



Licence Number L8457/2010/2

Licence Holder Silver Lake (Integra) Pty Limited

ACN 093 278 436

File Number: 2012/006865-01

Premises

Salt Creek Processing Facility
Mount Monger Road
EMU FLAT WA 6431

Legal description –
Being Tenements M25/307, M25/125, M25/133,
M25/71, G25/02, L25/33, M25/347, L25/27, L25/31,
M25/347, G25/02, L25/33, M25/307, L25/31, L25/41,
M25/125, M25/133, L25/27, M25/71, M26/249,
M26/197, M26/248, M26/409, M26/417, L25/16,
L25/23, L25/49, L25/37 and M25/350

Date of Amendment 03 September 2019

Amendment

The Chief Executive Officer (CEO) of the Department of Water and Environmental Regulation (DWER) has amended the above Licence in accordance with section 59 of the *Environmental Protection Act 1986* (EP Act) as set out in this Amendment Notice. This Amendment Notice constitutes written notice of the amendment in accordance with section 59B(9) of the EP Act.

Tim Gentle

Manager, Resource Industries

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

Definitions and interpretation

Definitions

In this Amendment Notice, the terms in Table 1 have the meanings defined.

Table 1: Definitions

Term	Definition
Amendment Notice	refers to this document
Category/ Categories/ Cat.	categories of Prescribed Premises as set out in Schedule 1 of the EP Regulations
CEO	means Chief Executive Officer. CEO for the purposes of notification means: Director General Department Administering the <i>Environmental Protection Act 1986</i> Locked Bag 10 JOONDALUP DC WA 6919 info@dwer.wa.gov.au
Delegated Officer	an officer under section 20 of the EP Act
Department	means the department established under section 35 of the <i>Public Sector Management Act 1994</i> and designated as responsible for the administration of Part V, Division 3 of the EP Act.
DWER	Department of Water and Environmental Regulation
EP Act	<i>Environmental Protection Act 1986 (WA)</i>
EP Regulations	<i>Environmental Protection Regulations 1987 (WA)</i>
Existing Licence	The Licence issued under Part V, Division 3 of the EP Act and in force prior to the commencement of and during this Review
Licence Holder	Silver Lake (Integra) Pty Limited
Premises	refers to the premises to which this Decision Report applies, as specified at the front of this Decision Report.
TDS	Total dissolved solids
tpa	tonnes per annum

Amendment Notice

This amendment is made pursuant to section 59 of the *Environmental Protection Act 1986* (EP Act) to amend the Licence issued under the EP Act for a prescribed premises as set out below. This notice of amendment is given under section 59B(9) of the EP Act.

This notice is limited only to the inclusion of a Category 64: Class II putrescible landfill facility onto the licence. No changes to the aspects of the original licence has been requested by the Licence Holder.

The following guidance statements have informed the decision made on this amendment:

- *Guidance Statement: Regulatory Principles (July 2015)*
- *Guidance Statement: Setting Conditions (October 2015)*
- *Guidance Statement: Land Use Planning (February 2017)*
- *Guidance Statement: Decision Making (February 2017)*
- *Guidance Statement: Risk Assessment (February 2017)*
- *Guidance Statement: Environmental Siting (November 2016)*

Amendment description

On 28 March 2019, Silver Lake (Integra) Pty Ltd (Licence Holder) submitted an application to DWER for an amendment to the Salt Creek Processing Facility (Premises) licence L8457/2010/2. The location of the new landfill is shown in Figure 1 below.

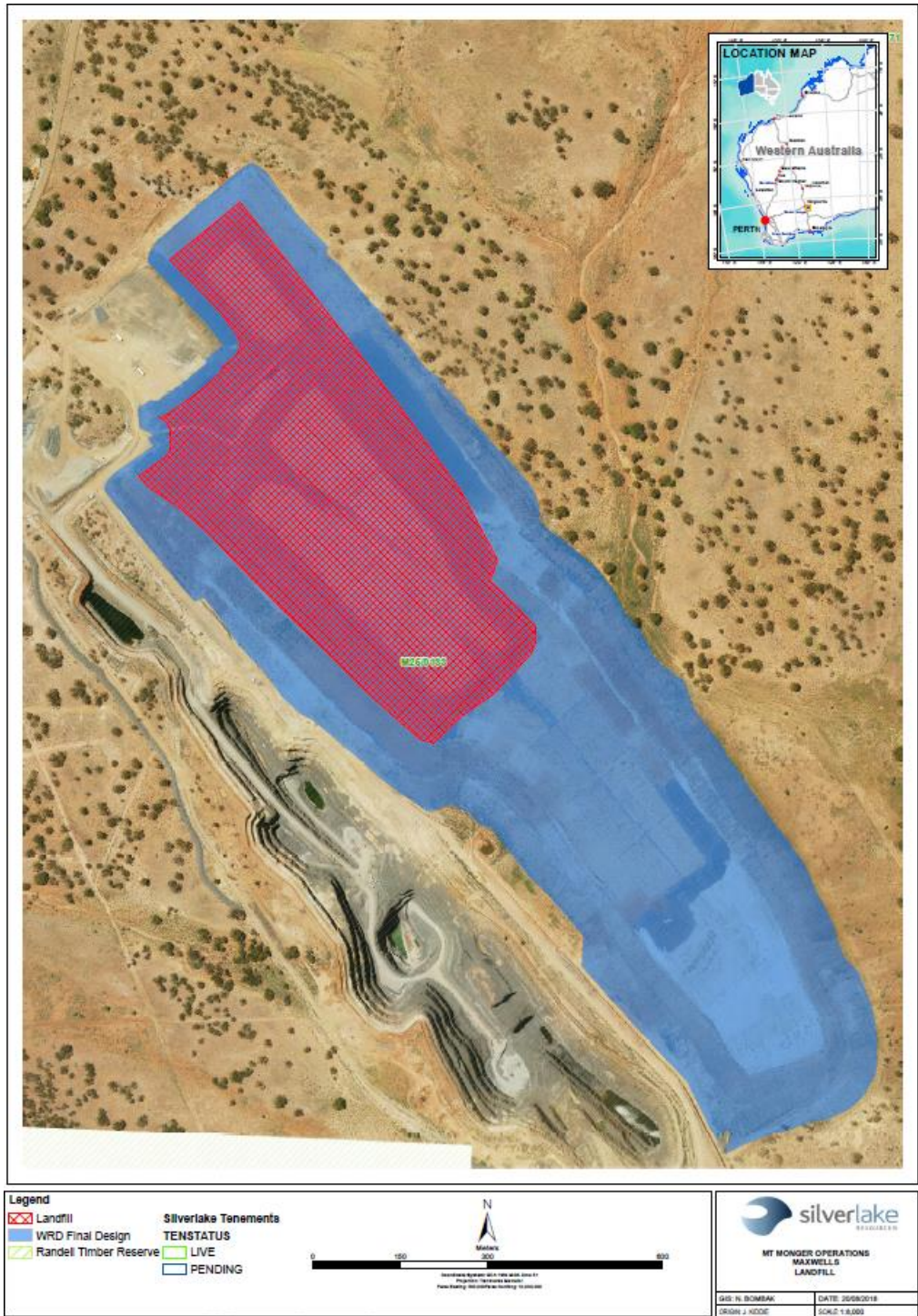


Figure 1: Proposed Silver Lake landfill location

Currently, the Licence Holder operates a small Class I landfill under the Environmental Protection (Rural Landfill) Regulations 2004 for inert material generated onsite. Putrescible waste and used tyres are currently transported off-site by a licensed contractor.

The Licence Holder proposes constructing the landfill within the existing Maxwell's waste rock dump (WRD) via a series of trenches approximately 20 x 5 x 5 metres in dimension.

Excavated waste rock will be utilised for covering the waste and building a one metre high windrow at the surface to prevent windblown litter escaping and reduce the risk of vermin entering the landfill. The two proposed locations are a minimum of 20 metres above ground level and groundwater standing water levels are deeper than 20 metres below ground level

giving a separation distance of 40 metres from the landfill to groundwater levels.

Excavated material will be used to cover the waste on a weekly basis. Surrounding the trenches will be a one metre windrow of excavated materials to reduce the possibility of wind-blown waste leaving the facility.

When used tyres are disposed of in the trenches, waste will be covered at the end of the working day in which the waste was deposited and a record of the placement will be kept by the Licence Holder.

Management of the landfill facilities will be undertaken as per the Licence Holder's management documents titled *Waste, Hydrocarbon, Chemical Management – Implementation Guideline* (dated 11/11/2015) and *MMO Landfill Operations – Standard Operating Procedure* (Revision 6). These documents are designed to meet the requirements of the following regulations:

- Environmental Protection Regulations 1987;
- Environmental Protection (Controlled Waste) Regulations 2004; and
- Environmental Protection (Rural Landfill) Regulations 2002.

The proposed premises category change is as detailed in Table 2 below.

Table 2: Proposed category changes

Category	Current design capacity	Proposed design capacity	Description of proposed amendment
64	-	1000 tonnes per year	Addition of category for disposing of putrescible waste and tyres to landfill

Amendment history

Table 3 provides the amendment history for L8457/2010/2.

Table 3: Licence amendments

Instrument	Issued	Amendment
L8457/2010/1	02/09/2010	Licence for Salt Creek Processing Facility
L8457/2010/2	04/09/2013	Licence reissue and transfer to new format licence
L8457/2010/2	23/01/2014	Licence amendment to construct and undertake the cyclonic tailings deposition trial
L8457/2010/2	21/08/2014	Licence amendment to remove total cyanide monitoring and include an improvement condition for submission and implementation of a Groundwater Recovery Plan. Standard conditions 1.3.5 and 2.6.2 have also been added to the Licence
L8457/2010/2	21/05/2015	Licence amendment to allow simultaneous dewatering and tailings deposition to Salt Creek in-pit Tailings Storage Facility
L8457/2010/2	31/12/2015	Licence amendment to increase nominated throughput
L8457/2010/2	06/10/2016	Licence amendment to include mobile crusher and increase nominated throughput, to include two new dewatering discharge points and reduce dewatering throughput
L8457/2010/2	10/2/2017	Amendment Notice 1: Licence amendment to include Fingals pit as a dewatering discharge location, increase the dewatering throughput to 400,000 tonnes per annum and update the premises boundary address and map
L8457/2010/2	16/10/2017	Amendment Notice 2: Licence amendment to increase the Category 6 design capacity from 400,000 tonnes per annum to 700,000 tonnes per annum
L8457/2010/2	****	Amendment Notice 3: Licence amendment to include category 64 putrescible landfill as a prescribed activity.

Location and receptors

Table 4 below lists the relevant sensitive land uses in the vicinity of the Prescribed Premises which may be receptors relevant to the proposed amendment.

Table 4: Receptors and distance from activity boundary

Residential and sensitive premises	Distance from Prescribed Premises
Mount Monger Station Homestead	Over 30 km from the landfill location

Table 5 below lists the relevant environmental receptors in the vicinity of the Prescribed Premises which may be receptors relevant to the proposed amendment.

Table 5: Environmental receptors and distance from activity boundary

Environmental receptors	Distance from Prescribed Premises
Groundwater	
<i>R/VI Act 1914</i> proclaimed Area - Goldfields Groundwater Area.	The site falls within the Goldfields Groundwater Area and is also managed under the Goldfields Groundwater Area Management Plan, 1994.
Surface water	
Un-named perennial salt lake	Located approximately 4 km south of the landfill site.
DBCA (Department of Biodiversity, Conservation and Attractions) Managed Land	
Randell Timber Reserve	The Premises is located with the Randell Timber Reserve. Applicant has consulted with DBCA with respect to potential impacts from windblown waste and vermin.

Hydrogeology

Aquifers at the Premises are of low permeability, within fractured and weathered rock..

The groundwater in the vicinity of the proposed landfill is located approximately 20 metres below ground level (40 metres below the landfill depth). Groundwater is hypersaline (65,000 ppm TDS) and not suitable for stock or human use.

Risk assessment

Tables 5 and 6 below describe the Risk Events associated with the amendment consistent with the *Guidance Statement: Risk Assessments*. Both tables identify whether the emissions present a material risk to public health or the environment, requiring regulatory controls.

Table 5: Risk assessment for proposed amendments during construction

Risk Event					Consequence rating	Likelihood rating	Risk	Reasoning	
Source/Activities	Potential emissions	Potential receptors	Potential pathway	Potential adverse impacts					
Category 64: Class II putrescible landfill	Earthmoving during landfill cell construction	Dust	Nearest sensitive receptor is over 30 km from the site of the planned landfill	Air	Health and amenity impacts	Slight	Rare	Low	Distance to closest sensitive receptor is sufficient to reduce the risk of dust and noise emissions to not foreseeable. The general provisions of the EP Act are applicable.
		Noise							

Table 6: Risk assessment for proposed amendments during operation

Risk Event					Consequence rating	Likelihood rating	Risk	Reasoning	
Source/Activities	Potential emissions	Potential receptors	Potential pathway	Potential adverse impacts					
Category 64: Class II putrescible landfill	Operation of the landfill	Dust	Nearest sensitive receptor is over 30 km from the site of the planned landfill	Air	Health and amenity impacts	Slight	Rare	Low	Distance to closest sensitive receptor is sufficient to reduce the risk of dust and noise emissions to not foreseeable. The general provisions of the EP Act are applicable.
		Noise							
		Odour; windblown waste			Scavengers and indirect receptors – fauna of conservation significance.	Air, direct to land	Increase in scavengers/vermin. Potential alteration to local ecosystems.	Minor	

		Leachate from putrescible waste	Groundwater	Via land	Groundwater is hypersaline and influenced by dewatering of adjacent pit	N/A	N/A	N/A	Given the distance to groundwater, influence of groundwater drawdown from dewatering and hypersalinity of groundwater the impact of leachate from waste deposition is negligible.
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Decision

Approval for the construction and operation of the proposed landfill is granted.

Table 1.2.1 of the Licence has been amended to include the Maxwells Landfill as a licensed containment facility. Conditions 1.2.8 and 1.2.9 have been included in the licence to ensure emissions resulting in construction and operation of the new landfill facility are acceptable.

Licence Holder's comments

The Licence Holder was provided with the draft Amendment Notice on 16 August 2019. Comments received from the Licence Holder have been considered by the Delegated Officer as shown in Appendix 2.

Amendment

- Page 1 of the Licence is amended by the deletion of the text shown in strikethrough and insertion of the bold text shown in red below:

Category number	Category description	Category production or design capacity	Approved Premises production or design capacity
05	Processing or beneficiation of metallic or non-metallic ore: premises on which – (a) Metallic or non-metallic ore is crushed, ground, milled or otherwise processed; (b) Tailings from metallic or non-metallic ore are reprocessed; or (c) Tailings or residue from metallic or non-metallic ore are discharged into a containment cell or dam.	50,000 tonnes or more per year	1,700,000 tonnes per annual period
06	Mine dewatering: premises on which water is extracted and discharged into the environment to allow mining of ore.	50,000 tonnes ore more per year	700,000 tonnes per annual period
64	Class II or Class III putrescible landfill site	20 tonnes or more per year	1000 tonnes per year

- Table 1.2.1 of the Licence is amended by the insertion of the bold text shown in red below:

Containment point reference	Material	Infrastructure requirements
Integrated Waste Landform Tailings Storage Facility	Tailings	Constructed in accordance with W4585/2009/1 to achieve a permeability of at least $<10^{-6}$ m/s.
Salt Creek IPTSF	Tailings and dewatering effluent	The Licensee shall operate supernatant decant infrastructure to minimise the

	from Lucky Bay Pit	volume of supernatant water within the TSF.
Process ponds	Process water	Lined with 1.5mm HDPE liner with a minimum permeability of 10^{-9} m/s.
Turkey's nest	Dewatering effluent from Lucky Bay Pit	
Maxwells Landfill	Class II waste, Used tyres	Greater than 20 metres separation distance to groundwater

3. The Licence is amended by the insertion of the conditions 1.2.8 and 1.2.9 shown below:

1.2.8 The Licence Holder shall only dispose of waste on the Premises, generated at the Premises if:

- (a) it is of a type listed in Table 1.2.8;
- (b) it meets any specification listed in Table 1.2.8; and
- (c) in the case of contaminated solid waste is supported by documentation that demonstrates compliance with the acceptance criteria for Class II landfills.

Table 1.2.8: Management of waste		
Column 1	Column 2	Column 3
Waste¹	Quantity Limit	Specification²
Clean fill	-	None specified
Contaminated solid waste	500 tpa	Must meet the acceptance criteria for Class II landfills
Inert waste Type 1		Waste containing visible asbestos or ACM shall not be accepted.
Inert waste Type 2	200 tyres per annum	Tyres only
Putrescible waste	500 tpa	None specified

Note 1: Waste types defined in the *Landfill Waste Classification and Waste Definitions 1996 (as amended December 2009)*

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

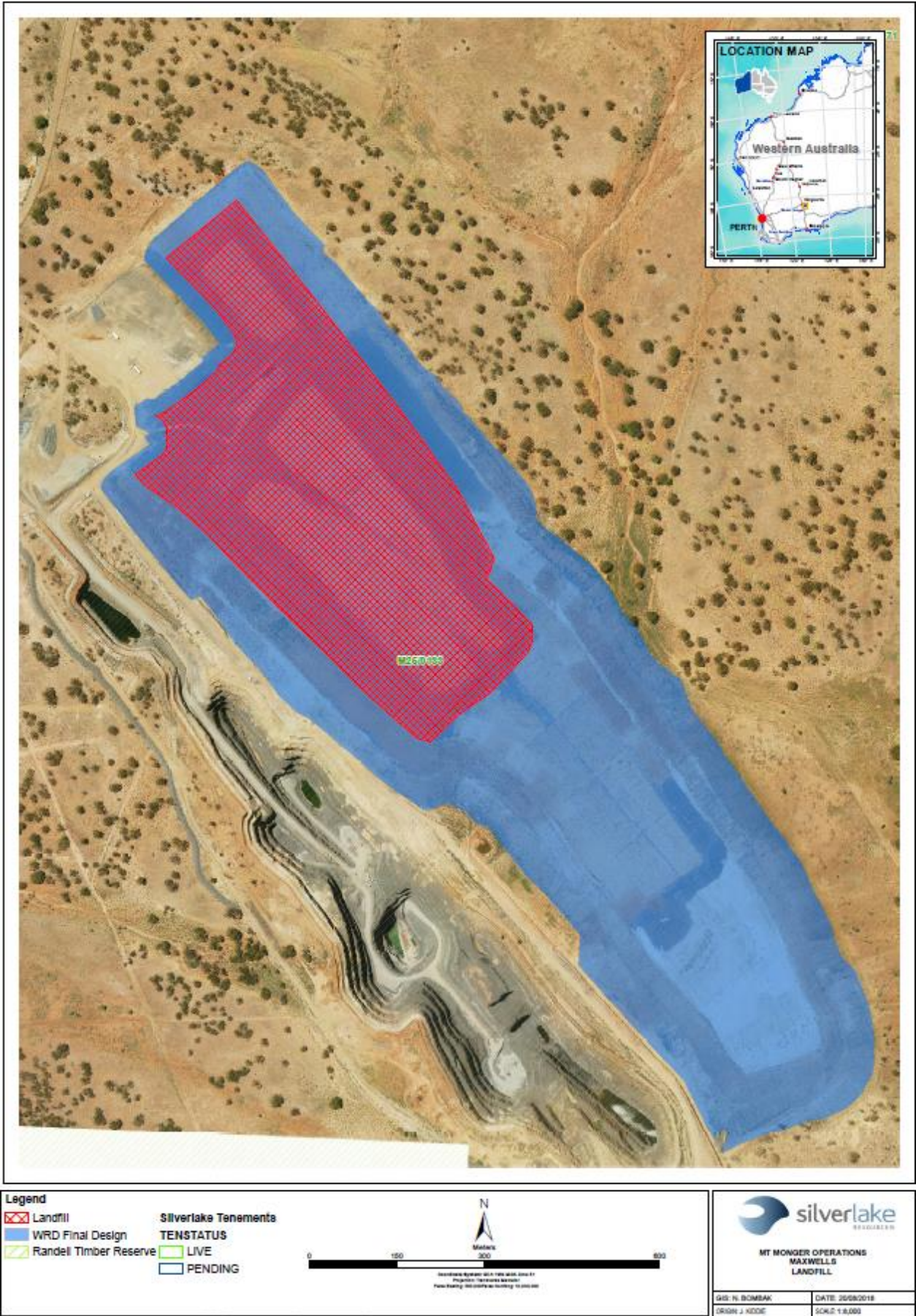
1.2.9 The Licence Holder must ensure that the infrastructure and equipment specified in Column 1 of Table 1.2.9 is maintained in good working order and operated in accordance with the requirements specified in Column 2 of Table 1.2.9.

Table 1.2.9: Infrastructure and equipment controls	
Column 1	Column 2
Site infrastructure and equipment	Operational requirements
Putrescible landfill located at Maxwells Waste Rock Dump as shown by the area shaded red in the Map of landfill location in Schedule 1.	<ul style="list-style-type: none"> • Landfill trenches to be constructed as per dimensions 20m long x 5m wide x 5m deep; • Maintenance of a windrow at least one metre high around the perimeter

Table 1.2.9: Infrastructure and equipment controls

Column 1	Column 2
Site infrastructure and equipment	Operational requirements
	<p>of the landfill site;</p> <ul style="list-style-type: none">• Coverage of waste in landfill trenches at least weekly;• Weekly inspection conducted to ensure correct waste is being disposed of, sufficient coverage of trenches and no windblown waste; any windblown waste to be immediately returned to the landfill trench; and• Recording of volumes of waste disposed.

4. The Licence is amended by the insertion of the following Map into the section titled *Schedule 1: Maps; Map of landfill location*



Appendix 1: Key documents

	Document title	In text ref	Availability
1	Licence L8457/2010/2– Salt Creek Processing Facility	L8457/2010/2	accessed at: www.dwer.wa.gov.au
2	26 March 2019. <i>Application form: Amendment.</i> Silver Lake (Integra) Pty Limited.	Application form	
3	DER, July 2015. <i>Guidance Statement: Regulatory principles.</i> Department of Environment Regulation, Perth.	DER 2015a	accessed at: www.dwer.wa.gov.au
4	DER, October 2015. <i>Guidance Statement: Setting conditions.</i> Department of Environment Regulation, Perth.	DER 2015b	
5	DER, November 2016. <i>Guidance Statement: Risk Assessments.</i> Department of Environment Regulation, Perth.	DER 2016b	
6	DER, November 2016. <i>Guidance Statement: Decision Making.</i> Department of Environment Regulation, Perth.	DER 2016c	

Appendix 2: Summary of Licence Holder comments

The Licence Holder was provided with the draft Amendment Notice on 16/8/2019 for review and comment. The Licence Holder responded on 19/8/2019, waiving the remaining comment period.