



Licence Number L8739/2013/1

Licence Holder Cable Sands (W.A.) Pty Ltd

ACN 009 137 142

File Number: DER2014/000656

Premises Wonnerup Mineral Sands Mine
4397 Bussell Highway
YALYALUP WA 6280

Legal description –
Lot 100 on Deposited Plan 65306 and Mining Lease
M70/785

Date of Amendment 27/10/2017

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* (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.

Date signed: 27 October 2017

Danielle Eyre
Senior 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
ACN	Australian Company Number
Category/ Categories	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
EPA	Environmental Protection Authority
EP Act	<i>Environmental Protection Act 1986 (WA)</i>
EP Regulations	<i>Environmental Protection Regulations 1987 (WA)</i>
EPBC Act	<i>Environment Protection and Biodiversity Conservation Act 1999 (Cth)</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
GL/yr	Gigalites per year (1 GL = 10 ⁹ litres)
kL/yr	Kilolitres per year (1 kL = 1,000 litres)
Licence Holder	Cable Sands (W.A.) Pty Ltd
Mt	Million tonnes
Notice	refers to this document
PM ₁₀	used to describe particulate matter that is smaller than 10 microns (µm) in diameter.
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.

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 authorises amendments to the Licence under Categories 6 and 8 with respect to mining at the Wonnerup South site.

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 (November 2016)*
- *Guidance Statement: Risk Assessment (November 2016)*
- *Guidance Statement: Environmental Siting (November 2016)*

Amendment description

The Licence Holder has completed mine construction works under Works Approval W5745/2014/1 at the Wonnerup South site and has now applied to commence mining operations under the Existing Licence.

Approximately 3.8 Mt of ore will be extracted from the Wonnerup South site over a short productive mine life (20 months). Mining is expected to commence in the fourth quarter of 2017, following the construction period, and will be conducted 24 hours per day 7 days per week.

The proposal comprises the mining and backfilling of a large central/southern pit with a small northern satellite pit, together with temporary topsoil stockpiles, solar drying ponds and associated internal roads and pipelines.

The general sequence of mining operations is outlined below:

- vegetation clearing and topsoil stripping;
- extraction of mineral sands ore using conventional dry mining equipment (dozers and loaders);
- backfilling of sand residues (i.e. clay fines, sand tailings, coarse rejects (oversize), and tailings returned from off-site secondary processing) following mineral processing to either the active mining area (behind the advancing ore extraction area) or solar evaporation ponds; and
- progressive rehabilitation behind the advancing mining operation.

Other approvals

The Licence Holder has provided the following information relating to other approvals as outlined in Table 2.

Table 2: Relevant approvals

Legislation	Number	Approval
Part IV of the EP Act	N/A	Wonnerup South: Referral to EPA (Not assessed, no advice given)
<i>Mining Act 1978 (WA)</i>	Registration ID: 43695	Mining Proposal for the Wonnerup South Mineral Sands Project (M70/785)
<i>Rights in Water and Irrigation Act 1914 (WA)</i>	GWL161841(7)	Licensed allocation 3.9 GL/yr from the Busselton-Capel Groundwater Area, Perth – Yarragadee South aquifer, for the purpose of mineral ore

Legislation	Number	Approval
		processing/other mining purposes
	GWL173523(3)	Licensed allocation 600,000 kL/yr from the Busselton-Capel Groundwater Area, Perth – Superficial Swan aquifer, for the purpose of dewatering for mining purposes and mineral ore processing/other mining purposes
<i>Environment Protection Biodiversity Conservation Act 1999 (Cth)</i>	EPBC 2014/7135	The proposed action to mine mineral sands from the Wonnerup South deposit was considered a controlled action and was assessed under the EPBC Act. Approval was granted in 2014, subject to a number of conditions related to minimising impacts to the Vasse-Wonnerup wetland system

Amendment history

Table 3 provides the amendment history for L8739/2013/1.

Table 3: Licence amendments

Instrument	Issued	Nature and extent of instrument
W5174/2012/1	16/08/2012	Works approval for mine establishment (2 stages)
L8739/2013/1	17/05/2013	Licence issued for mining of Stage 1 (4 year tenure)
L8739/2013/1	01/08/2013	Licence amendment to exclude internal, temporary in-pit noise bunds from being maintained to the constructed heights at all times
L8739/2013/1	26/06/2014	Licence amendment to transfer authorisation for construction of remaining infrastructure under Stage 2 of W5174/2012/1
L8739/2013/1	14/01/2016	Licence amendment to remove conditions regarding maintenance of external noise bund heights, noise targets and emissions to land
W5745/2014/1	22/01/2015	Works approval for Wonnerup South mine construction
L8739/2013/1	29/04/2016	Amendment by notice – extend expiry to 2036
L8739/2013/1	27/10/2017	Amendment Notice to authorise mining operations at the Wonnerup South site (this Amendment)

Decision

DWER has reviewed the compliance document submitted by the Licence Holder with respect to Works Approval W5745/2014/1 and is satisfied the site has been established in accordance with the conditions of the works approval. The Delegated Officer has therefore determined to amend the Licence to authorise mining operations at the Wonnerup South site consistent with the risk assessment outcomes of the works approval.

Conditions currently on the Licence capture operational emissions relating to contaminated surface water, collected surface water and recovered groundwater, disposal of mine tailings (sand tailings and clay slimes), acid sulfate soils, and control of noise and fugitive dust from site operations.

DWER is currently undertaking a detailed risk review of the Licence as part of an amendment for the Wonnerup North site and to align the Licence with the risk based Regulatory Framework. The full risk based review will incorporate these amendments into a revised licence.

Licence Holder's comments

The Licence Holder was provided with the draft Amendment Notice on 27 November 2017 and provided no additional comments.

Amendment

- Table 2.4.1 of the Existing Licence is amended by the deletion of the text shown in strikethrough below, and insertion of the red text shown in underline below:

Table 2.4.1: Management actions			
Monitoring point reference	Event/action reference	Event	Management action
AQ1 – AQ3 <u>AQ4</u>	EA1	Exceedance of the limit specified in Condition 2.4.1	Undertake an investigation including collection of evidence to demonstrate that <u>establish whether or not</u> the exceedance is not attributed to operations on the Premises

- Table 2.5.1 of the Existing Licence is amended by the deletion of the text shown in strikethrough below, and insertion of the red text shown in underline below:

Table 2.5.1: Management plans		
Management plan reference	Parts	Date of document
Noise Management Plan	<ul style="list-style-type: none"> 3.4.1 – Acoustic bund walls 3.4.2 – Limitations on work in early/late hours 3.5.1 – Earthmoving equipment noise reduction engineering 3.5.2 – Preventative maintenance 3.5.3 – Workforce training and involvement Attachment 1 – Environmental Noise Risk Assessment and assignment of management controls 	22 July 2014 <u>Version 3A – October 2017</u>

- Table 3.4.1 of the Existing Licence is amended by the deletion of the text shown in strikethrough below, and insertion of the red text shown in underline below:

Table 3.4.1: Monitoring of ambient noise levels				
Monitoring point reference	Parameter	Sound measuring equipment	Units	Frequency
AN1 – AN3 <u>AN4</u>	L _{AS90,30min}	Non-directional system	dB	Continuous ¹
	L _{AS10,30min}			
	L _{Aeq(20Hz-500Hz),30min}			
	Audio recording ²		-	
AN1 AN2 – AN4	L _{Aeq,1min} one-third octave spectral data	Directional system	dB	

Note 1: Availability ≥90% of the measurement intervals on a monthly basis.

Note 2: During internal target exceedances.

4. Table 3.4.2 of the Existing Licence is amended by the deletion of the text shown in strikethrough below, and insertion of the red text shown in underline below:

Table 3.4.2: Monitoring of ambient air quality					
Monitoring point reference	Parameter	Units	Frequency	Sampling duration	Method
AQ1 – AQ3 <u>AQ4</u>	TSP ¹	µg/m ³	Monthly, commencing 1 October and ending 31 May the following year	24 hours	AS 3580.9.3
	PM ₁₀ ²		Minimum of 2 samples between 1 October and 31 May the following year	Minimum of 14 days continuous logging with 15 minute samples averages ¹	None specified

Note 1: To be sampled using a High Volume Air Sampler.

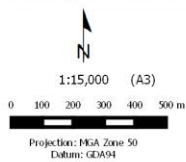
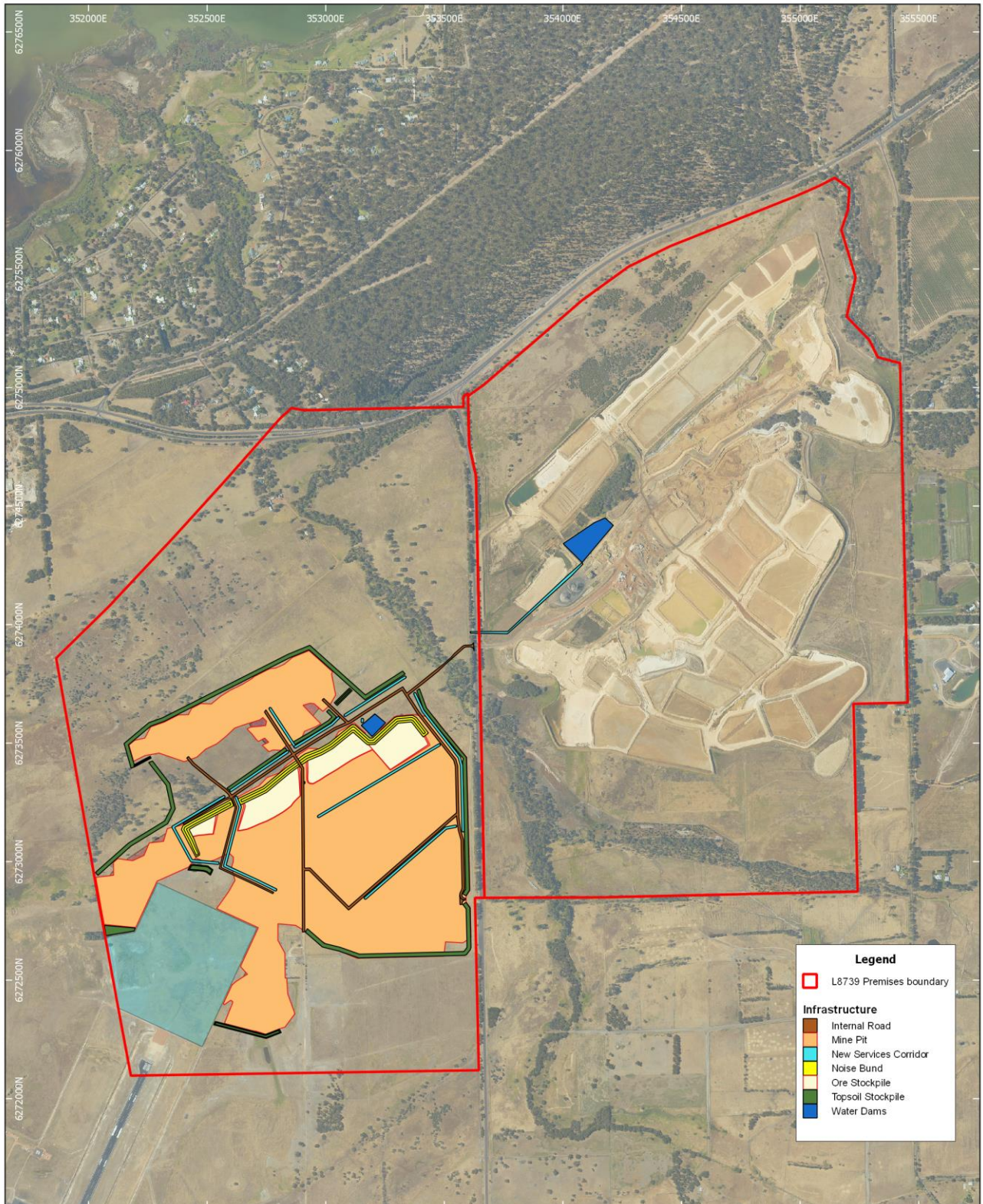
Note 2: To be sampled using a portable dust sampler.

Note 3: Availability ≥90% of the measurement intervals on a monthly basis.

5. The Premises boundary depicted in the 'Premises map' in Schedule 1 of the Existing Licence is amended to include the boundary of tenement M70/785, as shown on the attached map in Schedule 1 of this Notice.
6. The location of the emission points defined in Tables 2.2.1, 2.2.3 and 2.3.1 and depicted in the 'Map of emission points' in Schedule 1 of the Existing Licence is amended to include the mine voids within M70/785, as shown on the attached map in Schedule 1 of this Notice.
7. The location of the monitoring points defined in Tables 3.2.1, 3.4.1 – 3.4.3 and depicted in the 'Map of monitoring points' in Schedule 1 of the Existing Licence is amended to include monitoring points AQ4 and AN4, as shown on the attached map in Schedule 1 of this Notice.

Schedule 1: Maps

Premises map



WONNERUP MINERAL SANDS MINE

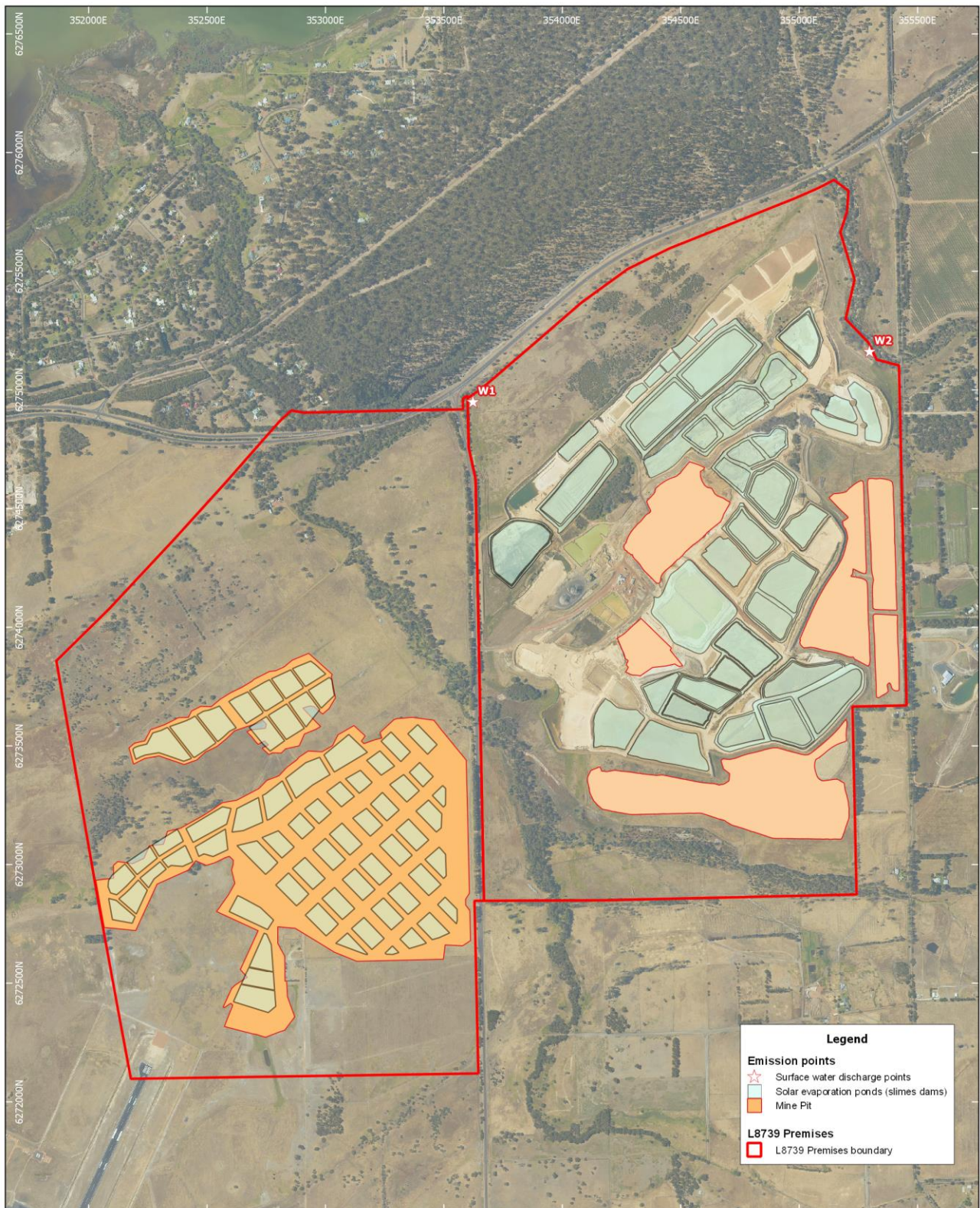
Premises map



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Department of Water and Environmental Regulation

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Map of emission points



WONNERUP MINERAL SANDS MINE

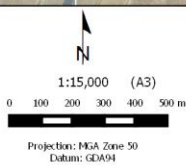
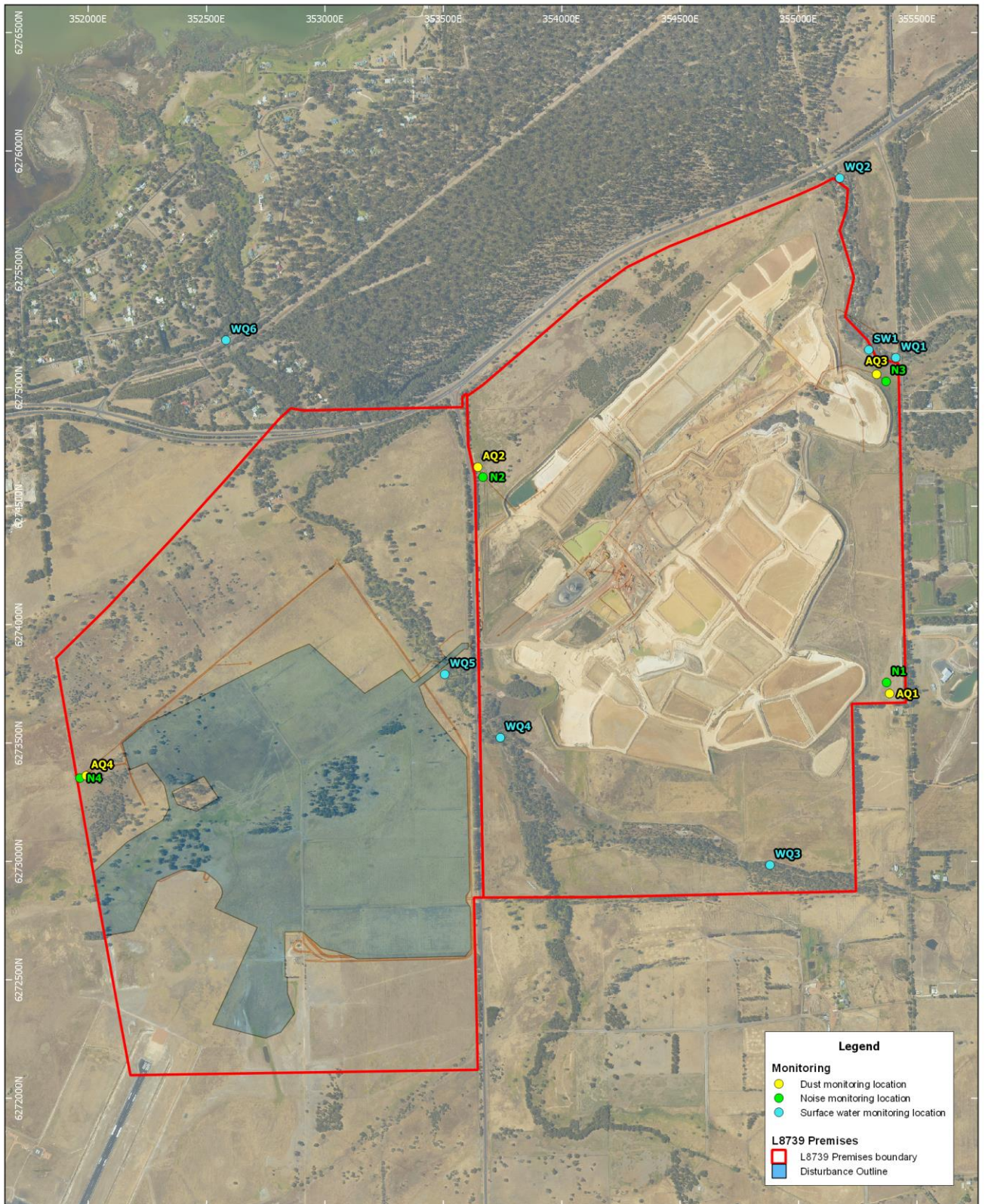
Map of emission points



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Map of monitoring locations



WONNERUP MINERAL SANDS MINE

Map of monitoring locations



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Appendix 1: Key documents

	Document title	In text ref	Availability
1	Licence L8739/2013/1 – Wonnerup Mineral Sands Mine	L8739/2013/1	accessed at www.dwer.wa.gov.au
2	Works Approval W5745/2014/1 – Wonnerup South Project	W5745/2014/1	
3	DER, July 2015. <i>Guidance Statement: Regulatory principles</i> . Department of Environment Regulation, Perth.	DER, 2015a	
4	DER, November 2016. <i>Guidance Statement: Decision Making</i> . Department of Environment Regulation, Perth.	DER, 2016c	
5	DER, November 2016. <i>Guidance Statement: Risk Assessments</i> . Department of Environment Regulation, Perth.	DER, 2016b	
6	Wonnerup South Mineral Sands Deposit – Works Approval 5745/2014/1 Compliance Report – 17 October 2017. Prepared by Cristal Mining Australia Ltd	Cristal Mining, 2017	DWER records (A1545455)
7	Mining Proposal for the Wonnerup South Mineral Sands Deposit M70/785, April 2014. Prepared by Cristal Mining Australia Ltd.	Cristal Mining, 2014	accessed at www.minedext.dmp.wa.gov.au