



Licence Number L4328/1989/10

Licensee Wodgina Lithium Pty Ltd

ACN 611 488 932

File Number: DER2013/001044

Premises Wodgina Operations
Mining Tenements M45/50, M45/353, M45/381,
M45/382, M45/383, M45/886, M45/887, M45/923 and
M45/925
MARBLE BAR WA 6760

Date of Amendment 18/08/2017

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* 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.

Date signed: 18 August 2017

Danielle Eyre

SENIOR MANAGER

INDUSTRY REGULATION (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
ACN	Australian Company Number
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 33 Cloisters Square PERTH WA 6850 info-der@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>
EWL	means Eastern Waste Landform
Licensee	Wodgina Lithium Pty Ltd
Prescribed Premises	has the same meaning given to that term under the EP Act
Premises	refers to the premises to which this Decision Report applies, as specified at the front of this Decision Report
Risk Event	as described in <i>Guidance Statement: Risk Assessments</i>

Department of Water and Environmental Regulation

As of 1 July 2017, the Department of Environment Regulation, the Office of the Environmental Protection Authority and the Department of Water amalgamated to form the Department of Water and Environmental Regulation (DWER), see <https://publicsector.wa.gov.au/public-administration/machinery-government/2017-machinery-government-changes> for further details.

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 an amendment for Category 89 – putrescible landfill site.

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

- *Guidance Statement: Setting Conditions (October 2015);*
- *Guidance Statement: Decision Making (February 2017);*
- *Guidance Statement: Risk Assessments (February 2017); and*
- *Guidance Statement: Environmental Siting (November 2016).*

Amendment description

An application for a Licence amendment was received by the former Department of Environment Regulation on 21 June 2017.

Wodgina Lithium Pty Ltd (Licensee) currently disposes of Inert Waste Type 2 (tyres only) at two disposal areas within the Hercules waste rock dump located on M45/923. The two current disposal areas are the Hercules waste rock landform tyre disposal area and the Hercules Stage 2 backfill tyre disposal area as authorised by Licence L4328/1989/10.

The Hercules waste rock dump is located partly on tenement M45/923 which is held by Global Advanced Metals Wodgina Pty Ltd. Following the departure of the previous owners/operators of this waste rock dump, the Licensee no longer has access to the Hercules Waste Rock Landform and therefore requires a new area to dispose of its Inert Waste Type 2 (tyres).

The Licensee proposes to relocate the disposal of Inert Waste Type 2 to the Eastern Waste Landform (EWL). In addition to the new location for the disposal of Inert Waste Type 2 (200 tonnes of tyres), the Licensee seeks authorisation to also dispose of Inert Waste Type 1 (1,500 tonnes per annum) as part of the construction of the 5 metre compacted base layer of the expanding EWL. The source of the Inert Waste Type 1 is the demolition of on-site buildings. The Licensee has confirmed that this does not include asbestos, so the disposal of Special Waste Type 1 is not required.

As such, the Licensee has requested an increase to the design capacity for Category 89 to allow for the disposal of an additional 1,500 tonnes of waste at the Premises. The overall design capacity for Category 89 is to increase from 1,850 to 3,350 tonnes per annual period. The licensee is to continue to dispose of 1,650 tonnes per annum of waste at the site putrescible landfill.

Table 2 below outlines the proposed changes to the production or design capacity for category 89.

Table 2: Proposed production or design capacity changes

Category	Current production or design capacity	Proposed production or design capacity	Description of proposed amendment
89	1,850 tonnes per annual period	3,350 tonnes per annual period	<p>Amount of waste to be disposed at the putrescible landfill site remains unchanged at 1,650 tonnes per annual period</p> <p>The amount of tyres to be disposed at the Premises is to remain unchanged at 200 tonnes per annual period</p> <p>Increased design capacity relates to the disposal of Inert Waste Type 1 (1,500 tonnes per annual period) as part of the construction of the EWL base layer</p>

EWL and inert waste disposal

The EWL is a current active waste dump that is being expanded across tenements M45/923, M45/383 and M45/1252 (M45/1252 is not located within the Premises boundary). The Licensee has committed to ensuring that any Inert Waste Type 1 used to construct the expanding EWL compacted 5 metre base layer will only be used within tenements M45/923 and M45/383. This will ensure that any waste disposed for this purpose will be disposed within the Premises boundary.

The EWL tyre disposal areas will also only be located within tenements M45/923 and M45/383. The landfill boundary is depicted in Figures 1 and 2 below.

Amendment history

Table 3 provides the amendment history for L4328/1989/10.

Table 3: Licence amendments

Instrument	Issued	Amendment
L4328/1989/10	12/12/2013	Licence amendment to amend submission date for Annual Environmental Report
L4328/1989/10	02/06/2016	Licence amendment for tyre disposal area
L4328/1989/10	07/02/2017	Licence transferred from Global Advanced Metals Wodgina Pty Ltd to Wodgina Lithium Pty Ltd. Administrative amendment undertaken in accordance with Departmental reform
L4328/1989/10	18/08/2017	Amendment to construct a new tyre disposal area and to increase the Category 89 capacity from 1,850 tonnes per annum to 3,350 tonnes per annum

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.

Figure 1: Landfill disturbance area within the EWL footprint located on M45/923 and M45/383

Map depicting the landfilling boundary within which Inert Waste Type 1 and Inert Waste Type 2 (tyres only) is to be disposed.

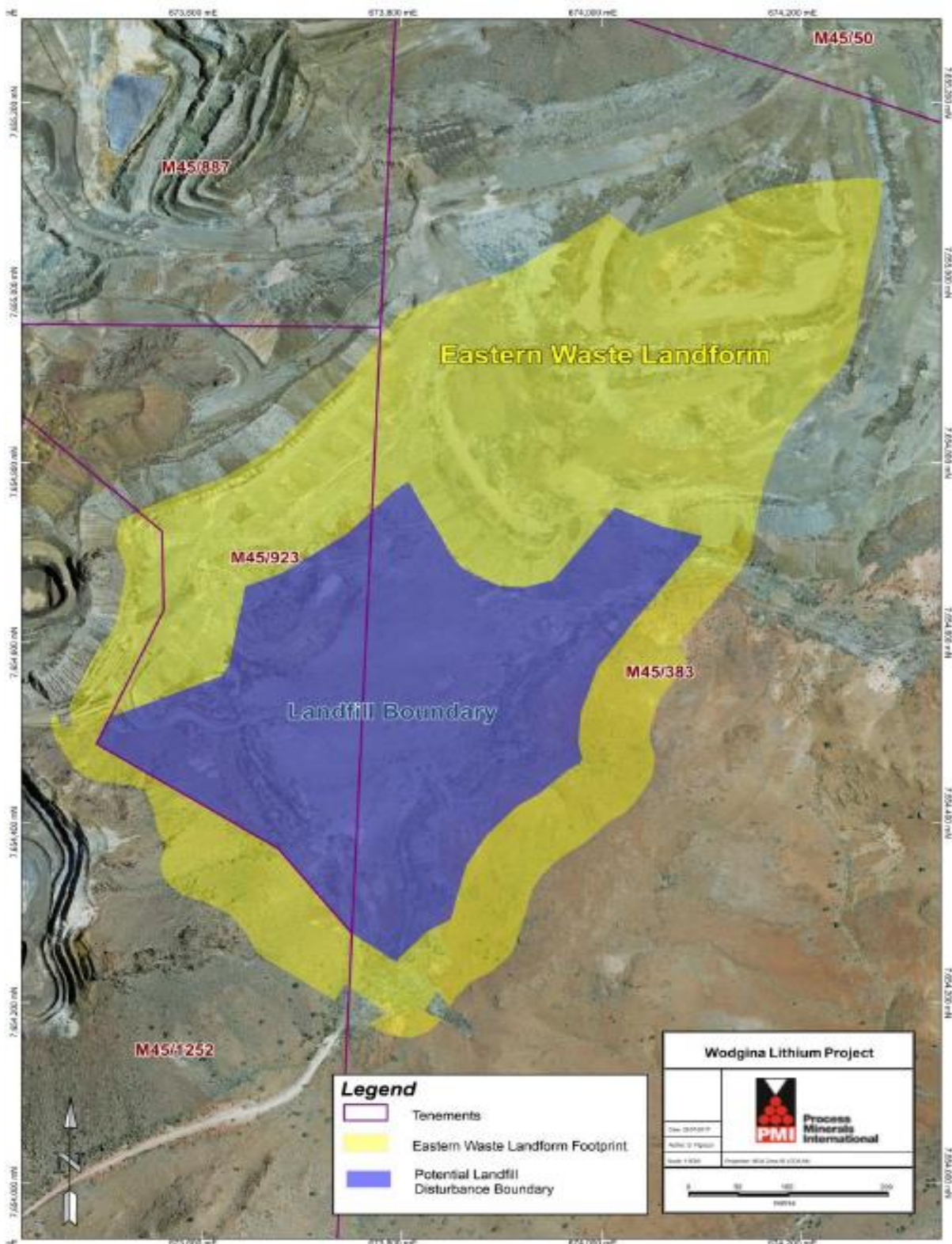


Figure 2: Coordinates of the landfill disturbance area within the EWL footprint

Coordinates depict the area in which Inert Waste Type 1 and Inert Waste Type 2 (tyres only) is to be disposed.

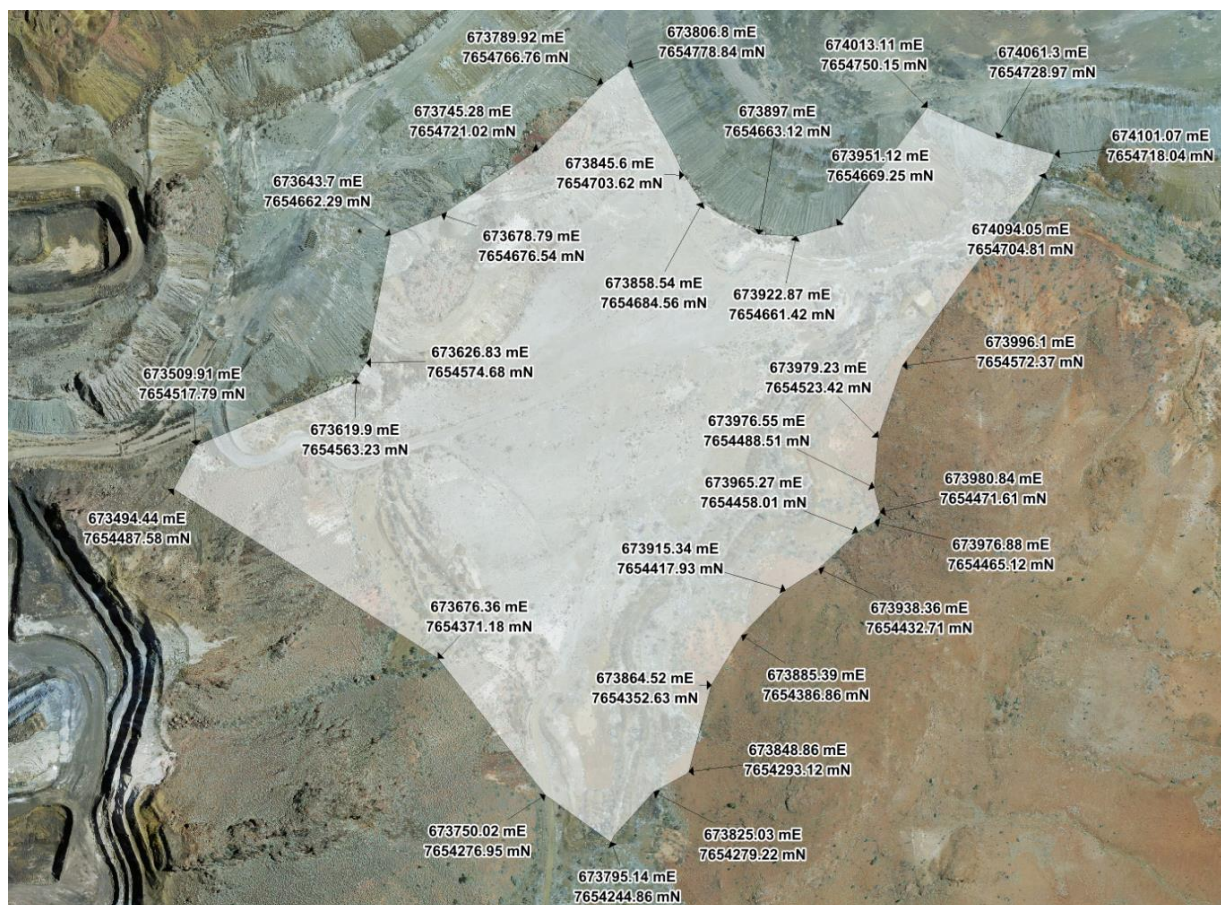


Table 4: Receptors and distance from activity boundary

Residential and sensitive premises	Distance from Prescribed Premises
Kangan Homestead	19 kilometres (km) west north-west from the Premises boundary
Yandeyarra Aboriginal Community	32 km west south-west from the Premises boundary

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
Priority Fauna	Schedule 3 (threatened fauna) located more than 200 metres (m) from the EWL landfilling footprint to the south-west Schedule 2 (threatened fauna) location more than 500 m from the EWL landfilling footprint to the north-west
Priority Flora	Non located within the EWL footprint, closest is 1.8 km from EWL footprint

Table 6 below lists the relevant groundwater and water sources in the vicinity of the Prescribed Premises which may be receptors relevant to the proposed amendment.

Table 6: Groundwater and water sources

Environmental receptors	Distance from Prescribed Premises
Minor non-perennial watercourses	Located within the EWL footprint and landfilling footprint however the area is now a waste rock dump
Groundwater	The Licensee has provided the average standing water level (SWL) in the vicinity of the EWL and it indicates that the depth to groundwater is approximately 23 m The average total dissolved solids (TDS) content is 1,845 milligrams per litre indicating brackish groundwater

Table 7 below lists the other approval relevant to the proposed amendment

Table 7: Other relevant approvals

Legislation	Approval number	Approval details
<i>Mining Act 1978</i>	Mining proposal Reg ID 64265	Amendment to mining proposal approved on 6 July 2017 which includes the extension to the EWL under the <i>Mining Act 1978</i>

Risk assessment

Tables 8 and 9 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 8: Risk assessment for proposed amendment during construction

Risk Event					Consequence rating	Likelihood rating	Risk	Reasoning	
Source/Activities	Potential emissions	Potential receptors	Potential pathway	Potential adverse impacts					
Cat 89 Putrescible landfill	Construction of landfill area and vehicle movement	Dust: Associated with construction activities	Residential receptors	Air: Transport through air then deposition	Health and amenity impacts	Slight	Rare	Low	The closest residential receptor is the Kangan homestead located 19 km from the Premises. The Delegated Officer considers the distance to be too great for dust impacts to occur, therefore the risk is determined to be low
		Noise: Associated with construction activities	Residential receptors	Air or other physical medium	Health and amenity impacts	Slight	Rare	Low	The closest residential receptor is the Kangan homestead located 19 km from the Premises. The Delegated Officer considers the distance to be too great for noise impacts to occur, therefore the risk is determined to be low

Table 9: Risk assessment for proposed amendment during operation

Risk Event					Consequence rating	Likelihood rating	Risk	Reasoning	
Source/Activities	Potential emissions	Potential receptors	Potential pathway	Potential adverse impacts					
Cat 89 Putrescible Landfill	Disposal activities, covering activities and vehicle movement	Dust: Associated with disposal of waste, covering activities and vehicle movement	Residential receptors	Air: Transport through air then deposition	Health and amenity impacts	Slight	Rare	Low	The closest residential receptor is the Kangan homestead located 19 km from the Premises. The Delegated Officer considers the distance to be too great for dust impacts to occur, therefore the risk is determined to be low
		Noise: Noise from operation of disposal areas and vehicle movement	Residential receptors	Air or other physical medium	Health and amenity impacts	Slight	Rare	Low	The closest residential receptor is the Kangan homestead located 19 km from the Premises. The Delegated Officer considers the distance to be too great for noise impacts to occur, therefore the risk is determined to be low
		Waste: Seepage of leachate from tyre disposal areas/inert waste used in EWL base layer	Groundwater with beneficial use	Seepage of leachate	Groundwater quality	Slight	Unlikely	Low	Inert Waste Type 1 and Inert Waste Type 2 (tyres) are to be disposed of at the EWL The groundwater at the EWL location is approximately 23 m below ground level The TDS content indicates that the groundwater is brackish The whole EWL structure is to have a foundation of 5 m of compacted waste rock/Inert Waste Type 1 to act as the base-layer of the EWL. No putrescible waste is to be disposed at the EWL therefore the potential for leachate is low. Noting the information above, the Delegated Officer considers the risk of leachate from the disposal of inert waste to be low

Decision

The approved premises production capacity for Category 89 - putrescible landfill has been increased from 1,850 tonnes to 3,350 tonnes to allow the disposal of an additional 1,500 tonnes of Inert Waste Type 1.

Several definitions have been amended to reflect the changes to the title of the CEO due to the formation of DWER on 1 July 2017.

Condition 1.3.1 and Table 1.3.1 have been amended to change the location of the tyre disposal areas to the EWL. Table 1.3.1 has also been amended to include the disposal of Inert Waste Type 1 as part of the compacted 5 m base layer of the EWL structure. The disposal of Inert Waste Type 1 and tyres within the EWL footprint is only authorised within tenements M45/923 and/or M45/383 (within the Premises boundary).

Condition 1.3.3 is amended to specify that there are no cover requirements for Inert Waste Type 1.

Table 1.3.5 is amended to include the revised construction requirements of the tyre disposal areas. The Licensee has requested a change to the construction requirements in that they are not to be constructed on level impervious ground. The overall EWL structure is to have a compacted 5 m base layer.

Table 4.3.1 is amended to include the requirement to provide the CEO with a list of and explanation for any departures of a type allowed by condition 1.3.11.

The map of tyre disposal areas has been replaced by a map depicting the landfilling footprint within the EWL structure. Coordinates of the landfilling footprint have also been included in the Amendment Notice. This is to ensure that any waste disposed within the EWL structure is only disposed within tenements M45/923 and M45/383 as part of the EWL structure falls outside the Premises boundary.

Licensee's comments

The Licensee was provided with the draft Amendment Notice on 3 August 2017. The Licensee responded on 15 August 2017, waiving the remaining comment period.

Amendment

1. The Prescribed premises category is amended by the deletion of the text shown in strikethrough below and the insertion of the bold text shown in underline below:

Prescribed premises category

Schedule 1 of the Environmental Protection Regulations 1987

Category number	Category description	Category production or design capacity	Approved premises production or design capacity
5	<i>Processing or beneficiation of metallic or non-metallic ore</i>	<i>50,000 tonnes per year</i>	<i>6,800,000 tonnes per annual period</i>
54	<i>Sewage facility</i>	<i>100 cubic metres or more per day</i>	<i>210 cubic metres per day</i>
89	<i>Putrescible landfill site</i>	<i>More than 20 but less than 5,000 tonnes per year</i>	<i>1,850</i> <u><i>3,350</i></u> <i>tonnes per annual period</i>

2. Definitions of the Licence are amended by the deletion of the text shown in strikethrough below and the insertion of the bold text shown in underline below:

'CEO' means Chief Executive Officer of the Department of **Water and Environmental Regulation**;

'CEO' for the purposes of notification means:

~~Chief Executive Officer~~

Director General

Department Div.3.Pt.V EP Act **Administering the Environmental Protection Act 1986**

Locked Bag 33 Cloisters Square

PERTH WA 6850

Info-der@dwer.wa.gov.au;

3. Condition 1.3.1 of the Licence is amended by the deletion of the text shown in strikethrough below and the insertion of the bold text shown in underline below:

1.3.1 ~~The Licensee shall ensure that where wastes produced on the Premises are not taken offsite for lawful use or disposal, they are managed in accordance with the requirements of Table 1.3.1.~~

Table 1.3.1 Management of Waste¹			
Facility	Waste type	Process(es)	Requirements
Putrescible Landfill site (as depicted on Premises map in Schedule 1)	Inert Waste Type 1	Receipt, handling and disposal of waste by landfilling	<p><u>All waste types</u> No more than 1650 tonnes of waste shall be disposed of at the putrescible landfill per annual period Disposal of waste by landfilling shall only take place within the landfill area shown on the Premises Map in Schedule 1 The separation distance between the base of the landfill and the highest groundwater level shall not be less than 2 m</p>
	Putrescible Waste		
	Clean Fill		
	Inert Waste Type 2		
Hercules Waste rock landform tyre disposal area & Hercules Stage 2 backfill tyre disposal area	Inert Waste Type 2 (Tyres only)		<p>No more than 200 tonnes of waste tyres shall be disposed of at the tyre disposal areas per annual period. Tyres shall only be landfilled:</p> <ul style="list-style-type: none"> i) in batches separated from each other by at least 100 mm of soil and each consisting of not more than 40 m³ of tyres reduced to pieces; or ii) in batches separated from each other by at least 100 mm of soil and each consisting of not more than 1000 whole tyres
<u>Eastern Waste Landform</u>	<u>Inert Waste Type 1 only</u>		<p><u>No more than 1500 tonnes of Inert Waste Type 1 to be disposed within the 5 metre compacted base layer of the Eastern Waste Landform within tenements M45/923 and/or M45/383</u></p>
Wastewater treatment plant	Sewage	Biological and physical treatment	No more than 210 m ³ /day

Note 1: 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.

4. Condition 1.3.3 of the Licence is amended by the insertion of the bold text shown in underline below:

1.3.3 *The Licensee shall ensure that cover is applied and maintained on landfilled wastes in accordance with Table 1.3.2 and that sufficient stockpiles of cover are maintained on site at all times.*

Table 1.3.2: Cover requirements¹

Waste Type	Material	Depth	Timescales
<i>Inert Waste Type 1</i>	<u>No cover required</u>		
<i>Putrescible Waste</i>	<i>Inert and incombustible material</i>	<i>Sufficient to ensure the waste is completely covered and that no waste is exposed</i>	<i>Weekly or as soon as practicable after deposit and prior to compaction</i>
<i>Inert Waste Type 2 (Tyres only)</i>	<i>Soil</i>	<i>500 mm</i>	<i>As soon as practical following the achievement of final waste levels in the area(s) in which tyres are deposited</i>

Note 1: Additional requirements for the covering of tyres are set out in Part 6 of the Environmental Protection Regulations 1987.

5. Condition 1.3.11 of the Licence is amended by the deletion of the text shown in strikethrough and the insertion of the bold text shown in underline below.

1.3.11 *The Licensee must not depart from the requirements specified in Table 1.3.5 except:*

- where such departure is minor in nature and does not materially change or affect the infrastructure; or*
- where such departure improves the functionality of the infrastructure and does not increase risks to public health, public amenity or the environment; and all other conditions in this Licence are still satisfied.*

~~Table 1.3.5: Tyre disposal areas requirements~~

Infrastructure	Requirements (design and construction)
<i>Tyre disposal areas</i>	<ul style="list-style-type: none"> • Disposed of at the Eastern Hercules waste rock landform and buried within the Hercules State 2 backfill; • Disposed of on level and on impervious ground; and • Capacity of 200 tonnes per annual period.

Table 1.3.5: Tyre disposal area infrastructure and equipment requirements

Infrastructure/ Equipment	Requirements (design and construction)	Site plan reference
<i>Eastern Waste Landform tyre disposal areas</i>	<ul style="list-style-type: none"> • Cells constructed on each bench as the Eastern Waste Landform is developed • Capacity of 200 tonnes per annual period 	<i>Located within the landfilling area boundary depicted in the map of the inert waste landfilling area boundary</i>

6. Condition 4.3.1 of the Licence is amended by the insertion of the bold text shown in underline below.

4.3.1 *The Licensee shall ensure that the parameters listed in Table 4.3.1 are notified to the CEO in accordance with the notification requirements of the table.*

Table 4.3.1: Notification requirements			
Condition or table (if relevant)	Parameter	Notification requirement¹	Format or form²
2.1.1	<i>Breach of any limit specified in the Licence</i>	<i>Part A: As soon as practicable but no later than 5pm of the next usual working day. Part B: As soon as practicable</i>	N1
3.1.3	<i>Calibration report</i>	<i>As soon as practicable.</i>	<i>None specified</i>
1.3.10 1.3.11 <i>Table 1.3.5</i>	<i>Construction of the Tyre Disposal Areas</i>	<p><i>Notify the CEO in writing within 14 days following the completion of the works for the tyre disposal area and prior to operation of the same, as specified in condition 1.3.10.</i></p> <p><i>The written notification shall:</i></p> <ul style="list-style-type: none"> <i>(a) confirm that the works were constructed in accordance with condition 1.3.10; and</i> <i>(b) provide the CEO with a list of and explanation for any departure of a type allowed by condition 1.3.11; and</i> <i>(c) be signed by a person authorised to represent the Licensee and contain the printed name and position of that person within the company.</i> <p><i>Following submission of the written notification, the Licensee shall operate the tyre disposal area in accordance with the conditions of this Licence.</i></p>	<i>None specified</i>

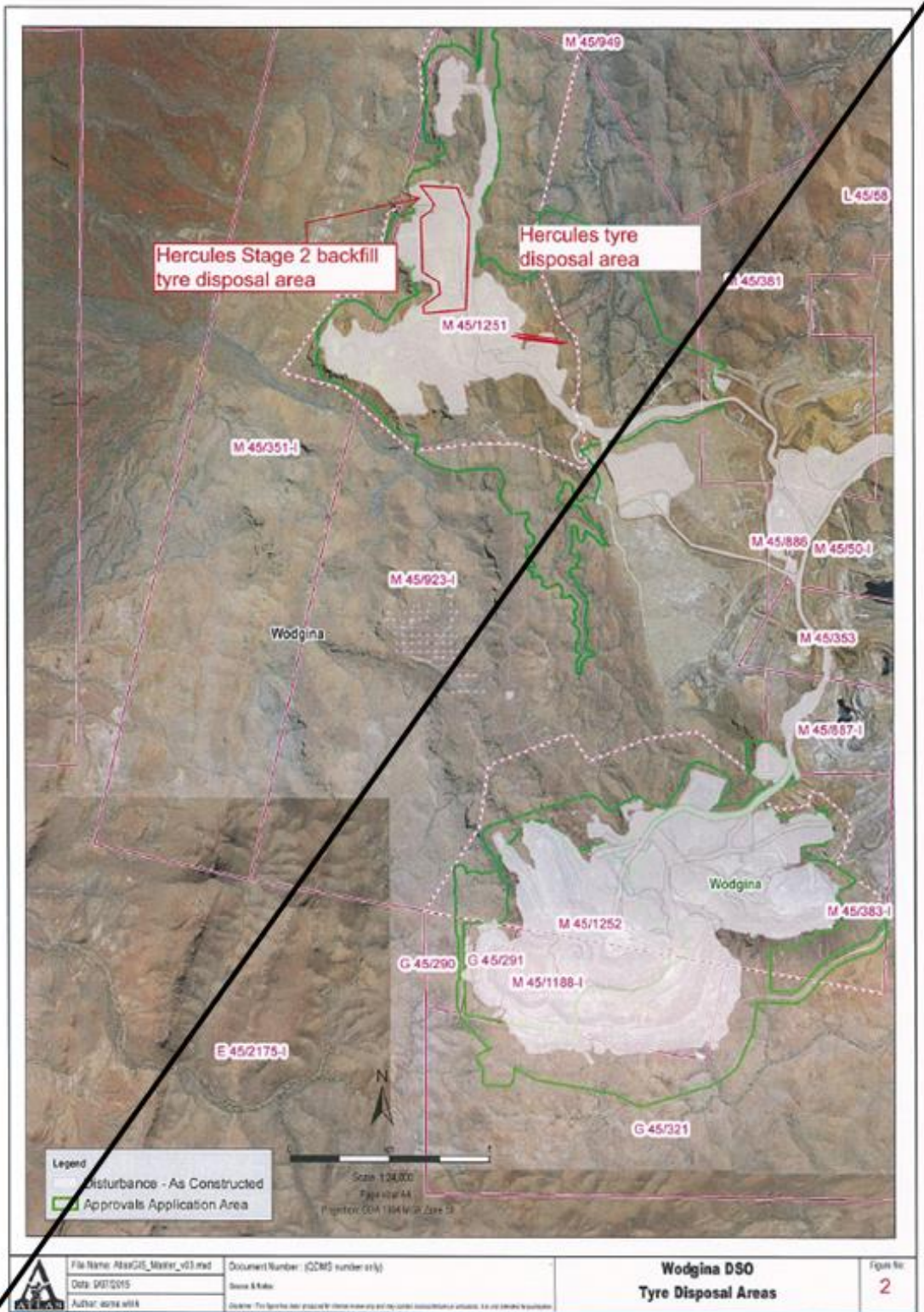
Note 1: Notification requirements in the licence shall not negate the requirement to comply with s72 of the Act
 Note 2: Forms are in Schedule 2

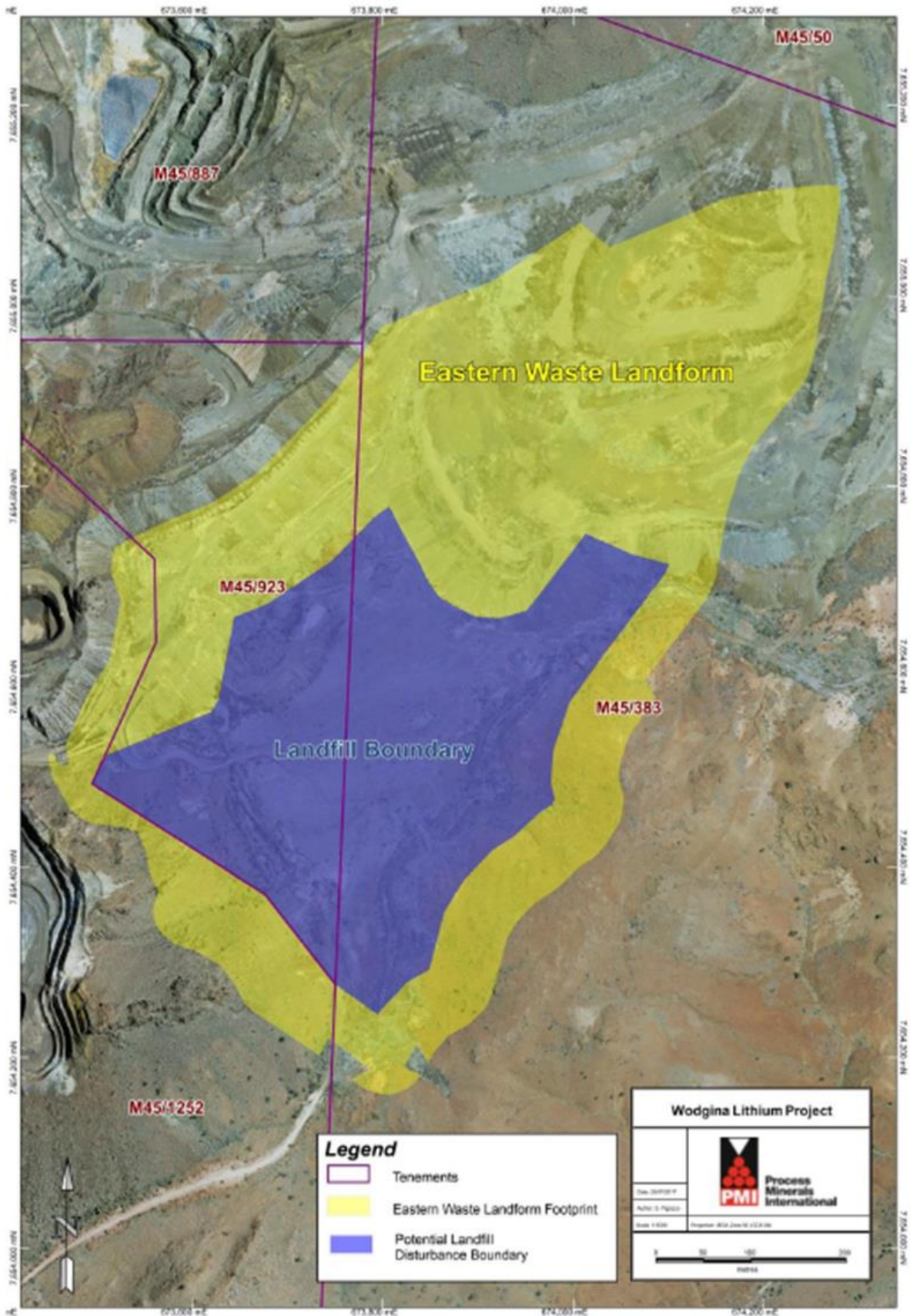
7. The map of tyre disposal areas in Schedule 1 maps of the Licence is amended by the deletion of the map shown in strikethrough below and the addition of the new map of depicting the inert waste landfilling area boundary below.

Map of the inert waste landfilling area boundary tyre disposal areas

The inert waste disposal areas defined in Table 1.3.5 are to be located within the boundary of the inert waste landfilling area depicted below.

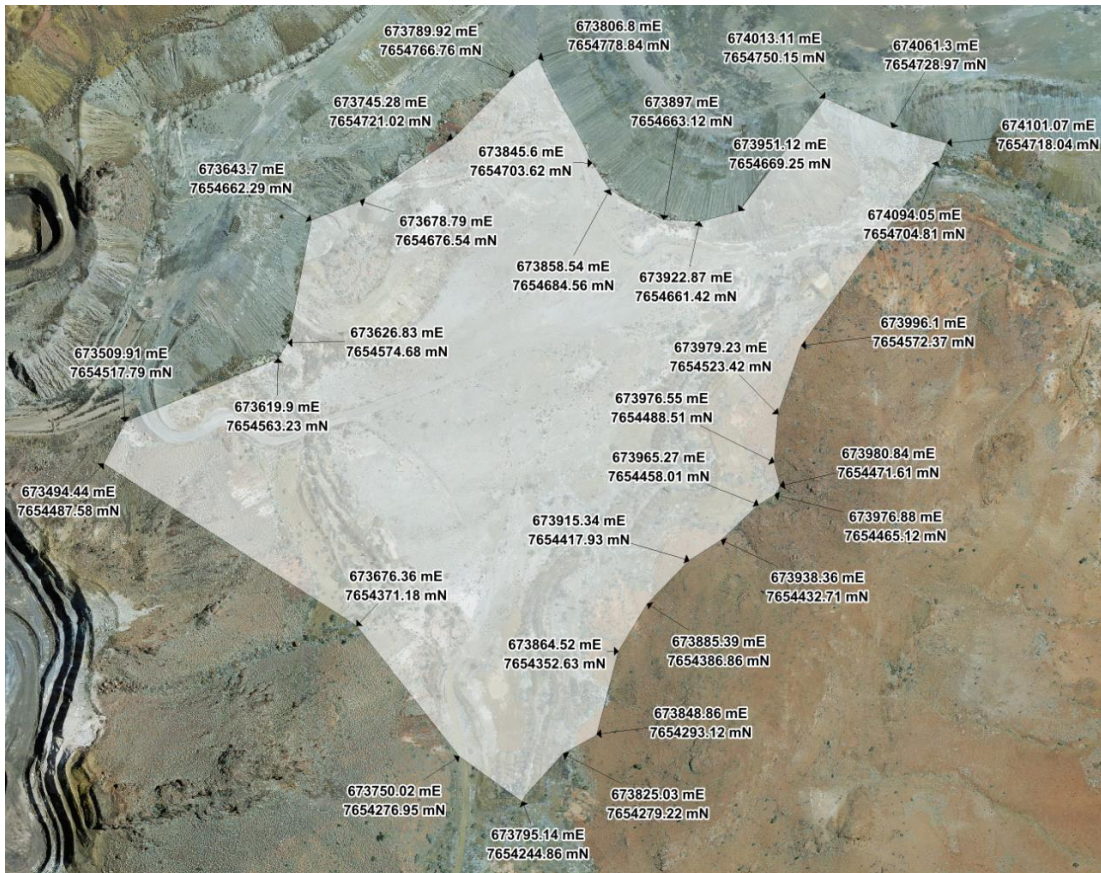
The location of the tyre disposal areas defined in Table 1.3.1 is shown below.





Map depicting the boundary coordinates of the inert waste landfilling area

The inert waste disposal areas defined in Table 1.3.5 are to be located within the boundary of the inert waste landfilling area depicted by the coordinates below.



Appendix 1: Key documents

	Document title	In text ref	Availability
1	Licence L4328/1989/10	L4328/1989/10	accessed at www.dwer.wa.gov.au
2	Wodgina Lithium Pty Ltd - Licence amendment application 21 June 2017	Wodgina 21 June 2017	DWER records (A1457609)
3	Wodgina Lithium Pty Ltd further information received via email on 26 July 2017		DWER records (A1488142)
4	Wodgina Lithium Pty Ltd further information received via email on 1 August 2017		DWER records (A1497182)
5	DER, October 2015. <i>Guidance Statement: Setting conditions.</i> Department of Environment Regulation, Perth	DER 2015b	Accessed at www.dwer.wa.gov.au
6	DER, November 2016. <i>Guidance Statement: Risk Assessments.</i> Department of Environment Regulation, Perth	DER 2016b	
7	DER, November 2016. <i>Guidance Statement: Decision Making.</i> Department of Environment Regulation, Perth	DER 2016c	