Government of Western Australia
Department of Water and Environmental Regulation

Licence

Licence number	L9089/2017/1
Licence holder	Opalvale Pty Ltd
ACN	106 512 896
Registered business address	Opalvale Pty Ltd 50 Clune Street BAYSWATER WA 6053
Instrument number	INS-0001777
Duration	05/02/2019 to 04/02/2031
Date of issue	05/02/2019
Date of amendment	21/01/2026
Premises details	Salt Valley Road Class II Landfill Chitty Road, HODDYS WELL WA 6566 Legal description - Part of Lot 11 on Deposited Plan 34937 Certificate of Title Volume 2535 Folio 391 As defined by the coordinates in Schedule 1 of the revised Licence

Prescribed premises category description **(Schedule 1, Environmental Protection Regulations 1987)**	**Assessed design capacity**
Category 64: Class II or III putrescible landfill site: premises (other than clean fill premises) on which waste of a type permitted for disposal for this category of prescribed premises, in accordance with the Landfill Waste Classification and Waste Definitions 1996, is accepted for burial.	150,000 tonnes per annum

This licence is granted to the licence holder, subject to the attached conditions, on 21 January 2026, by:

Abbie Crawford

Digitally signed by Abbie Crawford
Date: 2026.01.21 10:55:32 +08'00'

Abbie Crawford
MANAGER, WASTE INDUSTRIES
an officer delegated under section 20 of the *Environmental Protection Act 1986* (WA)

Licence history

Date	Reference number	Summary of changes
05/02/2019	L9089/2017/1	Licence granted.
06/05/2021	L9089/2017/1	CEO-initiated amendment to give effect to a determination made by the Minister under section 110 of the EP Act (Appeal Number 010 of 2019).
04/06/2020	L9089/2017/1	Licence amendment to allow waste to be deposited into cell 2.
24/06/2021	L9089/2017/1	Licence amendment to include conditions relating to landfill capping and gas management.
17/10/2022	L9089/2017/1	Licence amendment to authorise waste disposal into cells 3 & 4 and transfer of leachate into leachate pond 3.
21/01/2026	L9089/2017/1	APP-0031310 - Licence amendment to authorise waste disposal into cells 5 & 6.

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:

Acceptance and throughput restrictions

1. The licence holder must only accept waste at the premises if:

(a) it is of a type specified in in Table 1;

(b) it meets the acceptance specification and is below the quantity limit specified in Table 1; and

(c) it meets the waste acceptance criteria specified for Class II landfills as detailed in the Landfill Definitions.

Table 1: Waste types and acceptance specifications

Waste type	Quantity limit per annual period	Acceptance specification[1]
Clean fill and Uncontaminated fill	Combined total of 150,000 tonnes per annual period	None specified
Inert Waste Type 1		Waste containing visible asbestos or ACM must not be accepted as Inert Waste Type 1
Inert Waste Type 2		Tyres[2] and plastic only
Special Waste Type 1		Waste must only be accepted only if labelled, double wrapped in 0.2 mm thick heavy duty polyethylene or otherwise contained to prevent generation of airborne fibres and labelled appropriately.
Special Waste Type 2		Clinical waste may only be received that are contained and labelled appropriately. Radioactive wastes must not be accepted.
Putrescible waste		Must meet the acceptance criteria for Class II landfills
Contaminated solid waste		

Note 1: Additional requirements for the acceptance of controlled waste (including asbestos and tyres) are set out in the Environmental Protection (Controlled Waste) Regulations 2004.
Note 2: Information relating to the storage and burial of tyres can be found in the Environmental Protection Regulations 1987.

2. Where waste does not meet the waste acceptance criteria set out in condition 1, the licence holder must:

(a) reject the waste; and

(b) record the details of the:

(i) waste (type and description);
(ii) source of the waste load;
(iii) name of the waste carrier;
(iv) registration number of the delivery vehicle; and
(v) date that the waste load was rejected;

(c) maintain accurate and auditable records of all waste loads rejected from the premises; and

(d) where the waste supplier cannot immediately remove the waste in the delivery vehicle, it is stored in a quarantined storage area or container and removed to an appropriately authorised facility within seven days of receipt.

Infrastructure and equipment

3. The licence holder must ensure that the infrastructure and equipment specified in Table 2 is maintained and operated in accordance with the requirements specified in that table.

4. The licence holder shall ensure that waste material specified in Table 2 is only disposed and stored within infrastructure and equipment with the corresponding infrastructure requirements as detailed in Table 4.

Table 2: Containment infrastructure requirements

Infrastructure and equipment	Material	Infrastructure requirements
Class II landfill cells 1 to 6	Clean Fill	• The composite lining system must be maintained in good working order free of detects; • All leachate arising from within a landfill cell must be directed to the leachate collection sump; • Leachate collected in the leachate collection sump must be conveyed to the leachate evaporation pond; and • A minimum separation distance of 2 m is to be maintained between the base of the leachate collection sump and maximum recorded groundwater levels., with the exception of the leachate sump in Cell 1 (6 m x 6 m area below the sump)
	Class I and Class II Putrescible and Contaminated Solid Waste	
	Inert Waste Type 1	
	Inert Waste Type 2	
	Special Waste Type 1	
Leachate Ponds 1, 2 and 3	Landfill leachate from Cells 1, 2, 3, 4, 5 and 6	• Composite lining system to achieve a permeability of less than 5 x 10^{-11} m/s or equivalent; • Maintenance of a freeboard of no less than 500 mm; and • Maintained free of vegetation.

5. The licence holder must ensure that the infrastructure and equipment specified in Table 3 is operated and maintained in accordance with the requirements specified in that table.

Table 3: General operational infrastructure

Infrastructure and equipment	Infrastructure requirements
Plant and machinery	• Maintained according to manufacturer's instructions • Be regularly maintained to limit unnecessary noise
Weighbridge	• Maintained according to manufacturer's instructions
Leachate management system (including pumps, pipework, sensors, monitoring devices and operational controls)	• Inspected and maintained monthly to ensure system is free of blockage, and sensors and monitoring devices are operating correctly and in accordance with the requirements of the Landfill Management Plan.
Fine grained sand protection layer	• Must not contain any organic matter, lumps of clay or other deleterious material; • Must not contain any other type of putrescible waste; • Must not be constructed with crushed limestone; and • Must by constructed with a minimum thickness of 300 mm.
Firefighting equipment	• Comprises a water tanker or fire truck that is filled with water at all times; and • Fire water storage tank contains a minimum of 50 kL of water at all times.
Surface water diversion structure and bunds	• Inspected prior to onset of winter rainfall, and following significant storm events to ensure efficient conveyance of water; • Maintained to prevent sediment loads within the silt traps within 0.5 m of the top of the silt trap.
Groundwater monitoring bores	• Maintained to ensure accessibility for quarterly groundwater monitoring in accordance with the requirements of condition 34.
Reticulation infrastructure	• Inspected monthly and maintained to ensure correct operation in the conveyance of leachate to active landfill cells for recirculation.

6. The licence holder must undertake analysis of the fine-grained sand protection layer required under condition 3 in accordance with the specifications set out in Table 4.

Table 4: Analysis of fine-grained sand protection layer

Sieve size (mm)	Precent passing (%)	Averaging period	Frequency
19	100	Spot sample	1 sample per 150 m^3, or part thereof
9.5	95 – 10		
4.75	85 – 100		
2.36	80 – 100		
1.18	75 – 100		
0.6	45 – 95		
0.425	24 – 80		
0.3	10 – 60		
0.15	3 – 24		
0.075	0 – 8		

7. The licence holder must ensure that wastes accepted onto the premises are only subjected to the processes set out in Table 5 and in accordance with any process limits or specifications described in that table.

Table 5: Waste processing

Waste type	Processes	Process limits or specifications[1, 2, 3]
All waste types received on the premises	Disposal of waste by landfilling	• Must only take place within cells 1, 2, 3, 4, 5 and 6 as shown in Schedule 1. • No waste to be temporarily stored or landfilled within 35 m from the boundary of the premises.
Contaminated Solid Waste	Receipt, handling and disposal by landfilling	• Must only be received with accompanying documentation verifying that it meets the waste acceptance requirements of condition 1.
Clean Fill or uncontaminated fill	Receipt, handling, Storage prior to removal offsite or disposal by landfilling	• None specified
Inert Waste Type 1		• Crushing and screening of Inert Waste Type 1 is not permitted.
Inert Waste Type 2		• None specified
Special Waste Type 1	Receipt, handling and disposal by landfilling	• Only to be disposed of into a designated asbestos disposal area within landfill cells as defined on a site map to be available onsite at all times. • Not to be disposed within 2 m of the final tipping surface of the landfill. • No works to be carried out on the landfill that could lead to a release of asbestos fibres.
Special Waste Type 2	Receipt, handling and disposal by landfilling	• Only to be disposed of into a designated biomedical waste disposal area within landfill cells as defined on a site map to be available onsite at all times. • Not to be disposed within 2 m of the final tipping surface of the landfill. • No works to be carried out on the landfill that could lead to disturbance of biomedical wastes.

Note 1: Requirements for landfilling tyres are set out in Part 6 of the Environmental Protection Regulations 1987.

Note 2: Additional requirements for the acceptance and landfilling of controlled waste (including asbestos and tyres) are set out in the Environmental Protection (Controlled Waste) Regulations 2004.

Note 3: Additional requirements for the acceptance, handling and landfilling of biomedical wastes are set out in the Environmental Protection (Rural landfill) Regulations 2002, and the Biohazard Waste Industry Code of Practice for the Management of clinical and Related Waste (6th Ed), Waste Management Association of Australia, June 2010.

8. The licence holder must immediately recover, or remove and dispose of spills of waste or leachate outside of a vessel, container or infrastructure specified by Table 2.

9. The licence holder must manage the landfilling activities to ensure:

   (a) the size of the tipping face is kept to a minimum and not larger than 30 m in width and 2 m in height;

   (b) the active tipping area is wet down as required to minimise dust generation associated with vehicle movement and during waste and cover placement;

   (c) waste is levelled and compacted as soon as practicable after it is discharged and at a minimum of the end of the day; and

   (d) waste is placed and compacted to ensure all faces are stable and capable of retaining further waste placement or placement of cover or rehabilitation material.

10. The licence holder must ensure that daily cover is applied and maintained on landfilled waste types in accordance with Table 6 and that sufficient stockpiles of appropriate cover materials are maintained on site at all times.

Table 6: Minimum daily cover requirements

Waste type	Cover material	Minimum depth	Timescales
Inert Waste Type 1	No cover required		
Inert Waste Type 2	• Clean fill; • Uncontaminated fill; • Inert Waste Type 1; or • Soil	150 mm	At the end of each working day
Special Waste Type 1		300 mm	Immediate cover of waste
Special Waste Type 2		300 mm	
All other waste types		150 mm	At the end of each working day

11. The licence holder must manage the landfilling activities by:

   (a) with the exception of Special Waste Type 1, covering surfaces which have not received active waste for more than 90 days with an intermediate cover of at least 300 mm with a graded slope of at least 2% to promote run-off away from the active tipping face;

   (b) for Special Waste Type 1, covering surfaces which have not received active waste for more than 90 days with an intermediate cover of at least 1,000 mm with a graded slope of at least 2% to promote run-off away from the active tipping face; and

   (c) removing the intermediate cover when landfilling recommences to prevent perched water accumulating in the landfill.

12. The licence holder must implement the following security measures at the site:

   (a) maintain suitable perimeter fencing to prevent unauthorised access to the operational areas of the premises;

   (b) ensure that any entrance gates to the premises are securely locked when the premises is unattended;

   (c) undertake regular inspections of all security measures and repair damage as soon as practicable; and

   (d) maintain a 2 m high fence around the active landfill and the perimeter of the leachate ponds.

13. The licence holder must ensure that no wind-blown waste escapes from the premises including:

(a) ensuring wind-blown waste is collected from the landfill area on a daily basis and from the greater premises area on at least a weekly basis and returned to the tipping area or appropriately contained; and

(b) maintain 4 m high temporary or mobile litter panels near the active landfill area.

14. The licence holder must implement the following measures in regard to feral animals, vermin and weed management:

(a) maintain a 2 m high chain link fence around the landfill cell disposal area;

(b) maintain a 400 mm wire mesh skirt/apron around the landfill disposal area fence;

(c) maintain electrification of the landfill area fence via two hotwire lines on the outside of the fence;

(i) one wire to be approximately 200 mm from the base of the fence and the other near the top of the fence; and

(ii) hotwires are to be strung such that they extend 150 mm – 200 mm out from the fence on insulated holders.

(d) the base of the gate entrances will, when closed, not allow cat or fox access by having a maximum 50 mm clearance at the base of the gate to the ground. The road surface at the gate entrance must consist of hardstanding material (e.g. compacted road base);

(e) maintain four motion senor detection infrared cameras inside the fenced landfill cell area pointing down the line of the fence;

(i) cameras are maintained to ensure continuous surveillance;

(ii) images are to be down loaded monthly;

(iii) the presence of feral animals is to be recorded monthly; and

(iv) batteries are to be periodically checked and changed.

(f) landfill staff to look for visual signs of feral animals within the landfill area and record presence / visitation within the feral animal register;

(g) check perimeter fence on a weekly basis and undertake necessary repairs;

(h) undertake appropriate eradication measures including; baiting and trapping; and

(i) inspect the premises monthly for the presence of weeds and record observations made and management measures undertaken.

15. The licence holder must ensure that the process control parameters in Table 7 comply with the operational levels specified in that Table.

Table 7: Process controls for leachate management

Reference	Parameter	Operational level
PC1	Leachate head within leachate sump 1 (location PM1 as depicted in Figure S1-5 in Schedule 1)	Less than or equivalent to 800 mm within the sump[1].
PC2	Leachate Pond 1 freeboard	Greater than or equivalent to 500 mm
PC3	Leachate Pond 2 freeboard	Greater than or equivalent to 500 mm
PC4	Leachate Pond 3 freeboard	Greater than or equivalent to 500 mm
PC5	Leachate head within leachate sump 2 (location PM2 as depicted in Figure S1-5 in Schedule 1)	Less than or equivalent to 600 mm within the sump[2]
PC6	Leachate head within leachate sump 3 (location PM3 as depicted in Figure S1-5 in Schedule 1)	Less than or equivalent to 800 mm
PC7	Leachate head within leachate sump 4 (location PM3 as depicted in Figure S1-5 in Schedule 1)	Less than or equivalent to 800 mm

Note 1: An 800 mm leachate head within the Cell 1 sump (1) is equivalent to approximately 300 mm of leachate over the composite liner in the vicinity of the sump.

Note 2: A 600 mm leachate head within the Cell 3 sump (2) is equivalent to approximately 300 mm of leachate over the composite liner in the vicinity of the sump.

16. In case of the occurrence of an event at a corresponding reference point as specified in Table 8, the licence holder must take the relevant management action as specified in that table.

Table 8: Management actions

Event / action reference	Event	Process control parameter reference in Table 7	Management action
EA1	Any time the leachate head exceeds the operational level in Table 7	PC1 PC5 PC6 PC7	The licence holder must undertake leachate management measures as defined the Landfill Management Plan within 24 hours of observing the exceedance. Where inspection and monitoring indicate failure or blockage of the leachate collection system, the licence holder must remove leachate from the system via liquid waste transport to a licensed liquid waste facility within 48 hours of observing the exceedance. Where inspection and monitoring indicate failure or blockage of the leachate collection system, the licence holder must notify the CEO in accordance with condition 45.

Event / action reference	Event	Process control parameter reference in Table 7	Management action
EA2	Any time the freeboard in Leachate Ponds 1, 2 or 3, is less than the operational level prescribed in Table 7.	PC2 PC3 PC4	The licence holder must undertake management measures as defined in Landfill Management Plan within 24 hours of observing the exceedance. Where inspection and monitoring indicate failure or blockage of the leachate collection system, the licence holder must remove leachate from the system via liquid waste transport to a licensed liquid waste facility within 48 hours of observing the exceedance. Where inspection and monitoring indicate failure or blockage of the leachate collection system, the licence holder must notify the CEO in accordance with condition 45.

17. The licence holder must divert stormwater from areas of the premises where waste is stored, and any stormwater which has come into contact with waste storage areas is to be retained within Cells 1, 2, 3, 4, 5 and 6 or associated leachate management infrastructure.

18. The licence holder must manage asbestos by:

(a) only disposing of asbestos and ACM within the designated areas of the landfill (as identified on a site map to be available at all times on the premises, and by signage within the active landfill cell), under the supervision of a person nominated by the licence holder;

(b) covering asbestos and ACM by the end of the working day with a dense, inert and incombustible material to a depth of at least 300 mm;

(c) maintaining a register of burials of asbestos and ACM stating as a minimum, the date, the person's name, that the waste has been covered in accordance with the licence conditions, and where more than one square metre of waste was covered, grid coordinates with reference to the plan of the landfill site so that the position of the waste can be easily and accurately ascertained; and

(d) operating the landfill in such a way that asbestos and ACM is not buried within two metres of the final waste landform surface and ensuring that asbestos and ACM which has been buried remains undisturbed.

19. The licence holder must manage biomedical wastes by:

(a) only disposing of clinical and related wastes within the designated areas of the landfill (as identified on a site map to be available at all times on the premises, and by signage within the active landfill cell), under the supervision of a person nominated by the licence holder;

(b) covering clinical and related wastes by the end of the working day with a dense, insert and incombustible material to a depth of at least 300 mm;

(c) maintaining a register of burials of clinical and related wastes stating as a minimum, the date, the disposer's details, the origin of the waste, that the waste has been covered in accordance with the licence conditions, and where more

than one square metre of waste was covered, grid coordinates with reference to the plan of the landfill site so that the position of the waste can be easily and accurately ascertained; and

(d) operating the landfill in such a way that clinical and related waste is not buried within two metres of the final waste landform surface and ensuring that waste which has been buried remains undisturbed.

20. The licence holder must ensure that waste is not burnt at the premises.

21. The licence holder is not permitted to clear any native vegetation on the premises under this licence.

22. The licence holder must restrict vehicle speeds on the premises to below 40 km per hour.

Specified Actions

23. The licence holder must submit to the CEO the Information in Table 9 in accordance with the requirements and timescale outlined in that table.

Table 9: Specified actions

	Information	Requirements	Timescale
1	Phase 2 capping and rehabilitation design plan	Report including the final detailed design, stability risk assessment, technical/material specifications, landfill gas collection infrastructure details, current survey and proposed final waste heights, and construction quality assurance plan.	3 months prior to achieving the proposed final waste height as specified within the adopted site Closure and Post Closure Management Plan
2	Phase 3 capping and rehabilitation design plan		

Works specifications (construction)

24. The licence holder must ensure that the construction works specified in Table 10 meet or exceed the specifications in the corresponding schedule as noted in that table.

Table 10: Works specifications

Works type	Works description	Timing	Specifications reference
Landfill gas extraction infrastructure	Landfill gas well ground preparation and construction	Landfill gas well hole construction must commence within 9 months after disposal of waste into each phase has been completed.	Schedule 3
Landfill gas destruction infrastructure	Flare construction	Landfill gas collection infrastructure must be connected to active landfill gas management systems capable of capture and combustion of landfill gas, once the production levels from the wells exceed 100m^3/hr.	Schedule 3
Landfill closure and capping works	Landfill cap construction	The construction works for installation of the landfill cap of each phase must commence no later than 6 months after disposal of waste into the Phase has been completed	Schedule 4

25. The licence holder must within 45 calendar days of an item of infrastructure required by condition 24 being constructed:
    (a) undertake an audit of their compliance with the requirements of condition 24; and
    (b) prepare and submit to the CEO an Environmental Compliance Report on that compliance.

26. The Environmental Compliance Report required by condition 25, must include as a minimum the following:
    (a) certification by a suitably qualified engineer that the items of infrastructure or components thereof, as specified in condition 24, have been constructed in accordance with the relevant requirements specified in condition 24;
    (b) as constructed plans and a detailed site plan for each item of infrastructure or component of infrastructure specified in condition 24; and
    (c) be signed by a person authorised to represent the works approval holder and contains the printed name and position of that person.

Monitoring requirements

27. The licence holder must ensure that:
    (a) monthly monitoring is undertaken at least 15 days apart;
    (b) six monthly monitoring is undertaken at least five months apart; and
    (c) annual monitoring is undertaken at least nine months apart.

28. The licence holder must ensure that:
    (a) all liquid samples are collected and preserved in accordance with AS/NZS 5667.1;
    (b) all wastewater sampling is conducted in accordance with AS/NZS 5667.10;
    (c) all surface water sampling is conducted in accordance with AS/NZS 5667.4;
    (d) all groundwater sampling is conducted in accordance with AS/NZS 5667.11;
    (e) all laboratory samples are submitted to and tested by a laboratory with NATA accreditation for the parameters being measured unless indicated otherwise within the relevant table.

29. The licence holder must undertake the monitoring of parameters specified in Table 11 according to the specifications of that table.

Table 11: Monitoring of inputs and outputs

Input/output	Parameter	Units	Frequency
Waste inputs	Clean Fill	Tonnes	Each load arriving at the premises
	Uncontaminated Fill		
	Inert Waste Type 1		
	Inert Waste Type 2		
	Special Waste Type 1		
	Putrescible waste		
	Contaminated Solid Waste		
Waste outputs	Waste types as defined in the Landfill Definitions		Each load leaving or rejected from the premises

30. The licence holder must inspect and monitor the leachate management system at a minimum of weekly to monitor leachate levels in all ponds and sumps, and manage movement of leachate between sumps and ponds and the recirculation system.

31. The licence holder must monitor and record, at a minimum, the parameters specified in Table 12 at the locations, levels and recording frequency specified in that table.

Table 12: Leachate management system monitoring requirements

Parameter	Location	Operational levels	Recording period
Depth of leachate	Leachate Sump 1 (Cell 1) Leachate Sump 2 (Cell 3) Leachate Sump 3 (Cell 5) Leachate Sump 4 (Cell 6)	300 mm over landfill liner	Minimum of once a week
	Leachate Ponds 1, 2 and 3	Less than minimum freeboard as specified in Table 7	Weekly
Volume of leachate	Pumped from sump to ponds	N/A	Weekly
	Pumped out of leachate ponds	N/A	Weekly

32. The licence holder must undertake the process monitoring at the monitoring point reference locations specified in Table 13, and shown on the map in Schedule 3, according to the specifications in that table.

Table 13: Process monitoring

Monitoring point reference	Process description	Parameter	Units	Frequency	Method
PM1 PM2 PM3 PM4	Leachate head within: leachate sump 1 (Cell 1), leachate sump 2 (Cell 3), leachate sump 3 (Cell 5), leachate sump 4 (Cell 6)	Depth	Mm	Daily	Depth to be measured prior to commencement of pumping of leachate from the sump
PM1 PM2 PM3 PM4	Leachate extracted from: leachate sump 1 (Cell 1), leachate sump 2 (Cell 3), leachate sump 3 (Cell 5),	pH[1]	pH units	Quarterly	In accordance with condition 28
		Electrical conductivity[1]	µS/cm		
		Total soluble solids	Mg/L		
		Cations and anions Potassium, Chloride, Sulfate	mg/L		

Monitoring point reference	Process description	Parameter	Units	Frequency	Method
	leachate sump 4 (Cell 6)	Total metals Arsenic (total), Cadmium, Chromium, Copper, Iron (total), Lead, Manganese, Mercury, Molybdenum, Nickel, Selenium, Zinc	mg/L		
		Nutrients Ammoniacal nitrogen, Nitrate-nitrogen, Total nitrogen, Total phosphorus, Total organic carbon, Chemical oxygen demand	mg/L		
		Total recoverable hydrocarbons	µg/L	6 monthly	
		Monocyclic aromatic hydrocarbons Benzene, Toluene, Methylbenzene, Xylene (total) Polycyclic aromatic hydrocarbons Acenaphthene, Anthracene, Ben(a)pyrene, Fluoranthene, Naphthalene, Pyrene Organochlorine pesticides Aldrin, Chlordane (and metabolites), DDT (and metabolites), Dieldrin, Chlorpyrifos, HCB, Heptachlor (and its epoxide), Lindane Organophosphates Parathion, Demeton-S-methyl, Maldison, Diazinon, Dimethoate, Fenamiphos, Fenthion Other Atrazine, TCE, PCE, Polychlorinated biphenyls (total)	µg/L		

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

33. The licence holder must undertake the surface water monitoring at the monitoring point reference locations specified in Table 14, and shown on the map in Figure S1-6 according to the specifications in that table.

Table 14: Monitoring of ambient surface water quality

Monitoring point reference	Parameter	Units	Averaging period	Frequency	Method
SW3	pH[1]	pH units	Spot sample	6 monthly, when runoff water is being released to the farm dam.	In accordance with condition 28
	Electrical conductivity[1]	µS/cm			
	Total recoverable hydrocarbons	mg/L or ug/L	Spot sample		
	Cations and anions Potassium, Chloride, Sulfate				
	Total metals Arsenic (total), Cadmium, Chromium, Copper, Iron (total), Lead, Manganese, Mercury, Molybdenum, Nickel, Selenium, Zinc				
	Nutrients Ammoniacal nitrogen, Nitrate-nitrogen, Total nitrogen, Total phosphorus, Total organic carbon, Chemical oxygen demand				
SW1 and SW2	pH[1]	pH units	Spot sample	Two sampling events between the months of May and September, separated by at least 30 days (when water is flowing)	In accordance with condition 28
	Electrical conductivity[1]	µS/cm			
	Total suspended solids	mg/L or ug/L	Spot sample		
	Total soluble solids				
	Total recoverable hydrocarbons				
	Cations and anions Potassium, Chloride, Sulfate				

Monitoring point reference	Parameter	Units	Averaging period	Frequency	Method
	Total metals Arsenic (total), Cadmium, Chromium, Copper, Iron (total), Lead, Manganese, Mercury, Molybdenum, Nickel, Selenium, Zinc				
	Nutrients Ammoniacal nitrogen, Nitrate-nitrogen, Total nitrogen, Total phosphorus, Total organic carbon, Chemical oxygen demand				

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

34. The licence holder must undertake the groundwater monitoring at the monitoring point reference locations specified in Table 15, and shown on the map in Figure S1-6 according to the specifications in that table.

Table 15: Monitoring of ambient groundwater quality

Monitoring point reference	Parameter	Units	Averaging period	Frequency	Method
SE1, SE2, SE3, SE4, SE5, SE6, SE7, SE8, SE9 and C11.	Standing water level[1]	mAHD	Instantaneous	Quarterly	In accordance with condition 28
	pH[1]	pH units	Spot sample		
	Electrical conductivity[1]	µS/cm			
	Total soluble solids	mg/L	Spot sample		
	Cations and anions Potassium, Chloride, Sulfate				
	Dissolved metals Arsenic (total), Cadmium, Chromium, Copper, Iron (total), Lead, Manganese, Mercury, Molybdenum,				

Monitoring point reference	Parameter	Units	Averaging period	Frequency	Method
	Nickel, Selenium, Zinc				
	Nutrients Ammoniacal nitrogen, Nitrate-nitrogen, Total nitrogen, Total phosphorus				
	Total recoverable hydrocarbons	µg/L	Spot sample	6 monthly	In accordance with condition 28
	Monocyclic aromatic hydrocarbons Benzene, Toluene, Methylbenzene, Xylene (total) Polycyclic aromatic hydrocarbons Acenaphthene, Anthracene, Ben(a)pyrene, Fluoranthene, Naphthalene, Pyrene Organochlorine pesticides Aldrin, Chlordane (and metabolites), DDT (and metabolites), Dieldrin, Chlorpyrifos, HCB, Heptachlor (and its epoxide), Lindane Organophosphates Parathion, Demeton-S-methyl, Maldison, Diazinon, Dimethoate, Fenamiphos, Fenthion Other Atrazine, TCE, PCE, Polychlorinated biphenyls (total)	µg/L	Spot sample	6 monthly	

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

35. Field records should be kept for sampling undertaken in accordance with condition 31, condition 32, condition 33 and condition 34 must include as a minimum:

(a) date, location and time of sampling;

(b) sampling equipment and methodology of sample collection;

(c) depth sample was collected from;

(d) sample collection point description and information (height of water depth, height of casing, total depth of water, etc.);

(e) surface water level before and after sampling (where relevant);

(f) purge volume (where relevant); and

(g) observations of sample (e.g. colour, turbidity, odour, presence of sheen, effervescence etc.).

36. The licence holder must adhere to the following field quality assurance and quality control procedures as specified in Schedule B2 of the *Assessment of Site Contamination NEPM* and must include as a minimum:

(a) decontamination procedures for the cleaning of tools and sampling equipment before sampling and between samples;

(b) field instruction calibration for instruments used on site;

(c) blind replicate samples and rinsate blanks must be collected in the field and sent to the relevant laboratory to determine the precision of the field sampling and laboratory analytical program;

(d) completed field monitoring sheets/sampling logs for each sample collected, time, location, initials of sampler, sampling method, field analysis results, duplicate type/location (if relevant) and site observations and weather conditions; and

(e) chain-of-custody documentation must be completed which details the following information: site identification; the sampler; nature of the sample; collection time and date; analyses to be performed; sample preservation method; departure time from site; dispatch couriers; and arrival time at laboratory.

37. The licence holder must undertake the monitoring of parameters specified in Table 16 according to the specifications in that table

Table 16: Monitoring of landfill gas

Monitoring point reference	Parameter	Units	Frequency
Each well, as depicted in Schedule 1, Figure S1-3	Volumetric flow rate	m^3/hr	Within four weeks of completion of construction of each well and flare and monthly thereafter
Each well, as depicted in Schedule 1, Figure S1-3; or The flare as depicted in Schedule 1, Figure S1-3	Methane	Volume %	
	Carbon dioxide	Volume %	
	Oxygen	Volume %	
	Nitrogen	Volume %	
	Carbon monoxide	ppm	
	Gas temperature	^oC	
	Pressure	Pa	

Note 1: Non-NATA accredited analysis permitted

Records and reporting

Records

38. 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.

39. 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 maintenance of infrastructure required to ensure that it is kept in good working order in accordance with condition 5 of this licence;

(c) management measures undertaken in accordance with condition 13 of this licence;

(d) reportable events reported in accordance with condition 16 of this licence;

(e) the specific actions required by condition 23 of this licence;

(f) monitoring undertaken in accordance with condition 29, condition 30, condition 31, condition 32, condition 33 and condition 34 of this licence; and

(g) complaints received under condition 38 of this licence.

40. The books specified under condition 39 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

41. The licence holder must comply with a department request, within 14 days from the date of the department request or such other period as agreed to by the inspector or the CEO.

42. The licence holder must record and report any unauthorised fires to the CEO within 14 days of the fire and include:

(a) details of the date, time and location of the fire;

(b) measures used to control the fire;

(c) the cause, or suspected cause, of the fire; and

(d) any residual issues related to the fire.

43. 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 an Annual Audit Compliance Report in the approved form by 31 March each year.

44. The licence holder must:

(a) prepare an Environmental Report that provides information in accordance with Table 17 for the preceding annual period, and

(b) submit that Environmental Report to the CEO by 31 March each year.

Table 17: Environmental reporting requirements

Condition or table	Requirement	Format or form
N/A	Updated site plan.	Map at least A3 size. All maps and plans in electronic format
N/A	A summary of leachate collection infrastructure performance including inputs, outputs, calculations and explanation of any changes that may indicate an issue with the leachate collection or management system or a breach of the landfill or leachate pond liner.	None specified
Including condition 16	Summary of any failure or malfunction of any pollution control equipment (detailed in the Landfill Management Plan); and any environmental incidents that have occurred during the annual period, and any action taken in response to the incident	None specified
Table 11	Waste input and output data, including rejected loads	None specified
Table 13	Process monitoring data	None specified
Table 14	Ambient surface water quality monitoring data	None specified
Table 15	Ambient groundwater quality monitoring data	None specified
Table 16	• Landfill gas monitoring data • A summary of landfill gas infrastructure operational performance including an annual review of flare rate against landfill gas generation capacity. • A review of gas generation rates to determine if sustained generation rates warrant gas utilisation. • A description of changes to operational performance that may indicate an issue with the landfill gas management system and actions taken to investigation and mitigate issues.	None specified
Condition 38	Summary of complaints received	None specified

45. The licence holder must submit the information in Table 18 to the CEO according to the specifications in that table.

Table 18: Notification requirements

Condition or table	Information required	Notification requirement[1]
Condition 15 Table 7	Failure or malfunction of the leachate collection and management system	Part A: As soon as practicable, but no later than 1700 hrs of the next usual working day. Part B: As soon as practicable.
Condition 16 Table 8		

Note 1: Notification requirements in the licence do not negate the requirement to comply with s72 of the EP Act

Definitions

In this licence, the terms in Table 19 have the meanings defined.

Table 19: Definitions

Term	Definition
ACN	Australian Company Number
active landfill cell	means any cell approved by DWER to accept waste and which has not been rehabilitated.
annual period	a 12 month period commencing from 1 January until 31 December.
approved form	means the Annual Audit Compliance Report (AACR) form template approved by the CEO for use and available via DWER's external website.
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 info@dwer.wa.gov.au
condition	a condition to which the licence is subject under section 62 of the *Environmental Protection Act 1986.*
Compliance Report	means a report in a format approved by the CEO as presented by the licence holder or as specified by the CEO (guidelines and templates may be available on the Department's website).
Contaminated Solid Waste	means contaminated soil as defined by the Landfill Definitions
Closure and Post-Closure Management Plan	means the document titled Closure and Post-Closure Management Plan, Salt Valley Road Class II Landfill. Prepared for Opalvale Pty Ltd, by Talis Consultants. Version 1c. Dated 26 February 2021. (DWER Reference: DWERDT424777)
department; DWER	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.
Environmental Compliance Report	means a report to satisfy the CEO that the conditioned infrastructure has been constructed in accordance with the licence.
EP Act	*Environmental Protection Act 1986* (WA).

Term	Definition
EP Regulations	Environmental Protection Regulations 1987 (WA).
Landfill Definitions	means the document titled "Landfill Waste Classification and waste Definitions 1996" published by the CEO as amended from time to time.
Landfill Management Plan	means the document titled Opalvale Salt Valley Road Class II Landfill. Lot 11 Chitty Road, Toodyay. Landfill Management Plan. Prepared for Opalvale Pty Ltd, by IW Projects Pty Ltd. Rev 5. Dated 15 February 2020.
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 this licence as the person to whom this licence has been granted.
monthly period	means a one-month period commencing from the first day of a month until the last day of that same month.
NATA	National Association of Testing Authorities
NEPM	National Environment Protection (Assessment of Site Contamination) Measure
phase	means the capping phases as depicted in Schedule 1, Figure S1-2
pollution	has the same meaning given to that term under the EP Act.
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.
suitably qualified engineer	means a person who: (a) demonstrates competency in the area of civil or structural engineering; and (b) has a minimum of at least three years working in the area of civil or structural engineering; and (c) is employed by an independent third party external to the licence holder's business; or is otherwise approved in writing by the CEO to act in this capacity.
waste	has the same meaning given to that term under the EP Act.

END OF CONDITIONS

Schedule 1: Maps

Premises map

The boundary of the prescribed premises is shown in the map below (Figure S1-1).

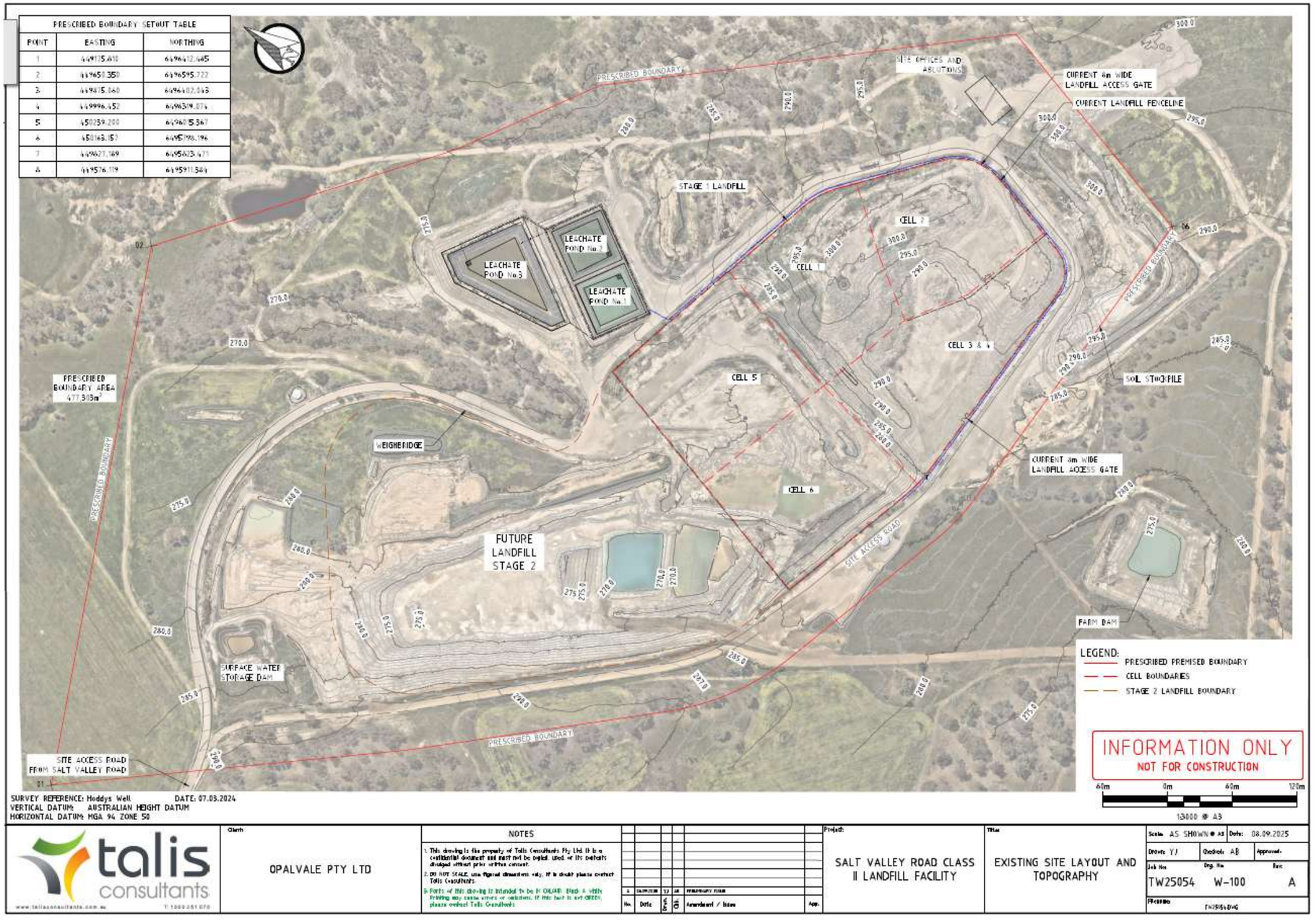

Figure S1-1: Premises layout

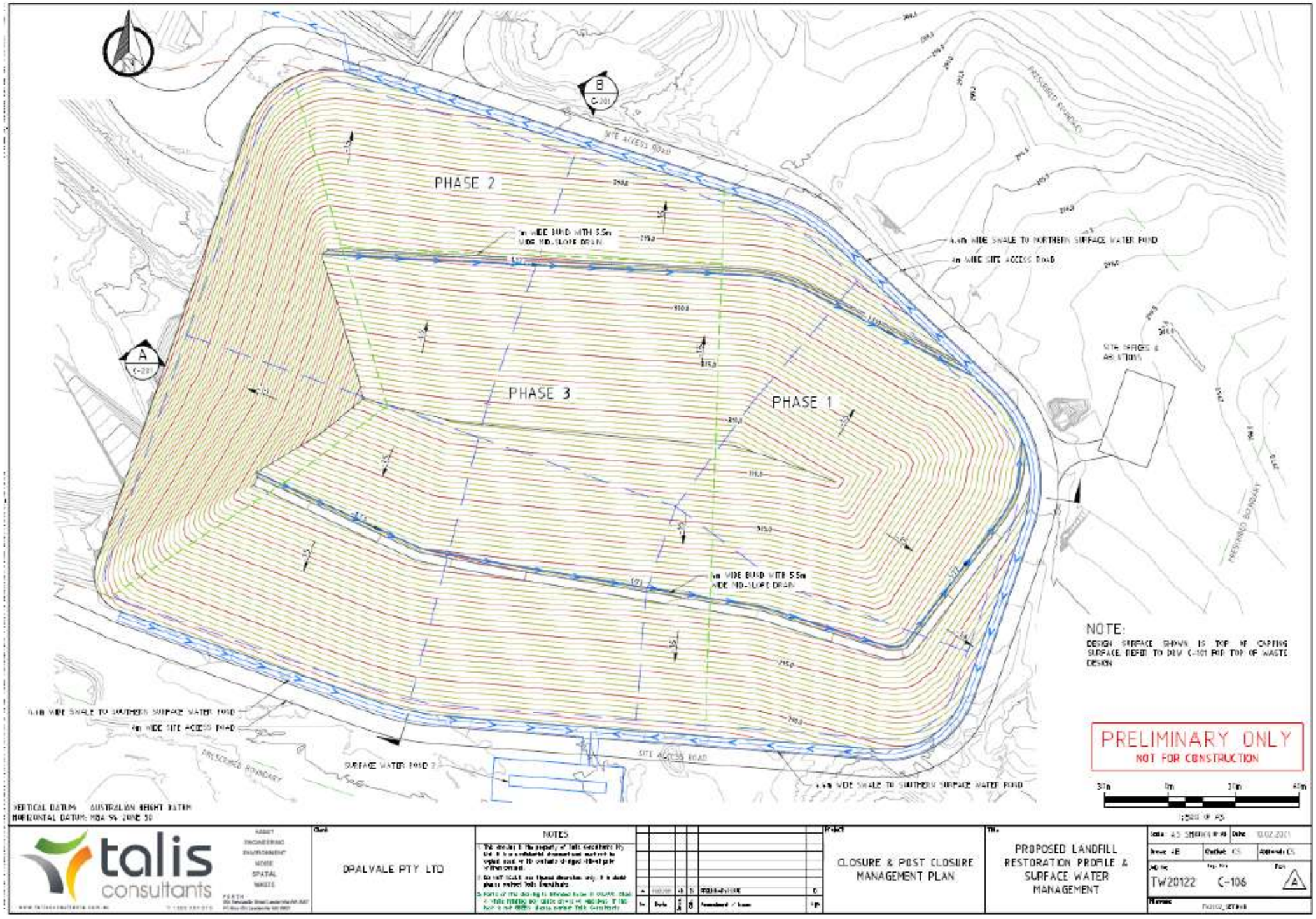

Figure S1-2: Landfill closure and capping phases

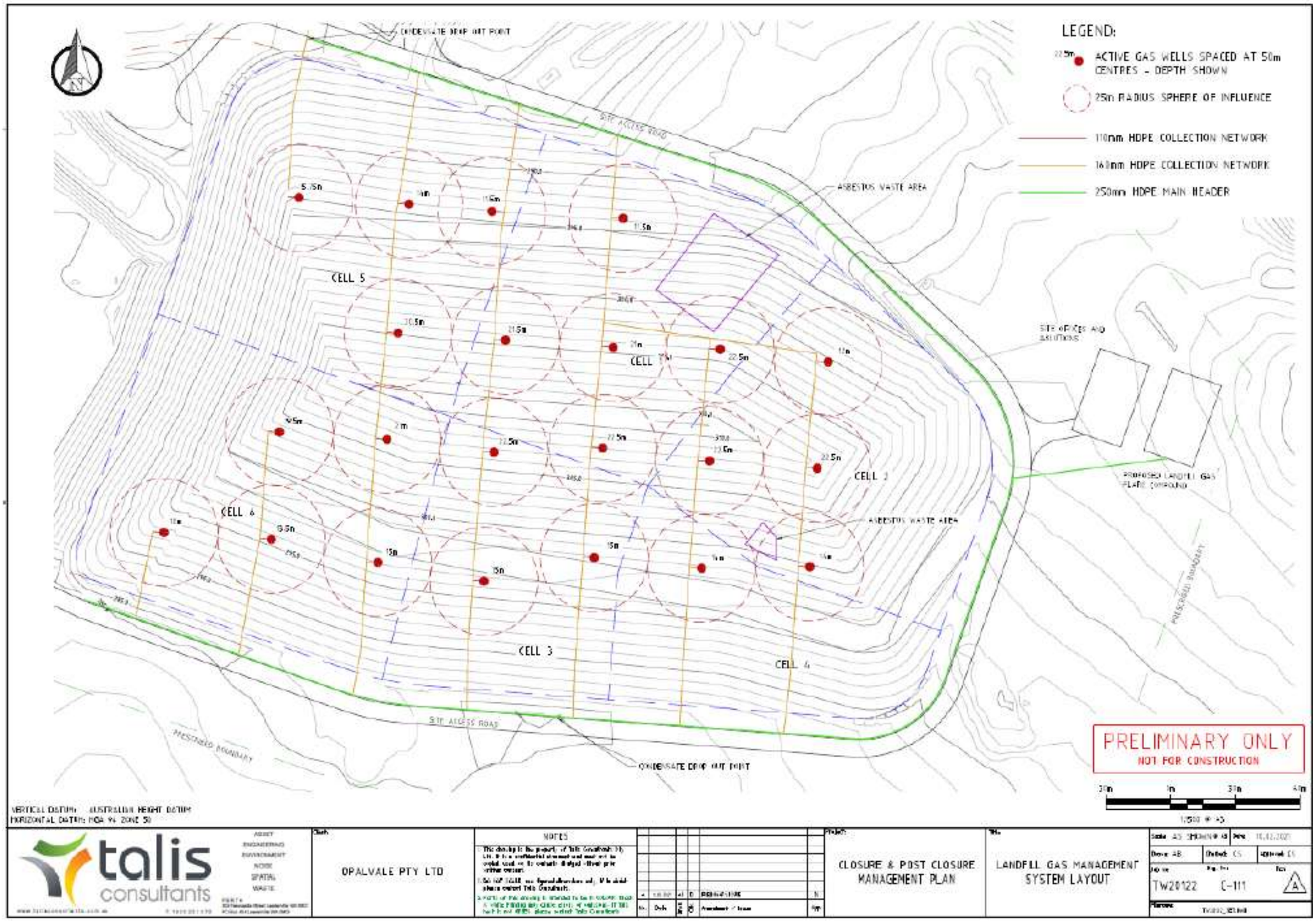

Figure S1-3: Landfill gas management system layout

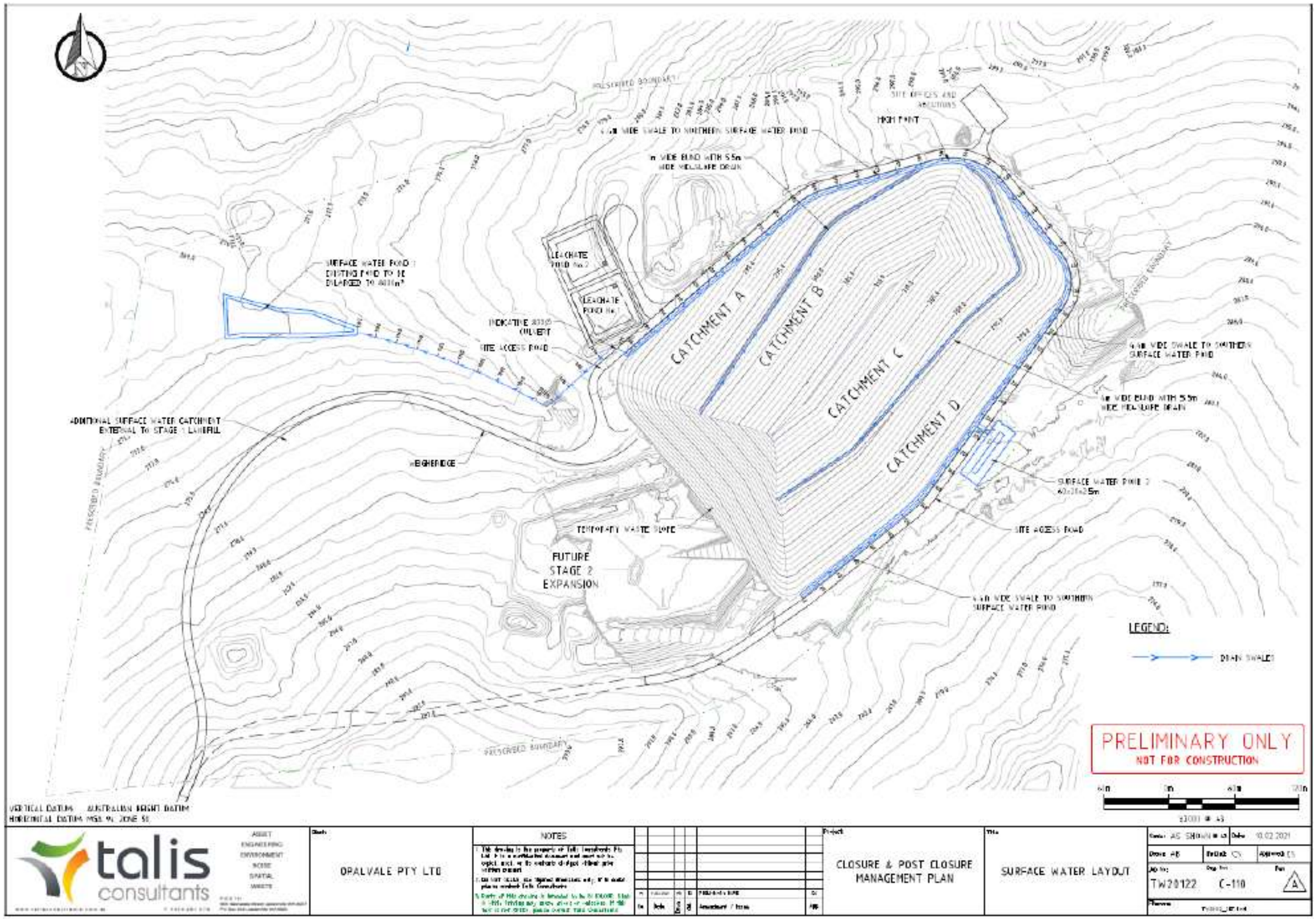

Figure S1-4: Surface water catchment zones

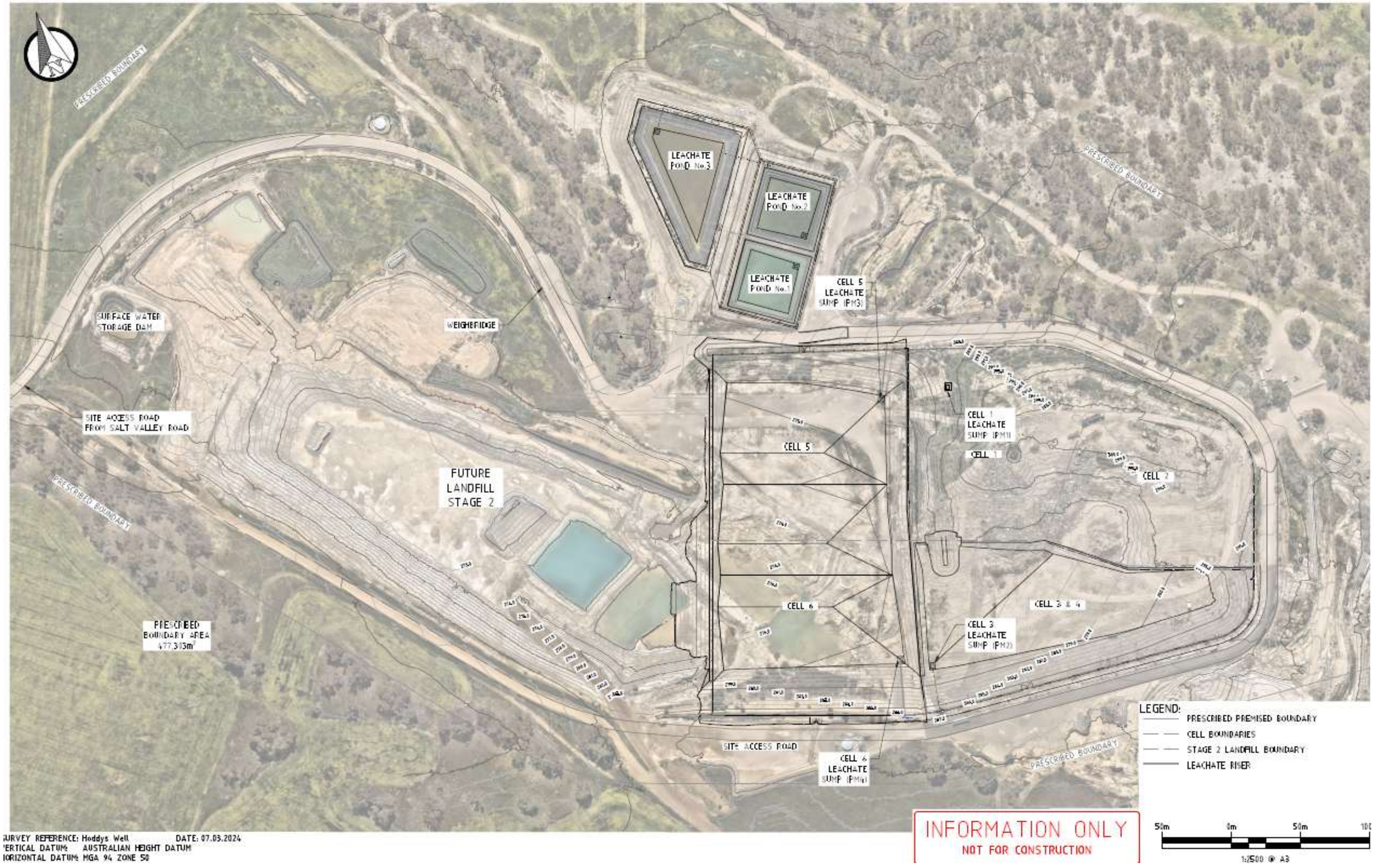

Figure S1-5: Process management locations

Figure S1-6: Groundwater monitoring well and surface water monitoring network

Schedule 2: Premises boundary

The corners of the premises boundary are the coordinates listed in Table 20.

Table 20: Premises boundary coordinates (GDA2020)

	Easting	Northing	Zone
1.	449175.810	6496412.485	50
2.	449650.350	6496595.722	50
3.	449875.060	6496402.043	50
4.	449996.452	6496319.074	50
5.	450239.200	6496015.367	50
6.	450163.157	6495798.196	50
7.	449827.189	6495823.471	50
8.	449576.119	6495911.384	50

Schedule 3: Works specifications – landfill gas extraction

Table 21: Landfill gas extraction infrastructure requirements

	Infrastructure / Equipment	Requirements (design and construction)	Requirements (design and construction)
1	Landfill gas extraction wells	21 vertical wells Spaced at 50 m Not to be installed within 5 m of the edge of the landfill Drilled to 75% of the waste depth Area around wells to be backfilled with aggregate Not to be installed in areas where ACM has been buried	Schedule 1: Maps Figure S1-3: Landfill gas management system layout
2	Landfill gas extraction pipeworks	Each landfill gas well is to be connected to a 250 mm diameter HDPE main header Individual wells are to be connected in parallel to the main header via a series of 110 mm and 160 mm diameter HDPE header pipes.	
3	Landfill gas destruction infrastructure	An enclosed high temperature flare, designed to: Be capable of managing a landfill gas production rate of up to 890 m3/hr Be operable for 40 years Continuously monitor temperature, flow and methane levels Include a knockout pot for condensate Have a destruction efficiency of >98%	

Schedule 4: Works specifications – landfill closure and capping works

Table 22: Landfill closure and capping infrastructure requirements

	Infrastructure / Equipment	Requirements (design and construction)	Site plan reference
1	Final profile	Final fill profile and slopes are to be between 5% and 20%.	N/A

2	Capping system	Capping system to comprise of:
		• 300 mm sand gas collection layer/regulating layer.
		• 1.5 mm thick double textured linear low density polyethylene (LLDPE) geomembrane layer.
		• Geocomposite (Geonet) drainage layer.
		• 1000 mm of restoration layer, comprising:
		  ○ 800 mm thick layer of site won subsoil; and
		  ○ 200 mm thick layer of growing medium/mulch
		• Vegetation layer incorporating hydromulch/seeding to reduce erosion and advance revegetation
			N/A

3	Temporary capping system	• Temporary capping is to be placed on portions of each completed cell until landfilling is complete in the corresponding Phase. • Temporary capping is to occur within 6 months of landfilling being completed in each cell. • To consist of a minimum of 300 mm low permeability compacted site-won cohesive soils.	N/A
4	Surface water management	• Mid-slope drainage swales on northern and southern side slopes. • Southern drain to be constructed at a gradient of 1V:50H. • Northern drain to be constructed at a gradient of 1V:100H.	Schedule 1: Maps Figures S1-2 and S1-4
		Two surface water ponds with the capacity to retain runoff generated during a 1-in-20 year, 24 hour storm event: • Pond 1 to be constructed as an earthen dam with a capacity of 7,771 m^3. • Pond 2 to be HDPE lined with a capacity of 1,688 m^3.	
5	Leachate management	Seepage through landfill cap is to be no more than 75% of the anticipated seepage rate through the basal liner.	N/A