



Title of Proposal - Olive Downs Project Electricity Transmission Line

Section 1 - Summary of your proposed action

Provide a summary of your proposed action, including any consultations undertaken.

1.1 Project Industry Type

Mining

1.2 Provide a detailed description of the proposed action, including all proposed activities.

Pembroke Resources South Pty Ltd (Pembroke Resources) proposes to develop the Olive Downs Project, a metallurgical coal mine, located approximately 40 kilometres (km) south-east of Moranbah, Queensland (Qld) (Figure 1). The Olive Downs Project comprises the Olive Downs South and Willunga mining domains (Figure 2) and associated infrastructure servicing and connecting the mining domains, as well as a proposed rail spur, water pipeline and electricity transmission line (ETL).

This Referral is for the construction and operation of the ETL required for the Olive Downs Project (Figure 2). The proposed mine site, water pipeline and rail spur are subject to separate referrals (Olive Downs Project – Mine Site and Access Road Referral, Olive Downs Project – Water Pipeline Referral and Olive Downs Project – Rail Spur Referral).

Electricity supply for the Olive Downs Project is to be provided from the existing regional power network, via construction of a 66 kilovolt (kV) ETL from the Broadlea Substation (approximately 42 km in length), and an on-site switching/substation (Figure 2).

The proposed ETL would consist of towers spaced approximately 200 m apart (although the distance between towers may vary with changes in direction) with a clearance width of approximately 10 m across. Maintenance access would be via the adjacent mine access road (subject to a separate referral) and no formed road is proposed within the ETL alignment for the majority of its length.

1.3 What is the extent and location of your proposed action? Use the polygon tool on the map below to mark the location of your proposed action.

Area	Point	Latitude	Longitude
Olive Downs Project - Electricity Transmission Line	1	-22.227615896837	148.3656728734
Olive Downs Project -	2	-22.222645238192	148.32074222103



Area	Point	Latitude	Longitude
Electricity Transmission Line			
Olive Downs Project - 3 Electricity Transmission Line		-22.146209121964	148.31924876496
Olive Downs Project - 4 Electricity Transmission Line		-22.087574723	148.32193525922
Olive Downs Project - 5 Electricity Transmission Line		-22.028640644078	148.29357337155
Olive Downs Project - 6 Electricity Transmission Line		-21.978677920557	148.20938548371
Olive Downs Project - 7 Electricity Transmission Line		-21.966081006339	148.21714629309
Olive Downs Project - 8 Electricity Transmission Line		-21.968018460447	148.28133391223
Olive Downs Project - 9 Electricity Transmission Line		-21.994040110133	148.33104189841
Olive Downs Project - 10 Electricity Transmission Line		-22.004974546173	148.34895475891
Olive Downs Project - 11 Electricity Transmission Line		-22.050913864095	148.35955314112
Olive Downs Project - 12 Electricity Transmission Line		-22.05464799162	148.38000315132
Olive Downs Project - 13 Electricity Transmission Line		-22.080378532525	148.38089922915
Olive Downs Project - 14 Electricity Transmission Line		-22.102646756733	148.34656695376
Olive Downs Project - 15 Electricity Transmission Line		-22.148694243987	148.3456708864
Olive Downs Project - 16 Electricity Transmission Line		-22.169015420899	148.36134528631
Olive Downs Project - 17 Electricity Transmission Line		-22.198180440525	148.36418113561



Area	Point	Latitude	Longitude
Line			
Olive Downs Project - Electricity Transmission Line	18	-22.227615896837	148.3656728734

1.5 Provide a brief physical description of the property on which the proposed action will take place and the location of the proposed action (e.g. proximity to major towns, or for off-shore actions, shortest distance to mainland).

The ETL is located approximately 170 km south-west of Mackay, in the Bowen Basin region of central Qld (Figure 1). The Olive Downs Project is located approximately 40 km south-east of Moranbah and 60 km north of Dysart in a mining precinct comprising several existing mining operations. The Olive Downs Project and ETL are located within the Isaac Regional Council Local Government Area (LGA).

Sections of the ETL will be along existing roads (e.g. Daunia Road) (Figure 2), while the remaining land within the ETL alignment is predominately used for cattle grazing. The land has been largely cleared through past agricultural practices, however some tracts of remnant vegetation exist, particularly along the riparian corridor of the Isaac River.

Only approximately 15 hectares (ha) of the ETL alignment is currently mapped by the Department of Science, Information Technology and Innovation (DSITI) (2016) as 'remnant' vegetation with the remaining area mapped as cleared non-remnant vegetation.

1.6 What is the size of the development footprint or work area?

The footprint of the ETL is approximately 42 ha

1.7 Is the proposed action a street address or lot?

Street Address

Peak Downs Highway
Moranbah QLD 4752
Australia

1.8 Primary Jurisdiction.

Queensland

1.9 Has the person proposing to take the action received any Australian Government



grant funding to undertake this project?

No

1.10 Is the proposed action subject to local government planning approval?

Yes

1.10.1 Is there a local government area and council contact for the proposal?

No

1.11 Provide an estimated start and estimated end date for the proposed action.

Start date 01/2019

End date 12/2020

1.12 Provide details of the context, planning framework and State and/or Local government requirements.

State Development and Public Works Organisation Act 1971 (SDPWO Act)

An Initial Advice Statement (IAS) has been prepared for the Olive Downs Project and lodged with the Office of the Coordinator-General. The IAS forms part of the application for declaration of the Olive Downs Project as a Coordinated Project. The Coordinator-General will assess the application and determine whether the Olive Downs Project meets the requirements for declaration as a Coordinated Project.

If declared a Coordinated Project, an environmental impact statement (EIS) would be prepared in accordance with Part 4 of the SDPWO Act.

Nature Conservation Act, 1992 (NC Act)

There is the potential for habitat and species specified under the NC Act to occur within the ETL alignment. Pembroke Resources would apply for relevant licences and permits required under the NC Act.

Sustainable Planning Act 2009

Given the ETL is located outside a mining lease it will require assessment through the Integrated Development Application System, under the relevant Local Government Planning Scheme and the *Sustainable Planning Regulation 2009*.

Native Title Act 1993 and Aboriginal Cultural Heritage Act 2003

The Native Title holders over the Olive Downs Project area, as well as the wider region are the



Barada Barna People (Qld Government, 2016a). The Barada Barna People lodged the Native Title Application over the Olive Downs Project area (Federal Court Reference QUD380/2008) in 2008, and by Federal Court consent determination in 2016 were determined as the holders of non-exclusive native title rights and interests over the Olive Downs Project area.

A Cultural Heritage Management Agreement was signed on 5 July 2016, by Pembroke Resources and the Aboriginal Parties (both the Barada Barna claim applicants and the prescribed body corporate (PBC) that holds native title on trust for the Barada Barna People) covering all of Pembroke Resources' current Queensland exploration tenure interests. A Cultural Heritage Management Plan (CHMP) will be negotiated with the Barada Barna PBC in relation to mining operations and associated activities.

1.13 Describe any public consultation that has been, is being or will be undertaken, including with Indigenous stakeholders.

Pembroke Resources has commenced engagement with relevant stakeholders to:

- provide briefings regarding the Olive Downs Project;
- discuss key assessment considerations;
- discuss community and social impacts, including proposed accommodation and employment strategies;
- form land access agreements to commence baseline environmental surveys and install environmental monitoring equipment;
- describe the environmental assessment process; and
- present the environmental assessment and development schedules for the Olive Downs Project.

Stakeholders consulted to date include:

- local landholders;
- Isaac Regional Council;
- Native Title holders;
- Office of the Coordinator-General;
- Qld Department of Environment and Heritage Protection (DEHP);
- Qld Department of Natural Resources and Mines (DNRM);



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- Commonwealth Department of the Environment and Energy (DEE);
 - overlapping petroleum tenure holders; and
 - infrastructure service providers.

Pembroke Resources has developed a stakeholder engagement strategy for the Olive Downs Project. The stakeholder engagement strategy has been implemented prior to and during the development and lodgement of this referral, and will be implemented during:

- development and finalisation of the Terms of Reference;
- during preparation and lodgement of the draft EIS; and
- post draft EIS lodgement, exhibition and finalisation of the EIS and any further notification prior to evaluation.

Implementation of the stakeholder engagement strategy would include engagement and opportunity for consultation with all affected and interested persons, and any other relevant stakeholders identified during its implementation.

A range of consultation mechanisms have been proposed for implementation during the assessment and approvals process for the Project and ETL including, but not necessarily limited to, the following:

- community information sessions;
- recording of opportunistic stakeholder interactions including one-on-one meetings;
- local government (council) briefings;
- State Government department briefings;
- Commonwealth Government department briefings;
- letters, advertising and notifications;
- site tours;
- newsletters and factsheets;
- media releases;
- regular updates and maintenance of the Pembroke website; and
- publication of application and assessment materials on the Office of the Coordinator-General's Coordinated Project website.



1.14 Describe any environmental impact assessments that have been or will be carried out under Commonwealth, State or Territory legislation including relevant impacts of the project.

Upon declaration of the Olive Downs Project as a Coordinated Project, an EIS will be prepared under section 26(1)(a) of the SDPWO Act.

The EIS will assess the potential impacts on land, ecology, water resources and flooding, cultural heritage and hazards and safety in accordance with the Terms of Reference issued for the Olive Downs Project.

1.15 Is this action part of a staged development (or a component of a larger project)?

Yes

1.15.1 Provide information about the larger action and details of any interdependency between the stages/components and the larger action.

The Olive Downs Project comprises the Olive Downs South and Willunga mining domains and associated infrastructure servicing and connecting the mining domains, as well as a proposed water pipeline, rail spur and ETL (subject of this Referral).

The proposed mine site (including an access road), water pipeline, ETL, and rail spur have been referred separately to the DEE. Pembroke is the proponent for all four referrals.

Should Pembroke, in the future, decide to transfer the responsibility of the proposed water pipeline, rail spur and/or ETL to another company (e.g. SunWater, Aurizon or Ergon) all relevant approvals would also need to be transferred. Given the EPBC Act does not allow individual elements of a single referred Action (e.g. rail spurs, water pipelines and ETLs) to be transferred between proponents, Pembroke Resources has decided to lodge four separate referrals covering separate aspects of the Olive Downs Project. This facilitates the transfer of approvals between proponents for the individual elements of the Olive Downs Project if any of the aspects are determined to be a controlled action.

In addition, referring these elements separately allows the construction of the infrastructure to commence prior to approval of the mining area, should the relevant approvals for these elements be in place prior to the approvals for the mining area.

Olive Downs Project – Mine Site and Access Road (Subject to Separate Referral)

The proposed mine site is an open cut coal mine comprising two mining domains, namely, Olive Downs South and Willunga located within MLA 1 and MLA 2. Run-of-mine (ROM) coal would be extracted over the anticipated operational life of more than 30 years.

Access for employees, contractors and deliveries to the proposed mine site would be provided



from the Peak Downs Highway, via Daunia Road, Annandale Road, and private sections of access road to be constructed for the Olive Downs Project (Figure 2).

Olive Downs Project – Rail Spur (Subject to Separate Referral)

A rail spur line from the Norwich Park Branch Railway to the Olive Downs South mining domain and an on-site rail loop would be constructed for the Olive Downs Project. A rail-load out facility including product coal stockpiles would be constructed adjacent the rail loop to allow for rail transport from the Olive Downs South mining domain direct to port (via the Norwich Park Branch Railway and/or Goonyella Branch Railway).

Olive Downs Project – Water Pipeline (Subject to Separate Referral)

A raw water supply pipeline would be constructed for the Olive Downs Project from the existing Eungella pipeline network, with the take off point to be located near the Peak Downs Mine. The existing Eungella water pipeline is operated and maintained by SunWater. Initial discussions with SunWater indicate there is sufficient capacity within the Eungella network to provide the estimated raw water requirement for the Olive Downs Project.

Operational water requirements would be sourced from on-site water storages containing runoff from disturbed mine areas or mine-affected water. If required, the operational water demand would be supplemented with external water supply under supply agreements via the pipeline connecting to the Eungella pipeline network and potential use of a groundwater supply from groundwater bores at a location to be determined.

1.16 Is the proposed action related to other actions or proposals in the region?

Yes

1.16.1 Identify the nature/scope and location of the related action (Including under the relevant legislation).

The Olive Downs Project also includes construction of a proposed mine site (and associated access road), a water pipeline and a rail spur. As detailed in Section 1.15.1, these aspects of the Olive Downs are all subject to separate referrals (Olive Downs Project – Mine Site and Access Road Referral, Olive Downs Project – Rail Spur Referral, and Olive Downs Project – Water Pipeline Referral).



Section 2 - Matters of National Environmental Significance

Describe the affected area and the likely impacts of the proposal, emphasising the relevant matters protected by the EPBC Act. Refer to relevant maps as appropriate. The [interactive map tool](#) can help determine whether matters of national environmental significance or other matters protected by the EPBC Act are likely to occur in your area of interest. Consideration of likely impacts should include both direct and indirect impacts.

Your assessment of likely impacts should consider whether a bioregional plan is relevant to your proposal. The following resources can assist you in your assessment of likely impacts:

- [Profiles of relevant species/communities](#) (where available), that will assist in the identification of whether there is likely to be a significant impact on them if the proposal proceeds;
- [Significant Impact Guidelines 1.1 – Matters of National Environmental Significance](#);
- [Significant Impact Guideline 1.2 – Actions on, or impacting upon, Commonwealth land and Actions by Commonwealth Agencies](#).

2.1 Is the proposed action likely to impact on the values of any World Heritage properties?

No

2.2 Is the proposed action likely to impact on the values of any National Heritage places?

No

2.3 Is the proposed action likely to impact on the ecological character of a Ramsar wetland?

No

2.4 Is the proposed action likely to impact on the members of any listed threatened species (except a conservation dependent species) or any threatened ecological community, or their habitat?

Yes

2.4.1 Impact table

Species	Impact
Ornamental Snake (<i>Denisonia maculata</i>)	This species was detected by DPM



Species	Impact
	Envirosciences during preliminary surveys undertaken at the mine site. Surveys within the ETL alignment have not yet commenced and would be conducted as part of the assessment for the EIS. The nearest database record is approximately 5 km to the west of the ETL (Figure 4) (Atlas of Living Australia [ALA], 2016). ALA (2016) shows records of the Ornamental Snake are relatively common in the locality with approximately 15 records located within 25 km of the ETL (Figure 4). The ETL may remove potential habitat for this species, however the ETL is not likely to significantly adversely impact this species given the greater extent of habitat in the locality known to be used by the species and the minimal vegetation clearance required for construction of the ETL.
Australian Painted Snipe (<i>Rostratula australis</i>)	This species has not previously been recorded within the ETL alignment. Surveys within the ETL alignment have not yet commenced and would be conducted as part of the assessment for the EIS. A database record exists approximately 20 km to the east of the ETL (ALA, 2016). The ETL may remove potential habitat for this species, however, it is unlikely that the ETL would result in a significant impact to the species given the highly mobile nature of the species, the greater extent of habitat in the locality known to be used by the species and the minimal vegetation clearance required for construction of the ETL.
Squatter Pigeon (southern) (<i>Geophaps scripta scripta</i>)	This species was detected by DPM Envirosciences during preliminary surveys undertaken at the proposed mine site. Surveys within the ETL alignment have not yet commenced and would be conducted as part of the assessment for the EIS. The nearest database record is approximately 2 km to the west of the ETL (Figure 4) (ALA, 2016). The ETL may remove potential habitat for this species, however the ETL is not likely to significantly adversely impact this species given this species uses multiple habitat types and the minimal vegetation clearance required for construction of the ETL. The area of remnant vegetation which would potentially be disturbed



Species	Impact
	by the ETL is minimal when compared with the extent of these vegetation types in the surrounding region. The local population is likely to persist if the ETL was to proceed due to an abundance of foraging and breeding habitat surrounding the ETL.
Koala (<i>Phascolarctos cinereus</i>)	This species was detected by DPM Envirosciences during preliminary surveys undertaken at the proposed mine site. Surveys within the ETL alignment have not yet commenced and would be conducted as part of the assessment for the EIS. The nearest database record is approximately 15 km to the south-west of the ETL (Figure 4) (ALA, 2016). Potential habitat for this species may be removed by the ETL, however it is unlikely that the ETL would result in a significant impact to this species given Koala records, along with similar (and better quality) potential habitat for the species, is more widespread in the landscape outside the ETL alignment and the minimal vegetation clearance required for construction of the ETL. The area of remnant vegetation which would potentially be disturbed by the ETL is minimal when compared with the extent of these vegetation types in the surrounding region.
Greater Glider (<i>Petauroides volans</i>)	This species was detected by DPM Envirosciences during preliminary surveys undertaken at the proposed mine site. Surveys within the ETL alignment have not yet commenced and would be conducted as part of the assessment for the EIS. The nearest database record is approximately 5 km to the north of the ETL (Figure 4) (ALA, 2016). ALA (2016) shows that records of the Greater Glider are widespread throughout the remainder of Qld and Australia. The ETL may remove known habitat for this species, however the ETL is not likely to significantly adversely impact this species given the extent of occurrence of this species throughout Qld and the minimal vegetation clearance required for construction of the ETL. The area of remnant vegetation which would potentially be disturbed by the ETL is minimal when compared with the extent of



Species	Impact
Brigalow (Acacia harpophylla dominant and codominant)	<p>these vegetation types in the surrounding region. The local population is likely to persist if the ETL was to proceed due to an abundance of foraging and breeding habitat surrounding the ETL.</p> <p>The Remnant Regional Ecosystem Map (DSITI, 2016) shows that approximately 12 ha of Brigalow (Acacia harpophylla dominant and codominant) (Brigalow EEC) may occur within the ETL alignment (i.e. regional ecosystem (RE) 11.3.1, RE 11.4.9, RE 11.9.1 and RE 11.9.5) (Figure 3). Two small patches of Brigalow EEC were identified within the Olive Downs Project mining area by DPM Envirosiences (pers. comm.) during preliminary surveys (Figure 4). Surveys within the ETL alignment have not yet commenced and would be conducted as part of the assessment for the EIS. Despite this, a significant impact on the Brigalow EEC is unlikely, given the large amount of similar vegetation in the surrounding region. The REs that represent this community in the ETL alignment (i.e. RE11.3.1, RE 11.4.9, RE 11.9.1 and RE 11.9.5), cover an area of approximately 62,215 ha within the Isaac - Comet Downs IBRA Subregion (Accad et al., 2013). In addition, the areas of potential Brigalow EEC within the ETL alignment would be ground-truthed as part of the assessment for the EIS to confirm the extent of this community within the ETL alignment.</p>

2.4.2 Do you consider this impact to be significant?

No

2.5 Is the proposed action likely to impact on the members of any listed migratory species, or their habitat?

No

2.6 Is the proposed action to be undertaken in a marine environment (outside



Commonwealth marine areas)?

No

2.7 Is the proposed action likely to impact on any part of the environment in the Commonwealth land?

No

2.8 Is the proposed action taking place in the Great Barrier Reef Marine Park?

No

2.9 Will there be any impact on a water resource related to coal / gas / mining?

No

2.10 Is the proposed action a nuclear action?

No

2.11 Is the proposed action to be taken by the Commonwealth agency?

No

2.12 Is the proposed action to be undertaken in a Commonwealth Heritage Place Overseas?

No

2.13 Is the proposed action likely to impact on any part of the environment in the Commonwealth marine area?

No



Section 3 - Description of the project area

Provide a description of the project area and the affected area, including information about the following features (where relevant to the project area and/or affected area, and to the extent not otherwise addressed in Section 2).

3.1 Describe the flora and fauna relevant to the project area.

Flora and fauna surveys have commenced within the Olive Downs South and Willunga mining domains and by DPM Envirosciences (pers. comm.).

Flora survey techniques included ground-truthing of the *Remnant Regional Ecosystem Map* (Figure 3) (DSITI, 2016), searches for listed threatened ecological communities, and targeted searches for threatened species.

Fauna survey techniques consisted of active searches, bird surveys, spotlighting, call play-back, bat call detection, motion detection cameras, Koala Spot Assessment Technique and trapping (Elliott trapping, pitfall traps, funnel traps and harp traps) (DPM Envirosciences, pers. comm.).

Despite this, no field surveys have commenced within the ETL alignment. Detailed flora, fauna and aquatic ecology surveys would be conducted as part of the assessment for the EIS.

Threatened species and communities potentially impacted by the ETL alignment are summarised in Section 2.4.

REs mapped by DSITI (2016) within the ETL alignment are shown on Figure 3. A ground-truthed RE map would be prepared by DPM Envirosciences and provided in the EIS.

Vertebrate fauna species located within the ETL alignment and surrounds are represented by amphibians, reptiles (including skinks, snakes and geckos), birds (both migratory and non-migratory) and mammals (including microbat species) (DPM Envirosciences, pers. comm.).

The EPBC Act Protected Matters Search tool identified a number of introduced species that could potentially occur within the ETL alignment and the area surrounding the ETL. These included, but were not limited to, the Cane Toad (*Bufo marinus*), Cat (*Felis catus*), Rabbit (*Oryctolagus cuniculus*), Pig (*Sus scrofa*) and Red Fox (*Vulpes vulpes*) (DEE, 2016a).

3.2 Describe the hydrology relevant to the project area (including water flows).

The ETL lies in the north of the Fitzroy River catchment, within the Isaac River sub-catchment (Queensland Government, 2016a). The stretch of the Isaac River traversed by the ETL is a 6th order stream, under the Strahler classification system (Queensland Government, 2016a).



The ETL would traverse North Creek on two separate occasions. Minor unnamed drainage lines may also be traversed by the ETL.

3.3 Describe the soil and vegetation characteristics relevant to the project area.

Soils

Soil data sourced from the DNRM shows Vertosols and Sodosols are the dominant soil types within the ETL alignment (Queensland Government, 2016a). Specific soil test sites conducted surrounding the ETL by the Queensland Government show Black Vertosols to the east of the ETL. No acid sulphate soils have been identified within the ETL alignment (Queensland Government, 2016a).

There is no strategic cropping land mapped within the ETL alignment.

Vegetation

The ETL alignment contains largely cleared grazing land as well as areas of remnant and regrowth woodland vegetation.

The *Remnant Regional Ecosystem Map* (DSITI, 2016) shows 13 REs occur within the ETL alignment and surrounds (Figure 3). Dominant REs in the ETL alignment are:

- RE 11.3.2/11.3.1 (*Eucalyptus populnea* woodland on alluvial plains/*Acacia harpophylla* and/or *Casuarina cristata* open forest on alluvial plains).
- RE 11.5.3/11.4.9 (*Eucalyptus populnea* +/- *E. melanophloia* +/- *Corymbia clarksoniana* woodland on Cainozoic sand plains and/or remnant surfaces/*Acacia harpophylla* shrubby woodland with *Terminalia oblongata* on Cainozoic clay plains).

3.4 Describe any outstanding natural features and/or any other important or unique values relevant to the project area.

There are no outstanding natural features within the ETL alignment.

3.5 Describe the status of native vegetation relevant to the project area.

REs mapped by DSITI (2016) within the ETL alignment are shown on Figure 3.

3.6 Describe the gradient (or depth range if action is to be taken in a marine area) relevant to the project area.

The general landscape of the ETL alignment constitutes gently undulating, to flat plains. The



ETL is bordered by a cluster of small mountains to the south-east, approximately 400 m high, as well as a range of low-lying mountains ranging from 300-400 m high, 10 km to the south-west of the ETL.

3.7 Describe the current condition of the environment relevant to the project area.

The ETL alignment contains large patches of cleared grazing land as well as areas of remnant and regrowth woodland vegetation (Section 3.3). The preliminary field surveys commenced for the Olive Downs Project have identified a vast occurrence of Buffel Grass (*Cenchrus ciliaris*) and Parthenium weed (*Parthenium hysterophorus*) throughout the surrounding lands.

3.8 Describe any Commonwealth Heritage Places or other places recognised as having heritage values relevant to the project area.

The ETL alignment does not contain any Commonwealth Heritage Places (DEE, 2016b).

A search of the Queensland Heritage Register, which shows culturally significant sites for the people of Qld, was undertaken on 7 September 2016. This search revealed no culturally significant sites within the ETL alignment or in the general vicinity of the ETL (Queensland Government, 2016b). The closest significant site was located in Nebo, 50 km to the north-east of the ETL alignment.

3.9 Describe any Indigenous heritage values relevant to the project area.

A Cultural Heritage Management Agreement (CHMA) was signed on 5 July 2016, by Pembroke Resources and the Aboriginal Parties (both the Barada Barna claim applicants and the PBC that holds native title on trust for the Barada Barna People) covering all of Pembroke Resources' current Queensland exploration tenure interests. A CHMP will be negotiated with the Barada Barna PBC in relation to mining operations and associated activities.

Consultation is ongoing with the Barada Barna People. Pembroke Resources will engage with the Barada Barna People to conduct progressive cultural heritage surveys over the ETL alignment. The surveys will be conducted ahead of any disturbance in the ETL alignment. Any potential impact to indigenous cultural heritage will be managed in accordance with the CHMA and CHMP as applicable.

3.10 Describe the tenure of the action area (e.g. freehold, leasehold) relevant to the project area.

The properties on which the ETL is proposed are owned by mining companies and private landholders. Surrounding land in the vicinity of the ETL is predominantly owned by other mining companies.



3.11 Describe any existing or any proposed uses relevant to the project area.

Regionally, the ETL is located within the Bowen Basin mining area. Open cut coal mining is a key land use in the Bowen Basin, and a number of existing and approved coal mines, including Moorvale, Daunia, Poitrel, Millennium, Eagle Downs, Peak Downs, Saraji, Lake Vermont surround the ETL (Figure 1). Coal and petroleum (i.e. coal seam gas) mining exploration activities have been conducted in the lands surrounding the ETL for decades.

Land within the ETL alignment is predominately used for cattle grazing. The land has been largely cleared through past agricultural practices, however some tracts of remnant vegetation exist, particularly along the riparian corridor of the Isaac River.

It is proposed to return the ETL alignment to its predominant pre-mining land use of cattle grazing.



Section 4 - Measures to avoid or reduce impacts

Provide a description of measures that will be implemented to avoid, reduce, manage or offset any relevant impacts of the action. Include, if appropriate, any relevant reports or technical advice relating to the feasibility and effectiveness of the proposed measures.

Examples of relevant measures to avoid or reduce impacts may include the timing of works, avoidance of important habitat, specific design measures, or adoption of specific work practices.

4.1 Describe the measures you will undertake to avoid or reduce impact from your proposed action.

Management and mitigation measures which would be implemented by Pembroke Resources to minimise the potential impacts of the ETL would include:

- boundaries of areas to be cleared, and those not to be cleared, would be defined during construction; and
- provision of biodiversity offsets for Matters of National and State Environmental Significance (where required) in accordance with the Queensland Environmental Offsets Policy.

Pembroke Resources would establish an integrated Environmental Management System across all operations/activities for the Olive Downs Project to track that all environmental management commitments and strategies are implemented, monitored and reviewed to continually improve environmental performance at the operations.

Pembroke Resources would employ a team of appropriately qualified environmental personnel to ensure compliance with current legislation (e.g. *Environmental Protection Act, 1994* [EP Act]) and environmental planning frameworks.

Further environmental management and mitigation measures would be developed and described in detail in the EIS.

4.2 For matters protected by the EPBC Act that may be affected by the proposed action, describe the proposed environmental outcomes to be achieved.

The following environmental outcomes, relevant to Matters of National Environmental Significance, would be achieved as a result of the proposed ETL:

- No impacts to the World Heritage values of a declared World Heritage property.
- No impacts to the National Heritage values of a National Heritage Place.



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- No impacts to the ecological character of a declared Ramsar wetland.
 - No significant impacts to listed threatened species or ecological communities.
 - No significant impacts to listed migratory species.
 - No impacts to the environment in a Commonwealth marine area.
 - No impacts to the environment on Commonwealth land.
 - No impacts to the Great Barrier Reef Marine Park.
 - No impacts to a water resource, in relation to a large coal mining development (recognising the approved Arrow Bowen Gas Project [EPBC 2012/6377] tenements overlie the same area).



Section 5 – Conclusion on the likelihood of significant impacts

A checkbox tick identifies each of the matters of National Environmental Significance you identified in section 2 of this application as likely to be a significant impact.

Review the matters you have identified below. If a matter ticked below has been incorrectly identified you will need to return to Section 2 to edit.

5.1.1 World Heritage Properties

No

5.1.2 National Heritage Places

No

5.1.3 Wetlands of International Importance (declared Ramsar Wetlands)

No

5.1.4 Listed threatened species or any threatened ecological community

No

5.1.5 Listed migratory species

No

5.1.6 Commonwealth marine environment

No

5.1.7 Protection of the environment from actions involving Commonwealth land

No

5.1.8 Great Barrier Reef Marine Park

No

5.1.9 A water resource, in relation to coal/gas/mining

No



5.1.10 Protection of the environment from nuclear actions

No

5.1.11 Protection of the environment from Commonwealth actions

No

5.1.12 Commonwealth Heritage places overseas

No

5.2 If no significant matters are identified, provide the key reasons why you think the proposed action is not likely to have a significant impact on a matter protected under the EPBC Act and therefore not a controlled action.

On the basis of the reasons provided in Section 2, the ETL is not considered to be a controlled action as it is not likely to have a significant impact on:

- the World Heritage values of a declared World Heritage property;
- the National Heritage values of a National Heritage Place;
- the ecological character of a wetlands of international importance;
- a listed threatened species, community, or their habitat;
- a listed migratory species;
- the environment in a Commonwealth marine area;
- the environment on Commonwealth land;
- the environment from nuclear action;
- the Great Barrier Reef Marine Park; or
- a water resource, in relation to coal seam gas development and large coal mining development.



Section 6 – Environmental record of the person proposing to take the action

Provide details of any proceedings under Commonwealth, State or Territory law against the person proposing to take the action that pertain to the protection of the environment or the conservation and sustainable use of natural resources.

6.1 Does the person taking the action have a satisfactory record of responsible environmental management? Please explain in further detail.

Yes.

Pembroke Resources has not been the subject of any environmental legal proceedings that have resulted in fines or prosecution.

6.2 Provide details of any proceedings under a Commonwealth, State or Territory law for the protection of the environment or the conservation and sustainable use of natural resources.

N/A

6.3 Will the action be taken in accordance with the corporation's environmental policy and planning framework?

Yes

6.3.1 If the person taking the action is a corporation, please provide details of the corporation's environmental policy and planning framework.

Pembroke Resources would establish an integrated Environmental Management System across all operations/activities for the ETL to track that all environmental management commitments and strategies are implemented, monitored and reviewed to continually improve environmental performance at the operations.

Pembroke Resources would employ a team of appropriately qualified environmental personnel to ensure compliance with current legislation (e.g. EP Act) and environmental planning frameworks.

6.4 Has the person taking the action previously referred an action under the EPBC Act, or been responsible for undertaking an action referred under the EPBC Act?



No



Section 7 – Information sources

You are required to provide the references used in preparing the referral including the reliability of the source.

7.1 List references used in preparing the referral (please provide the reference source reliability and any uncertainties of source).

Reference Source	Reliability	Uncertainties
Accad, A., Neldner, V.J., Wilson, B. A. and Niehus, R.E. (2013) Remnant Vegetation in Queensland. Analysis of Remnant Vegetation 1997-2011, including Regional Ecosystem Information. (Queensland Department of Science, Information Technology, Innovation and the Arts, Brisbane).	• Well known literature widely sourced by government departments, including DEHP.	N/A
Atlas of Living Australia (2016) Atlas of Living Australia Database Search for the following search area: -21.91444 148.16611, 21.91472 148.4475,-22.23889 148.45944,-22.26306 148.17222,-21.91444 148.16611. Website: http://spatial.ala.org.au/ Data received: 5 December 2016.	• Reliable source of information containing threatened species records, distribution and habitat requirement.	N/A
Department of Environment and Heritage Protection (2016) Wildlife Online database search results for the following search area: -21.91444 148.16611,-21.91472 148.4475,-22.23889 148.45944,-22.26306 148.17222,-21.91444 148.16611. Website: http://www.ehp.qld.gov.au/wildlife/wildlife-online/index.html Accessed November 2016.	• Reliable source of information containing threatened species records.	N/A



Reference Source	Reliability	Uncertainties
Department of the Environment and Energy (2016a) Protected Matters Search within the following search area: -21.91444 148.16611, 21.91472 148.4475,-22.23889 148.45944,-22.26306 148.17222,-21.91444 148.16611. Data Received: 5 December 2016.	• Well known database search suggested by the Commonwealth Department of the Environment to identify potentially occurring Matters of National Environmental Significance.	N/A
Department of the Environment and Energy (2016b) Find Places on the World Heritage List. Website: https://www.environment.gov.au/heritage/about/world-heritage Accessed: November 2016	• Reliable source of desktop information. Website of the Department of Environment and Energy. Contains information on World Heritage Places (e.g. description and location).	N/A
Department of Science, Information Technology and Innovation (2016) Remnant Regional Ecosystem Map -Version 10.0. The Department of Science, Information Technology and Innovation, Brisbane.	• Reliable source of desktop information. Ground-truthing of regional mapping will be undertaken as part of the EIS studies.	N/A
Department of Science, Information Technology and Innovation (2016) Remnant Regional Ecosystem Map -Version 10.0. The Department of Science, Information Technology and Innovation, Brisbane.	• Reliable source of desktop information. Ground-truthing of regional mapping will be undertaken as part of the EIS studies.	N/A
Powerlink Queensland (2013) Maintaining a Reliable Electricity Supply to the Bowen Basin coal mining area.	• Most recent publication regarding the regional supply of electricity to the Bowen Basin.	N/A
Queensland Government (2016a) Queensland Globe. Accessed via Google Earth. Website : https://www.business.qld.gov.au/business/support-to-ols-grants/services/mapping-data-imagery/queensland-globe Date accessed: December 2016.	• Reliable source of desktop information. Ground-truthing of regional mapping will be undertaken as part of the EIS studies.	N/A



Reference Source	Reliability	Uncertainties
Queensland Government (2016b) Heritage Register Map. suggested by the government Website: https://environment.ehagencies.to.identify.culturally.p.qld.gov.au/heritage-register/map/ Accessed: December 2016.	• Well known database search	N/A
Queensland Museum (2016) Queensland Museum Database containing threatened species Search for the following search records. area: -21.91444 148.16611, 21.91472 148.4475,-22.23889 148.45944,-22.26306 148.17222,-21.91444 148.16611. Data received: 12 December 2016.	• Reliable source of information	N/A



Section 8 – Proposed alternatives

You are required to complete this section if you have any feasible alternatives to taking the proposed action (including not taking the action) that were considered but not proposed.

8.0 Provide a description of the feasible alternative?

N/A

8.1 Select the relevant alternatives related to your proposed action.

8.27 Do you have another alternative?

No



Section 9 – Contacts, signatures and declarations

Where applicable, you must provide the contact details of each of the following entities: Person Proposing the Action; Proposed Designated Proponent and; Person Preparing the Referral. You will also be required to provide signed declarations from each of the identified entities.

9.0 Is the person proposing to take the action an Organisation or an Individual?

Organisation

9.2 Organisation

9.2.1 Job Title

Chief Operating Officer

9.2.2 First Name

Mark

9.2.3 Last Name

Sheldon

9.2.4 E-mail

mark.sheldon@pembrokeresources.com.au

9.2.5 Postal Address

Level 21 50 Bridge Street
Sydney NSW 2000
Australia

9.2.6 ABN/ACN

ACN

611674376 - PEMBROKE RESOURCES SOUTH PTY LTD

9.2.7 Organisation Telephone

02 9231 1400



9.2.8 Organisation E-mail

mark.sheldon@pembrokerresources.com.au

9.2.9 I qualify for exemption from fees under section 520(4C)(e)(v) of the EPBC Act because I am:


Small business

9.2.9.1 You must provide the Date/Income Year that you became a small business entity:

Tue, 04/05/2016

Small Business Declaration

I have read the Department of the Environment and Energy's guidance in the online form concerning the definition of a small a business entity and confirm that I qualify for a small business exemption.

Signature:  Date: 24.1.17

9.2.9.2 I would like to apply for a waiver of full or partial fees under Schedule 1, 5.21A of the EPBC Regulations

No

9.2.9.3 Under sub regulation 5.21A(5), you must include information about the applicant (if not you) the grounds on which the waiver is sought and the reasons why it should be made


Declaration

I, MARK ANDREW SHELDON, declare that to the best of my knowledge the information I have given on, or attached to the EPBC Act Referral is complete, current and correct. I understand that giving false or misleading information is a serious offence. I declare that I am not taking the action on behalf of or for the benefit of any other person or entity.

Signature:  Date: 24.1.17

I, MARK ANDREW SHELDON, the person proposing the action, consent to the designation of PENBROKE RESOURCES SOUTH PTY LTD as the proponent of the purposes of the action describe in this EPBC Act Referral.



Signature:  Date: 24.1.17

9.3 Is the Proposed Designated Proponent an Organisation or Individual?

Organisation

9.5 Organisation

9.5.1 Job Title

Chief Operating Officer

9.5.2 First Name

Mark

9.5.3 Last Name

Sheldon

9.5.4 E-mail

mark.sheldon@pembrokeresources.com.au

9.5.5 Postal Address

Level 21 50 Bridge Street
Sydney NSW 2000
Australia

9.5.6 ABN/ACN

ACN

611674376 - PEMBROKE RESOURCES SOUTH PTY LTD

9.5.7 Organisation Telephone

02 9231 1400

9.5.8 Organisation E-mail

mark.sheldon@pembrokeresources.com.au

Declaration



I, MARK ANDREW SHELDON, the proposed designated proponent, consent to the designation of myself as the proponent for the purposes of the action described in this EPBC Act Referral.

Signature: [Signature] Date: 24-1-17

9.6 Is the Referring Party an Organisation or Individual?

Organisation

9.8 Organisation

9.8.1 Job Title

Chief Operating Officer

9.8.2 First Name

Mark

9.8.3 Last Name

Sheldon

9.8.4 E-mail

mark.sheldon@pembrokerresources.com.au

9.8.5 Postal Address

Level 21 50 Bridge Street
Sydney NSW 2000
Australia

9.8.6 ABN/ACN

ACN

611674376 - PEMBROKE RESOURCES SOUTH PTY LTD

9.8.7 Organisation Telephone

02 9231 1400

9.8.8 Organisation E-mail



mark.sheldon@pembrokerresources.com.au

Declaration

I, MARK ANDREW SHELDON, I declare that to the best of my knowledge the information I have given on, or attached to this EPBC Act Referral is complete, current and correct. I understand that giving false or misleading information is a serious offence.

Signature: [Signature] Date: 24.1.17