



Environmental Protection Authority

Referral of a Proposal by the Proponent to the Environmental Protection Authority under Section 38(1) of the *Environmental Protection Act 1986*.

EPA REFERRAL FORM
PROPONENT

PURPOSE OF THIS FORM

Section 38(1) of the *Environmental Protection Act 1986* (EP Act) provides that where a development proposal is likely to have a significant effect on the environment, a proponent may refer the proposal to the Environmental Protection Authority (EPA) for a decision on whether or not it requires assessment under the EP Act. This form sets out the information requirements for the referral of a proposal by a proponent.

Proponents are encouraged to familiarise themselves with the EPA's *General Guide on Referral of Proposals* [see Environmental Impact Assessment/Referral of Proposals and Schemes] before completing this form.

A referral under section 38(1) of the EP Act by a proponent to the EPA must be made on this form. A request to the EPA for a declaration under section 39B (derived proposal) must be made on this form. This form will be treated as a referral provided all information required by Part A has been included and all information requested by Part B has been provided to the extent that it is pertinent to the proposal being referred. Referral documents are to be submitted in two formats – hard copy and electronic copy. The electronic copy of the referral will be provided for public comment for a period of 7 days, prior to the EPA making its decision on whether or not to assess the proposal.

CHECKLIST

Before you submit this form, please check that you have:

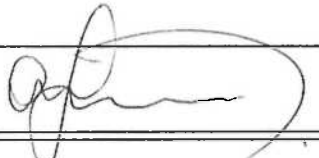
	Yes	No
Completed all the questions in Part A (essential).	X	
Completed all applicable questions in Part B.	X	
Included Attachment 1 – location maps.	X	
Included Attachment 2 – additional document(s) the proponent wishes to provide (if applicable).	X	
Included Attachment 3 – confidential information (if applicable).		X
Enclosed an electronic copy of all referral information, including spatial data and contextual mapping but excluding confidential information.	X	

Following a review of the information presented in this form, please consider the following question (a response is optional).

Do you consider the proposal requires formal environmental impact assessment?		
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> Not sure
If yes, what level of assessment?		
<input type="checkbox"/> Assessment on Proponent Information	<input type="checkbox"/> Public Environmental Review	

PROPONENT DECLARATION (to be completed by the proponent)

I, Mr Anthony Warren Slater, (*full name*) declare that I am authorised on behalf of Onslow Resources Ltd (being the person responsible for the proposal) to submit this form and further declare that the information contained in this form is true and not misleading.

Signature: 	Name: Mr Anthony Warren Slater
Position: <u>Director</u>	Company: <u>Onslow Resources Ltd</u>
Date: <u>03 July 2013</u>	

PART A - PROPONENT AND PROPOSAL INFORMATION

(All fields of Part A must be completed for this document to be treated as a referral)

1 PROPONENT AND PROPOSAL INFORMATION**1.1 Proponent**

Name	Onslow Resources Ltd ('ORL')
Joint Venture parties (if applicable)	N/A
Australian Company Number (if applicable)	140 317 264
Postal Address (where the proponent is a corporation or an association of persons, whether incorporated or not, the postal address is that of the principal place of business or of the principal office in the State)	PO Box 1525 Suite G5, 49 Melville Pde, South Perth, W.A., 6151
Key proponent contact for the proposal: <ul style="list-style-type: none"> • name • address • phone • email 	Mr Warren Slater, PO Box 1525 Suite G5, 49 Melville Pde, South Perth, W.A., 6151 08 9367 4731 warren@onslowresources.com
Consultant for the proposal (if applicable): <ul style="list-style-type: none"> • name • address • phone • email 	Mr Simon Pigozzo PO Box 1525 Suite G5, 49 Melville Pde, South Perth, W.A., 6151 0402 480 559 simon@newlandenviro.com.au

1.2 Proposal

Title	Ashburton River Sand & Shingle Project
Description	The Ashburton River Sand & Shingle Project is a small low impact mining operation within M08/458 and M08/461 in which sand and shingle will be excavated from the Ashburton River riverbed to produce two product lines; sand and aggregate.
Extent (area) of proposed ground disturbance.	M08/458 and M08/461 occur on the Ashburton River, located approximately 32km south-southwest of Onslow in the Pilbara region of Western Australia. M08/458 and M08/461 are linked to public roads by L08/51 and L08/52. The Ashburton River Sand and Shingle Project will involve the potential disturbance of 67.85ha in

	the life of operation (Table 1).
Timeframe in which the activity or development is proposed to occur (including start and finish dates where applicable).	Mining within M08/458 was approved under the Mining Act and commenced on the 10 December 2011, with the commencement date set for M08/461 to launch immediately following project approval.
Details of any staging of the proposal.	As mentioned above, M08/458 is currently under operation with the intention to commence works at M08/461 as soon as possible following approval.
Is the proposal a strategic proposal?	The product lines produced from the Ashburton River North Project will be used for construction purposes for industrial and residential developments in the Onslow Region. Onslow Resources Ltd considers the Ashburton River Sand and Shingle Project as being crucial for local and regional development due to the lack of readily available construction materials in the Onslow Region.
Is the proponent requesting a declaration that the proposal is a derived proposal? If so, provide the following information on the strategic assessment within which the referred proposal was identified: <ul style="list-style-type: none"> • title of the strategic assessment; and • Ministerial Statement number. 	No
Please indicate whether, and in what way, the proposal is related to other proposals in the region.	As aforementioned, Onslow Resources Ltd considers the Ashburton River Project crucial for the local and regional development of major project in W.A. more specifically, the supply of concrete sands and aggregates to Boral for the Wheatstone project.
Does the proponent own the land on which the proposal is to be established? If not, what other arrangements have been established to access the land?	Onslow Resources Ltd are the sole holders of M08/458 and M08/461, which are linked to public roads by L08/51 and L08/52. Underlying landholders include Minderoo Station 3114/661, however, through the use of public roads and L08/51 & L08/52, no arrangements are necessary for access.
What is the current land use on the property, and the extent (area in hectares) of the property?	As stated above, the underlying land holder at the Ashburton River Project is Pastoral Lease 3114/661, with an extent of 225,939ha in total.

1.3 Location

Name of the Shire in which the proposal is located.	Shire of Ashburton
For urban areas: <ul style="list-style-type: none"> • street address; • lot number; • suburb; and • nearest road intersection. 	N/A
For remote localities: <ul style="list-style-type: none"> • nearest town; and • distance and direction from that town to the proposal site. 	<p>The Ashburton River Tenements occur in a relatively uninhabited region utilised almost entirely for pastoralism. The Minderoo Station homestead is the closest inhabited dwelling, located approximately 3.3km southeast of M08/458.</p> <p>The next closest occupied dwelling is Urala Homestead occurring approximately 22km to the northwest of M08/461. The closest town is Onslow, located approximately 20km northeast of L08/52.</p>
Electronic copy of spatial data - GIS or CAD, geo-referenced and conforming to the following parameters: <ul style="list-style-type: none"> • GIS: polygons representing all activities and named; • CAD: simple closed polygons representing all activities and named; • datum: GDA94; • projection: Geographic (latitude/longitude) or Map Grid of Australia (MGA); • format: Arcview shapefile, Arcinfo coverages, Microstation or AutoCAD. 	Enclosed?: <u>Yes</u> / No

1.4 Confidential Information

Does the proponent wish to request the EPA to allow any part of the referral information to be treated as confidential?	<u>Yes</u> / No
If yes, is confidential information attached as a separate document in hard copy?	Yes / <u>No</u>

1.5 Government Approvals

Is rezoning of any land required before the proposal can be implemented? If yes, please provide details.	Yes / <u>No</u>
Is approval required from any Commonwealth or State Government agency or Local Authority for any part of the proposal? If yes, please complete the table below.	<u>Yes</u> / No

Agency/Authority	Approval required	Application lodged Yes / No	Agency/Local Authority contact(s) for proposal
Department of Mines and Petroleum	Mining Proposal	Yes	Phil Boglio

PART B - ENVIRONMENTAL IMPACTS AND PROPOSED MANAGEMENT

2. ENVIRONMENTAL IMPACTS

Describe the impacts of the proposal on the following elements of the environment, by answering the questions contained in Sections 2.1-2.11:

- 2.1 flora and vegetation;
- 2.2 fauna;
- 2.3 rivers, creeks, wetlands and estuaries;
- 2.4 significant areas and/ or land features;
- 2.5 coastal zone areas;
- 2.6 marine areas and biota;
- 2.7 water supply and drainage catchments;
- 2.8 pollution;
- 2.9 greenhouse gas emissions;
- 2.10 contamination; and
- 2.11 social surroundings.

These features should be shown on the site plan, where appropriate.

For all information, please indicate:

- (a) the source of the information; and
- (b) the currency of the information.

2.1 Flora and Vegetation

2.1.1 Do you propose to clear any native flora and vegetation as a part of this proposal?

[A proposal to clear native vegetation may require a clearing permit under Part V of the EP Act (Environmental Protection (Clearing of Native Vegetation) Regulations 2004)]. Please contact the Department of Environment and Conservation (DEC) for more information.

- (please tick) Yes **If yes, complete the rest of this section.**
 No **If no, go to the next section**

2.1.2 How much vegetation are you proposing to clear (in hectares)?

The Ashburton River Sand and Shingle Project will involve the potential disturbance of 67.85ha in the life of operation (Table 1). Given the nature of the proposed operation and the moderate area of disturbance, the Ashburton River Sand and Shingle Project is considered as being a low impact mining operation.

Table 1: Area of disturbance table for the Ashburton River Sand and Shingle Project

Disturbance (first two years of operation)	Tenement			
	M08/458 (ha)	M08/461 (ha)	L08/51 (ha)	L08/52 (ha)
Previous mining disturbances	0	0	0	0
Mine Roads (10m width)	1.04	0	0.32	8.21
Riverbed Excavation Areas	15.53	9.48	0	0
Processing and stockpiling Areas	6.43	26.84	0	0
Total	23	36.32	0.32	8.21
Project Total	67.85			

Source: *Mining Proposal – Ashburton River Sand and Shingle Project M08/458 and L08/51 August 2011 (Table 12)*

Mining Proposal – Ashburton River Sand and Shingle Project M08/461 and L08/52 May 2013 (Table 12)

2.1.3 Have you submitted an application to clear native vegetation to the DEC (unless you are exempt from such a requirement)?

Yes No

Clearing Permit CPS 4493/2 has been issued by the Department of Mines and Petroleum in relation to M08/461, M08/458 and L08/51 of this project. However due to the amount clearing planned for L08/52, less than 10ha, an NVCP was not required.

2.1.4 Are you aware of any recent flora surveys carried out over the area to be disturbed by this proposal?

Yes No

Pilbara Flora was commissioned by ORL to conduct a flora and vegetation survey of various mining tenements in the Ashburton Onslow region and this included the Ashburton River Tenements. The Ashburton River Tenements were surveyed in early spring 2009 and autumn 2010 and was conducted in general accordance with the Level 2 survey requirements of the Environmental Protection Authority's Guidance Statement No. 51 "Terrestrial Flora and Vegetation Surveys for Environmental Impact Assessment in Western Australia" (EPA 2004a).

An electronic copy of the report entitled 'Flora and Vegetation Survey for the Onslow Tenement Project' (Pilbara Flora 2010) is provided on DVD

2.1.5 Has a search of DEC records for known occurrences of rare or priority flora or threatened ecological communities been conducted for the site?

Yes No Please see below for results of the search

2.1.6 Are there any known occurrences of rare or priority flora or threatened ecological communities on the site?

Yes No

2.1.7 If located within the Perth Metropolitan Region, is the proposed development within or adjacent to a listed Bush Forever Site? (You will need to contact the Bush Forever Office, at the Department for Planning and Infrastructure)

Yes No

2.1.8 What is the condition of the vegetation at the site?

An assessment of vegetation condition was undertaken by vegetation type and the results are summarised in Table 1. The 'Plains' and 'Riverbank' Vegetation Types were in 'very poor' condition and this was the predominant condition rating (82.10% of the Ashburton River Tenement area). These areas are characterised by *Cenchrus ciliaris and *Cenchrus setigera infestation, soil erosion and scalding due to regular flood events and high levels of overgrazing by cattle. The Ashburton Riverbed was in 'very good' condition with typical sparse vegetation and few introduced species with low percentage cover, representing 11.63% of the survey area. Only 0.37% of the Ashburton River Tenement area was considered as being in 'Excellent' condition. In summary, the Ashburton River Tenements have been severely overgrazed with Buffel and Birdwood used historically to restore the rangeland. Numerous areas of severe overgrazing were recorded during the Pilbara Flora survey, as is typical for productive frontage country in the Northwest.

Table 2: Summary of landforms, vegetation types and vegetation condition at the Ashburton River Tenements (taken from Pilbara Flora 2010)

Landform	Total Area (ha)	Vegetation Type No*	Vegetation Type	Description of Vegetation Type	Area (ha)	Area Percent (%)	Vegetation Condition	Condition Area (ha)	Condition Percent (%)
Plains	139.92	11	<i>Eucalyptus victrix</i> low open woodland on plains	Low open woodland to low open forest of <i>Eucalyptus victrix</i> (10m by 5-40%) over high open Shrubland to high Shrubland of <i>Acacia synchronicia</i> (3m by 5-30%) over grassland to closed grassland of * <i>Cenchrus setiger</i> and * <i>Cenchrus ciliaris</i> (0.5m by 5-80%)	98.66	46.06	Very Poor	176	82
Plains		15	<i>Acacia synchronicia</i> and * <i>Vachellia farnesiana</i> open shrubland on scalded plains	Open Shrubland to Shrubland of <i>Acacia synchronicia</i> and * <i>Vachellia farnesiana</i> (2m by 2-25%) over open grassland to grassland of * <i>Cenchrus ciliaris</i> (0.4m by 20-50%)	32.89	15.36			
Plains		16	<i>Acacia tetragonophylla</i> and * <i>Vachellia farnesiana</i> high shrubland on scalded plains	High Shrubland of <i>Acacia tetragonophylla</i> and * <i>Vachellia farnesiana</i> (3m by 15-30%) over grassland of * <i>Cenchrus ciliaris</i> (0.5m by 30-50%)	8.38	3.91			
River banks	35.93	30	<i>Eucalyptus camaldulensis</i> var. <i>obtusa</i> with occasional <i>Melaleuca argentea</i> open forest on the Ashburton River banks	Open forest of <i>Eucalyptus camaldulensis</i> var. <i>obtusa</i> with occasional <i>Melaleuca argentea</i> (15m by 40%) over very open grassland of * <i>Cenchrus setiger</i> , * <i>Cenchrus ciliaris</i> and <i>Paraneurachne muelleri</i> (0.2m by 5-10%)	35.93	16.77			
River beds	24.90	36	Scattered herbs and sedges in the Ashburton River bed	Scattered herbs and sedges of * <i>Datura leichhardtii</i> , <i>Amaranthus undulatus</i> , <i>Cyperus vaginatus</i> , <i>Glinus lotoides</i> and <i>Ipomoea muelleri</i> (0.2m by <1%)	24.90	11.63	Very Good	24.90	11.63
Sand dunes	11.69	7	<i>Acacia stellaticeps</i> open shrubland on sand dunes	Open Shrubland of <i>Acacia stellaticeps</i> (1.2m by 2-10%) over open grassland to grassland of * <i>Cenchrus ciliaris</i> , <i>Triodia epactia</i> and <i>Triodia schinzii</i> (0.5m by 20-60%)	7.96	3.72	Good	7.96	3.72
Sand Dunes		8	<i>Acacia tetragonophylla</i> open shrubland on sand dune foot slopes	Open Shrubland of <i>Acacia tetragonophylla</i> (1.2m by 5%) over grassland of <i>Triodia epactia</i> and * <i>Cenchrus ciliaris</i> (0.6m by 35-60%)	3.73	1.74	Poor	3.73	1.74
Swales	0.80	10	<i>Acacia sclerosperma</i> subsp. <i>sclerosperma</i> and <i>Acacia stellaticeps</i> open shrubland in swales	Open Shrubland of <i>Acacia sclerosperma</i> subsp. <i>sclerosperma</i> and <i>Acacia stellaticeps</i> (1.5m by 5-10%) over hummock grassland of <i>Triodia epactia</i> and <i>Triodia schinzii</i> (0.5m by 50%)	0.80	0.37	Excellent	0.80	0.37
Clay pans	0.49	29	<i>Eulalia aurea</i> , <i>Eriachne flaccida</i> and <i>Eriachne benthamii</i> scattered grasses on scalded clay pans	Scattered grasses of <i>Eulalia aurea</i> , <i>Eriachne flaccida</i> and <i>Eriachne benthamii</i> (0.5m by <1%) over scattered herbs of <i>Blumea tenella</i> and <i>Marsilea hirsuta</i> (0.05m by <1%)	0.49	0.23	Completely Degraded	0.94	0.44
Disturbed area	0.45	0	Disturbed area	Roads	0.45	0.21			
Total	214.18				214.18	100.00		214.18	100.00

*Vegetation Type Number from 'Flora and Vegetation Survey for the Onslow Tenement Project' (Pilbara Flora 2010)

2.2 Fauna

2.2.1 Do you expect that any fauna or fauna habitat will be impacted by the proposal?

- (please tick) Yes **If yes, complete the rest of this section.**
 No **If no, go to the next section.**

2.2.2 Describe the nature and extent of the expected impact.

Given minimal area of disturbance (67.85ha) and the poor condition of vegetation due weed infestation and overgrazing, it is considered unlikely that the Ashburton River Sand and Shingle Project will have any impact on the conservation status of fauna, in general.

As an overall summary, the proposed Ashburton River Sand and Shingle Project was assessed as being unlikely to impact upon the conservation status of conservation significant fauna for the following reasons:

No restricted and unique habitats and minimal occurrence of specialized fauna habitats - The Ashburton River Tenements were generally devoid of the typical unique or specialised fauna habitats associated with conservation significant fauna. The four habitat types assessed as having some association with conservation significant fauna (open riverine woodland, soft soil embankment areas, dune systems and cracking clays) occur extensively throughout the Pilbara Region.

Low impact nature of the proposed mining operations – The proposed Ashburton River Sand and Shingle Project is a low impact mining operation over a minimal area of disturbance. Large trees will be avoided and site disturbances are considered moderate and low impact.

Minimal impact on potential conservation significant fauna habitat – The areas of disturbance will be restricted to open riverbed with almost no vegetation, Buffel Grass infested embankment areas and Acacia shrubland plains. These habitat types were not associated with conservation significant fauna.

Fauna mobility – Most of the conservation significant fauna identified as potentially occurring in the Ashburton River Tenements are highly mobile and have the ability to egress from active mining areas.

Regional or national distributions – All of the conservation significant fauna identified as potentially occurring in the Ashburton River Tenements have regional or national distributions. The minimal loss of habitat from the proposed Ashburton River Sand and Shingle Project is unlikely to have any impact on the conservation status of these species.

The conclusion of the fauna habitat assessment was that the Ashburton River Sand and Shingle Project is unlikely to have any impact on the conservation status of conservation significant fauna.

2.2.3 Are you aware of any recent fauna surveys carried out over the area to be disturbed by this proposal?

Yes

No

Newland Environmental Pty Ltd ('Newland Environmental') was commissioned by ORL to conduct a fauna habitat assessment of the Ashburton River tenements. This fauna assessment was confined to vertebrate fauna only. The fauna habitat assessment was undertaken by Newland Environmental in March 2010 and was conducted in general accordance with the Level 1 survey requirements of the Environmental Protection Authority's "Terrestrial Fauna Surveys for Environmental Impact Assessment in Western Australia, Guidance Statement No. 56" (EPA 2004b).

An electronic copy of the report entitled 'Habitat Assessment for Vertebrate Fauna at Proposed Mining Areas on M08/458, M08/461, L08/51 and L08/52, Ashburton River Sand and Shingle Project' (Newland Environmental 2010) is provided on DVD.

2.2.4 Has a search of DEC records for known occurrences of Specially Protected (threatened) fauna been conducted for the site?

Yes

No (please tick)

2.2.5 Are there any known occurrences of Specially Protected (threatened) fauna on the site?

Yes

No

2.3 Rivers, Creeks, Wetlands and Estuaries

2.3.1 Will the development occur within 200 metres of a river, creek, wetland or estuary?

(please tick)

Yes

If yes, complete the rest of this section.

No

If no, go to the next section.

2.3.2 Will the development result in the clearing of vegetation within the 200 metre zone?

Yes

No

Given the minimal area of disturbance (67.85ha), the absence of conservation listed flora and the poor condition of vegetation due weed infestation and overgrazing, the overall impact on flora and vegetation from the Ashburton River Sand and Shingle Project is assessed as being negligible.

2.3.3 Will the development result in the filling or excavation of a river, creek, wetland or estuary?

✓ Yes

No

Riverbed mining will occur 'free dig' using a large excavator. An excavation depth of 4m is predicted. The riverbed resource is a 50:50 mixture of sand and 'cobblestone sized' shingle material. This riverbed material will be excavated transported to the processing areas and stockpiling area on the embankment. The riverbed material will be initially screened to separate out sand from shingle.

The ORL operations are shallow and confined to the riverbed alluvium bedloads. Mining will occur in the dry season between rived flows. The excavations will not intersect groundwater. There are no pollution emissions associated with the Ashburton River Sand and Shingle Project that are likely to have any impact on surface water or groundwater. The main emissions are dust and noise.

The potential impacts from mining are considered as being relatively low, both in area of disturbance and environmental impacts. There are no chemicals used in processing, no waste dumps and no tailings dams. There were no issues identified in regards to flora, fauna or conservation.

2.3.4 Will the development result in the impoundment of a river, creek, wetland or estuary?

Yes

✓ No

2.3.5 Will the development result in draining to a river, creek, wetland or estuary?

Yes No

2.3.6 Are you aware if the proposal will impact on a river, creek, wetland or estuary (or its buffer) within one of the following categories? (please tick)

Conservation Category Wetland	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> Unsure
Environmental Protection (South West Agricultural Zone Wetlands) Policy 1998	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> Unsure
Perth's Bush Forever site	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> Unsure
Environmental Protection (Swan & Canning Rivers) Policy 1998	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> Unsure
The management area as defined in s4(1) of the <i>Swan River Trust Act 1988</i>	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> Unsure
Which is subject to an international agreement, because of the importance of the wetland for waterbirds and waterbird habitats (e.g. Ramsar, JAMBA, CAMBA)	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> Unsure

2.4 Significant Areas and/ or Land Features

2.4.1 Is the proposed development located within or adjacent to an existing or proposed National Park or Nature Reserve?

Yes No

2.4.2 Are you aware of any Environmentally Sensitive Areas (as declared by the Minister under section 51B of the EP Act) that will be impacted by the proposed development?

Yes No

2.4.3 Are you aware of any significant natural land features (e.g. caves, ranges etc) that will be impacted by the proposed development?

Yes No

2.5 Coastal Zone Areas (Coastal Dunes and Beaches)

2.5.1 Will the development occur within 300metres of a coastal area?

- (please tick) Yes **If yes, complete the rest of this section.**
 No **If no, go to the next section.**

~~2.5.2 What is the expected setback of the development from the high tide level and from the primary dune?~~

~~2.5.3 Will the development impact on coastal areas with significant landforms including beach ridge plain, cusped headland, coastal dunes or karst?~~

- ~~Yes No **If yes, please describe the extent of the expected impact.**~~

~~2.5.4 Is the development likely to impact on mangroves?~~

- ~~Yes No **If yes, please describe the extent of the expected impact.**~~

2.6 Marine Areas and Biota

2.6.1 Is the development likely to impact on an area of sensitive benthic communities, such as seagrasses, coral reefs or mangroves?

- Yes No

~~2.6.2 Is the development likely to impact on marine conservation reserves or areas recommended for reservation (as described in *A Representative Marine Reserve System for Western Australia*, CALM, 1994)?~~

- ~~Yes No **If yes, please describe the extent of the expected impact.**~~

~~2.6.3 Is the development likely to impact on marine areas used extensively for recreation or for commercial fishing activities?~~

- ~~Yes No **If yes, please describe the extent of the expected impact, and provide any written advice from relevant agencies (e.g. Fisheries WA).**~~

2.7 Water Supply and Drainage Catchments

2.7.1 Are you in a proclaimed or proposed groundwater or surface water protection area?

(You may need to contact the Department of Water (DoW) for more information on the requirements for your location, including the requirement for licences for water abstraction. Also, refer to the DoW website)

- Yes No **Arcview GIS shapefiles provided by the DOW for Public Drinking Water Source Areas ('PDWSA') were examined for the proximity of PDWSAs in relation to the Ashburton River Tenements (DOW 2010b). There are no gazetted PDWSAs near the Ashburton River Tenements (DOW 2010b). The closest PDWSA is the Cane River Water Reserve located approximately 35km to the east-northeast of the Ashburton River Tenements. The Cane River Water Reserve is situated in different catchment systems to Ashburton River Tenements (DOW 2010a).**

The Ashburton River Tenements are situated in the Pilbara Groundwater Area and the Pilbara Surface Water Area proclaimed under the Rights in Water and Irrigation Act 1914.

2.7.2 Are you in an existing or proposed Underground Water Supply and Pollution Control area?

(You may need to contact the DoW for more information on the requirements for your location, including the requirement for licences for water abstraction. Also, refer to the DoW website)

- Yes No

2.7.3 Are you in a Public Drinking Water Supply Area (PDWSA)?

(You may need to contact the DoW for more information or refer to the DoW website. A proposal to clear vegetation within a PDWSA requires approval from DoW.)

- Yes No

2.7.4 Is there sufficient water available for the proposal?

(Please consult with the DoW as to whether approvals are required to source water as you propose. Where necessary, please provide a letter of intent from the DoW)

- Yes No (please tick)

2.7.5 Will the proposal require drainage of the land?

- Yes No

2.7.6 Is there a water requirement for the construction and/ or operation of this proposal?

(please tick) Yes **If yes, complete the rest of this section.**

No If no, go to the next section.

2.7.7 What is the water requirement for the construction and operation of this proposal, in kilolitres per year?

Water use is minimal and is currently being supplied from an offsite water provider via truck delivery. The annual consumption is estimated at between 10,000 to 50,000kL per year. The majority of water is used for dust suppression on the access road during haulage campaigns and a minor proportion for dust suppression at the process plant and for product conditioning.

2.7.8 What is the proposed source of water for the proposal? (e.g. dam, bore, surface water etc.)

As mentioned above, currently, the water is being supplied from an offsite water provider, which is delivered on a need-be weekly basis, in amounts of approximately 100kL.

2.8 Pollution

2.8.1 Is there likely to be any discharge of pollutants from this development, such as noise, vibration, gaseous emissions, dust, liquid effluent, solid waste or other pollutants?

- (please tick) Yes **If yes, complete the rest of this section.**
 No **If no, go to the next section.**

2.8.2 Is the proposal a prescribed premise, under the Environmental Protection Regulations 1987?

(Refer to the EPA's *General Guide for Referral of Proposals to the EPA under section 38(1) of the EP Act 1986* for more information)

- Yes No **Category 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.**

2.8.3 Will the proposal result in gaseous emissions to air?

- Yes No **There will be no fumes or gases generated apart from the diesel engine emissions during the mining process. Emission levels will be relatively low due to the small number of diesel engines operating at any one time and on an intermittent basis. The typical operational fleet would consist of several excavators, several articulated trucks, three front end loaders, one semi-trailer and three to four diesel gensets.**

2.8.4 Have you done any modelling or analysis to demonstrate that air quality standards will be met, including consideration of cumulative impacts from other emission sources?

- Yes No

2.8.5 Will the proposal result in liquid effluent discharge?

- Yes No

2.8.6 If there is likely to be discharges to a watercourse or marine environment, has any analysis been done to demonstrate that the State Water Quality Management Strategy or other appropriate standards will be able to be met?

Yes No N/A

2.8.7 Will the proposal produce or result in solid wastes?

Yes No

There will be no waste generated as all material won is potential product. The sand and shingle resource is expected to have a 100% recovery. All material sizings from sand to cobblestone boulders are viewed as potential product.

There will be no tailings produced. The process is mechanical involving dry screening and/or crushing to produce various aggregate sizings. All particle sizes produced from crushing, including cracker dust fines, will be stockpiled as potential product lines, hence there will be no dry tailings streams.

2.8.8 Will the proposal result in significant off-site noise emissions?

Yes No

2.8.9 Will the development be subject to the Environmental Protection (Noise) Regulations 1997?

Yes No

If yes, has any analysis been carried out to demonstrate that the proposal will comply with the Regulations?

Please attach the analysis.

Noise modelling has not been considered necessary given the nature of noise generated onsite and the proximity of the nearest noise-sensitive premises being a residence approximately 3.3km southeast of M08/458.

2.8.10 Does the proposal have the potential to generate off-site, air quality impacts, dust, odour or another pollutant that may affect the amenity of residents and other "sensitive premises" such as schools and hospitals (proposals in this category may include intensive agriculture, aquaculture, marinas, mines and quarries etc.)?

Yes No

2.8.11 If the proposal has a residential component or involves "sensitive premises", is it located near a land use that may discharge a pollutant?

Yes No Not Applicable

2.9 Greenhouse Gas Emissions

2.9.1 Is this proposal likely to result in substantial greenhouse gas emissions (greater than 100 000 tonnes per annum of carbon dioxide equivalent emissions)?

Yes No

If yes, please provide an estimate of the annual gross emissions in absolute and in carbon dioxide equivalent figures.

2.9.2 Further, if yes, please describe proposed measures to minimise emissions, and any sink enhancement actions proposed to offset emissions.

N/A

3. PROPOSED MANAGEMENT

3.1 Principles of Environmental Protection

3.1.1 Have you considered how your project gives attention to the following Principles, as set out in section 4A of the EP Act? (For information on the Principles of Environmental Protection, please see EPA Position Statement No. 7, available on the EPA website)

- | | | |
|--|---|-----------------------------|
| 1. The precautionary principle. | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No |
| 2. The principle of intergenerational equity. | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No |
| 3. The principle of the conservation of biological diversity and ecological integrity. | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No |
| 4. Principles relating to improved valuation, pricing and incentive mechanisms. | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No |
| 5. The principle of waste minimisation. | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No |

3.1.2 Is the proposal consistent with the EPA's Environmental Protection Bulletins/Position Statements and Environmental Assessment Guidelines/Guidance Statements (available on the EPA website)?

Yes No

3.2 Consultation

3.2.1 Has public consultation taken place (such as with other government agencies, community groups or neighbours), or is it intended that consultation shall take place?

Yes No

DOW

Following consultation with the Department of Water ('DOW') at Karratha, DOW advised that a 'Permit to Interfere with Bed and Banks or Watercourses' under Section 17 of the Rights in Water and Irrigation Act 1914 will not be required for the Mining Act 1978 projects. DOW advised that under Section 17, a person can interfere with the bed and banks of a watercourse if authorised under another Act, as long as those activities are not related to the taking of water. A mining lease granted under the Mining Act 1978 is considered by DOW as providing this authorisation.

Pastoral Station 3114/661 ORL is in consultation with Minderoo Station regarding the integration of station activities with the Ashburton River Sand and Shingle Project.

Further, ORL have worked in close contact with the Station Pastoralist to ensure that the construction of access roads to the project sites can accommodate both the needs of ORL and the pastoralist.

DMP Resources Safety Division – The requirements under the Mines Safety and Inspection Act 1994 for the Project Management Plan ('PMP') have already been discussed with the District Inspector of Mines (Collie) and the Special Inspector of Mines – Machinery (Karratha). The PMP will be developed in consultation with the District Inspector of Mines and Special Inspector of Mines.

Main Roads WA/ Shire of Ashburton The requirements for a restricted vehicle permit have been discussed and approved by the Shire of Ashburton and Main Roads WA. Restricted vehicle permits have been obtained as required. Also discussed is the joining of L08/52 with Old Onslow Rd and L08/51 with Twitchen Road (approved).

The Buurabalayji Thalanyji Association The Buurabalayji Thalanyji are informed of ORL's proposed operations and relative agreements including the ILUA have been put in place to ensure mutual understanding and consultation for all future mining interactions.

Mining Plans have been implemented in consideration of sites of significance and consultation of traditional owners, to ensure suitable boundaries and effective protocols are implemented to minimise impacts.