



Works Approval

Environmental Protection Act 1986, Part V

Works Approval Holder: B. & J. Catalano Pty Ltd

Works Approval Number: W5712/2014/1

Registered office: 2 South Western Highway
BRUNSWICK JUNCTION WA 6224

ACN: 008 961 975

Premises address: Runnymede Road Sand Quarry
4 Runnymede Road
WELLESLEY WA 6233
Being Lot 4 on Plan 5888 and Lot 7 on Diagram 40591, as depicted in
Schedule 1.

Issue date: Thursday, 13 August 2015

Commencement date: Monday, 17 August 2015

Expiry date: Monday, 20 February 2017

The following category/s from the *Environmental Protection Regulations 1987* cause this Premises to be a prescribed premises for the purposes of the *Environmental Protection Act 1986*:

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 otherwise separated.	50,000 tonnes or more per year	100,000 tonnes per annual period

Conditions

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

.....
Danielle Eyre
Officer delegated under section 20
of the *Environmental Protection Act 1986*



Works Approval Conditions

1 General

1.1 Interpretation

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

1.1.2 In the Works Approval, unless the contrary intention appears:

'Act' means the *Environmental Protection Act 1986*;

'CEO' means Chief Executive Officer of the Department of Environment Regulation;

'CEO' for the purpose of correspondence means;
Senior Manager – Industry Regulation (Resource Industries)

At the following address:
Department of Environment Regulation
Locked Bag 33
CLOISTERS SQUARE WA 6850
Telephone: (08) 9333 7510
Facsimile: (08) 9333 7550
Email: industry.regulation@der.wa.gov.au;

'Premises' means the area defined in the Premises Map in Schedule 1 and listed as the Premises address on page 1 of the Works Approval;

'Schedule 1' means Schedule 1 of [this](#) Works Approval unless otherwise stated;

'Works Approval' means this Works Approval numbered W5712/2014/1 and issued under the Act; and

'Works Approval Holder' means the person or organisation named as the Works Approval Holder on page 1 of the Works Approval.

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

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



1.2 General conditions

- 1.2.1 The Works Approval Holder shall construct the works in accordance with the documentation detailed in Table 1.2.1:

Table 1.2.1: Construction Requirements ¹		
Document	Parts	Date of Document
Works Approval Application Form	All	21 May 2014
<i>Works Approval Application – Sand Extraction on Lots 4 and 7 Runnymede Road, Wellesley, Shire of Harvey</i> , prepared by Lundstrom Environmental Consultants and dated April 2014	All, including diagrams and attachments	April 2014

Note 1: Where the details and commitments of the documents listed in condition 1.2.1 are inconsistent with any other condition of this works approval, the conditions of this works approval shall prevail.

- 1.2.2 The Works Approval Holder shall ensure the infrastructure listed in Table 1.3.1 is constructed in accordance with the requirements listed in that table.

Table 1.3.1: Containment infrastructure		
Infrastructure	Material	Infrastructure requirements
Settlement ponds	Waste water from the wet-screening process	<ul style="list-style-type: none">Constructed with a minimum 2 m separation to the maximum seasonal groundwater tableOverflow drains to the groundwater soakConstructed with flow measuring devices to record volume in and volume out (m³)

2 Information

2.1 Reporting

- 2.1.1 The Works Approval Holder shall submit a compliance document to the CEO, following the construction of the works and prior to commissioning of the same.
- 2.1.2 The compliance document shall:
- certify that the works were constructed in accordance with the conditions of the works approval;
 - be signed by a person authorised to represent the Works Approval Holder and contain the printed name and position of that person within the company.



Schedule 1: Maps

Premises map

The Premises is shown in the map below. The red line depicts the Premises boundary.





Decision Document

Environmental Protection Act 1986, Part V

Proponent: B. & J. Catalano Pty Ltd

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Decision

Based on the assessment detailed in this document the Department of Environment Regulation (DER), has decided to issue a works approval. DER considers that in reaching this decision, it has taken into account all relevant considerations and that the Works Approval and its conditions will ensure that an appropriate level of environmental protection is provided.

Decision Document prepared by: Daniel Hartnup
Licensing Officer

Decision Document authorised by: Danielle Eyre
Delegated Officer



Contents

Decision Document	1
Contents	2
1 Purpose of this Document	2
2 Administrative summary	3
3 Executive summary of proposal and assessment	4
4 Decision table	5
5 Advertisement and consultation table	13
6 Risk Assessment	14

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 checked="" type="checkbox"/> New Licence <input type="checkbox"/> Licence amendment <input type="checkbox"/> Works Approval amendment <input type="checkbox"/>	
Activities that cause the premises to become prescribed premises	Category number(s)	Assessed design capacity
	12: Screening, etc. of material	100,000 tonnes per annual period
Application verified	Date: 17/07/2014	
Application fee paid	Date: 14/08/2014	
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		
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 type="checkbox"/> No <input checked="" type="checkbox"/>	Referral decision No: Managed under Part V <input type="checkbox"/> Assessed under Part IV <input type="checkbox"/>
Is the proposal subject to Ministerial Conditions?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Ministerial statement No: EPA Report No:
Does the proposal involve a discharge of waste into a designated area (as defined in section 57 of the <i>Environmental Protection Act 1986</i>)?	Yes <input checked="" type="checkbox"/> No <input checked="" type="checkbox"/> 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 checked="" type="checkbox"/> No <input type="checkbox"/> The Premises is located within the area defined by the <i>Environmental Protection (Swan Coastal Plain Lakes) Policy 1992</i> (Swan Coastal Plain Lakes EPP). There are two mapped lakes located 500 m west and 800 m south-west of the proposed operations.		
Is the Premises subject to any EPP requirements? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> The Swan Coastal Plain Lakes EPP prohibits the unauthorised mining, filling, draining or effluent discharge into these lakes.		



3 Executive summary of proposal and assessment

B. & J. Catalano Pty Ltd (Catalano) has submitted a proposal for a wet-screening plant to process sand at their existing Runnymede Rd sand quarry located near Binningup, approximately 22 km north-east of Bunbury. The existing quarry occupies 20.4 ha on Lot 4, with an unmined extension of 15.61 ha into the adjoining Lot 7. The infrastructure for the operation, which consists of a mobile screening plant and front-end loader, is already in place for the Lot 4 operation, which commenced in June 2007 in accordance with planning consent and an Extractive Industries Licence (EIL) issued by the Shire of Harvey. The quarry has been in production since this time, operating below the maximum allowed throughput of 40,000 m³ per annum due to the low quality of the resource and prevailing market conditions. Both planning consent and the EIL for Lot 4 expire on 17 April 2017.

DER was not consulted for the Lot 4 proposal as prior to 2010, licences were issued for mobile plant itself and not the premises it was to be operated on. There has been no works approvals or licences issued to Catalano for the existing activities on Lot 4.

Catalano commenced the approvals process to expand operations into Lot 7 in 2010. This application was referred to DER by the Shire, who advised that a works approval and licence would be required; however no application was made by Catalano at the time. DER subsequently issued a clearing permit in March 2013 (CPS 5480/1) following referral and approval under the *Environment Protection and Biodiversity Conservation Act 1999* in November 2011. Planning consent was issued by the Shire on 6 December 2011 for 5 years, followed by an EIL in November 2013; both of which expire on 6 December 2016. There has been no works approvals or licences issued to Catalano for the existing activities on Lot 7.

Catalano has recently applied to the Shire for planning consent to carry out wet-screening using a sand wash-screening plant on Lot 4. This application was referred to DER and was the trigger for this works approval application.

Sand is currently excavated by front-end loader and dry-screened into product; however due to the low quality of product on Lot 4, Catalano is looking into wet-screening to further separate the fine and coarse material and provide a washed sand product of higher quality. Excavated sand will be screened using a mobile wash-screening plant. Production water for the screening process will be sourced from a new groundwater soak and will be discharged into a circuit of two settling ponds, before being used to recharge the soak. At the proposed production rate of 100,000 tpa, an estimated 10% (10,000 m³/yr) will be removed from the settling ponds as fines (sediment) and reincorporated back into the soil profile as part of rehabilitation. Screened material will be temporarily stockpiled on-site, prior to being removed off-site.

The primary environmental risks associated with the proposal include the discharge of wastewater from the washing process, and to a lesser extent fugitive dust and noise emissions. There are 4 and 3 receptors within 1.5 km of the Lot 4 and 7 pits, respectively. DER is unaware of any complaints from existing operations at this location. Catalano is aware of its obligation to comply with the *Environmental Protection (Noise) Regulations 1997* and the general provisions of the Act during operations.

This works approval will be issued to Catalano consistent with the planning consent issued by the Shire of Harvey (expires 21 February 2017). Following construction and validation of works under this works approval, a licence may be issued to authorise the existing operations on Lot 4 & 7 and the wet-screening operation. DER will align the timeframe of the EP licence to the existing EILs issued for the premises.



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
General conditions	W1.2.2	<p>Construction</p> <p><u>Emission Description</u> <i>Emission:</i> Discharge of wastewater from the washing process to unlined settling ponds that will infiltrate to groundwater. This wastewater will be groundwater that has passed through an operating machine and may become contaminated with hydrocarbons from hydraulics. This wastewater will also contain screened fines (sediment) and has background salinity of 380 mg/L. <i>Impact:</i> A reduction of fresh groundwater quality from hydrocarbons, and increases in turbidity from fines and salinity from the concentration of salts at the screening plant and in the settlement ponds. <i>Controls:</i> Nil.</p> <p><u>Risk Assessment</u> <i>Consequence:</i> Moderate. <i>Likelihood:</i> Possible. <i>Risk Rating:</i> Moderate.</p> <p><u>Regulatory Controls</u> The works approval application does not address separation to groundwater. There is a risk that the construction of ponds for containment of wastewater will intercept groundwater. Condition W1.2.2 has therefore been added to the works approval to specify minimum infrastructure requirements of the settling ponds, to include a minimum separation of 2 m to the maximum seasonal groundwater table.</p> <p><u>Residual Risk</u> <i>Consequence:</i> Moderate.</p>	Application supporting documentation



DECISION TABLE			
Works Approval / Licence section	Condition number W = Works Approval L = Licence	Justification (including risk description & decision methodology where relevant)	Reference documents
		<p><i>Likelihood:</i> Unlikely. <i>Risk Rating:</i> Moderate.</p>	
	L – conditions	<p>Operation <u>Emission Description</u> <i>Emission:</i> Screened fines, being waste process water contaminated with suspended solids and fine particles (<2 microns). <i>Impact:</i> The discharge of screened fines into the environment can result in a reduction of fresh groundwater quality and surface water quality. Seepage into the shallow groundwater table will occur due to the unlined design of the settling ponds. <i>Controls:</i> Screened fines from the wet-screen will be discharged into two settling ponds, which are designed to maximise settlement and allow infiltration to groundwater.</p> <p><u>Risk Assessment</u> <i>Consequence:</i> Minor. <i>Likelihood:</i> Unlikely. <i>Risk Rating:</i> Moderate.</p> <p><u>Regulatory Controls</u> Conditions will be added to the licence to specify that screened fines must be discharged to the settling ponds that are constructed with a minimum groundwater separation and are managed to maintain integrity.</p> <p><u>Residual Risk</u> <i>Consequence:</i> Minor. <i>Likelihood:</i> Unlikely. <i>Risk Rating:</i> Moderate.</p>	
	W – no conditions	<p>Construction The risk of stormwater runoff from operational areas is very low to nil. Stormwater falling within operational areas will be contained within the operational area, and given the porous nature of the soil, will likely immediately infiltrate. The pits are also at least 6 m below the natural ground level.</p>	



DECISION TABLE			
Works Approval / Licence section	Condition number W = Works Approval L = Licence	Justification (including risk description & decision methodology where relevant)	Reference documents
	L – conditions	<p>Operation <u>Emission Description</u> <i>Emission:</i> Contamination of stormwater with hydrocarbons and suspended solids from operational areas. <i>Impact:</i> The discharge of contaminated stormwater into the environment can result in a reduction of fresh groundwater quality and surface water quality. The type of contaminant and dilution with clean stormwater will influence the level of impact on the receiving environment. <i>Controls:</i> There will be no on-site storage of hydrocarbons or chemicals. Plant will be refuelled each morning using a mobile refuelling vehicle equipped with a “snap-on, snap-off, fast fill and auto shut-off” facility. As discussed above, stormwater falling within operational areas is likely to immediately infiltrate, thereby reducing the risk of contamination in the event of a spill.</p> <p><u>Risk Assessment</u> <i>Consequence:</i> Minor. <i>Likelihood:</i> Rare. <i>Risk Rating:</i> Low.</p> <p><u>Regulatory Controls</u> Nil.</p> <p><u>Residual Risk</u> <i>Consequence:</i> Minor. <i>Likelihood:</i> Rare. <i>Risk Rating:</i> Low.</p>	
Premises operation	W & L – no conditions	<p>Construction & Operation There are no specific conditions relating to premises operation in this section.</p>	
Emissions general	W – no conditions	<p>Construction There are no specific conditions relating to emissions general in this section.</p>	
	L - conditions	<p>OSC Operation Descriptive limits will be set through conditions of the licence and therefore conditions regarding recording and investigation of exceedances of limits will be included.</p>	



DECISION TABLE			
Works Approval / Licence section	Condition number W = Works Approval L = Licence	Justification (including risk description & decision methodology where relevant)	Reference documents
Point source emissions to air including monitoring	W & L – no conditions	Construction & Operation There are no point source emissions to air proposed in the application.	
Point source emissions to surface water including monitoring	W & L – no conditions	Construction There are no point source emissions to air proposed in the application.	
Point source emissions to groundwater including monitoring	W – no conditions	Construction There are no point source emissions to groundwater proposed in the application during construction works.	
	L – conditions	Operation <u>Emission Description</u> <i>Emission:</i> Discharge of settled wastewater in the settling ponds to recharge the groundwater soak. <i>Impact:</i> A reduction of fresh groundwater quality from hydrocarbons, and increases in turbidity from fines and salinity from the concentration of salts at the screening plant and in the settlement ponds. <i>Controls:</i> The groundwater soak is designed as a sink to be maintained with a consistent water level. As such there will be some mixing of groundwater inflow with overflow from the settling ponds. <u>Risk Assessment</u> <i>Consequence:</i> Moderate. <i>Likelihood:</i> Possible. <i>Risk Rating:</i> Moderate. <u>Regulatory Controls</u> Conditions will be added to the licence to require monitoring of hydrocarbons on the settlement pond overflow to the groundwater soak. DER considers though it is in the best interest of the proponent to maintain its source of production water to a high quality.	



DECISION TABLE			
Works Approval / Licence section	Condition number W = Works Approval L = Licence	Justification (including risk description & decision methodology where relevant)	Reference documents
		<u>Residual Risk</u> <i>Consequence:</i> Moderate. <i>Likelihood:</i> Rare. <i>Risk Rating:</i> Moderate.	
Emissions to land including monitoring	W – no conditions	Construction Emissions to land are not proposed, expected or authorised from the Premises during construction of the wet-screening plant. No specified conditions relating to emissions to land or the monitoring of these emissions are required to be added to the works approval.	
	L – conditions	Operation <u>Emission Description</u> <i>Emission:</i> Dried sediment from the settlement ponds, to be reincorporated into the adjacent surface material by tillage as part of rehabilitation. Sediment may become contaminated by metals that have mobilised and dissolved salts that have concentrated through the settlement process. <i>Impact:</i> Lowering of soil pH to acidic levels, leading to acid sulfate conditions. <i>Controls:</i> Nil. <u>Risk Assessment</u> <i>Consequence:</i> Moderate. <i>Likelihood:</i> Possible. <i>Risk Rating:</i> Moderate. <u>Regulatory Controls</u> Conditions will be added to the licence to require monitoring of sediment removed from the ponds, to establish the level of metals and dissolved salts prior to reincorporation into the soil profile. <u>Residual Risk</u> <i>Consequence:</i> Moderate. <i>Likelihood:</i> Unlikely. <i>Risk Rating:</i> Moderate.	
Fugitive emissions	W & L – no conditions	Construction & Operation Significant fugitive dust emissions are not expected from construction or operation of the wet-	



DECISION TABLE			
Works Approval / Licence section	Condition number W = Works Approval L = Licence	Justification (including risk description & decision methodology where relevant)	Reference documents
		screening plant. No specified conditions relating to fugitive dust emissions or the monitoring of these emissions are required to be added to the works approval or licence.	
Odour	W & L – no conditions	Construction & Operation Odour is not expected from construction or operation of the wet-screening plant. No specified conditions relating to odour emissions or the monitoring of these emissions are required to be added to the works approval or licence.	
Noise	W – no conditions	Construction No significant noise emissions are expected during the construction and set up of the wet-screening plant. Construction activities will be minimal and undertaken during normal working hours, with noise emissions expected to be similar to existing operations. The nearest residences are ~1.5 km from the site and DER is not aware of any noise complaints from the existing operation. No specified conditions relating to noise emissions are required to be added to the works approval.	<i>Environmental Protection (Noise) Regulations 1997</i> (Noise Regulations) Application supporting documentation
	L – no conditions	Operation <u>Emission Description</u> <i>Emission:</i> Noise emissions generated by operation of the screening plant, truck movements and heavy machinery during normal working hours. <i>Impact:</i> Annoyance, nuisance of nearby receptors ~1.5 km away. <i>Controls:</i> Limiting operations to normal working hours. <u>Risk Assessment</u> <i>Consequence:</i> Minor. <i>Likelihood:</i> Rare. <i>Risk Rating:</i> Low. <u>Regulatory Controls</u> The risk of noise emissions impacting on nearby receptors is not considered significant enough to warrant site specific conditions on the licence. Noise emissions can be adequately regulated through the provisions of the Noise Regulations. <u>Residual Risk</u> <i>Consequence:</i> Minor.	



DECISION TABLE			
Works Approval / Licence section	Condition number W = Works Approval L = Licence	Justification (including risk description & decision methodology where relevant)	Reference documents
		<i>Likelihood: Rare. Risk Rating: Low.</i>	
Monitoring general	W & L – no conditions	Construction & Operation Monitoring is not required during construction or operation of the wet-screening plant; therefore no specified conditions relating to general monitoring are required on the works approval or licence.	
Monitoring of inputs and outputs	W & L – no conditions	Construction & Operation Monitoring of inputs and outputs is not required to adequately manage emissions during construction or operation of the wet-screening plant. No specified conditions relating to process monitoring are required to be added to the works approval or licence.	
Process monitoring	W – no conditions	Construction Process monitoring is not required to adequately manage emissions during construction of the wet-screening plant. No specified conditions relating to process monitoring are required to be added to the works approval.	
	L – conditions	Operation A condition will be added to the licence to require monitoring of the volume of waste water discharged from the washing process to the settlement ponds, and the volume of overflow to the groundwater soak. This will enable a water balance to be completed.	
Ambient quality monitoring	W & L – no conditions	Construction & Operation Ambient quality monitoring is not required during construction or operation of the wet-screening plant. Shire of Harvey have included as a condition of planning consent the requirement to install a monitoring bore downgradient of the soak and monitor for changes to salinity. No specified conditions relating to ambient quality monitoring are required to be added to the works approval or licence.	
Meteorological monitoring	W & L – no conditions	Construction & Operation Meteorological monitoring is not required during construction or operation of the wet-screening plant. No specified conditions relating to meteorological monitoring are required to be added to the works approval or licence.	
Improvements	W & L – no conditions	Construction & Operation No improvements are required.	



DECISION TABLE			
Works Approval / Licence section	Condition number W = Works Approval L = Licence	Justification (including risk description & decision methodology where relevant)	Reference documents
Information	W & L – no conditions	Construction No additional reporting conditions are required to be added to the works approval or licence.	
Works Approval Duration	N/A	The works approval will be issued consistent with the planning consent issued by the Shire of Harvey (expires 20 February 2017).	



5 Advertisement and consultation table

Date	Event	Comments received/Notes	How comments were taken into consideration
20/10/2014	Application advertised in West Australian newspaper	Nil.	N/A.
07/01/2015	Application referred to interested parties	Department of Water expressed concerns with the potential for impacts to the quality of the receiving groundwater from contamination of hydrocarbon, and the risks of increased turbidity and salinity to groundwater through sediment (fines) and concentration of salts both at the screening plant and in the settlement ponds. DoW does not support the construction of the settling ponds that intercept groundwater.	Condition added to require a minimum 2 m separation to groundwater at the base of the ponds.
06/05/2015	Proponent sent a copy of draft instrument	Applicant is satisfied with the conditions as proposed.	N/A.



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