Licence

Licence number	L9307/2021/1
Licence holder	Kalium Lakes Potash Pty Ltd
ACN	601 436 060
Registered business address	Unit 1 152 Balcatta Road BALCATTA WA 6021
DWER file number	DER2021/000412
Duration	15/12/2021 to 14/12/2041
Date of issue	15/12/2021
Premises details	Beyondie Sulphate of Potash Project LITTLE SANDY DESERT WA 6646 Legal description – Part of mining tenements L69/31, L69/40, M69/145 and M69/146 As defined by the coordinates in Schedule 1

Prescribed premises category description (Schedule 1, *Environmental Protection Regulations 1987*)	**Assessed production capacity**
Category 14: Solar salt manufacturing	100 kilotonnes (kt) per annual period
Category 85: Sewage facility	52 cubic metres (m^3) per day Includes combined wastewater from WWTP and RO plant
Category 89: Putrescible landfill	25 tonnes per annual period
Assessed activities directly related to the above categories	
Clearing of native vegetation has been granted under Ministerial Statement 1098 (MS 1098). The requirements of the clearing approval have not been duplicated in this approval.	

This licence is granted to the licence holder, subject to the attached conditions, on 15 December 2021, by:

Lauren Edmands
MANAGER RESOURCE INDUSTRIES
an officer delegated under section 20 of the *Environmental Protection Act 1986* (WA)

Licence history

Date	Reference number	Summary of changes
15/12/2021	L9307/2021/1	This new licence application to: • Expand category 14: solar salt manufacturing production from 90 kt per annual period to 100 kt per annual period; and • Incorporate operations for the following historical works approval operations: o W5939/2015/1 – category 14: solar salt manufacturing; o W6149/2018/1 – category 85: sewage facility; and o W6241/2019/1 – category 89: putrescible landfill.

Interpretation

In this licence:

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

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

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

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

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

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

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

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

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

Licence conditions

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

General

1. Water cart must be available and operational to effectively wet down dust generating areas during construction and operation activities.

2. Where the licence approval holder uses saline to hypersaline water for dust suppression during both construction and operations, the saline to hypersaline water must be applied to avoid damage to native vegetation (such as from overspraying or runoff).

Construction phase

Infrastructure/Equipment

3. The licence holder must:

(a) construct and/or install the infrastructure/equipment;

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

(c) at the corresponding infrastructure/equipment location,

as set out in Schedule 4.

Compliance reporting

4. The licence holder must within 30 calendar days of an item of infrastructure/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.

5. The Environmental Compliance Report required by condition 4, 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 4, have been constructed in accordance with the relevant requirements specified in condition 3;

(b) as constructed plans and a detailed site plan for each item of infrastructure or component of infrastructure specified in condition 4; and

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

Emissions and discharges

6. The licence holder must ensure that the emission types specified in Table 1 are discharged from the corresponding discharge point and only at the corresponding discharge point location.

Table 1: Authorised discharge points

Emission type	Discharge point	Discharge point location
Category 14: solar salt manufacturing		
Bitterns, brine, saline and/or hypersaline water sourced from: • Abstraction bores; • Trenches; and • Sulphate of Potash (SOP) purification plant.	Via transfer pipeline outlets to HDPE lined evaporation ponds and weirs interconnecting adjacent evaporation ponds	Evaporation ponds as shown in Figure 2 of Schedule 1.
Salt, saline to hypersaline water and/or stormwater – sediment and salt laden	Within run of mine (ROM) pad – HDPE lined storage pad with bunding and HDPE lined drainage sump	'ROM pad' as shown in Figure 1 and Figure 5 of Schedule 1.
Excess salt (salt waste generated through the solar salt manufacturing operations) sourced from the SOP purification plant	• On evaporation pond embankments to create roads; and • Within bunded area of the excess salt stockpile	'Excess Salt Stockpile' as shown in Figure 1 of Schedule 1.
Category 85: sewage facility		
Combined wastewater (treated effluent, brine, saline and hypersaline water) sourced from: • Wastewater treatment plant (WWTP); and • Reverse osmosis (RO) plant.	Sprinklers located within irrigation spray fields	'Irrigation Spray Fields' as shown in Figure 2 of Schedule 1.

7. The licence holder must ensure that where waste types produced on the premises are not taken offsite for lawful use or disposal, they are disposed of on the premises in accordance with the quantity limit and disposal location specified in Table 2.

Table 2: Management of wastes

Waste type	Quantity limit	Disposal location
• Clean fill • Inert waste type 1 • Uncontaminated fill • Putrescible wastes • Inert waste type 2 (not including tyres)	25 tonnes per annual period	'Landfill' as shown in Figure 1 and Figure 4 of Schedule 1.

Operations

8. The licence holder must ensure that the premises infrastructure and equipment listed in Schedule 5 is maintained and operated in accordance with the corresponding operational requirements set out in Schedule 5.

Monitoring

General

9. The licence holder must 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.

10. The licence holder must ensure that all analysis undertaken pursuant to condition 11 is undertaken by a holder of a current accreditation from the National Association of Testing Authorities (NATA) (unless indicated otherwise in condition 11.

Emissions and discharge monitoring

11. The licence holder must monitor emissions during operations in accordance with Schedule 6.

Management actions for target value exceedances

12. The licence holder must, in the event of a parameter in condition 11 exceeding the corresponding target value specified in that condition, undertake the management actions that correspond with the corresponding monitoring location within the corresponding timeframe as specified in Table 3.

Table 3: Management actions required in the event of target value exceedance

Monitoring location	Management action	Timeframe
WWTP outlet	• Investigate cause of exceedance; and • Submit a report to the CEO within 14 calendar days.	Management actions to commence immediately upon being notified of the exceedance and to continue for the duration of the exceedance.

13. The licence holder must include the following information in the report referred to in condition 12 in relation to any exceedances of any of the target values identified in that condition:

(a) the nature, volume, and characteristics of the emission(s);

(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 the management action(s) taken pursuant with condition 12 in response to the exceedance;

(e) the details and result of the 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 and reporting

14. 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.

15. The licence holder must:

(a) undertake an audit of their compliance with the conditions of this licence during the preceding annual period; and

(b) prepare and submit to the CEO by no later than 30 calendar days after the end of that annual period an Annual Audit Compliance Report (AACR) in the approved form.

16. The licence holder must submit to the CEO by no later than 30 January, an Annual Environmental Report (AER) for that annual period for the conditions listed in Table 4, and which provides information in accordance with the corresponding requirement set out in Table 4.

Table 4: Annual Environmental Report requirements

Condition	Requirement
7	Tonnages of waste deposited into the Class II landfill.
6	Tonnages of excess salt discharged to the excess salt stockpile
6	Volumes of combined WWTP and RO plant wastewater discharged to the irrigation spray field.

17. 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) the works conducted in accordance with condition 3 of this licence;

(c) any inspections and/or maintenance of infrastructure that is performed in the course of complying with condition 8 of this licence;

(d) monitoring programmes undertaken in accordance with condition 11 of this licence; and

(e) complaints received under condition 14 of this licence.

18. The books specified under condition 17 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.

Definitions

In this licence, the terms in Table 5 have the meanings defined.

Table 5: Definitions

Term	Definition
ACN	Australian company number
AER	Annual Environmental Report
Annual Audit Compliance Report (AACR)	means a report submitted in a format approved by the CEO (relevant guidelines and templates may be available on the department's website).
annual period	a 12 month period commencing from 1 January until 31 December of the immediately following year.
AS/NZS 5667.1	means the Australian Standard AS/NZS 5667.1 *Water Quality – Sampling – Guidance of the design of sampling programs, sampling techniques and the preservation and handling of samples*.
AS/NZS 5667.10	means the Australian Standard AS/NZS 5667.10 – *Water quality - Sampling Guidance on sampling of waste waters*.
BOD_5	biochemical oxygen demand
books	has the same meaning given to that term under the EP Act.
CEO	means Chief Executive Officer of the Department. "submit to / notify the CEO" (or similar), means either: Director General Department administering the *Environmental Protection Act 1986* Locked Bag 10 Joondalup DC WA 6919 or: info@dwer.wa.gov.au
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)
E. coli	*Escherichia coli bacterial*

Term	Definition
freeboard	means the distance between the maximum water surface elevations and the top of retaining banks or structures at their lowest point.
ha	hectares
HDPE	high-density polyethylene
HRP	high-resolution probe
KTMS	Potassium rich salts
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	metres
m/s	metres per second
NaCl	Sodium chloride
NATA	National Association of Testing Authorities
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.
prescribed premises	has the same meaning given to that term under the EP Act.
excess salt	salt waste generated through the solar salt manufacturing operations, sourced from the SOP purification plant.
ROM	run of mine
significant rainfall event	a significant rainfall event is defined based on the Bureau of Meteorology website for the location of Kalgoorlie-Boulder (http://www.bom.gov.au/water/designRainfalls/revisedifd/?year=2016). A significant rainfall event has been based on Intensity Frequency Duration (IFD), being 24 hours rainfall duration at 20% Annual Exceedance Probability (AEP). Note that a 20% AEP is equivalent to a 4.48 Annual Recurrence Internal (ARI).
SOP	Sulphate of potash

Term	Definition
suitably qualified engineer	means a person who: (a) holds a Bachelor of Engineering recognised by the Institute of Engineers; and (b) has a minimum of five years of experience working in the area of engineering or is otherwise approved by the CEO to act in this capacity.
suitably qualified surveyor	means: (a) a licensed surveyor as defined in the *Licensed Surveyors Act 1909* section 3(1); or (b) a person who is, or is eligible to be, a member of — (i) the Institution of Surveyors, Australia; or (ii) the Spatial Sciences Institute.
TSS	total suspended solids
waste	has the same meaning given to that term under the EP Act.
WWTP	wastewater treatment plant
waste type	waste types identified in the *Landfill Waste Classification and Waste Definitions 1996 (as amended 2019).*

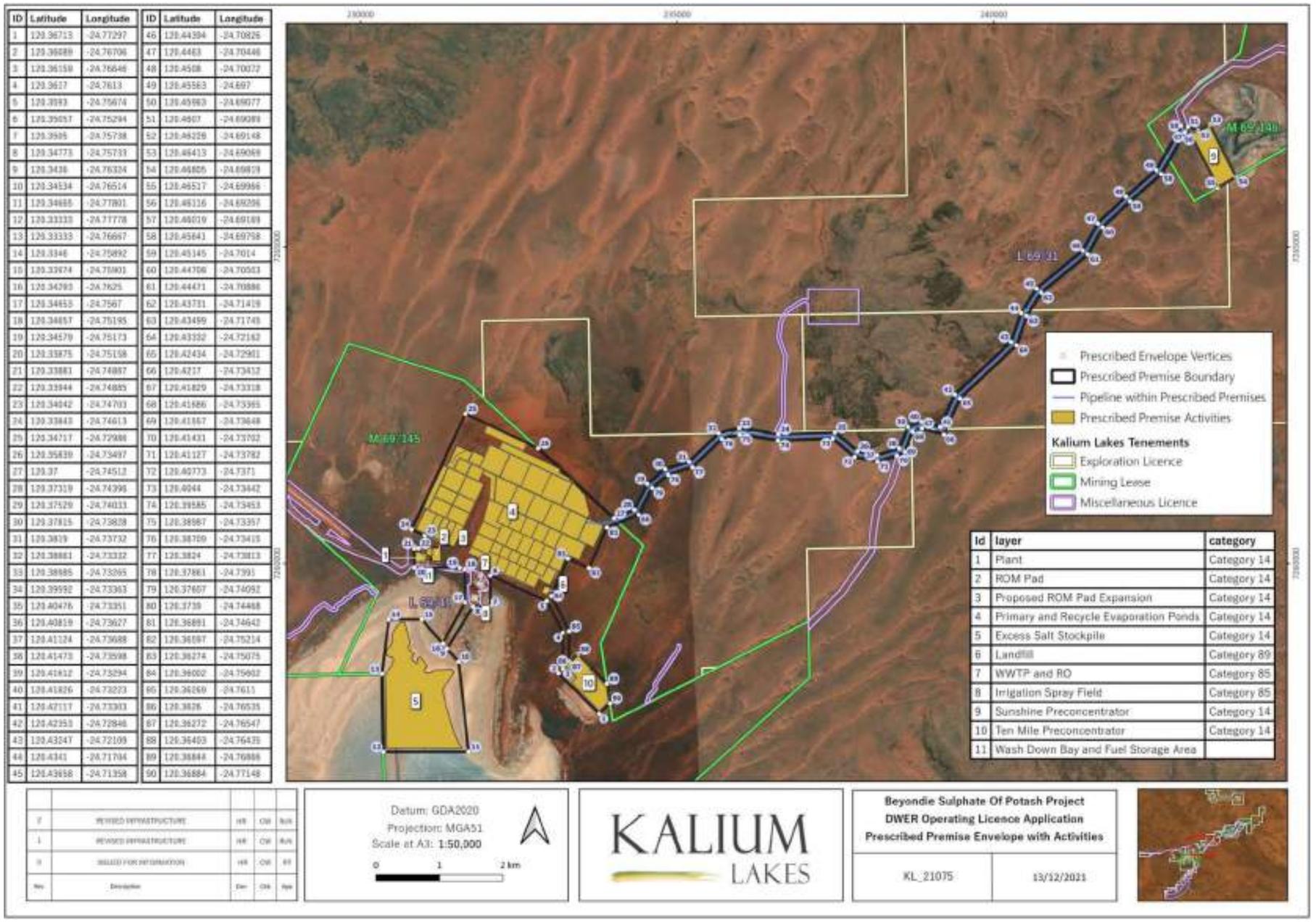
END OF CONDITIONS

Schedule 1: Maps

Premises map

The boundary of the prescribed premises (including GPS coordinates) is shown in the map below (Figure 1).

ID	Latitude	Longitude
1	120.36713	-24.77297
2	120.36889	-24.76706
3	120.36159	-24.76646
4	120.3617	-24.7613
5	120.3593	-24.75674
6	120.35057	-24.75294
7	120.3505	-24.75738
8	120.34773	-24.75733
9	120.3438	-24.76324
10	120.34534	-24.76514
11	120.34685	-24.77891
12	120.33333	-24.77778
13	120.33333	-24.76667
14	120.3346	-24.75892
15	120.33974	-24.75901
16	120.34293	-24.7625
17	120.34653	-24.7567
18	120.34857	-24.75195
19	120.34579	-24.75173
20	120.33875	-24.75158
21	120.33881	-24.74887
22	120.33944	-24.74885
23	120.34042	-24.74703
24	120.33843	-24.74613
25	120.34717	-24.72986
26	120.35839	-24.73497
27	120.37	-24.74513
28	120.37319	-24.74396
29	120.37529	-24.74033
30	120.37815	-24.73828
31	120.3819	-24.73732
32	120.38881	-24.73332
33	120.38885	-24.73265
34	120.39932	-24.73363
35	120.40476	-24.73351
36	120.40819	-24.73627
37	120.41124	-24.73688
38	120.41473	-24.73598
39	120.41612	-24.73294
40	120.41826	-24.73223
41	120.42117	-24.73393
42	120.42353	-24.72846
43	120.4324T	-24.72109
44	120.4341	-24.71704
45	120.43658	-24.71358
46	120.44394	-24.70826
47	120.4463	-24.70446
48	120.4508	-24.70072
49	120.45563	-24.697
50	120.45983	-24.69077
51	120.4607	-24.69089
52	120.46228	-24.69148
53	120.46413	-24.69069
54	120.46805	-24.69078
55	120.46517	-24.69366
56	120.46116	-24.69206
57	120.46019	-24.69189
58	120.45641	-24.69758
59	120.45145	-24.7014
60	120.44706	-24.70553
61	120.44471	-24.70886
62	120.43731	-24.71419
63	120.43499	-24.71749
64	120.43332	-24.72163
65	120.42434	-24.72901
66	120.4217	-24.73412
67	120.41829	-24.73318
68	120.41686	-24.73365
69	120.41567	-24.73648
70	120.41431	-24.73702
71	120.4112T	-24.73782
72	120.40773	-24.7371
73	120.4044	-24.73442
74	120.39585	-24.73453
75	120.38987	-24.73357
76	120.38709	-24.73415
77	120.3824	-24.73813
78	120.37861	-24.7391
79	120.37607	-24.74092
80	120.3719	-24.74468
81	120.36891	-24.74642
82	120.36587	-24.75214
83	120.36274	-24.75075
84	120.36002	-24.75602
85	120.36269	-24.7611
86	120.3626	-24.76535
87	120.36272	-24.76547
88	120.36403	-24.76435
89	120.36844	-24.76886
90	120.36884	-24.77148



Id	layer	category
1	Plant	Category 14
2	ROM Pad	Category 14
3	Proposed ROM Pad Expansion	Category 14
4	Primary and Recycle Evaporation Ponds	Category 14
5	Excess Salt Stockpile	Category 14
6	Landfill	Category 89
7	WWTP and RO	Category 85
8	Irrigation Spray Field	Category 85
9	Sunshine Preconcentrator	Category 14
10	Ten Mile Preconcentrator	Category 14
11	Wash Down Bay and Fuel Storage Area	

Figure 1: Map of the boundary of the prescribed premises

Premises layout maps

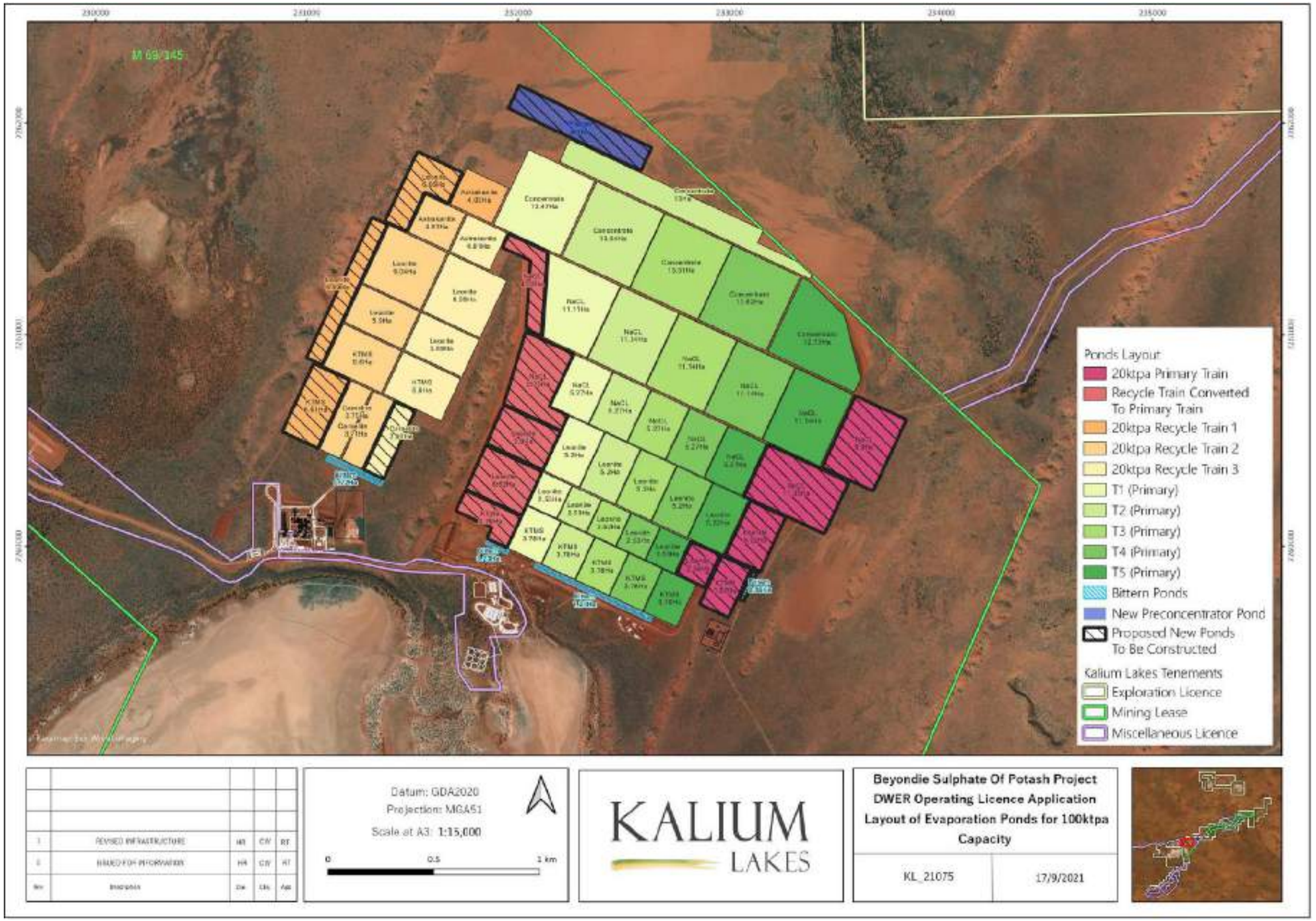


Figure 2: Map of evaporation ponds layout (including new evaporation ponds proposed to be constructed)

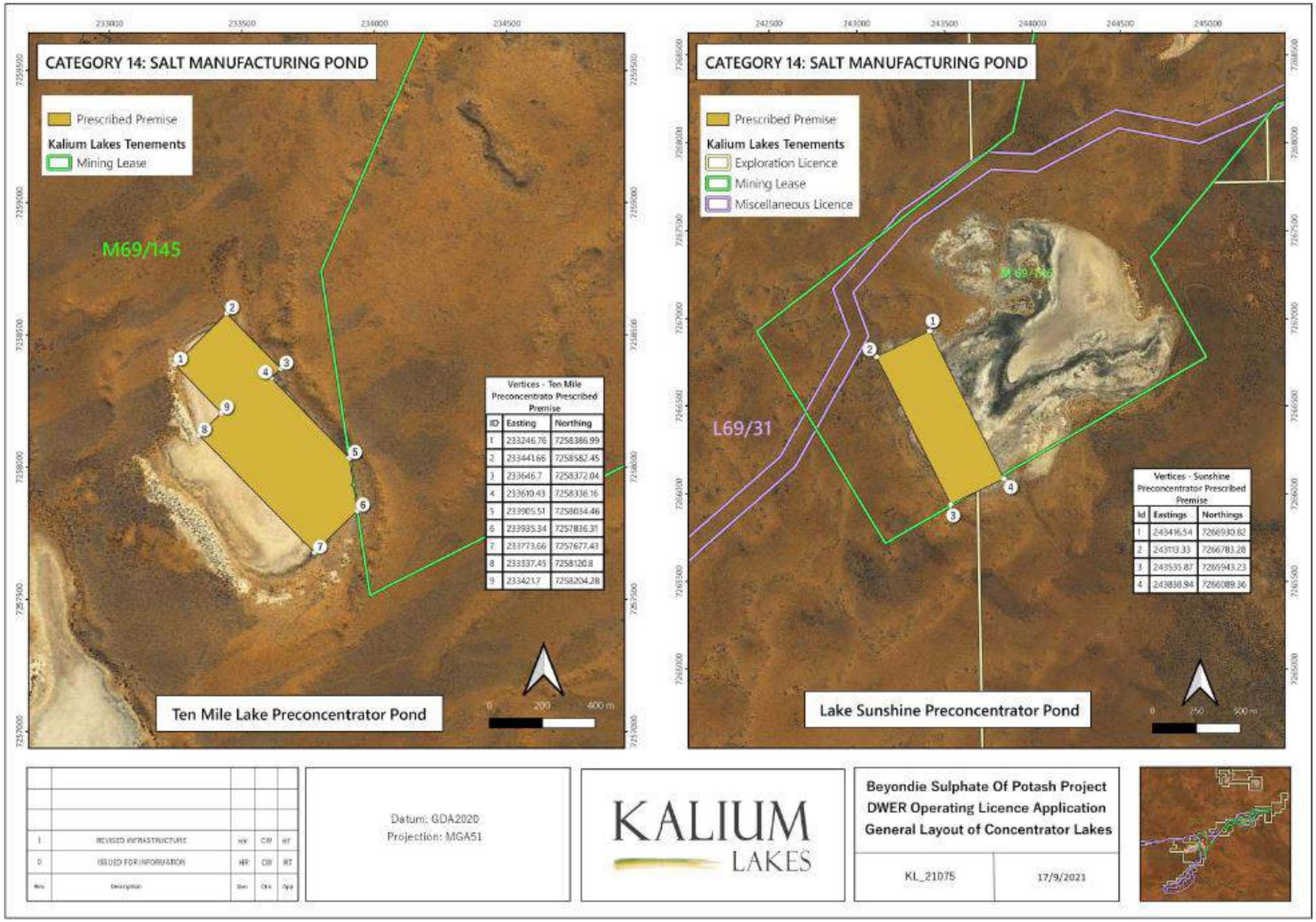


Figure 3: Map of the pre-concentrator pond layout

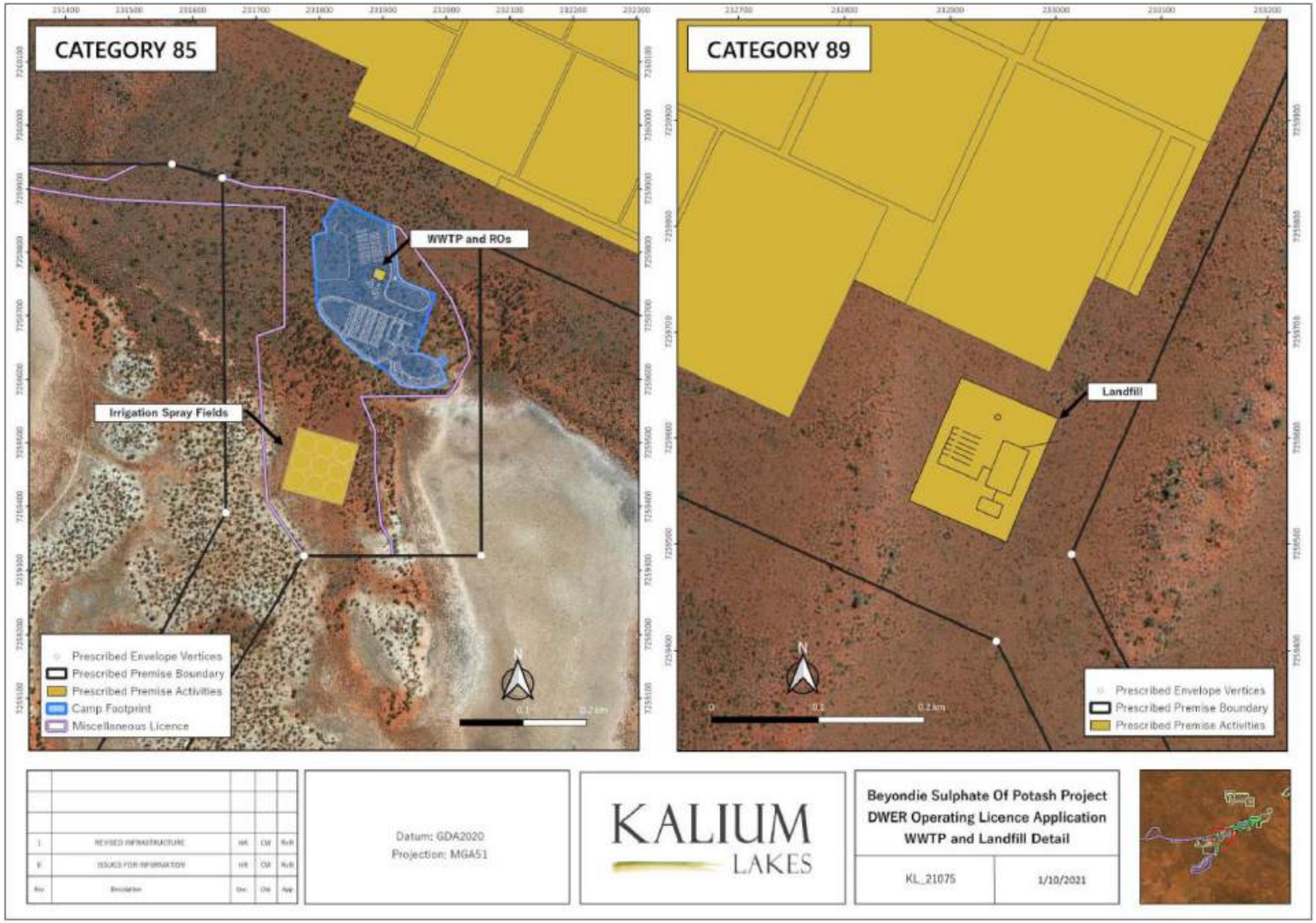


Figure 4: Map of the prescribed premises infrastructure for category 85: sewage facility and category 89: putrescible landfill site

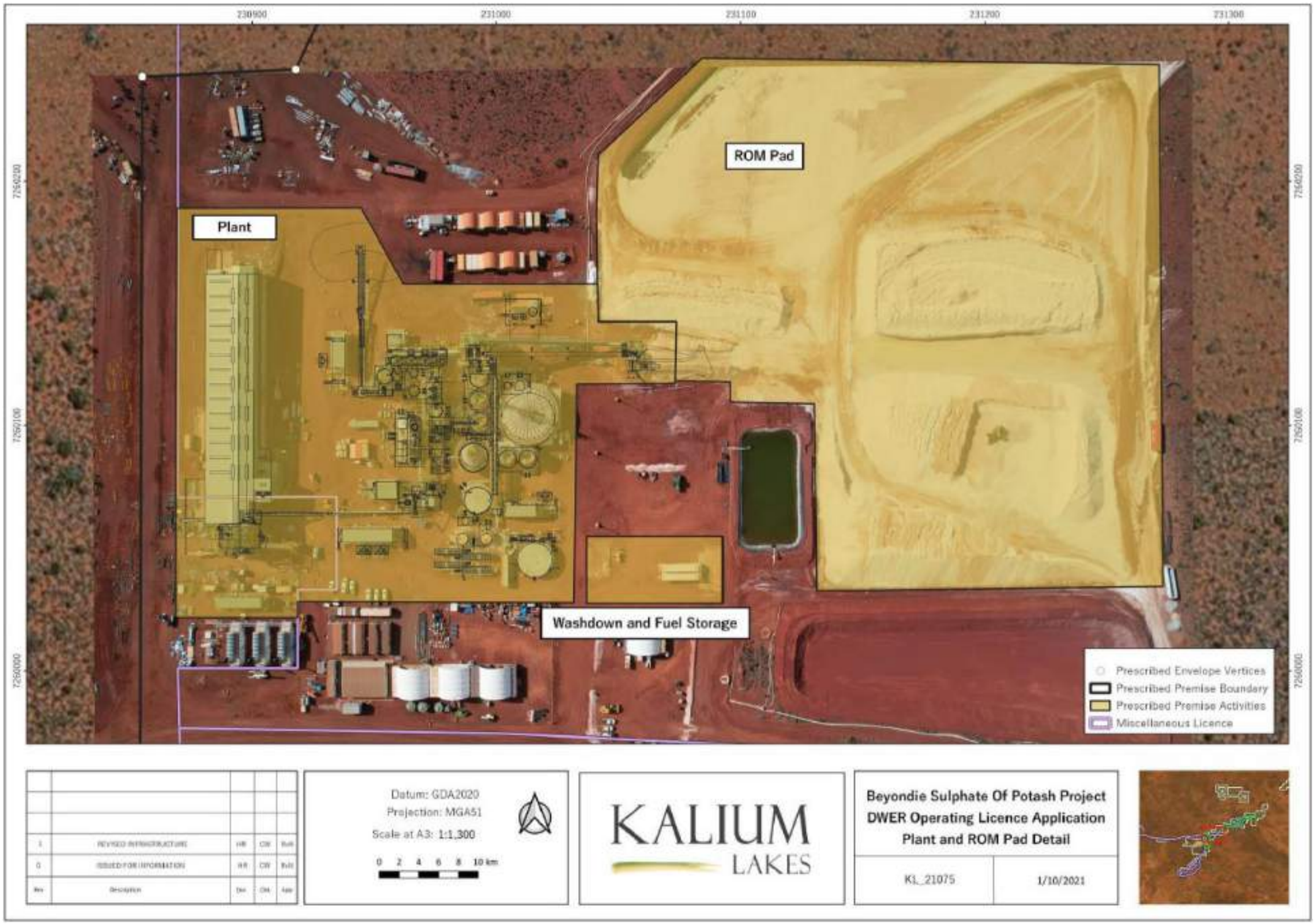
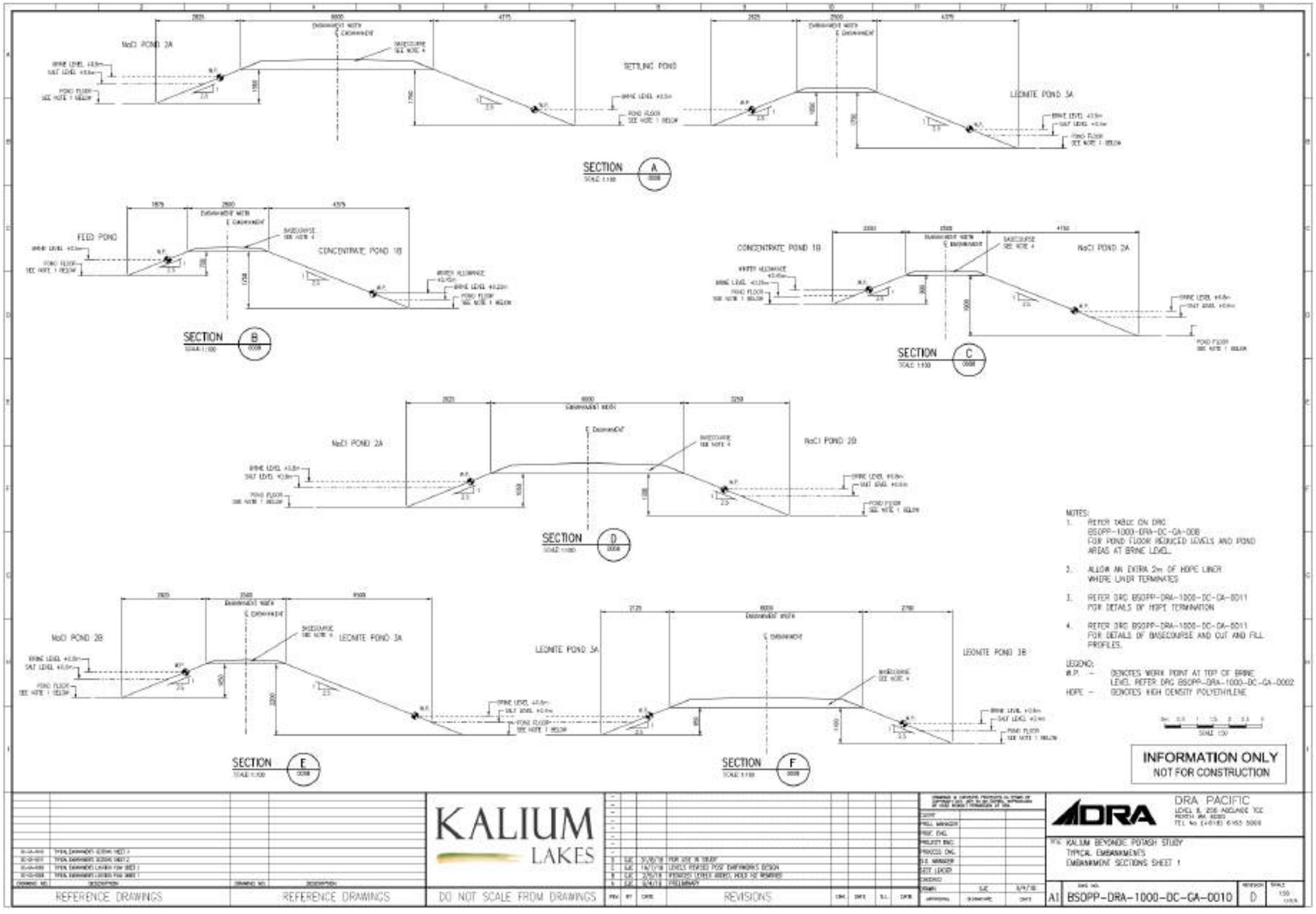


Figure 5: Map of the SOP purification plant, fuel storage, washdown bays and ROM pad

Schedule 2: Evaporation pond design drawings

Typical evaporation pond embankment design drawings



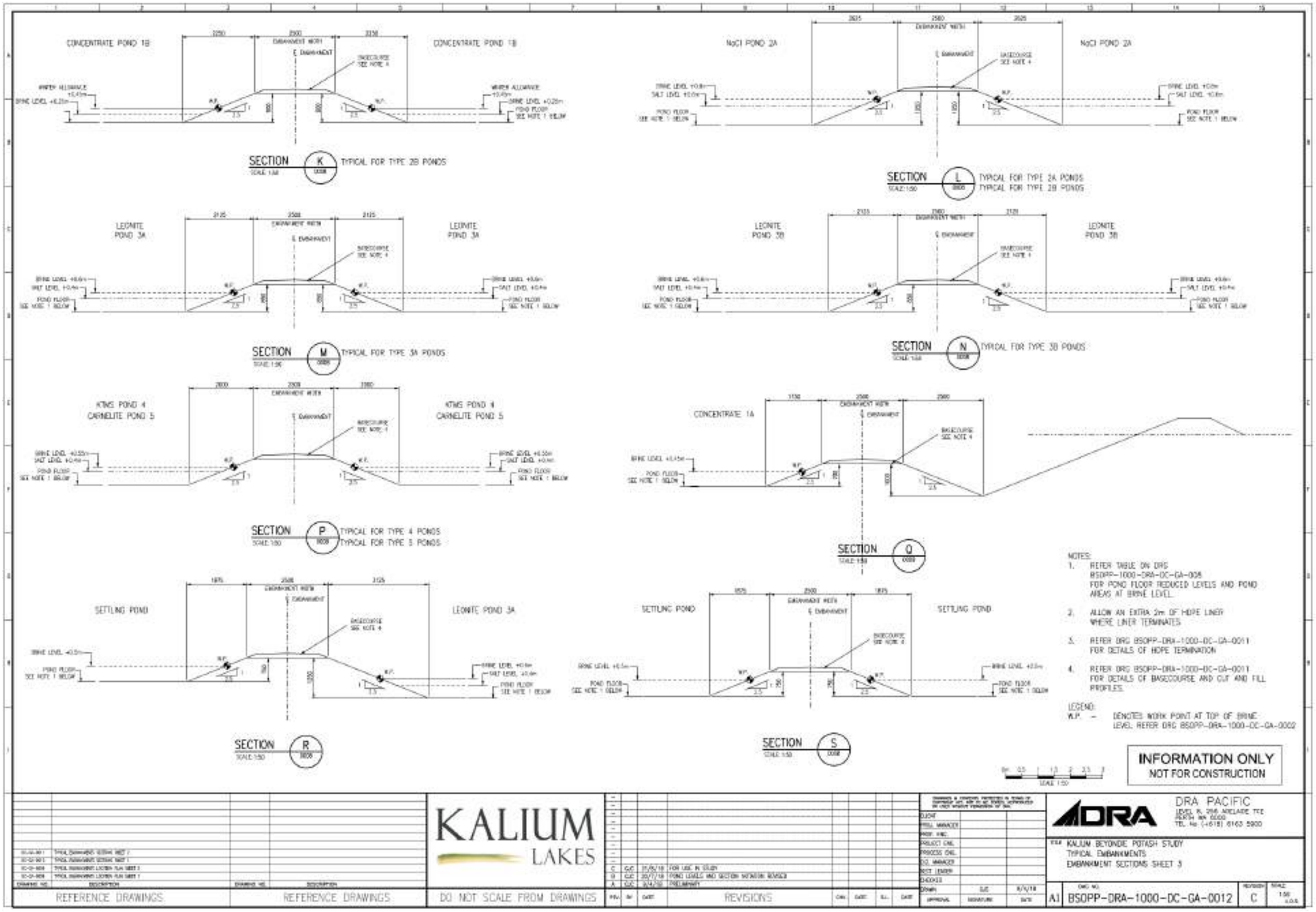


Figure 6: Typical evaporation pond embankment design drawings

Typical HDPE liner terminations for evaporation pond embankments

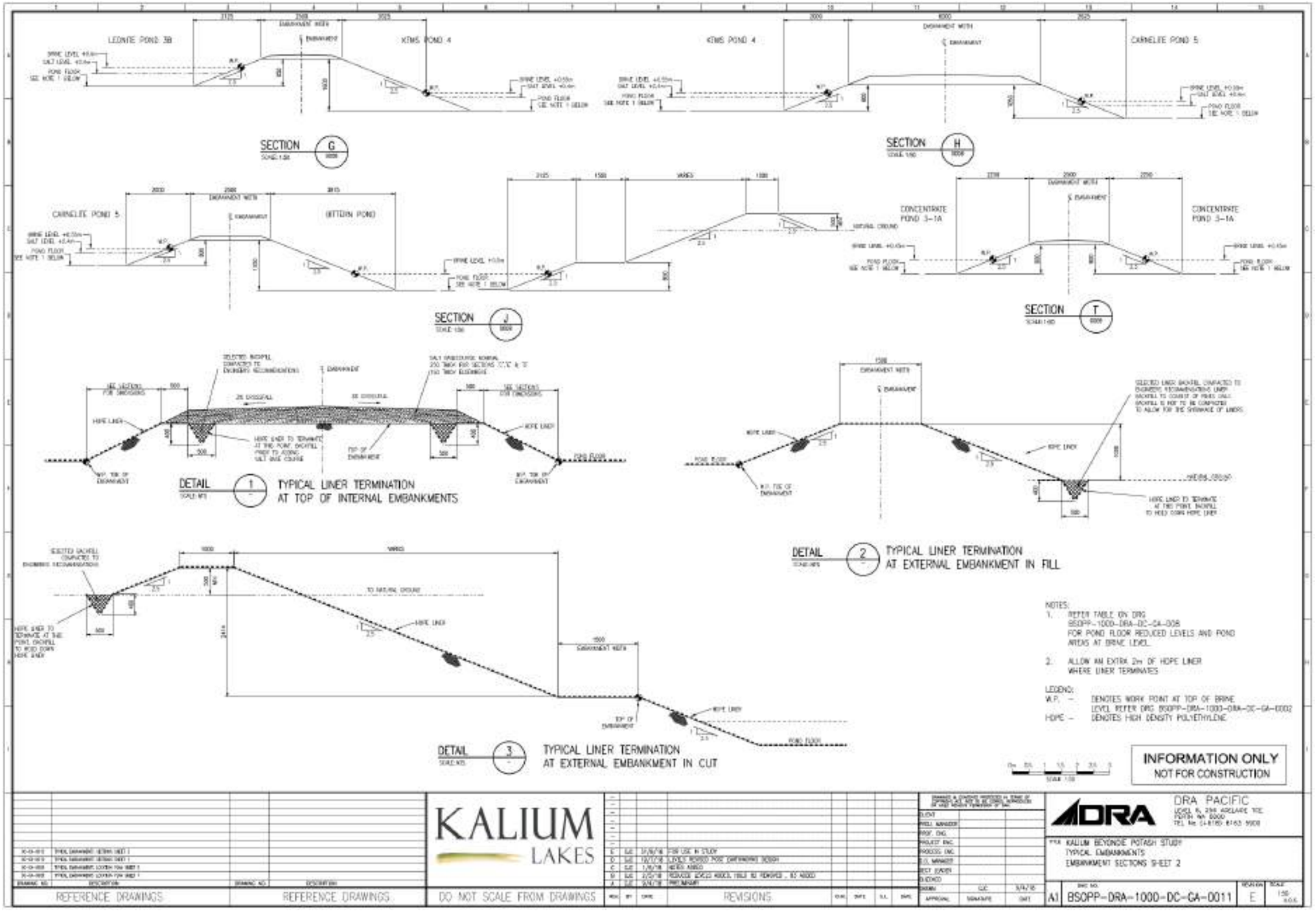


Figure 7: Typical HDPE liner terminations for evaporation pond embankments

Schedule 3: Schematic layout of WWTP

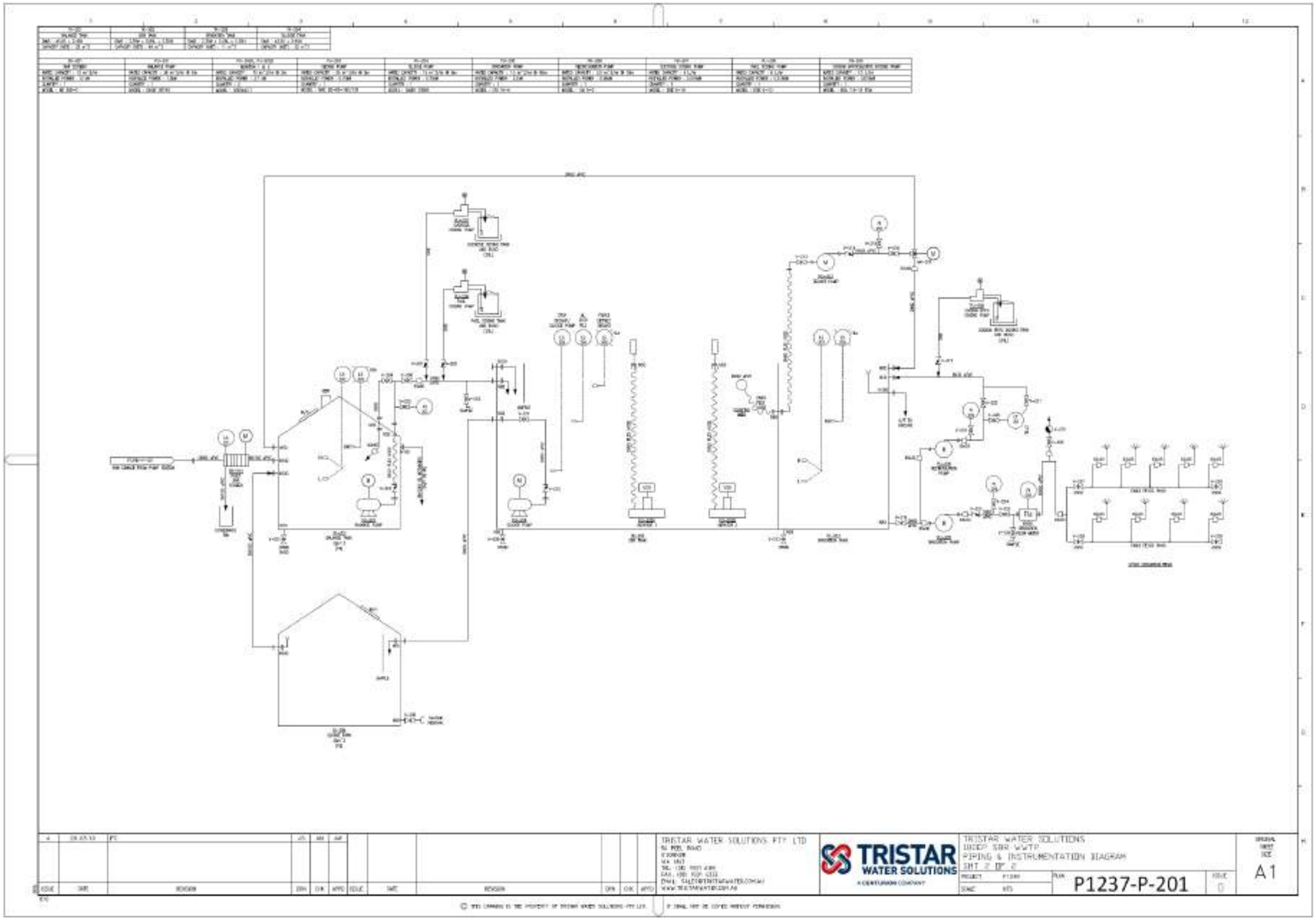


Figure 8: Schematic layout of WWTP

Schedule 4: Infrastructure/Equipment design, construction and/or installation requirements

Item	Infrastructure/Equipment	Design, construction and/or installation requirements	Infrastructure/Equipment location
Category 14: solar salt manufacturing			
1.	• New evaporation ponds: o One Pre-concentrator pond; o Four Sodium chloride (NaCl) ponds; o Six Leonite ponds; o Three Potassium rich salts (KTMS) ponds; o One Carnallite pond; and o One Bittern pond.	• constructed in an area that is not susceptible to flooding; • designed to contain a significant rainfall event, while maintaining a minimum freeboard of 250 mm; • constructed using a cut and fill method; • embankment designs in accordance with Figure 6: o typical embankment design, used for typical evaporation pond walls on flat ground; and/or o different elevation embankment design, used on sloped land; and/or o trafficable embankment design, with a wider surface to allow vehicle access. • evaporation pond floors and internal pond embankment walls lined with a minimum 1 mm high-density polyethylene (HDPE) to achieve a hydraulic conductivity of less than 1 x 10^{-9} m/s; • HDPE liner terminations in accordance with Figure 7; • access and egress to evaporation ponds via specially designed ramps; • leak detection infrastructure: o broad array of sensor cables installed under the salt bed floor of each evaporation pond; o sensor cabling terminates at a single point on each evaporation pond where trailer mounted hardware facilitates	'Proposed New Ponds To Be Constructed' as shown in Figure 2 of Schedule 1.

Item	Infrastructure/Equipment	Design, construction and/or installation requirements	Infrastructure/Equipment location
		data collection; and o data is delivered to offsite contractor for processing and preparation of a Pond Status Report.	
	• Final evaporation ponds design	• Weirs interconnecting adjacent evaporation installed between all evaporation ponds allowing bitterns, brine, saline and hypersaline water to be directed to adjacent evaporation ponds as required.	Evaporation ponds as shown in Figure 1 and Figure 2 of Schedule 1.
	• New transfer pipelines (for transporting brine and saline to hypersaline water)	• Any new transfer pipelines to be installed in accordance with the following requirements: o pipeline route located within prescribed premises boundary as demonstrated in Figure 1 of Schedule 1; o located off access road surfaces; o buried if they need to cross roads; o Required to meet the following standards: - AS/NZS 2033: *Installation of polyethylene pipe systems*; - AS/NZS 4129: *Fittings for polyethylene (PE) pipes for pressure applications*; - AS/NZS 4130: *Polyethylene (PE) pipes for pressure applications*; and - AS/NZS 4131: *Polyethylene (PE) compounds for pressure pipes and fittings.* o installed as per the manufacturer specifications; o fitted with a leak detection system; o flow meters installed on all pumps and pressure gauges; o automatic shutoff if leaks are detected; and o anchored at regular intervals to restrict movement in the	'Pipeline' as shown in Figure 1 of Schedule 1.

Item	Infrastructure/Equipment	Design, construction and/or installation requirements	Infrastructure/Equipment location
		event of a significant rainfall event.	
	• SOP purification plant	• All infrastructure/equipment constructed/installed on a concrete pad.	'Plant' as shown in Figure 5 of Schedule 1.
	• Excess salt stockpile	• earthen bund capable of containing saline water and runoff from the waste salt stockpile.	'Excess Salt Stockpile' as shown in Figure 1 of Schedule 1.

Schedule 5: Infrastructure and equipment requirements during operations

Item	Infrastructure and equipment	Operational requirements	Infrastructure location
General			
1.	Operation of mobile equipment (heavy equipment, generators and pumps)	• Maintain mobile equipment as per manufacturer's specifications; • Keep suitably stocked spill response equipment close to where spills may occur; and • Contain and clean-up spills as soon as they occur, if safe to do so.	Use of mobile equipment within the prescribed premises boundary as shown in Figure 1 of Schedule 1.
Category 14: solar salt manufacturing			
2.	Evaporation ponds	• Each newly constructed evaporation pond must be inspected to assess integrity of the HDPE liner and embankments prior to filling with brine. • Grow a minimum 400 mm deep sodium chloride salt layer on floor of newly constructed evaporation ponds prior to undertaking first harvesting activities. • Regular harvesting schedule to ensure the salt floor level is maintained at 100-200 mm to maintain storage capacity. • Maintain a minimum of 100 mm deep sodium chloride salt layer on floor of all evaporation ponds to aid in protection of HDPE liner. • Visual inspections twice daily at the commencement of day shift and end of day shift to check the freeboard and integrity of the HDPE liner when evaporation ponds are in use. • Maintain integrity of the HDPE liner within all evaporation ponds as per the design and construction/installation requirements in Schedule 4. • A minimum freeboard of 250 mm must be maintained. • Leak detection and management: o at a minimum, undertake fortnightly[1] analysis of leak detection data and	Evaporation ponds as shown in Figure 1 and Figure 2 of Schedule 1.

Item	Infrastructure and equipment	Operational requirements	Infrastructure location
		develop a Pond Status Report within seven calendar days of data collection; o if a suspected evaporation pond leak is detected, within fourteen calendar days of the Pond Status Report being received, a suitably qualified surveyor must undertake a survey of the relevant evaporation pond using a high-resolution probe (HRP) to identify the location and extent of any leaks; o analyse survey data and develop report of survey results within seven calendar days of survey date; and o undertake repair works for identified leaks within fourteen calendar days of the survey results report being received.	
3.	Transfer pipelines (for transporting brine and saline to hypersaline water)	• Visual inspections every 12 hours when in operation to check the integrity of the transfer pipelines. The inspections are to be no more than 12 hours apart. • New transfer pipelines to be maintained as per the design and construction/installation requirements in Schedule 4. • Leak detection and management: o each pumping skid must have the following limitations that trigger automatic pumping cut offs: - low pressure – set below the pressure of the pump running at its lowest possible speed; - high pressure – set beneath the temperature de-rated maximum allowable operating pressure of the pipeline immediately following the pumping skid; and - low flow – five (5) second timed trip if there is no flow detected in the pumping skid.	'Pipeline' located within the prescribed premises boundary as shown in Figure 1 of Schedule 1.
4.	Run of mine (ROM) Pad	• Visual inspections every 12 hours when in operation to check the freeboard, bunding and integrity of the HDPE liner. The inspections are to be no more than 12 hours apart.	'ROM pad' as shown in Figure 1 and Figure 5 of Schedule 1.

Item	Infrastructure and equipment	Operational requirements	Infrastructure location
		• Maintain integrity of the HDPE liner (ROM pad floor and drainage sump) with a hydraulic conductivity of less than 1 x 10^{-9} m/s. • Maintain bunding around perimeter of salt stockpile. • A minimum freeboard of 250 mm must be maintained within the drainage sump.	
5.	Excess salt stockpile	• Maintain integrity of earthen bund surrounding excess salt stockpile.	
Category 85: sewage facility			
6.	WWTP	• Visual inspections daily when in operation to check the integrity of the tanks, pipelines, flow meters, alarm system (audible and visual) and stormwater drainage infrastructure. • WWTP must be capable of storing a minimum of three consecutive days of effluent. • All sewage storage and treatment tanks, vessels, pipelines and conveyance infrastructure must be maintained so they are impermeable and free of leaks and defects. • Alarm system (audible and visual) must be maintained to notify the operator of: o pump faults; o high tank levels; and o tank overflows. • Sludge must be contained within sealed sludge tanks prior to removal by a licensed controlled waste carrier for disposal to an approved waste facility. • Stormwater must be prevented from entering the sewage treatment system and storage infrastructure. • A minimum freeboard of 250 mm must be maintained within each tank and vessel.	'WWTP and RO' as shown in Figure 1 and Figure 4 of Schedule 1.

Item	Infrastructure and equipment	Operational requirements	Infrastructure location
		• Spills of wastewater or chemicals outside of a tanks, vessels and pipelines must be contained and cleaned-up as soon as they occur, if safe to do so.	
7.	Irrigation Spray Fields	• Visual inspections daily when in operation to check the integrity of the irrigation system valves, pumps, pipelines and other fittings. • Area of irrigation spray field must be at least 5.11 ha. • Spray irrigator operated to deliver treated wastewater at a maximum rate of 2.16 m^3/hour. • No more than 1.02 mm/m^2/day of treated effluent must be applied to the irrigation spray field. • Maintain fence around entire perimeter and ensure spray drift does not extend beyond perimeter fence. • Flow meter must be maintained on the WWTP outlet to the irrigation spray field to monitor volumes discharged to irrigation spray field. • Spray irrigator to be maintained to ensure no blockages to allow even and effective spray production and ensure mobility, stopping and cutoff mechanisms are functioning as per manufacturer specifications. • Irrigation must managed to prevent ponding and pooling of effluent on the ground surface of the irrigation discharge area. • Irrigation operations must not occur during significant rainfall events.	'Irrigation Spray Fields' as shown in Figure 1 and Figure 4 of Schedule 1.
Category 89: putrescible landfill site			
8.	Landfill	• Comply with the *Environmental Protection (Rural Landfill) Regulations 2002* at all times. • No stockpiling of waste is to occur at the prescribed premises.	'Landfill' as shown in Figure 1 and Figure 4 of Schedule 1.

Note [1]: Fortnightly analysis must be undertaken at least seven calendar days apart.

Schedule 6: Emissions and discharge monitoring during operations

Discharge point location	Monitoring location	Parameters[1]	Units	Target value	Frequency	Sampling method
Category 85: sewage facility						
'Irrigation Spray Fields' as shown in Figure 2 of Schedule 1.	Flow meter	Cumulative volume of wastewater discharged to irrigation spray field	m^3/day	–	Continuous	–
		Escherichia coli bacteria (E. coli)	Cfu/100 ml	<1,000	Monthly[2]	AS/NZS 5667.1 AS/NZS 5667.10
	WWTP outlet	Total coliforms				
		Biochemical oxygen demand (BOD_5)	mg/L	<5		
		Total suspended solids (TSS)		<5		
		Total Nitrogen		<15		
		Total Phosphorus		<8		
		Free Chlorine		0.2-2.0		
		pH[1]	pH units	6.5-8.5		

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

Note [2]: Monthly monitoring is undertaken at least 21 days apart.