (a) where the item of infrastructure is not authorised to undertake environmental commissioning, the Environmental Compliance Report as required by conditions 4 and 5 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 8, the Environmental Commissioning Report for that item of infrastructure as required by condition 15 has been submitted by the works approval holder.

18. The works approval holder may conduct time limited operations for an item of infrastructure

specified in condition 1:

(a) for a period not exceeding 180 calendar days from the day the works approval holder meets the requirements of condition 17(a) or 17(b) for that item of infrastructure: 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 18(a).

Time limited operations requirements

20. During time limited operations, the works approval holder must ensure that the premises infrastructure and equipment listed in Table 8 and located at the corresponding infrastructure location is maintained and operated in accordance with the corresponding operational requirement set out in Table 8.

21. During time limited operations, the works approval holder must ensure that the emission(s) specified in Table 9, are discharged only from the corresponding discharge point(s) and only at the corresponding discharge point location(s).

Table 8: Infrastructure and equipment requirements during time limited operations

Site infrastructure and equipment	Operational requirement	Infrastructure location
WWTP and Irrigation sprayfield	• 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 impermeable and free of leaks or defects • Irrigation managed to prevent waterlogging and pooling of effluent on the surface of the sprayfield. • Not more than 110 m^3 per day of treated effluent is to be discharged to the irrigation sprayfield • Original decommissioned WWTP to be kept onsite as backup in case of failure of the new WWTP	Figure, Figure 2, Figure 3, Figure 4, Figure 5 and Figure 6 in Schedule 1
Process water pond	• Freeboard to accommodate normal pond depth 500 mm	Figure 1 in Schedule 1

Table 9: Authorised discharge points

Emission	Discharge point	Discharge point location
Discharge from WWTP treated effluent tank to irrigation field	Irrigation field	Figure 1, Figure 2 and Figure 6 in Schedule 1

22. During time limited operations, the works approval holder must conduct visual inspections of the infrastructure specified in Table 10.

Table 10: Inspections of infrastructure

Infrastructure	Type of inspection	Frequency
WWTP	To confirm whether any leaks or spills occurring	Daily
Irrigation sprayfield	To ensure sprinkler spray is evenly distributed and to confirm whether any waterlogging or pooling is occurring	Daily
Process water pond	To confirm required freeboard capacity is available To confirm if fauna are using the decant water as a water source	Daily

Monitoring during time limited operations

23. The works approval holder must monitor emissions during time limited operations in accordance with Table 11.

Table 11: Emissions and discharge monitoring during time limited operations

Discharge point	Monitoring location	Parameter	Frequency	Averaging Period	Unit
Irrigation field	Flow meter to irrigation field	Cumulative volumetric flow rate[1]	Daily or continuous online	N/A	m^3/day
	WWTP outlet (final effluent tank)	*E. coli*	Quarterly	Spot sample N/A	cfu / 100mL
		pH[1]			N/A
		Biochemical Oxygen Demand			mg/L
		Total Suspended Solids			
		Total Dissolved Solids			
		Total nitrogen			
		Total phosphorus			
		Residual chlorine[1]			

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

24. For the monitoring activity required by condition 23, the works approval holder must:

(a) record the results;

(b) handle and preserve all water samples collected during the monitoring of the WWTP in accordance with *Australian Standard 5667.1:1998 Water Quality – Sampling*; and

(c) ensure that analysis of samples is conducted by a laboratory with current NATA accreditation for the parameters specified, unless indicated otherwise in Table 11.

Compliance reporting

25. The works approval holder must submit to the CEO a report on the time limited operations within 60 calendar days of the completion date of time limited operations.

26. The works approval holder must ensure the report required by condition 25 includes the following:

    (a) a summary of the time limited operations;

    (b) a summary of the environmental performance of all infrastructure as constructed or installed and confirmation of visual inspections as conducted under condition 28;

    (c) a summary of monitoring results obtained during time limited operations under condition 23;

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

    (e) 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

27. 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.

28. 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 conditions 1 and 2;

    (b) any maintenance of infrastructure that is performed in the course of complying with conditions 1 and 2;

    (c) inspections undertaken in accordance with condition 22;

    (d) monitoring programmes undertaken in accordance with condition 23; and

    (e) complaints received under condition 27.

29. The books specified under condition 28 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 12 have the meanings defined.

Table 12: Definitions

Term	Definition
AEP	annual exceedance probability.
annual period	a 12 month period commencing from 1 January until 31 December of that year.
AS 1725	Australian Standard 1725:2003 Chain-link fabric security fences and gates
AS 1940	Australian Standard 1940:2017 The storage and handling of flammable and combustible liquids
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
critical containment infrastructure	means the items of infrastructure listed in condition 2 Table 2.
Critical Containment Infrastructure Report	means a report to satisfy the CEO that works of critical containment infrastructure have been constructed in accordance with the works approval.
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.
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.

Term	Definition
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).
ha	hectares.
HDPE	High-density polyethylene.
KLD	kilolitres per day.
m	metres.
m^3	cubic meters.
m^3/day	cubic metres per day.
mbgl	metres below ground level.
mg/L	milligrams/litre.
mL	millilitres.
mm	millimetres.
mRL	metres relative level.
Mt	million tonnes.
NATA	National Association of Testing Authorities.
premises	the premises to which this works approval applies, as specified at the front of this works approval 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.
SWL	Standing Water Level.
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.
TSF	Tailings Storage Facility.
uS/cm	microsiemens per centimetre.
VWP	vibrating wire piezometer.

Term	Definition
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.
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 1).

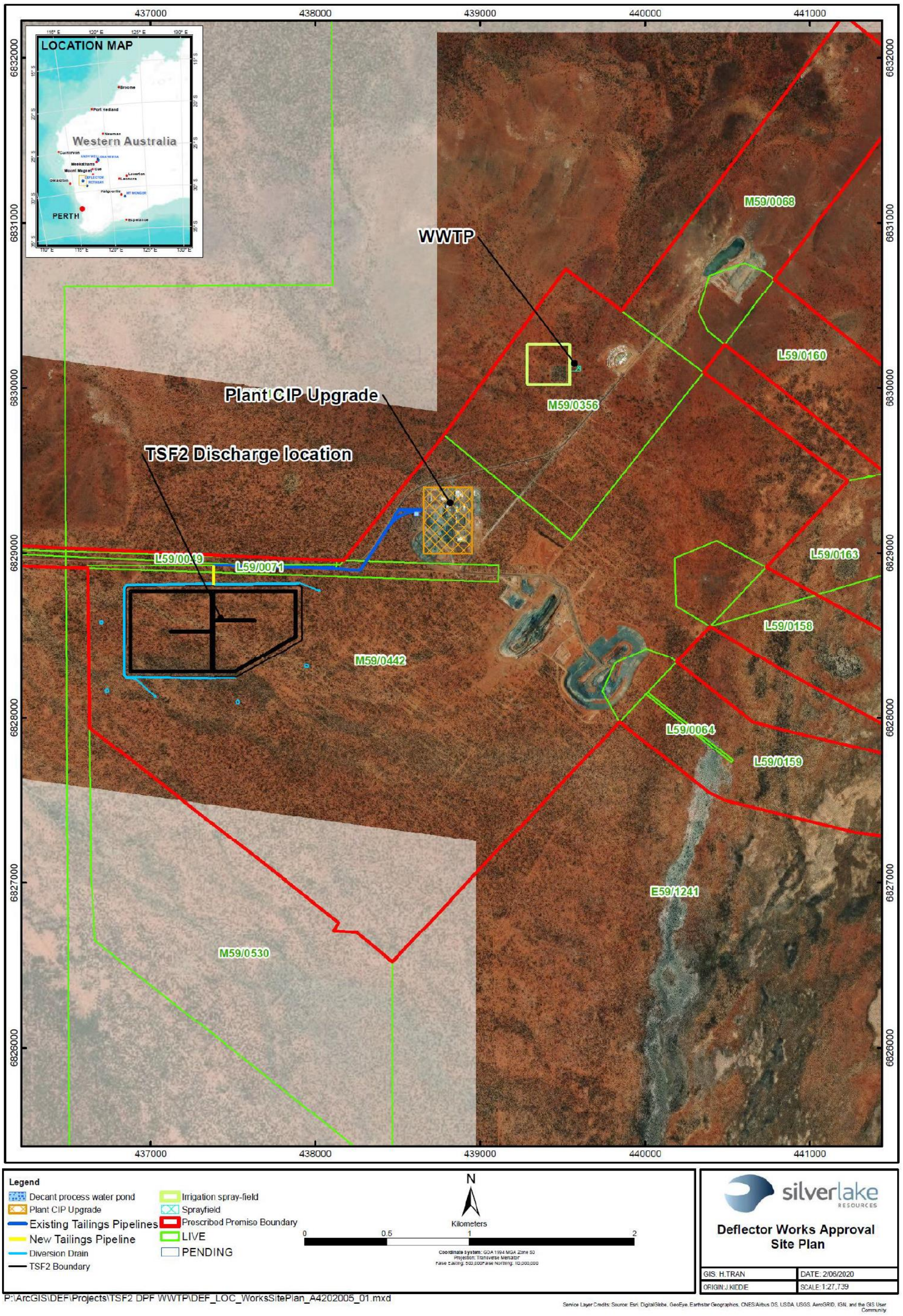


Figure 1: Map of the prescribed premises and location of infrastructure

Wastewater Treatment Plant (WWTP) aerial map

The existing WWTP, Deflector Accommodation Village and expanded 6 ha irrigation sprayfield are shown in the map below.

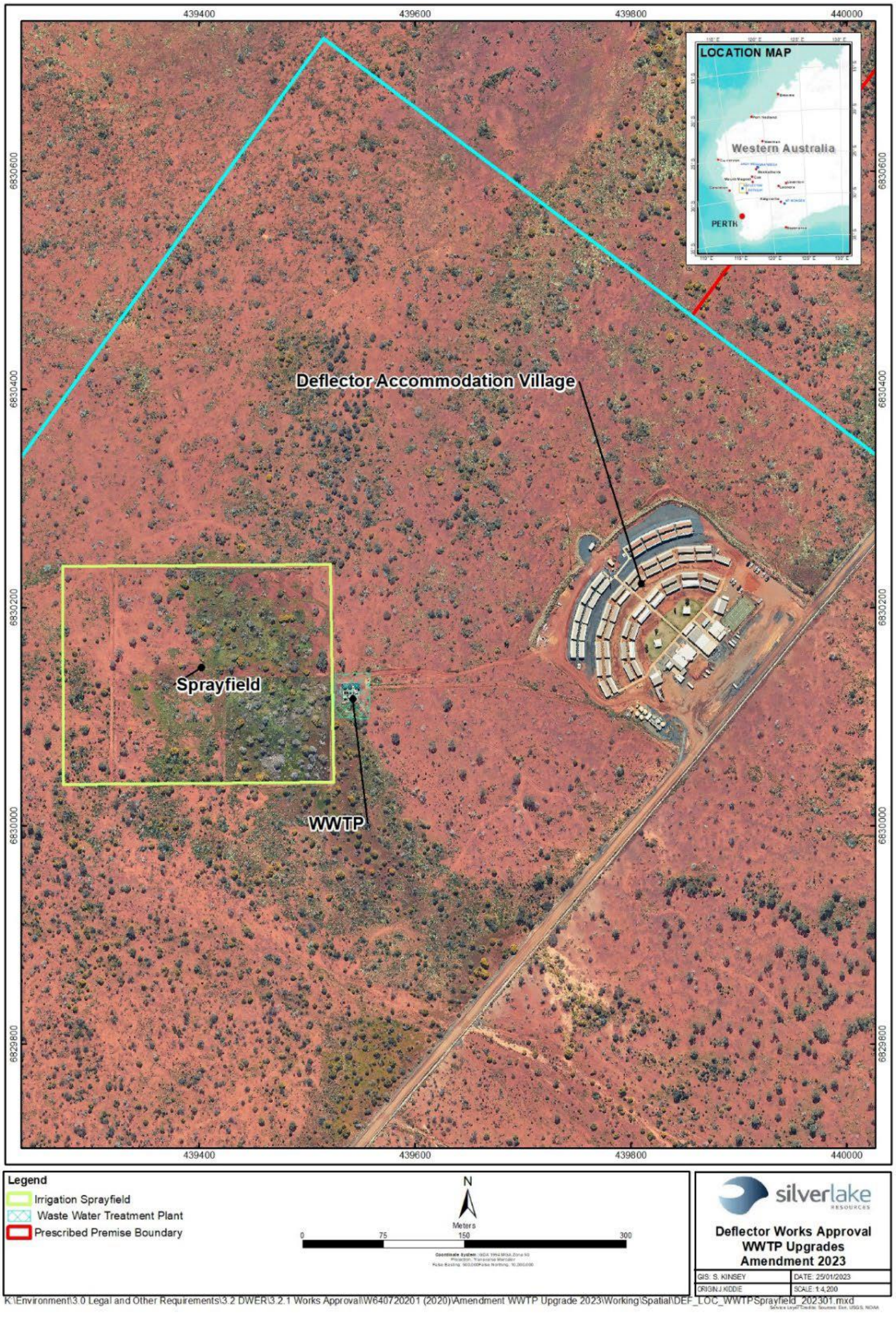


Figure 2: Map of the WWTP and irrigation area at Deflector Accommodation Village

Wastewater Treatment Plant (WWTP) tank upgrade

The first upgrade of the Wastewater Treatment Plant is shown in the diagram below (Figure).

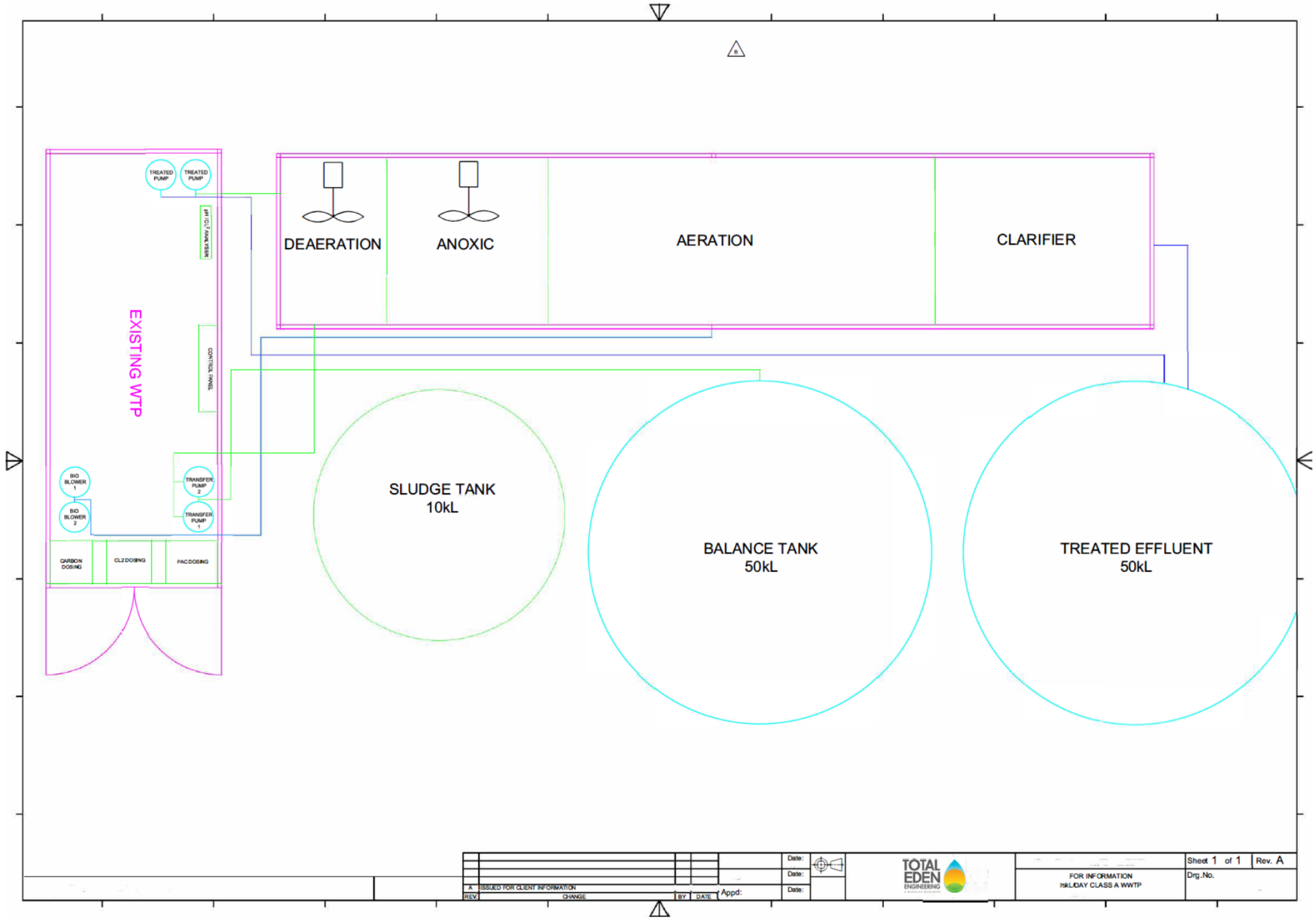


Figure 3: WWTP schematic

Wastewater Treatment Plant (WWTP) 50 KLD upgrade

The Wastewater Treatment Plant including the 50 KLD extension (second upgrade) is shown in the map below (Figure).

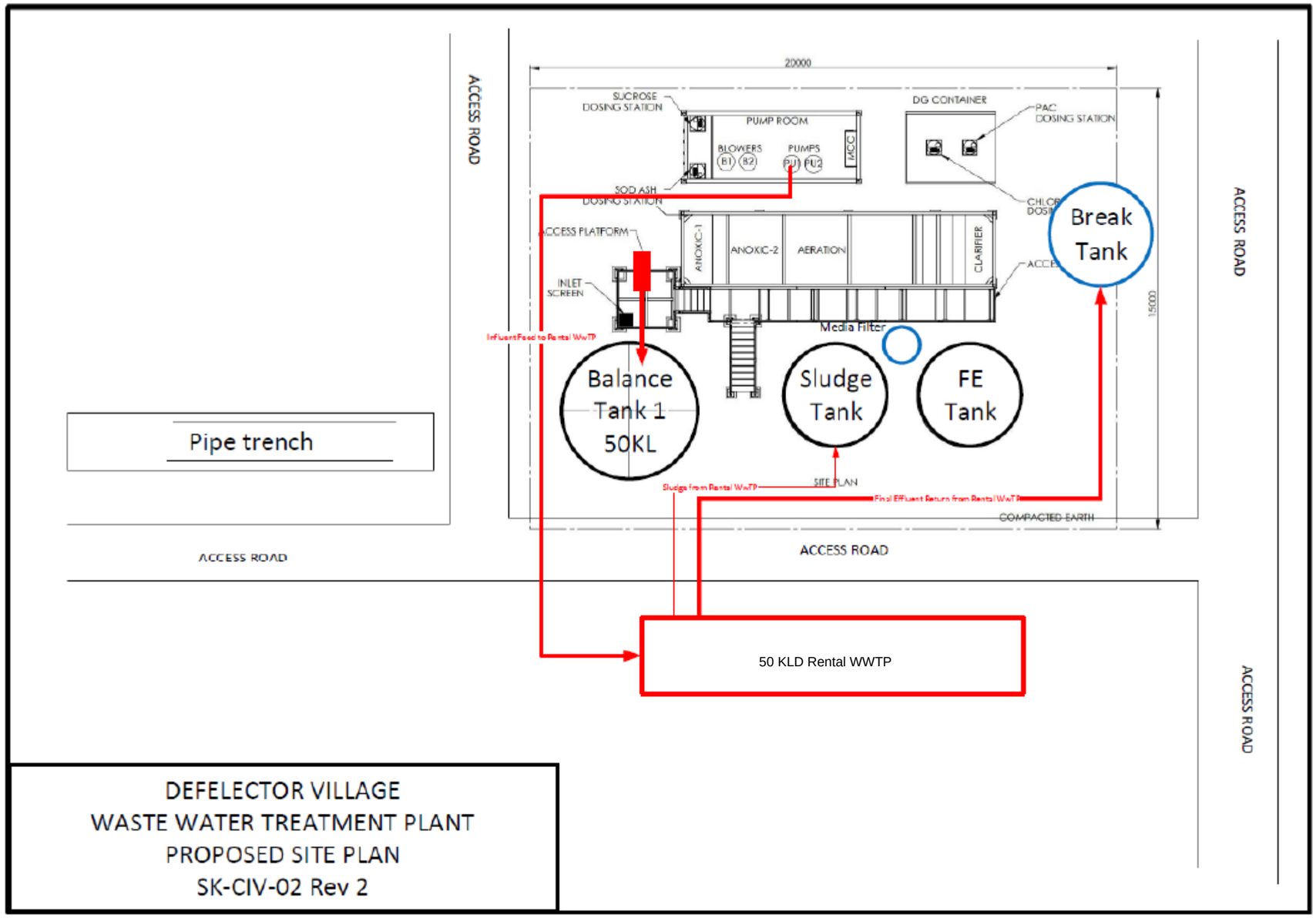


Figure 4: WWTP 50 KLD extension. Red represents the WWTP extension and black represents existing WWTP infrastructure.

Detailed Wastewater Treatment Plant (WWTP) expansion map

The Wastewater Treatment Plant including the original installation, the first upgrade and the 50 KLD extension (second upgrade) is shown in the map below **Figure**.

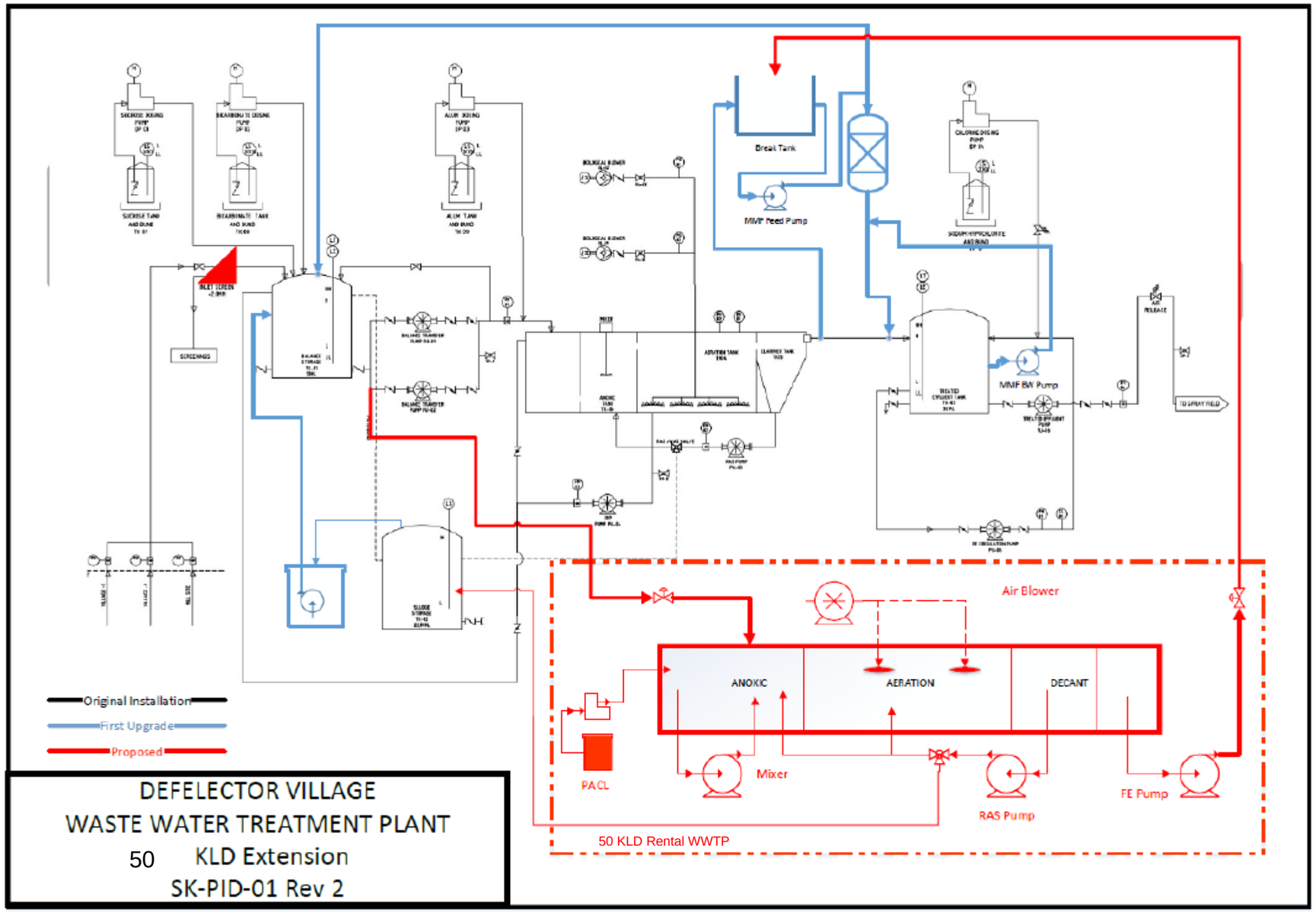


Figure 5: WWTP detailed site plan of 50 KLD extension showing all upgrades.

Red represents the 50 KLD WWTP extension. Blue represents the first WWTP upgrade and black represents the original WWTP infrastructure.

Current and upgraded WWTP and irrigation sprayfield infrastructure

The location of the additional 50 KLD WWTP facility, pipeline locations, additional fencing and arrangement of sprayfield sprinklers (emission discharge points) are shown in the map below.

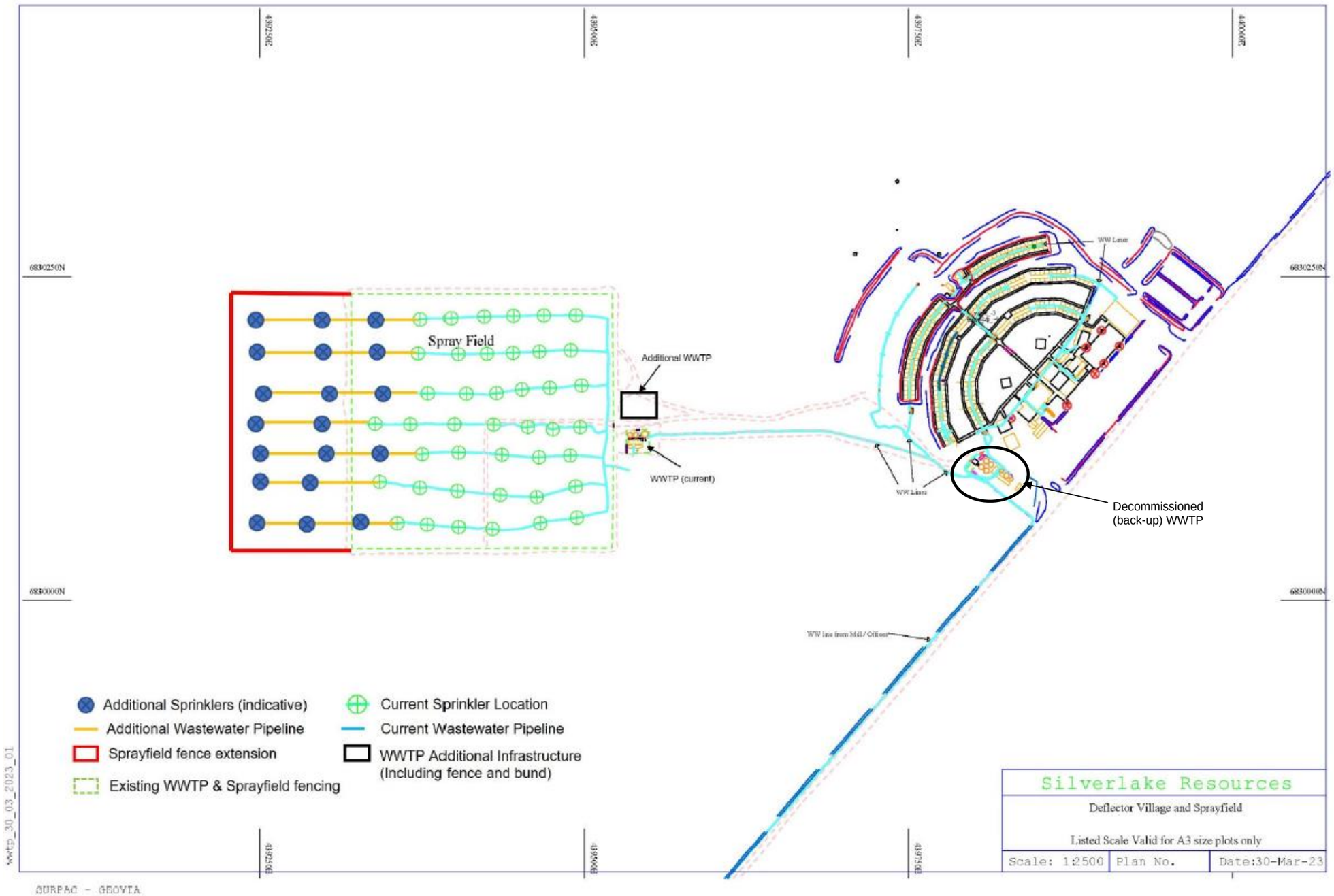


Figure 6: 50 KLD WWTP upgrade infrastructure and current WWTP infrastructure

TSF2 general arrangement plan

The TSF2 general arrangement plan is shown in the diagram below .

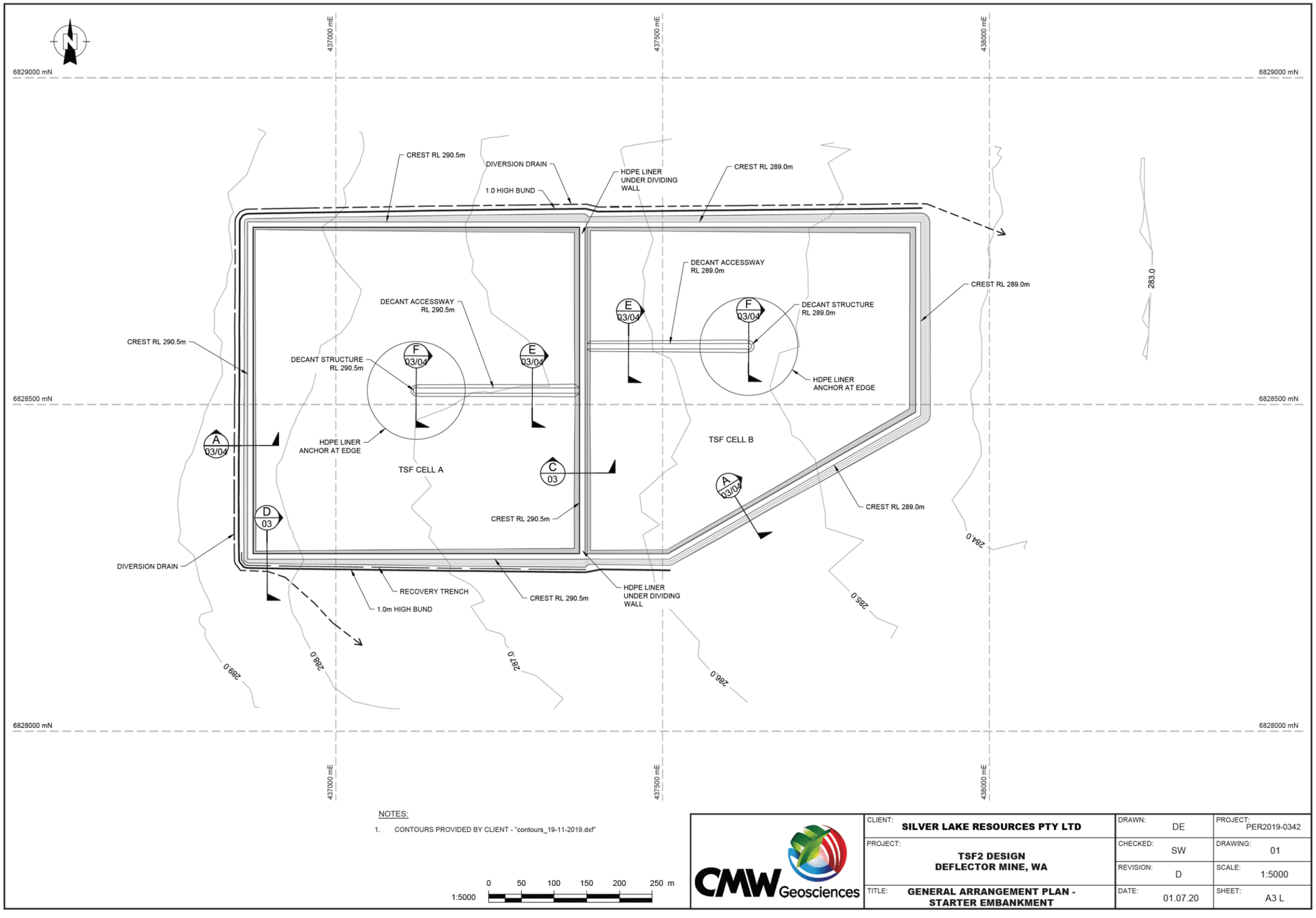
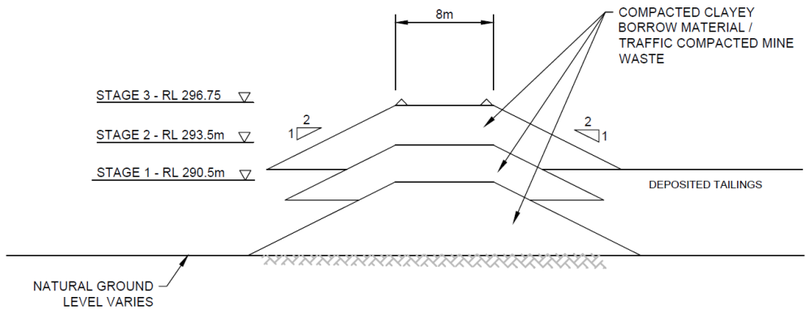
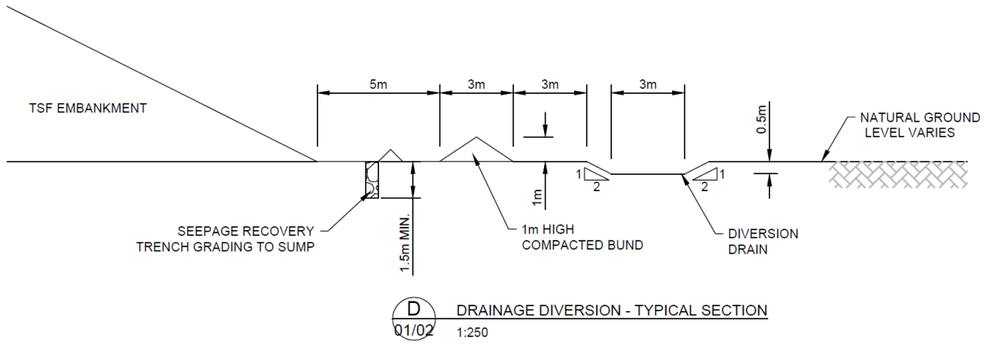


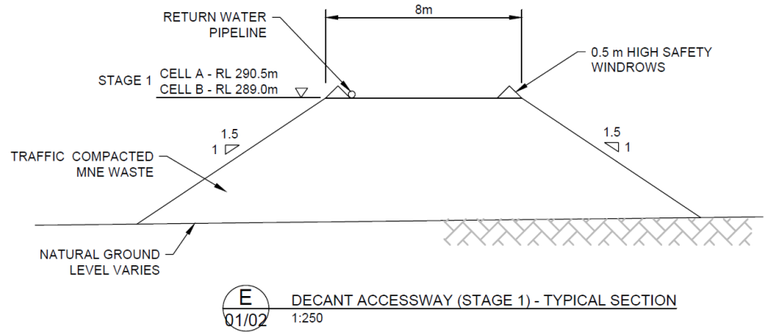
Figure 7: TSF2 general arrangement

TSF2 section details diagram (sections C, D & E)

Details for sections C, D and E is shown in the diagrams below.







CMW Geosciences	CLIENT: SILVER LAKE RESOURCES LTD.	DRAWN: JSA	PROJECT: PER2019-0342
	PROJECT: TSF2 DESIGN DEFLECTOR MINE, WA	CHECKED: SW	DRAWING: 03
		REVISION: C	SCALE: AS SHOWN
	TITLE: SECTIONS AND DETAILS SHEET 1	DATE: 01.07.20	SHEET: A3 L

Figure 8: TSF2 Section details from Figure 7 (sections C, D and E)

TSF2 section details diagram (sections A, B, F & G)

Details for sections A, B, F and G is shown in the diagram below.

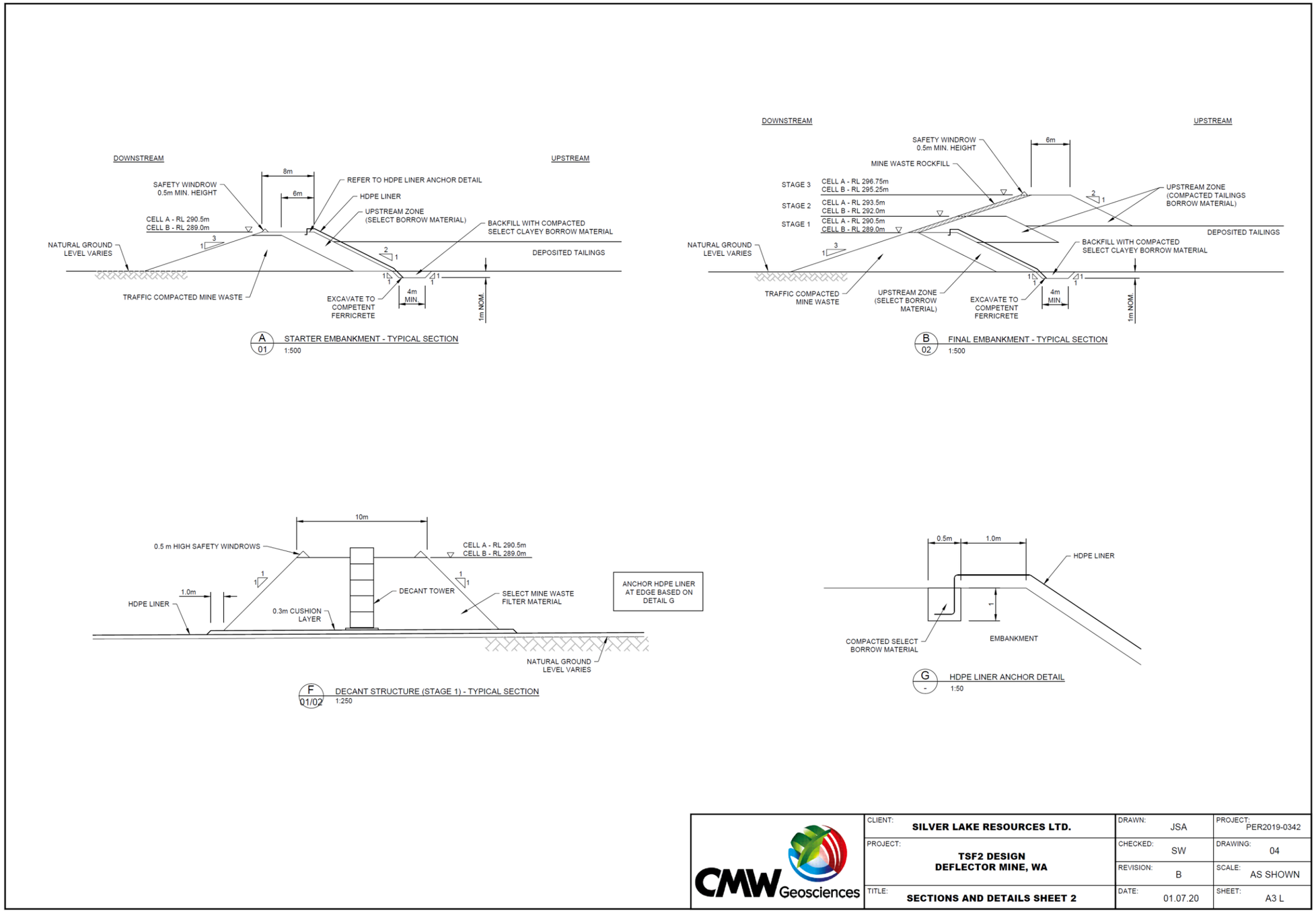


Figure 9: TSF2 Section details from Figure 7 (sections A, B, F and G)

TSF2 instrumentation diagram

TSF2 instrumentation arrangement and instrumentation details are shown in the diagram below.

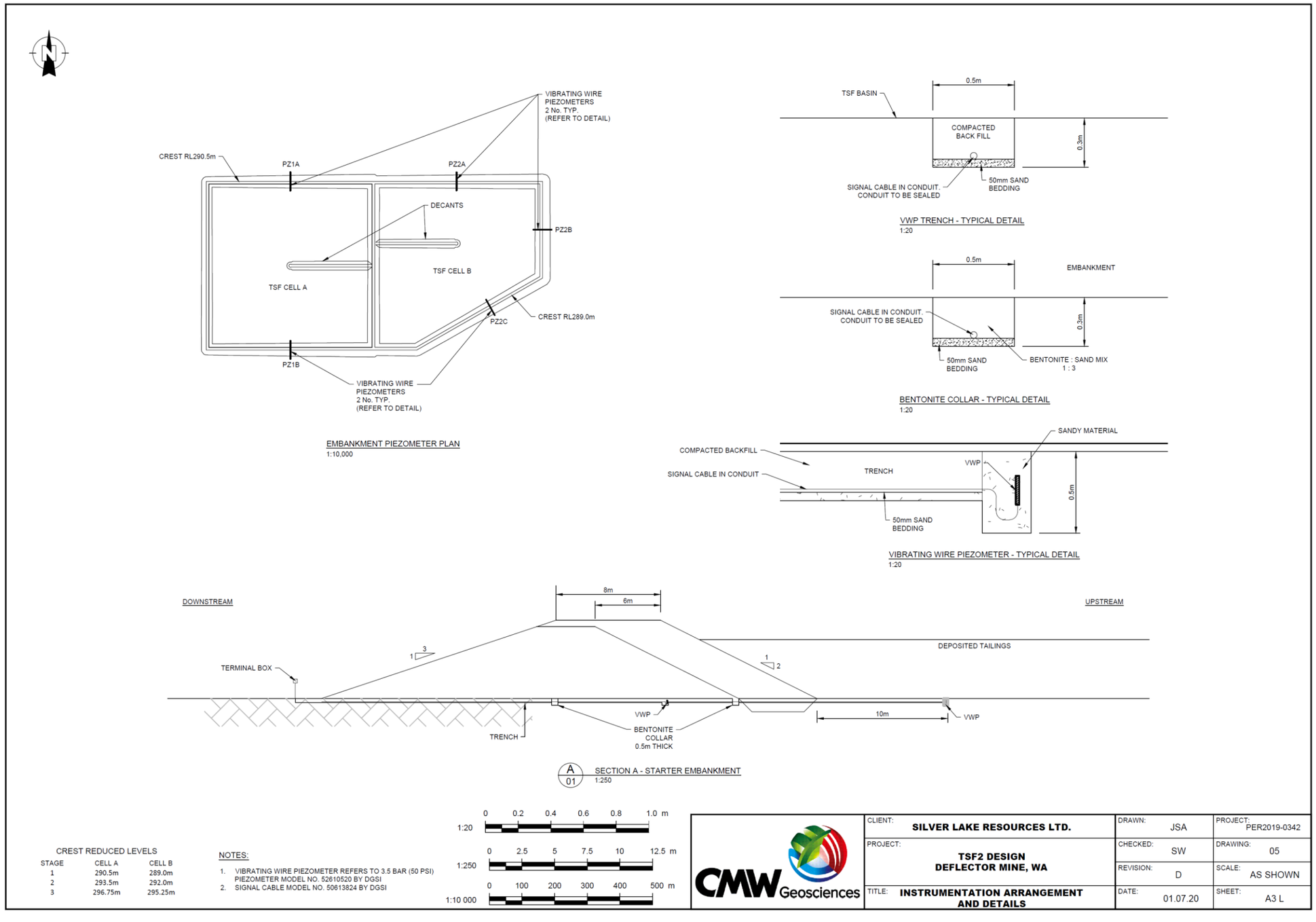


Figure 10: TSF2 instrumentation