



Licence

Environmental Protection Act 1986, Part V

Licensee: CSR Building Products Limited

Licence: L8458/2010/3

Registered office: Level 5, Triniti 3
 39 Dehli Road
 NORTH RYDE NSW 2113

ACN: 008 631 356

Premises address: Jurien Gypsum Process Facility
 Mining Tenements M70/750 and M70/1161 Sandy Point Road
 JURIEN WA 6516
 as depicted in Schedule 1.

Issue date: Thursday, 8 October 2015

Commencement date: Friday, 23 October 2015

Expiry date: Saturday, 10 March 2029

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
12	Screening etc. of material: premises (other than premises within category 5 or 8) on which material extracted from the ground is screened, washed, crushed, ground, milled, sized or separated.	50 000 tonnes or more per year	100 000 tonnes per annual period
6	Mine dewatering: premises on which water is extracted and discharged into the environment to allow mining of ore.	50 000 tonnes or more per year	400 000 tonnes per annual period

Conditions

This Licence is subject to the conditions set out in the attached pages.

Date signed: 28 April 2015

.....
Alana Kidd
 Manager Licensing – Resource Industries
 Officer delegated under section 20 of the *Environmental Protection Act 1986*



Contents

Licence	1
Contents	2
Introduction	2
Licence conditions	4
1 General	4
2 Emissions	5
3 Information	5
Schedule 1: Maps	7
Schedule 2: Reporting & notification forms	8

Introduction

This Introduction is not part of the Licence conditions.

DER's industry licensing role

The Department of Environment Regulation (DER) is a government department for the state of Western Australia in the portfolio of the Minister for Environment. DER's purpose is to advise on and implement strategies for a healthy environment for the benefit of all current and future Western Australians.

DER has responsibilities under Part V of the *Environmental Protection Act 1986* (the Act) for the licensing of prescribed premises. Through this process DER regulates to prevent, control and abate pollution and environmental harm to conserve and protect the environment. DER also monitors and audits compliance with works approvals and licence conditions, takes enforcement action as appropriate and develops and implements licensing and industry regulation policy.

Licence requirements

This Licence is issued under Part V of the Act. Conditions contained within the Licence relate to the prevention, reduction or control of emissions and discharges to the environment and to the monitoring and reporting of them.

Where other statutory instruments impose obligations on the Premises/Licensee the intention is not to replicate them in the licence conditions. You should therefore ensure that you are aware of all your statutory obligations under the Act and any other statutory instrument. Legislation can be accessed through the State Law Publisher website using the following link: <http://www.slp.wa.gov.au/legislation/statutes.nsf/default.html>

For your Premises relevant statutory instruments include but are not limited to obligations under the:

- *Environmental Protection (Unauthorised Discharges) Regulations 2004* – these Regulations make it an offence to discharge certain materials such as contaminated stormwater into the environment other than in the circumstances set out in the Regulations.
- *Environmental Protection (Controlled Waste) Regulations 2004* - these Regulations place obligations on you if you produce, accept, transport or dispose of controlled waste.
- *Environmental Protection (Noise) Regulations 1997* – these Regulations require noise emissions from the Premises to comply with the assigned noise levels set out in the Regulations.

You must comply with your licence. Non-compliance with your licence is an offence and strict penalties exist for those who do not comply.

Licence holders are also reminded of the requirements of section 53 of the Act which places restrictions on making certain changes to prescribed premises unless the changes are in accordance with a works approval, licence, closure notice or environmental protection notice.



Licence fees

If you have a licence that is issued for more than one year, you are required to pay an annual licence fee prior to the anniversary date of issue of your licence. Non payment of annual licence fees will result in your licence ceasing to have effect meaning that it will no longer be valid and you will need to apply for a new licence for your Premises.

Ministerial conditions

If your Premises has been assessed under Part IV of the Act you may have had conditions imposed by the Minister for Environment. You are required to comply with any conditions imposed by the Minister.

Premises description and Licence summary

The Jurien Gypsum Process Facility processes excavated gypsum-bearing sediment from the bed of Lake Gypsum, approximately 10 kilometres (km) north of the town of Jurien in the Shire of Dandaragan.

The closest sensitive land uses are residences approximately 11 km to the south and southeast of the mine at the town of Jurien.

Lake Gypsum is located on a low-lying plain within the Beekeepers Nature Reserve (C Class reserve 24496). The area surrounding Lake Gypsum is principally coastal dunes. Lake Gypsum itself is largely devoid of native vegetation.

The Jurien Gypsum Mine operates under conditions of Ministerial Statement 954. Processing operations are currently contained within mining lease M70/750. CSR Building Products Limited (CSR) has been granted Ministerial approval to also take gypsum from an adjacent Lease M70/1161, but no processing will be conducted on this Tenement. Dewatering operations occur within M70/1161 and M70/750.

Gypsum is mined from the lakebed to a maximum depth of 4 metres (m). Mine pits are dewatered prior to excavation. Dewatering product from the active pits is discharged into an adjacent unused pit and allowed to infiltrate back to the underlying groundwater resource.

Mining is carried out by dry excavation of dewatered pits using excavators. During the excavation campaign, approximately 100,000 tonnes of gypsum is mined and then stockpiled within M70/750 prior to processing.

Ore processing is generally carried out throughout the year. The gypsum ore is processed using a screening plant and the gypsum is stockpiled on a 4.8 hectare area on M70/50. Stockpiled gypsum is washed via sprinklers for approximately 200 hours with fresh groundwater to leach out salt, with the washing water returned to a pit void from mining activities on M70/50. The washed stockpiles are left to dry and the ore is transported to Perth during the year, based on production demand. There is no further processing of the ore following the stockpiling.

CSR Building Products Limited has calculated that mine dewatering may in future exceed the threshold limit for prescribed activity category 6: dewatering. This licence is the result of an amendment sought by the Licensee to include Category 6 activities into the Licence.

The licences issued for the Premises since 27/11/2006 are:

Instrument log		
Instrument	Issued	Description
L8119/1986/1	27/11/2006	New application
L8458/2010/2	10/06/2010	New licence (old licence expired due to un-paid fees)
L8458/2010/2	15/10/2010	Licence amendment
L8548/2010/2	15/08/2013	Licence amendment to new format
L8458/2010/3	8/10/2015	Licence reissue
L8458/2010/3	28/04/2016	Licence amendment to add Category 6



Severance

It is the intent of these Licence conditions that they shall operate so that, if a condition or a part of a condition is beyond the power of this Licence to impose, or is otherwise *ultra vires* or invalid, that condition or part of a condition shall be severed and the remainder of these conditions shall nevertheless be valid to the extent that they are within the power of this Licence to impose and are not otherwise *ultra vires* or invalid.

END OF INTRODUCTION

Licence conditions

1 General

1.1 Interpretation

1.1.1 In the Licence, definitions from the *Environmental Protection Act 1986* apply unless the contrary intention appears.

1.1.2 For the purposes of this Licence, unless the contrary intention appears:

‘**Act**’ means the *Environmental Protection Act 1986*;

‘**annual period**’ means the inclusive period from 1 January until 31 December;

‘**CEO**’ means Chief Executive Officer of the Department of Environment Regulation;

‘**CEO**’ for the purpose of correspondence means;

Chief Executive Officer

Department Administering the *Environmental Protection Act 1986*

Locked Bag 33

CLOISTERS SQUARE WA 6850

Email: info@der.wa.gov.au

‘**Licence**’ means this Licence numbered L8458/2010/3 and issued under the Act;

‘**Licensee**’ means the person or organisation named as Licensee on page 1 of the Licence;

‘**Premises**’ means the area defined in the Premises Map in Schedule 1 and listed as the Premises address on page 1 of the Licence;

‘**Schedule 1**’ means Schedule 1 of this Licence unless otherwise stated; and

‘**Schedule 2**’ means Schedule 2 of this Licence unless otherwise stated.

1.1.3 Any reference to an Australian or other standard in the Licence means the relevant parts of the the standard in force from time to time during the term of this Licence.

1.1.4 Any reference to a guideline or code of practice in the Licence means the version of that guideline or code of practice in force from time to time, and shall include any amendments or replacements to that guideline or code of practice made during the term of this Licence.

1.1.5 Nothing in the Licence shall be taken to authorise any emission that is not mentioned in the Licence, where the emission amounts to:

- (a) pollution;
- (b) unreasonable emission;
- (c) discharge of waste in circumstances likely to cause pollution; or
- (d) being contrary to any written law.



1.2 General conditions

- 1.2.1 The Licensee shall operate and maintain all pollution control and monitoring equipment to the manufacturer's specification or any relevant and effective internal management system.
- 1.2.2 The Licensee shall immediately recover, or remove and dispose of spills of environmentally hazardous materials outside an engineered containment system.
- 1.2.3 The Licensee shall:
- (a) implement all practical measures to prevent stormwater run-off becoming contaminated by the activities on the Premises; and
 - (b) treat contaminated or potentially contaminated stormwater as necessary prior to being discharged from the Premises.

Note1: *The Environmental Protection (Unauthorised Discharges) Regulations 2004* make it an offence to discharge certain materials into the environment.

1.3 Premises operation

- 1.3.1 The Licensee shall ensure the limits specified in Table 1.3.1 are not exceeded.

Table 1.3.1 Production or design capacity limits

Category ¹	Category description ¹	Premises production or design capacity limit
5	Processing or beneficiation of metallic or non-metallic ore	100 000 tonnes per annual period
6	Mine dewatering	400,000 tonnes per annual period

Note 1: *Environmental Protection Regulations 1987*, Schedule 1.

2 Emissions

2.1 Emissions to land

- 2.1.1 The Licensee shall ensure that where dewater waste is discharged to land from the emission points in Table 2.1.1 and identified on the map of emission points in Schedule 1 it is done so in accordance with the conditions of this Licence.

Table 2.1.1: Emissions to land

Emission points reference as identified in Schedule 1	Description	Source including abatement
Indicative discharge locations.	Dewatering waste shall be discharged into adjacent mine pits.	Water from dewatering of mine pits.

3 Information

3.1 Records

- 3.1.1 All information and records required by the Licence shall:
- (a) be legible;
 - (b) if amended, be amended in such a way that the original and subsequent amendments remain legible or are capable of retrieval;
 - (c) except for records listed in 3.1.1(d) be retained for at least 6 years from the date the records were made or until the expiry of the Licence or any subsequent licence; and
 - (d) for those following records, be retained until the expiry of the Licence and any subsequent licence:



- (i) off-site environmental effects; or
- (ii) matters which affect the condition of the land or waters.

3.1.2 The Licensee shall ensure that:

- (a) any person left in charge of the Premises is aware of the conditions of the Licence and has access at all times to the Licence or copies thereof; and
- (b) any person who performs tasks on the Premises is informed of all of the conditions of the Licence that relate to the tasks which that person is performing.

3.1.3 The Licensee shall complete an Annual Audit Compliance Report indicating the extent to which the Licensee has complied with the conditions of the Licence, and any previous licence issued under Part V of the Act for the Premises for the previous annual period.

3.1.4 The Licensee shall implement a complaints management system that as a minimum records the number and details of complaints received concerning the environmental impact of the activities undertaken at the Premises and any action taken in response to the complaint.

3.2 Reporting

3.2.1 The Licensee shall submit to the CEO an Annual Environmental Report within 59 calendar days after the end of the annual period. The report shall contain the information listed in Table 3.2.1 in the format or form specified in that table.

Table 3.2.1: Annual Environmental Report		
Condition or table (if relevant)	Parameter	Format or form ¹
-	Summary of any failure or malfunction of any pollution control equipment and any environmental incidents that have occurred during the annual period and any action taken	None specified
-	Summary of authorised activities including comparison of the approved production and design capacities and actual production/throughput for the Annual period.	Brief summary
3.1.3	Compliance	Annual Audit Compliance Report (AACR)
3.1.4	Complaints summary	None specified
-	Measures taken to suppress dust	None specified

Note 1: Forms are in Schedule 2

3.3 Notification

3.3.1 The Licensee shall ensure that the parameters listed in Table 3.3.1 are notified to the CEO in accordance with the notification requirements of the table.

Table 3.3.1: Notification requirements			
Condition or table (if relevant)	Parameter	Notification requirement ¹	Format or form ²
1.3.1	Breach of any limit specified in the Licence	Part A: As soon as practicable but no later than 5pm of the next usual working day. Part B: As soon as practicable	N1

Note 1: Notification requirements in the Licence shall not negate the requirement to comply with s72 of the Act

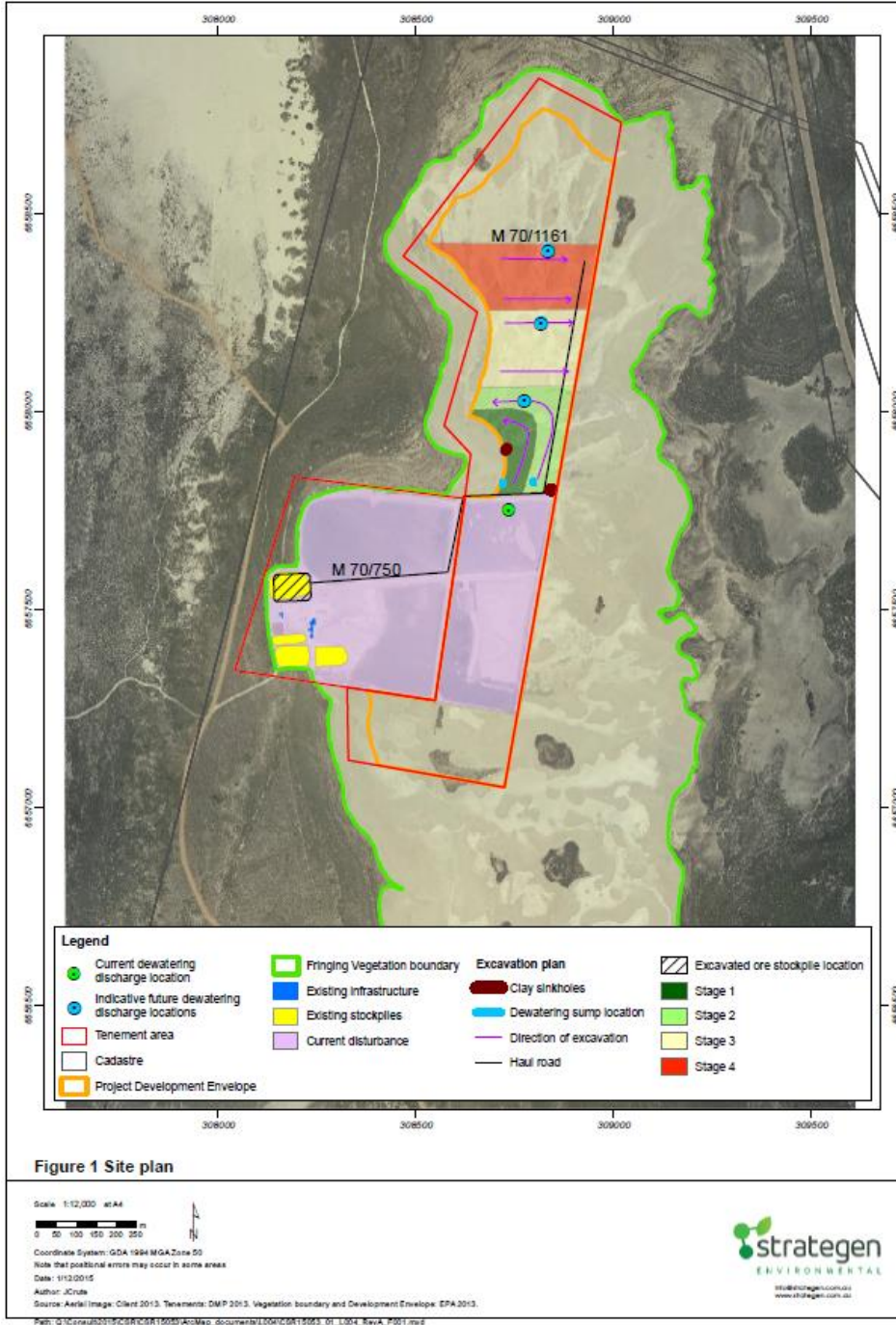
Note 2: Forms are in Schedule 2



Schedule 1: Maps

Premises map and locations of dewater emissions.

The Premises boundary and dewater emission locations are shown in the map below. The red line depicts the Premises boundary.





Schedule 2: Reporting & notification forms

These forms are provided for the proponent to report monitoring and other data required by the Licence. They can be requested in an electronic format.

ANNUAL AUDIT COMPLIANCE REPORT PROFORMA

SECTION A

LICENCE DETAILS

Licence Number:	Licence File Number:
Company Name:	ABN:
Trading as:	
Reporting period: _____ to _____	

STATEMENT OF COMPLIANCE WITH LICENCE CONDITIONS

1. Were all conditions of the Licence complied with within the reporting period? (please tick the appropriate box)
- Yes Please proceed to Section C
- No Please proceed to Section B

Each page must be initialled by the person(s) who signs Section C of this Annual Audit Compliance Report (AACR).

Initial:



SECTION B DETAILS OF NON-COMPLIANCE WITH LICENCE CONDITION.

Please use a separate page for each Licence condition that was not complied with.

a) Licence condition not complied with:	
b) Date(s) when the non compliance occurred, if applicable:	
c) Was this non compliance reported to DER?:	
<input type="checkbox"/> Yes <input type="checkbox"/> Reported to DER verbally Date _____ <input type="checkbox"/> Reported to DER in writing Date _____	<input type="checkbox"/> No
d) Has DER taken, or finalised any action in relation to the non compliance?:	
e) Summary of particulars of the non compliance, and what was the environmental impact:	
f) If relevant, the precise location where the non compliance occurred (attach map or diagram):	
g) Cause of non compliance:	
h) Action taken, or that will be taken to mitigate any adverse effects of the non compliance:	
i) Action taken or that will be taken to prevent recurrence of the non compliance:	

Each page must be initialled by the person(s) who signs Section C of this AACR

Initial:



SECTION C

SIGNATURE AND CERTIFICATION

This Annual Audit Compliance Report (AACR) must only be signed by a person(s) with legal authority to sign it. The ways in which the AACR must be signed and certified, and the people who may sign the statement, are set out below.

Please tick the box next to the category that describes how this AACR is being signed. If you are uncertain about who is entitled to sign or which category to tick, please contact the licensing officer for your premises.

If the licence holder is		The Annual Audit Compliance Report must be signed and certified:
An individual	<input type="checkbox"/> <input type="checkbox"/>	by the individual licence holder, or by a person approved in writing by the Chief Executive Officer of the Department of Environment Regulation to sign on the licensee's behalf.
A firm or other unincorporated company	<input type="checkbox"/> <input type="checkbox"/>	by the principal executive officer of the licensee; or by a person with authority to sign on the licensee's behalf who is approved in writing by the Chief Executive Officer of the Department of Environment Regulation.
A corporation	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	by affixing the common seal of the licensee in accordance with the <i>Corporations Act 2001</i> ; or by two directors of the licensee; or by a director and a company secretary of the licensee, or if the licensee is a proprietary company that has a sole director who is also the sole company secretary – by that director, or by the principal executive officer of the licensee; or by a person with authority to sign on the licensee's behalf who is approved in writing by the Chief Executive Officer of the Department of Environment Regulation.
A public authority (other than a local government)	<input type="checkbox"/> <input type="checkbox"/>	by the principal executive officer of the licensee; or by a person with authority to sign on the licensee's behalf who is approved in writing by the Chief Executive Officer of the Department of Environment Regulation.
a local government	<input type="checkbox"/> <input type="checkbox"/>	by the chief executive officer of the licensee; or by affixing the seal of the local government.

It is an offence under section 112 of the *Environmental Protection Act 1986* for a person to give information on this form that to their knowledge is false or misleading in a material particular. There is a maximum penalty of \$50,000 for an individual or body corporate.

I/We declare that the information in this annual audit compliance report is correct and not false or misleading in a material particular.

SIGNATURE: _____

SIGNATURE: _____

NAME:
(printed) _____

NAME:
(printed) _____

POSITION: _____

POSITION: _____

DATE: ____/____/____

DATE: ____/____/____

SEAL (if signing under seal)



Licence:
Form: N1

Licensee:
Date of breach:

Notification of detection of the breach of a limit.

These pages outline the information that the operator must provide.

Units of measurement used in information supplied under Part A and B requirements shall be appropriate to the circumstances of the emission. Where appropriate, a comparison should be made of actual emissions and authorised emission limits.

Part A

Licence Number	
Name of operator	
Location of Premises	
Time and date of the detection	

Notification requirements for the breach of a limit	
Emission point reference/ source	
Parameter(s)	
Limit	
Measured value	
Date and time of monitoring	
Measures taken, or intended to be taken, to stop the emission	

Part B

Any more accurate information on the matters for notification under Part A.	
Measures taken, or intended to be taken, to prevent a recurrence of the incident.	
Measures taken, or intended to be taken, to rectify, limit or prevent any pollution of the environment which has been or may be caused by the emission.	
The dates of any previous N1 notifications for the Premises in the preceding 24 months.	



Name	
Post	
Signature on behalf of CSR Building Products Limited	
Date	



Decision Document

Environmental Protection Act 1986, Part V

Proponent: CSR Building Products Limited

Licence: L8458/2010/3

Registered office: Level 5, Triniti 3
39 Dehli Road
NORTH RYDE NSW 2113

ACN: 008 631 356

Premises address: Jurien Gypsum Process Facility
Mining Tenements M70/750 and M70/1161 Sandy Point Road
JURIEN WA 6516

Issue date: Thursday, 8 October 2015

Commencement date: Friday, 23 October 2015

Expiry date: Saturday, 10 March 2029

Decision

Based on the assessment detailed in this document the Department of Environment Regulation (DER), has decided to issue a licence. DER considers that in reaching this decision, it has taken into account all relevant considerations.

Decision Document prepared by: Lindy Twycross
Licensing Officer

Decision Document authorised by: Alana Kidd
Delegated Officer



Contents

1	Purpose of this Document	2
2	Administrative summary	2
3	Executive summary of proposal and assessment	4
4	Decision table	5
5	Advertisement and consultation table	7
6	Risk Assessment	8

1 Purpose of this Document

This decision document explains how DER has assessed and determined the application and provides a record of DER's decision-making process and how relevant factors have been taken into account. Stakeholders should note that this document is limited to DER's assessment and decision making under Part V of the *Environmental Protection Act 1986*. Other approvals may be required for the proposal, and it is the proponent's responsibility to ensure they have all relevant approvals for their Premises.

2 Administrative summary

Administrative details		
Application type	Works Approval <input type="checkbox"/> New Licence <input type="checkbox"/> Licence amendment <input checked="" type="checkbox"/> Works Approval amendment <input type="checkbox"/>	
Activities that cause the premises to become prescribed premises	Category number(s)	Assessed design capacity
	12	100 000 tonnes per annual period
	6	400,000 tonnes per annual period
Application verified	Date: 7/1/2016	
Application fee paid	Date: N/A	
Works Approval has been complied with	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>	
Compliance Certificate received	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>	
Commercial-in-confidence claim	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Commercial-in-confidence claim outcome	NA	
Is the proposal a Major Resource Project?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Was the proposal referred to the Environmental Protection Authority (EPA) under Part IV of the <i>Environmental Protection Act 1986</i> ?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Referral decision No: Managed under Part V <input checked="" type="checkbox"/> Assessed under Part IV <input type="checkbox"/>
Is the proposal subject to Ministerial Conditions?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Ministerial Statement No: 954 EPA Report No: 1488
Does the proposal involve a discharge of waste	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	



into a designated area (as defined in section 57 of the <i>Environmental Protection Act 1986</i>)?	Department of Water consulted Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Is the Premises within an Environmental Protection Policy (EPP) Area Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If Yes include details of which EPP(s) here.	
Is the Premises subject to any EPP requirements? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If Yes, include details here, eg Site is subject to SO ₂ requirements of Kwinana EPP.	



3 Executive summary of proposal and assessment

The Jurien Gypsum Process Facility processes excavated gypsum-bearing sediment from the bed of Lake Gypsum, approximately 10 kilometres (km) north of the town of Jurien in the Shire of Dandaragan. The closest sensitive land uses are residences approximately 11 km to the south and southeast of the mine at the town of Jurien.

Lake Gypsum is located on a low-lying plain within the Beekeepers Nature Reserve (C Class reserve 24496). The area surrounding Lake Gypsum is principally coastal dunes. Lake Gypsum itself is largely devoid of native vegetation.

The Jurien Gypsum Mine operates under conditions of Ministerial Statement 954. Processing operations are currently contained within mining lease M70/750. CSR Building Products Limited (CSR) has been granted Ministerial approval to also take gypsum from an adjacent Lease M70/1161, but no processing will be conducted on this Tenement. Dewatering operations occur within M70/1161 and M70/750.

Gypsum is mined from the lakebed to a maximum depth of 4 metres (m). Mine pits are dewatered prior to excavation. Dewatering product from the active pits is discharged into an adjacent unused pit and allowed to infiltrate back to the underlying groundwater resource. Dewatering activity is moist and does not significantly contribute to dust emissions.

Mining is carried out by dry excavation of dewatered pits using excavators. During the excavation campaign, approximately 100,000 tonnes of gypsum is mined and stockpiled within M70/750 prior to processing.

Ore processing is generally carried out throughout the year. The gypsum ore is processed using a screening plant and the gypsum is stockpiled on a 4.8 hectare area on M70/50. Stockpiled gypsum is washed via sprinklers for approximately 200 hours with fresh groundwater to leach out salt, with the washing water returned to a pit void from mining activities on M70/50. The washed stockpiles are left to dry and the ore is transported to Perth during the year, based on production demand. There is no further processing of the ore following the stockpiling.

CSR Building Products Limited has calculated that mine dewatering may exceed the threshold limit for prescribed activity category 6: dewatering. This licence is the result of an amendment sought by the Licensee for the addition of category 6 and includes a change to premises boundary to include dewatering activities on Mining Tenement M70/1161.

Where conditions have been changed, added or removed from the previous licence, these have been justified in Section 4.



4 Decision table

All applications are assessed in line with the *Environmental Protection Act 1986*, the *Environmental Protection Regulations 1987* and DER's Operational Procedure on Assessing Emissions and Discharges from Prescribed Premises. Where other references have been used in making the decision they are detailed in the decision document.

DECISION TABLE			
Works Approval / Licence section	Condition number W = Works Approval L = Licence	Justification (including risk description & decision methodology where relevant)	Reference documents
Premises conditions	L1.3.1	L1.3.1 has been added to the Licence to ensure that approved production or design capacity for each category that is specified in Table 1.3.1 is not exceeded. L1.3.1 limits dewatering to 400,000 tonnes or more per year to correspond to the RIWA Act Licence GWL175401(2).	<i>Rights in Water and Irrigation Act 1914</i> Licence GWL175401(2)
Emissions to land including monitoring	L2.1.1	DER's assessment and decision making are detailed in Appendix A.	Application supporting documentation Ministerial Statement 954 <i>Jurien Gypsum Mining Operation Expansion ML70/1161 Vegetation and Groundwater Monitoring and Management Plan, Stratagen, 2014a.</i> <i>Lake Monitoring Plan, Stratagen</i>



DECISION TABLE			
Works Approval / Licence section	Condition number W = Works Approval L= Licence	Justification (including risk description & decision methodology where relevant)	Reference documents
			2014a <i>Rights in Water and Irrigation Act 1914</i> Licence GWL175401(2)
Information	L3.3.1	L3.3.1 is added for notification to DER upon breach of any limit.	NA
Licence Duration	NA	In accordance with DER's Guidance Statement - Licence Duration, the Licence has been extended to 10/03/2029 (which is the soonest date of expiry of other statutory approval - M 70/1161 end date 10/03/2029).	DER Guidance Statement – Licence Duration, Revised May 2015.



5 Advertisement and consultation table

Date	Event	Comments received/Notes	How comments were taken into consideration
3/02/2016	Department of Water	No objection where dewatering limit of 400,000KL is not exceeded and conditions of RIWI Act 1916 Licence GWL175401(2) are met by the Licensee.	Noted and limit for dewatering amount included on the licence.
17/02/2016	Office of the Environmental Protection Authority	The amendment to include dewatering appears consistent with the proposal as assessed and authorised by Statement 954.	Noted.
24/03/2016	Proponent sent a copy of draft instrument	No comments received.	Not applicable.



6 Risk Assessment

Note: This matrix is taken from the DER Corporate Policy Statement No. 07 - Operational Risk Management

Table 1: Emissions Risk Matrix

Likelihood	Consequence				
	Insignificant	Minor	Moderate	Major	Severe
Almost Certain	Moderate	High	High	Extreme	Extreme
Likely	Moderate	Moderate	High	High	Extreme
Possible	Low	Moderate	Moderate	High	Extreme
Unlikely	Low	Moderate	Moderate	Moderate	High
Rare	Low	Low	Moderate	Moderate	High



Appendix A

Background information

Mining at the Jurien Gypsum Mine involves dry excavation of gypsum bearing sediment from the bed of Gypsum Lake to a maximum depth of 4 metres. Dry excavation requires dewatering of the mine pit area prior to excavations as the pit bases are below the water-table level. Mining is conducted in short campaigns in the dry season when the lakebed is dry; thereby minimising dewatering volumes and potential impacts to lake water quality.

Dewatering is undertaken by pumping from a sump in the base of the excavation. Dewatering product from the active pits is immediately discharged into an adjacent unused pit and allowed to infiltrate back into the underlying groundwater system. As new pits are excavated, dewatering product will continue to be discharged into adjacent pits in which mining has been discontinued.

As dewatering product is returned to the lake system through discharge into adjoining mine cells, the effective result is no net loss of water to the lake/groundwater system except for that component lost to evaporation from the pits. The licensed abstraction volume provides for a substantial hydraulic component of recirculation as the discharged water seeps back in direct hydraulic connection with the watertable aquifer and pit lakes. The loss rates of water from the overall surface water/groundwater are effectively independent of the dewatering rate, as the system is internally draining in summer and water is only lost through evaporation from the fixed surface area of the pit lakes.

Emission Description

Emission: Mine pit dewater product (not used for processing).

Impact: Reduced condition and health of vegetation, Gypsum Lake and Beekeepers Reserve due to dewater drawdown, mounding and inundation of the root zone, discharge of water directly onto vegetation and/or reduced water quality.

Controls: Dewatering product from active pits not used for processing is immediately discharged into adjoining mine cells, and allowed to infiltrate back to the underlying groundwater resource. In effect, water is returned unmodified to the source location.

Vegetation condition and health monitoring and groundwater monitoring is undertaken as required by Ministerial Statement (MS) 954 in accordance with the approved *Jurien Gypsum Mining Operation Expansion ML70/1161 Vegetation and Groundwater Monitoring and Management Plan*, Strategen, 2014a, (VGGMP) to address the key potential impacts of dewatering. Monitoring of groundwater levels, pH, and electrical conductivity is also undertaken fortnightly during dewatering. The VGGMP includes triggers for contingency.

Lake water quality and level monitoring, data reviews and reporting are also carried out in accordance with the approved *Lake Monitoring Plan, Stratagen 2014a* (LMP). Monitoring of the Lake and mine pits includes regular field sampling and analysis of salinity, water temperature, dissolved oxygen, turbidity, pH and nutrients.

The VVGMP and LMP have an outcome-based adaptive management approach. Monitoring results are reviewed and documented at the end of annual mining operation and reports are provided to the Office of the Environmental Protection Authority (OEPA).

Risk Assessment

Consequence: Moderate

Likelihood: Likely

Risk Rating: Moderate



Regulatory Controls

All of the impacts that may occur as a result of the discharge of mine dewater into adjacent pits have been assessed under Part IV of the *Environmental Protection Act 1986*. The OEPA has advised that the proposed Licence amendment to include dewatering appears consistent with the proposal as assessed and authorised by Ministerial Statement (MS) 954.

Potential impacts are managed by MS 954.

MS 954 Condition 7-1 requires the proponent to ensure that implementation of the proposal to expand operations does not directly or indirectly adversely affect the condition and health of vegetation outside the Fringing Vegetation Boundary (defined).

MS 954 Condition 7-3 requires implementation of an approved Vegetation and Groundwater Monitoring and Management Plan (VGMMP) which is currently the *Jurien Gypsum Mining Operation Expansion ML70/1161 Vegetation and Groundwater Monitoring and Management Plan*, Strategen, 2014a,

The VGMMP Section 3 Table 3-1 includes the following management measures:

- Dewatering shall be confined to one pit at a time.
- Dewatering shall be undertaken in accordance with the conditions of any relevant *Rights in Water Irrigation Act 1914* licence(s).
- Any water not used for processing purposes shall be discharged into the nearest mine pit to the dewatered pit, and in the case of alternative pits being available, into the pit closer to the Fringing Vegetation Boundary that may potentially be affected by dewatering drawdown.
- The groundwater monitoring and reporting program scheduled in Section 2.1 shall be implemented.

The VGMMP Section 4 identifies triggers for implementation of management and contingency measures to prevent decline in condition and health of vegetation outside the Fringing Vegetation Boundary.

MS 954 condition 8 -1 requires the proponent to ensure that the natural lake and mine pit lakes are monitored to provide information on the impacts of mining on the physio-chemistry of the lakes and aquatic flora and fauna of the natural lake. Condition 8 -3 requires implementation of an approved Lake Monitoring Plan.

Groundwater abstraction within M70/750 and M70/1161 for dewatering purposes is undertaken under RIWA Act licence GWL17540(2) and provides for abstraction of up to 400,000 kL of groundwater per annum. Department of Water (DOW) has provided comment that the effect of dewatering is not considered to be a major risk to the water quality of the lake or surrounding ecosystems given abstraction volume limit and where dewatered effluent is discharged and re-infiltrated into adjacent pits.

L2.1.1 is included in the Licence to ensure dewater is discharged into adjacent pits so that dewater will infiltrate to source.

Risk Assessment

Consequence: Moderate

Likelihood: Unlikely

Risk Rating: Moderate