



Application for Licence Amendment

Part V Division 3 of the *Environmental Protection Act 1986*

Licence Number	L9089/2017/1
Licence Holder	Opalvale Pty Ltd
ACN	106 512 896
File Number	DER2014/003195-6~2
Premises	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
Date of Report	17 October 2022
Decision	Revised licence granted

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

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1. Decision summary

Licence L9089/2017/1 is held by Opalvale Pty Ltd (Licence Holder) for Salt Valley Road Class II Landfill (the Premises), located at Lot 11 Chitty Road, Hoddys Well, Western Australia.

This Amendment Report documents the assessment of potential risks to the environment and public health from proposed changes to the emissions and discharges during the operation of the Premises. As a result of this assessment, Revised Licence L9089/2017/1 has been granted.

2. Scope of assessment

2.1 Regulatory framework

In completing the assessment documented in this Amendment Report, the department has considered and given due regard to its Regulatory Framework and relevant policy documents which are available at <https://dwer.wa.gov.au/regulatory-documents>.

2.2 Amendment summary

On 17 August 2022 the Licence Holder submitted compliance documentation, for the completion of the construction of landfill Cells 3 and 4 and Leachate Pond 3, and an application to amendment licence L9089/2017/1 to allow waste to be accepted into Cells 3 and 4 and Leachate Pond 3.

The compliance documentation was written and certified by Talis Consultants Pty Ltd to demonstrate that the works conformed to the required specifications set out in works approval W5800/2015/1 (the Works Approval), which authorises construction of Stage 1 of the Landfill, comprising Cells 1-6 located in the eastern portion of the allocated landfill footprint and associated leachate ponds. On 1 September 2022 DWER wrote to the Licence Holder advising that it had reviewed the compliance documentation and was satisfied that any deviations from the original specifications are within acceptable limits and that Cells 3 and 4 and Leachate Pond 3 were constructed in accordance with the requirements of works approval W5800/2015/1.

This licence amendment seeks amendments to conditions 5 (Table 4), 7 (Table 6), 14 (Table 8), 30 (Table 13), 31 (Table 14) and 32 (Table 15), as well as associated monitoring requirements and schedules to allow for the acceptance of waste into Cells 3 and 4 and the treatment of resultant leachate in Leachate Pond 3.

The Decision Report associated with the Works Approval and subsequent amendments; and original licence application contain detailed assessments of the location and siting of the premises (including climate geology, hydrogeology, topography and groundwater), engineering design and construction method and landfill management. The information in the Decision Report is transferable to this application as Cells 1-4 are adjacent and the same engineering design and construction methods have been used.

Therefore, this Amendment Report is to be read in conjunction with DWER's Decision Reports for Licence L9089/2017/1 and W5800/2015/1 which were granted on 5 February 2019 and 24 February 2022 respectively. A copy of the Decision Report can be obtained from DWER's website at: <https://www.der.wa.gov.au/our-work/licences-and-works-approvals/current-licences> Opalvale Pty Ltd.

3. Other approvals

Table 1 below outlines other approvals relevant to this project.

Table 1: Relevant approvals

Legislation	Number	Approval
<i>State Administrative Tribunal Act 2004</i> <i>Planning and Development Act 2005</i>	State Administrative Tribunal (SAT) Order, 27 February 2013	Planning approval by order of SAT – for the proposed landfill development at Lot 11 Chitty Road, Toodyay.
	Shire of Toodyay – Planning Approval Ref: 11CHI/A4273, 6 March 2015	<p>Extension of existing planning approval issued by SAT on 27 February 2013; amendment to condition 5 of SAT Order.</p> <p>Condition 5 referred to the lapse of planning approval to be of no further effect unless a Works Approval had been issued by DER on the Works Approval application (W5800/2015/1) within two years of the date of the original approval (on or before 27 August 2015).</p>
<i>Rights to Water and Irrigation Act 1914</i>	Not applicable	<p>Groundwater extraction bore (not-potable use) sited for potential operational water requirements (currently not required as surface water volumes are sufficient for operational use).</p> <p>Bore is located within an area zoned for unrestricted groundwater usage. No licence is required.</p>

4. Licensing history

Table 2 provides the amendment history for L9089/2017/1.

Table 2: Licence amendments

Instrument	Issued	Amendment
L9089/2017/1	05/02/2019	New Licence
L9089/2017/1	06/05/2020	Licence amendment to give effect to the Minister's appeal determination (Appeal Number 010 of 2019).
L9089/2017/1	04/06/2020	Licence amendment to allow waste to be deposited into Cell 2.
L9089/2017/1	24/06/2021	Licence amendment to include 'final landfill gas management plan' and a 'final design for landfill gas management infrastructure and activities for the closure of Cell 1'.
L9089/2017/1	17 October 2022	Licence amendment to authorise waste disposal in newly constructed Cells 3 and 4 and leachate treatment in Leachate Pond 3

5. Risk assessment

The department assesses the risks of emissions from prescribed premises and identifies the potential source, pathway and impact to receptors in accordance with the *Guideline: Risk assessments* (DWER 2020).

To establish a Risk Event there must be an emission, a receptor which may be exposed to that emission through an identified actual or likely pathway, and a potential adverse effect to the receptor from exposure to that emission.

5.1 Source-pathways and receptors

5.1.1 Emissions and controls

The potential for emissions to impact on sensitive receptors and associated occupant controls has been assessed in accordance with the Department's Risk Framework within Table 3 below. Operation of Cells 3 and 4 and Leachate Pond 3 will follow the same waste acceptance and landfilling processes and limits as Cells 1 and 2, and Leachate Ponds 1 and 2 as specified within the licence, therefore it is considered that the emissions related to Cells 3 and 4 and Leachate Pond 3 will not vary from the initial assessment.

Previous assessments for the active landfill identified the key emissions to be leachate, dust, asbestos, odour, noise, fugitive landfill gas, vermin/pests, windblown waste, and smoke (fire) from the acceptance, burial and decomposition of waste, and collection and treatment of leachate. A comprehensive assessment of each of the emissions was undertaken in the original Decision Report and is transferable to the operation of infrastructure proposed under this amendment. Therefore, the information has not been repeated in this report.

However, landfill gas production is deemed to require further investigation due to gas yields at or approaching levels modelled to require active management. This modelling took place to support the Landfill Gas Management Plan (being Section 6 of the Closure and Post-Closure Management Plan, Salt Valley Road Class II Landfill, Prepared for Opalvale Pty Ltd by Talis Consultants, 26 February 2021) submitted in accordance with Conditions 23 and 24 of the Licence.

The GasSim modelling utilised estimates that gas generation rates at the end of 2021 were approximately 200m³/hr and will peak in 2029 at a rate of approximately 890m³/hr. This peak rate will coincide with the final capping of Stage (Cells 1-6). The input operating period for Cells 3 and 4 into the GasSim model project the cells to reach capacity in March 2025, at which point capping and installation of vertical gas extraction pipework will commence construction in accordance with requirements prescribed in Schedule 4 of the Licence.

Cells 3 and 4 will contain 4 Gas wells with 15-22.5m spacings (See Schedule 1, Figure S1-3) which require monthly sampling following construction.

Table 3: Licence Holder controls

Emission	Sources	Potential pathways	Proposed controls
Dust	Acceptance of waste for disposal into the new landfill cell	Air/windborne pathway causing impacts to health and amenity	Maximum site speed limit of 40km/hr is imposed for all vehicles. The active tipping area is wet down using a water cart to prevent dust emissions.
Noise			Maximum site speed limit of 40km/hr is imposed for all vehicles. All equipment is maintained in good working order.
Asbestos fibres			Asbestos is received as appropriately wrapped, separate loads. Asbestos is landfilled in a dedicated, separate area directly from the delivery vehicle and is immediately covered.
Odour			Odourous wastes are immediately landfilled and covered. The length of time between waste being tipped and waste being compacted is kept to a minimum. Daily cover material at least 150mm thick is applied to deposited waste. Reticulation of landfill leachate only occurs when the waste is dry and when there is sufficient waste to avoid leachate accumulation on the surface.
Landfill fire and smoke			Firebreaks are maintained around the premises. Flammable fuel is appropriately stored on site. Flammable material is not placed in significant quantities in a single area within the landfill. Fire fighting equipment is stored and maintained on site.
Windblown waste			All waste delivery vehicles are covered. 2m high perimeter fencing is installed, along with 4m high mobile screens installed around the active tipping area. Regular compaction of waste occurs.
Vermin/pests		Air/windborne and land pathway causing impacts to health and	Regular compaction of waste occurs. Cover material is applied daily.

Emission	Sources	Potential pathways	Proposed controls
		amenity	
Leachate		Infiltration through soil profile to groundwater causing potential impacts	<p>The landfill liner system consists of a geosynthetic clay liner (GCL) with a design hydraulic conductivity of $\leq 5 \times 10^{-11}$ m/s, a 2 mm thick High Density Polyethylene (HDPE) liner, a geotextile cushion layer, a leachate collection layer (including collection pipes and aggregate) and a geotextile separation layer.</p> <p>The landfill subbase is comprised of a 500mm thick engineered compacted fill to achieve a permeability of 5×10^{-8} m/s.</p> <p>Regular monitoring is undertaken of background groundwater quality and potential movement of leachate through any liner defects.</p> <p>Surface water diversion infrastructure surrounding landfill cells is maintained.</p>
Odour	Accumulation of landfill leachate into new leachate pond	Air/windborne pathway causing impacts to health and amenity	<p>Small quantities of leachate will be pumped into the ponds over longer time periods.</p> <p>Leachate pond will be maintained at the maximum depth and surface area to promote aerobic conditions.</p> <p>Chemical dosing will be undertaken to alter pH if required.</p>
Leachate – seepage to underlying soils and groundwater		Infiltration through soil profile to groundwater causing potential impacts	<p>The leachate pond liner system consists of a geosynthetic clay liner (GCL) with a design hydraulic conductivity of $\leq 5 \times 10^{-11}$ m/s, a 2 mm thick High Density Polyethylene (HDPE) liner, a geotextile cushion layer, a leachate collection layer (including collection pipes and aggregate) and a geotextile separation layer.</p> <p>The leachate pond sub-base is comprised of a 500mm thick engineered compacted fill to achieve a permeability of 5×10^{-8} m/s. Regular monitoring is undertaken of background groundwater quality and potential movement of leachate through any liner defects. Surface water diversion infrastructure surrounding leachate ponds is maintained.</p>
Leachate – overtopping of ponds		Overland flow of from the overtopping of leachate ponds	<p>A 500 mm freeboard will be maintained at all times.</p> <p>Surface water diversion infrastructure surrounding leachate ponds is maintained.</p>

5.1.2 Receptors

In accordance with the *Guideline: Risk assessments* (DWER 2020), the Delegated Officer has excluded employees, visitors and contractors of the Licence Holder's from its assessment. Protection of these parties often involves different exposure risks and prevention strategies and is provided for under other state legislation.

Table below provides a summary of potential human and environmental receptors that may be impacted as a result of activities upon or emission and discharges from the prescribed premises (*Guideline: Environmental siting* (DWER 2020)).

Table 4: Sensitive human and environmental receptors and distance from prescribed activity

Human receptors	Distance from prescribed activity
Privately owned farm land	Immediately adjacent (east and west)
Residential premises	Internal farmhouse, approximately 400 m south west (excluded as a sensitive receptor) The original Works Approval application included a letter of consent from the landowner of Lot 11 Chitty Road dated 10 November 2014, which states "As the landowner of Lot II Chitty Road, I consent to the development of a class II putrescible landfill on the site. In accordance with this development, I acknowledge the presence of the farmhouse that is approximately 400 m to the south west of the landfill footprint and accept that this dwelling can be ignored as a receptor when considering the environmental impact of the proposed development".
	Approximately 1,100 m north east (two properties to the north east of the premises.
	Approximately 1,700 m south of the premises
	Approximately 70 houses within a 1-5 km radius of the premises, predominately to the north and south.
Environmental receptors	Distance from prescribed activity
Department of Biodiversity, Conservation and Attractions Managed Lands and Waters	DBCA managed land, being Lot 889 on Deposited Plan 415818, containing suitable foraging, roosting and breeding habitat for threatened black cockatoo species, located approximately 670 m south. The land is managed as part of the adjacent Clackline Nature Reserve pending inclusion to the existing reserve Clackline nature reserve approximately 2.3 km south east Nanamoolan Nature Reserve 2.3 km east and north east.
Waterways Conservation areas	The Premises is within the Avon River Management Area.
Proclaimed surface water area under the	The Premises is within the Avon River Catchment

<i>Rights in Water and Irrigation Act 1914.</i>	Area.
Directory of Important Wetlands of Australia	<p>Avon River Valley, approximately 17 km downstream from the closest feeding tributary to the premises.</p> <p>The Avon River is a registered type B2 wetland and provides high environmental value to public and the environment.</p>
Threatened Ecological Communities and Priority Ecological Communities	A number of threatened ecological communities (wheatbelt woodlands) >5 km to the north east and south east
Groundwater	<p>Low permeability fractured rock aquifer (confined) quality is potentially suitable for domestic and non-potable use as well as stock watering.</p> <p>No registered users within 5 km of Premises.</p>

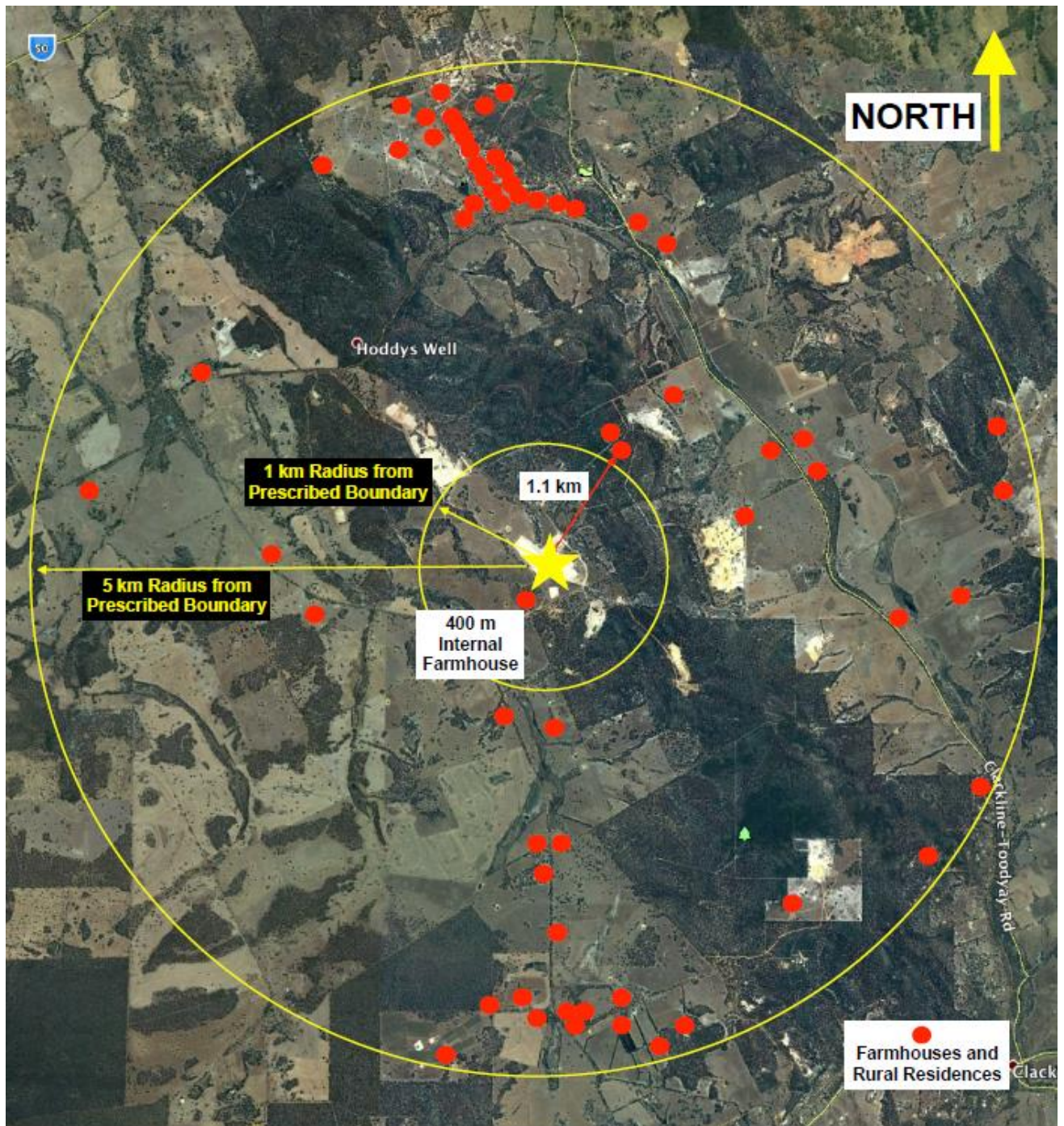


Figure 1: Distance to residential receptors

5.2 Risk ratings

Risk ratings have been assessed in accordance with the Guideline: Risk Assessments (DWER 2020) for those emission sources which are proposed to change and takes into account potential source-pathway and receptor linkages as identified in Section 3.1. Where linkages are in complete they have not been considered further in the risk assessment.

Where the Licence Holder has proposed mitigation measures/controls (as detailed in Section 3.1), these have been considered when determining the final risk rating. Where the Delegated Officer considers the Licence Holder's proposed controls to be critical to maintaining an acceptable level of risk, these will be incorporated into the works approval as regulatory controls.

Additional regulatory controls may be imposed where the Licence Holder's controls are not deemed sufficient. Where this is the case the need for additional controls will be documented and justified in Table 5.

The Revised Licence (L9089/2017/1) that accompanies this Amendment Report authorises operation of landfill Cells 3 and 4 and Leachate Pond 3 only. The conditions in the Revised Licence consider Works Approval (W5800/2015/1) conditions for the construction phase of the infrastructure. These have been determined in accordance with Guidance Statement: Setting Conditions (DER 2015).

A licence to authorise emissions associated with the operation of the landfill Premises i.e. landfilling activities was granted on 5 February 2019 (L9089/2017/1). A risk assessment for the operational phase has been included in this Amendment Report in relation to the newly proposed landfill cell and leachate ponds only.

Table 5. Risk assessment of potential emissions and discharges from the Premises during operation

Risk Event					Risk rating ¹ C = consequence L = likelihood	Licence Holder's controls sufficient?	Conditions ² of licence	Justification for additional regulatory controls
Source/Activities	Potential emission	Potential pathways and impact	Receptors	Licence Holder's controls				
Operation								
Acceptance, burial and decomposition of wastes in Cells 3 and 4 Collection, storage and management of leachate in Leachate Lagoon 3	Landfill leachates	Infiltration through soil profile to groundwater causing potential impacts. Overland flow or transport through groundwater (impact to ecosystem health and function)	groundwater surface water ecosystems, terrestrial ecosystems or groundwater dependent ecosystems	Refer to Section 5.1	C = Moderate L = Unlikely Medium Risk	Y	The Delegated Officer considers that the existing leachate management controls specified in Licence L9089/2017/1 are likely to be sufficient at mitigating emissions with the addition of Cells 3 and 4 and Leachate Pond 3.	N/A
	Dust	Dispersal via air to sensitive residential receptors and terrestrial ecosystems (impact to amenity and public health; impact to ecosystem health)	Two properties approximately 1.1 km north east of the premises and one property approximately 1.7 km south of the primary prescribed activity.	Refer to Section 5.1	C = Minor L = Possible Medium Risk	Y	The Delegated Officer considers that the existing dust management controls specified in Licence L9089/2017/1 are likely to be sufficient at mitigating emissions with the addition of Cells 3 and 4 and Leachate Pond 3.	N/A
Acceptance and burial of waste in Cells 3 and 4	Asbestos fibres	Air/windborne pathway causing impacts to health and amenity		Refer to Section 5.1	C = Severe L = Unlikely Medium Risk	Y	The Delegated Officer considers that the existing asbestos management controls specified in Licence L9089/2017/1 are likely to be sufficient at mitigating emissions.	N/A

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Risk Event					Risk rating ¹	Licence Holder's controls sufficient?	Conditions ² of licence	Justification for additional regulatory controls
Source/Activities	Potential emission	Potential pathways and impact	Receptors	Licence Holder's controls	C = consequence L = likelihood Medium Risk			
	Odour	Dispersal via air to sensitive residential receptors (impact to amenity)		Refer to Section 5.1	C = Minor L = Unlikely Medium Risk	Y	The Delegated Officer considers that the existing odour management controls specified in Licence L9089/2017/1 are likely to be sufficient at mitigating emissions.	N/A
Vehicle and plant movement Maintenance of infrastructure	Noise	Air/windborne pathway causing impacts to health and amenity	Two properties approximately 1.1 km north east of the premises and one property approximately 1.7 km south of the primary prescribed activity.	Refer to Section 5.1	C = Slight L = Unlikely Low Risk	Y	The Delegated Officer considers that the existing noise management controls specified in Licence L9089/2017/1 are likely to be sufficient at mitigating emissions.	N/A
Decomposition of waste in Cells 3 and 4	Fugitive landfill gas	Dispersal via air causing impact to amenity and public health		Refer to Section 5.1	C = Minor L = Likely Low Risk	Y		
Acceptance, burial and decomposition of wastes in Cells 3 and 4	Vermin/pests	Air/windborne and land pathway causing impacts to health and amenity		Refer to Section 5.1	C = Minor L = Unlikely Medium Risk	Y	The Delegated Officer considers that the existing pest management controls specified in Licence L9089/2017/1 are likely to be sufficient at the Premises.	N/A
	Windblown waste	Dispersal via air to sensitive residential receptors and DBCA managed land (impact to		Refer to Section 5.1	C = Slight L = Likely Medium Risk	Y	The Delegated Officer considers that the existing litter management controls specified in Licence L9089/2017/1 are likely to be sufficient at the	N/A

Licence: L9089/2017/1

Risk Event					Risk rating ¹	Licence Holder's controls sufficient?	Conditions ² of licence	Justification for additional regulatory controls
Source/Activities	Potential emission	Potential pathways and impact	Receptors	Licence Holder's controls	C = consequence L = likelihood			
		amenity)					Premises.	
Combustion of flammable wastes in Cells 3 and 4	Landfill fire and smoke	Dispersal via air to sensitive residential receptors (impact to amenity and public health)		Refer to Section 5.1	C = Slight L = Likely Medium Risk	Y	The Delegated Officer determined that the existing fire controls are likely to be sufficient at mitigating impacts from fire that might arise from the operation of Cells 3 and 4 and Leachate Pond 3. A full risk assessment of potential fire (smoke) emissions can be viewed in Section 9.12 of the original Decision Report, available on DWER's website. Emissions from fire were also addressed in the Ministerial Amendment issued on 06/05/2020.	
Accumulation of landfill leachate into new leachate pond	Leachate – overtopping of ponds	Overland flow of from the overtopping of leachate ponds	Jimperding Brook and the Greater Avon River Valley catchment.	Refer to Section 5.1	C = Moderate L = Unlikely Low Risk	Y	The Delegated Officer considers that the existing leachate management controls specified in Licence L9089/2017/1 are likely to be sufficient at mitigating emissions with the addition of Cells 3 and 4 and Leachate Pond 3.	N/A

Note 1: Consequence ratings, likelihood ratings and risk descriptions are detailed in the *Guideline: Risk assessments* (DWER 2020).

Note 2: Proposed Licence Holder's controls are depicted by standard text. **Bold and underline text** depicts additional regulatory controls imposed by department.

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IR-T15 Amendment report template v3.0 (May 2021)

6. Consultation

Table provides a summary of the consultation undertaken by the department.

Table 6: Consultation

Method	Comments received	DWER response
Application advertised on DWER's website (14 September 2022)	No comments received	n/a
Application advertised in <i>The West Australian</i> (14 September 2022)	No comments received	n/a
Local Government Authority advised of proposal (31 August 2022)	Correspondence was received from the Shire requesting additional information on the nature of the application and the non-conformances identified in the CQA Report.	DWER return correspondence detailed the non-conformances and their acceptability in reference to licence controls.
Community Stakeholders advised of application (01 September 2022)	Two submissions were received within the 14 day submission period. A summary of the submissions is provided in Appendix 1	Refer to Appendix 1
Applicant referred draft documents 13 October 2022	The Licence Holder responded, waiving the 21 day comment period pursuant to issuing the Licence forthwith. The Licence Holder noted in a response dated 14 October 2022 (regarding stakeholder submissions), that Opalvale had to provide the Shire of Toodyay a financial assurance bond as part of its local government approval prior to operating the Premises.	Grant of amended licence, noting provision of financial assurance to the Shire for environmental degradation.

7. Conclusion

Based on the assessment in this Amendment Report, the Delegated Officer has determined that a Revised Licence will be granted, subject to conditions commensurate with the determined controls and necessary for administration and reporting requirements.

7.1 Summary of amendments

Table provides a summary of the proposed amendments and will act as record of implemented changes. All proposed changes have been incorporated into the Revised Licence as part of the amendment process.

Table 7: Summary of licence amendments

Condition no.	Proposed amendments
5 Table 4	Addition of newly constructed Cells 3 and 4 and Leachate Pond 3 to containment infrastructure table
7 Table	Addition of newly constructed Cells 3 and 4 to limit disposal areas to Cells 1-4
14 Table 8	Process Controls (PC4 and PC5) added to leachate controls to limit pond freeboard and leachate head within new cells
15 Table 9	Process Control (PC4) added to leachate controls to limit pond freeboard to prescribe management measures when freeboard breaches operational level requirements
16	Reference to the newly constructed cells has been added to ensure stormwater diversion is applied to those disposal areas
30 Table 13	Leachate Sump 2 (Cell 4) and Leachate Pond 3 have been added to the leachate monitoring requirements noting location to reflect existing requirements for sump 1 and previously constructed leachate ponds
31 Table 14	Leachate Sump 2 (Cell 4) and Leachate Pond 3 have been added to the process monitoring requirements noting location to reflect existing requirements for sump 1 and previously constructed leachate ponds
32 Table 16	Groundwater monitoring point C4 added and c8 removed due to decommissioning and relocation.
Schedule 1 Figure S1-1	Image update with TW21027 depicting newly constructed cells and leachate lagoon along with asbestos burial areas
Schedule 3 Figure S1-5	Added image depicting process management infrastructure (PM1 & 2) and Leachate Pond 3
Schedule 2 Table 20	Newly constructed landfill cells and leachate lagoon added to infrastructure and equipment. Groundwater monitoring Well C8 removed as it is decommissioned
Schedule 6	Form N1 readded to licence

References

1. Department of Environment Regulation (DER) 2016, *Guidance Statement: Environmental Siting*, Perth, Western Australia.
2. DER 2017, *Guidance Statement: Risk Assessments*, Perth, Western Australia.
3. DER 2015, *Guidance Statement: Setting Conditions*, Perth, Western Australia.
4. Department of Water and Environmental Regulation 2019, *Guideline: Industry Regulation Guide to Licensing*, Perth, Western Australia.
5. Talis Consultants Pty Ltd 2021. Closure and Post-Closure Management Plan, Salt Valley Road Class II Landfill, Perth, Western Australia.
6. CQA Validation Report Salt Valley Road Landfill – Cell 3/4 and Leachate Pond Development Prepared for Opalvale Pty Ltd 12 August 2022

Appendix 1: Summary of Direct Interest Stakeholder Consultation and Comments

	Summary of Comments Received	DWER response
Submission 1	<p>a) .</p> <p>The submission expresses concern regarding the number of repairs undertaken on the geomembrane during installation and the resultant potential loss of long term liner integrity. To address this issue, the submission suggested the following:</p> <ol style="list-style-type: none"> 1. A subsequent independent assessment of the current state of the lining needs to be made before any waste is deposited into the new cells. 2. A subsequent independent pollution risk assessment considering worst case environmental scenarios. 3. Based on the information from that risk assessment (2), an independent assessment of the likely cost of clean-up. 4. Opalvale be required to provide financial assurance (for example in the form of a bond) to cover the potential cost of clean-up as assessed in (3) above. <p>b) Based on concerns over the timing of rehabilitation and the potential for operator bankruptcy, the Submitter requests the following:</p> <ol style="list-style-type: none"> 1. Refusal of the current plans for filling and rehabilitation of the landfill. 2. Approval to operate the new cells should specify a maximum overlap period for the operation of the original and new cells so that parallel operation cannot be used as a way of avoiding the obligation to commence rehabilitation. 3. The Approval should also specify a maximum time 	<p>a) DWER notes the liner damage and remedial action contained within the CQA report.</p> <p>The CQA report submitted prior to use of the constructed works provides a means of managing quality during construction and demonstrating to the project stakeholders that construction was undertaken in accordance with the approved design specifications to the greatest practical extent. Damage and defects in geo-composite liner materials are expected given the scale of the works and nature of the materials. Remedial works for damage are specified in the CQA Plan and repairs have been undertaken accordingly and certified by the independent CQA Consultant.</p> <ol style="list-style-type: none"> 1. The current state of the liner is reflected in the independently certified compliance documentation and CQA report. 2. The risk assessment carried out for the relevant and previous applications determines the acceptability of emissions and discharges from a premises in relation to the risk they represent to sensitive environmental receptors. Please refer to environmental risk assessments within decision documents for the premises works approval (W5800/2015/1) and licence (L9089/2017/1) using the search function at: https://www.der.wa.gov.au/our-work/licences-and-works-approvals/current-licences <p>3&4. While no financial assurance lump sum bond is applied to the premises, authorisation under section 62 of the EP Act assesses fitness of the occupier at the application stage and conditions are imposed for the ongoing prevention, control, abatement or mitigation of pollution or</p>

	Summary of Comments Received	DWER response
	<p>period within which rehabilitation of the closed cells should commence, and that this should be soon after the closure of the original cells.</p> <p>4. Opalvale should be required to provide financial assurance (for example in the form of a bond) to cover the cost of rehabilitation.</p>	<p>environmental harm. This includes a period of aftercare until such time the Department deems the site stable with long term emissions mitigated. The site is registered and is likely to have obligations under the <i>Contaminated Sites Act 2003</i>.</p> <p>Financial assurances are not currently imposed under Part V of the EP Act. There are existing provisions under the EP Act for requiring financial assurances, however the department would need to develop a policy on how to implement these.</p> <p>The Licence Holder has advised that a financial bond has been paid to the Shire of Toodyay as part of the local government approval.</p> <p>b)</p> <ol style="list-style-type: none"> 1. Due to the landform and configuration of the landfill, commencement of final capping upon cessation of waste disposal in each cell would be problematic for construction and long term geo-composite cap integrity. Interim capping materials/volumes, progressive fill rates and production/management of leachate and landfill gas have been risk assessed to consider the interim period between cell closure and final capping. For example, maximum leachate loading and infiltration, leachate head on the liner/sump, thickness and permeability of interim cap, freeboard in leachate lagoons and emergency management/removal methods have all been considered in assessment of landfill development and closure. 2. Site plans don't include multiple tipping faces and this is not the intent of the licence. The Department recognises increased risk of

	Summary of Comments Received	DWER response
		<p>integrated waste cells and concurrent active tipping areas, but consideration is required for asbestos disposal areas and filling to meet final levels while subsequent cells are commissioned. Existing approvals for the site are based on leachate and landfill gas modelling and the current filling and capping plans aren't deemed to surpass acceptable risk to receptors under the modelled conditions and licence controls.</p> <p>3. See b) 1 above and Condition 24 of the Licence, which states "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".</p> <p>4. See a) 3&4 above</p>
Submission 2	<p>a) The Submitter raised lack of independent inspection and monitoring due to Talis Consultants Pty Ltd providing both part-time Earthworks Inspector Services (EIS) and independent Construction Quality Assurance (CQA) services for construction; as well as having developed the design for the Works Approval.</p> <p>b) Concerns over the fragmented nature of the approval process for the roll-out of landfill works and lack of information regarding the current state of the landfill.</p> <p>c)</p> <ol style="list-style-type: none"> Concerns over the means of the Licensee to mitigate emissions post-closure, recommending financial assurances for environmental degradation. Raises the relocation of GCL not meeting CQA specifications for peel strength from the side wall to the base of the newly constructed cells, and peel forces 	<p>a) The Licence Holder has met the requirement for supervision under Australian Standards and requirements for suitably qualified engineers employed by an independent third party external to the Licence Holder's business. The Delegated Officer doesn't perceive any vested or conflicted interests in the parties appointed.</p> <p>b) Approvals under Part V of the EP Act for prescribed landfill premises can require various amendments and works approvals subsequent to the initial works approval. For example, construction specifics and materials for final capping and progressive leachate and landfill gas management are conditioned with appropriate timeframes in conjunction with monitoring/reporting requirements and periodic site inspections by the Department. Licence amendment (granted 24 June 2021) for landfill gas management and staged capping plans was</p>

	Summary of Comments Received	DWER response
	that may occur there due to differential from waste and liner materials.	<p>advertised for comment 6 April 2021 with stakeholder comments considered accordingly. This amendment relates to the construction compliance of newly constructed infrastructure.</p> <p>c)</p> <ol style="list-style-type: none"> 1. See Submission 2, DWER response; a) 3&4 above. 2. The Delegated Officer notes the failure of various GCL units to meet peel strength onsite conformance tests and agrees peel forces still require consideration on the cell base. However, the main risk of peel failure at the base of the landfill is deemed to come from differential pressures through poorly prepared subgrade (i.e. poor proof rolling or failure to remove protrusions) or poor conformance of leachate drainage aggregate. Given the supervision and adequacy of subgrade conformance and in the overlying liner components, the relocation is deemed within construction quality conformance tolerances.

Appendix 2: Application validation summary

Works approval	<input type="checkbox"/>				
Licence	<input type="checkbox"/>	Relevant works approval number:		None	<input type="checkbox"/>
		Has the works approval been complied with?			Yes <input type="checkbox"/> No <input type="checkbox"/>
		Has time limited operations under the works approval demonstrated acceptable operations?			Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>
		Environmental Compliance Report / Critical Containment Infrastructure Report submitted?			Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
		Date Report received:			
Renewal	<input type="checkbox"/>	Current licence number:			
Amendment to works approval	<input type="checkbox"/>	Current works approval number:			
Amendment to licence	<input checked="" type="checkbox"/>	Current licence number:	L9089/2017/1		
		Relevant works approval number:	W5800/2015/1	N/A	<input type="checkbox"/>
Registration	<input type="checkbox"/>	Current works approval number:		None	<input type="checkbox"/>
Date application received		17 August 2022			
Applicant and Premises details					
Applicant name/s (full legal name/s)		Opalvale Pty Ltd			
Premises name		Salt Valley Road Class II Landfill			
Premises location		Chitty Road, HODDYS WELL WA 6566 Part of Lot 11 on Deposited Plan 34937 Certificate of Title Volume 2535 Folio 391			
Local Government Authority		Shire of Toodyay			
Application documents					
HPCM file reference number:		DWERDT646006			
Key application documents (additional to application form):		<u>Talis Salt Valley Cell 3 & 4 – CQA validation Report</u>			
Scope of application/assessment					

Summary of proposed activities or changes to existing operations.	Assessment of compliance reports and subsequent licence additions authorising the operation of Cells 3 and 4 and Leachate Pond 3. Approved disposal areas (Cells 1 and 2) are reported to be at capacity. Monitoring point C8 needs to be removed from licence as its location is inaccessible within the current landfill footprint.	
Category number/s (activities that cause the premises to become prescribed premises)		
Table 1: Prescribed premises categories		
Prescribed premises category and description	Assessed production or design capacity	Proposed changes to the production or design capacity
Category 64: Class II putrescible landfill	150,000 tonnes per annum	The assessed design capacity relates to stage 1 of the landfill which includes the current cells (1 and 2) and the proposed cells (3 and 4) which this application relates to.
Legislative context and other approvals		
Has the applicant referred, or do they intend to refer, their proposal to the EPA under Part IV of the EP Act as a significant proposal?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Referral decision No: Managed under Part V <input type="checkbox"/> Assessed under Part IV <input type="checkbox"/>
Does the applicant hold any existing Part IV Ministerial Statements relevant to the application?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Ministerial statement No: EPA Report No:
Has the proposal been referred and/or assessed under the EPBC Act?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Reference No:
Has the applicant demonstrated occupancy (proof of occupier status)?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Certificate of title <input type="checkbox"/> General lease <input checked="" type="checkbox"/> Expiry: 30 year term Mining lease / tenement <input type="checkbox"/> Expiry: Other evidence <input type="checkbox"/> Expiry:
Has the applicant obtained all relevant planning approvals?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	Approval: Expiry date: If N/A explain why?

Has the applicant applied for, or have an existing EP Act clearing permit in relation to this proposal?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	CPS No: No clearing is proposed.
Has the applicant applied for, or have an existing CAWS Act clearing licence in relation to this proposal?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Application reference No: N/A Licence/permit No: N/A No clearing is proposed.
Has the applicant applied for, or have an existing RIWI Act licence or permit in relation to this proposal?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Application reference No: Licence/permit No: Within the Avon River catchment Area
Does the proposal involve a discharge of waste into a designated area (as defined in section 57 of the EP Act)?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Name: N/A Type: Has Regulatory Services (Water) been consulted? Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/> Regional office:
Is the Premises situated in a Public Drinking Water Source Area (PDWSA)?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Name: N/A Priority: P1 / P2 / P3 / N/A Are the proposed activities/landuse compatible with the PDWSA (refer to WQPN 25)? Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>
Is the Premises subject to any other Acts or subsidiary regulations (e.g. <i>Dangerous Goods Safety Act 2004</i> , <i>Environmental Protection (Controlled Waste) Regulations 2004</i> , <i>State Agreement Act xxxx</i>)	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	<i>Environmental Protection (Controlled Waste) Regulations 2004</i>
Is the Premises within an Environmental Protection Policy (EPP) Area?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	N/A
Is the Premises subject to any EPP requirements?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	

<p>Is the Premises a known or suspected contaminated site under the <i>Contaminated Sites Act 2003</i>?</p>	<p>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p>	<p>Classification: Date of classification: N/A</p>
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