



Referral of proposed action

What is a referral?

The *Environment Protection and Biodiversity Conservation Act 1999* (the **EPBC Act**) provides for the protection of the environment, especially matters of national environmental significance (**NES**). Under the EPBC Act, a person must not take an action that has, will have, or is likely to have a significant impact on any of the matters of NES without approval from the Commonwealth Environment Minister or the Minister's delegate. (Further references to 'the Minister' in this form include references to the Commonwealth Environment Minister or the Minister's delegate.) To obtain approval from the Minister, a proposed action must be referred. The purpose of a referral is to enable the Minister to decide whether your proposed action will need assessment and approval under the EPBC Act.

Your referral will be the principal basis for the Minister's decision as to whether approval is necessary and, if so, the type of assessment that will be undertaken. These decisions are made within 20 business days, provided sufficient information is provided in the referral.

Who can make a referral?

Referrals may be made by or on behalf of a person proposing to take an action, the Commonwealth or a Commonwealth agency, a state or territory government, or agency, provided that the relevant government or agency has administrative responsibilities relating to the action.

When do I need to make a referral?

A referral must be made by the person proposing to take an action if the person thinks that the action for actions that has, will have, or is likely to have a significant impact on the following matters protected by Part 3 of the EPBC Act:

- World Heritage properties (sections 12 and 15A);
- National Heritage places (sections 15B and 15C);
- wetlands of international importance (sections 16 and 17B);
- listed threatened species and communities (sections 18 and 18A);
- listed migratory species (sections 20 and 20A);
- protection of the environment from nuclear actions (sections 21 and 22A);
- Commonwealth marine environment (sections 23 and 24A);
- Great Barrier Reef Marine Park (sections 24B and 24C);
- a water resource, in relation to coal seam gas development and large coal mining development (sections 24D and 24E);
- the environment, if the action involves Commonwealth land (sections 26 and 27A), including:
 - actions taken outside Commonwealth land that are likely to have a significant impact on the environment of Commonwealth land;
 - actions taken on Commonwealth land that may have a significant impact on the environment generally;
- the environment, if the action is taken by the Commonwealth (section 28); and
- Commonwealth Heritage places outside the Australian jurisdiction (sections 27B and 27C).

You may still make a referral if you believe your action is not going to have a significant impact, or if you are unsure. This will provide a greater level of certainty that Commonwealth assessment requirements have been met.

To help you decide whether or not your proposed action requires approval (and therefore, if you should make a referral), the following guidance is available from the Department's website:

- Submitting a referral under the EPBC Act – A fact sheet for a person proposing to take an action <http://www.environment.gov.au/epbc/publications/factsheet-environment-assessment-process>

- the Policy Statement titled Significant Impact Guidelines 1.1 – Matters of National Environmental Significance <http://www.environment.gov.au/epbc/publications/significant-impact-guidelines-11-matters-national-environmental-significance> Additional sectoral guidelines are also available.
- the Policy Statement titled Significant Impact Guidelines 1.2 - Actions on, or impacting upon, Commonwealth land, and actions by Commonwealth agencies <http://www.environment.gov.au/epbc/publications/significant-impact-guidelines-12-actions-or-impacting-upon-commonwealth-land-and-actions>
- the Policy Statement titled Significant Impact Guidelines: Coal seam gas and large coal mining developments— Impacts on water resources <http://www.environment.gov.au/resource/significant-impact-guidelines-13-coal-seam-gas-and-large-coal-mining-developments-impacts>
- the interactive map tool (enter a location to obtain a report on what matters of NES may occur in that location) <http://www.environment.gov.au/epbc/pmst/index.html>

Can I refer part of a larger action?

In certain circumstances, **the Minister may not accept a referral for an action that is a component of a larger action and may request the person proposing to take the action to refer the larger action for consideration under the EPBC Act (Section 74A, EPBC Act)**. If you wish to make a referral for a staged or component referral contact the Referrals Gateway (1800 803 772).

Do I need a permit?

Some activities may also require a permit under other sections of the EPBC Act or another law of the Commonwealth. Information is available on the Department's web site.

Is your action in the Great Barrier Reef Marine Park?

If your action is in the Great Barrier Reef Marine Park it may require permission under the *Great Barrier Reef Marine Park Act 1975 (GBRMP Act)*. If a permission is required, referral of the action under the EPBC Act is deemed to be an application under the GBRMP Act (see section 37AB of the GBRMP Act). This referral will be forwarded to the Great Barrier Reef Marine Park Authority (**the Authority**) for the Authority to commence its permit processes as required under the *Great Barrier Reef Marine Park Regulations 1983 (GBRMP Regulations)*. If a permission is not required under the GBRMP Act, no approval under the EPBC Act is required (see section 43 of the EPBC Act). The Authority can provide advice on relevant permission requirements applying to activities in the Marine Park.

The Authority is responsible for assessing applications for permissions under the GBRMP Act, GBRMP Regulations and Zoning Plan. Where assessment and approval is also required under the EPBC Act, a single integrated assessment for the purposes of both Acts will apply in most cases. Further information on environmental approval requirements applying to actions in the Great Barrier Reef Marine Park is available from <http://www.gbrmpa.gov.au/> or by contacting GBRMPA's Environmental Assessment and Management Section on (07) 4750 0700.

The Authority may require a permit application assessment fee to be paid in relation to the assessment of applications for permissions required under the GBRMP Act, even if the permission is made as a referral under the EPBC Act. Further information on this is available from the Authority:

Great Barrier Reef Marine Park Authority

2-68 Flinders Street PO Box 1379

Townsville QLD 4810

AUSTRALIA

Phone: + 61 7 4750 0700

Fax: + 61 7 4772 6093

www.gbrmpa.gov.au

What information do I need to provide?

Please complete all parts of this form to assist the Department to process your referral efficiently. If a section of the referral document is not applicable to your proposal, please enter N/A.

You can complete your referral by entering your information into this Word file.

Instructions

Instructions are provided in blue text throughout the form.

Attachments/supporting information

The referral form should contain sufficient information to provide an adequate basis for a decision on the likely impacts of the proposed action. You should also provide supporting documentation, such as environmental reports or surveys, as attachments.

Coloured maps, figures or photographs to help explain the proposed action and its location should also be submitted with your referral. Aerial photographs, in particular, can provide a useful perspective and context. Figures should be good quality as they may be scanned and viewed electronically as black and white documents. Maps should be of a scale that clearly shows the location of the proposed action and any environmental aspects of interest.

Please ensure any attachments are below five megabytes (5mb) as they will be published on the Department's website for public comment. To minimise file size, enclose maps and figures as separate files if necessary. If unsure, contact the Referrals Gateway (email address below) for advice. Attachments larger than five megabytes (5mb) may delay processing of your referral.

Note: The Minister may decide not to publish information that the Minister is satisfied is commercial-in-confidence. If you believe that your referral contains information that is commercial-in-confidence, you must clearly identify such information and the reason for its confidentiality at the time of making the referral. The Minister cannot be satisfied that particular information included in a referral is commercial-in-confidence unless a person demonstrates to the Minister that:

- release of the information would cause competitive detriment to the person; and
- the information is not in the public domain; and
- the information is not required to be disclosed under another law of the Commonwealth, a State or a Territory; and
- the information is not readily discoverable.

How do I pay for my referral?

From 1 October 2014, the Australian Government commenced cost recovery arrangements for environmental assessments and some strategic assessments under the EPBC Act. If an action is referred on or after 1 October 2014, then cost recovery will apply to both the referral and any assessment activities undertaken. Further information regarding cost recovery can be found on the Department's website at:

<http://www.environment.gov.au/epbc/publications/cost-recovery-cris>

If you are an individual or a small business, you may be exempt from paying the referral fee. See Part 9 of this form for further details.

You may apply for all or part of a fee to be waived. See Part 9 of this form for further details.

Payment of the referral fee can be made using one of the following methods:

- **EFT Payments can be made to:**

BSB: 092-009

Bank Account No. 115859

Amount: \$7352

Account Name: Department of the Environment.

Bank: Reserve Bank of Australia

Bank Address: 20-22 London Circuit Canberra ACT 2601

Description: The reference number provided (see note below)

- **Cheque** - Payable to "Department of the Environment". Include the reference number provided (see note below), and if posted, address:

The Referrals Gateway

Environment Assessment Branch

Department of the Environment

GPO Box 787

Canberra ACT 2601

- **Credit Card**

Please contact the Collector of Public Money (CPM) directly (call (02) 6274 2930 or 6274 20260 and provide the reference number (see note below).

Note: an invoice will be raised and forwarded to you upon submission of your referral which will include the EPBC reference number for your referral.

How do I submit a referral?

Referrals may be submitted by mail or email.

Mail to:

Referrals Gateway
Environment Assessment Branch
Department of Environment
GPO Box 787
CANBERRA ACT 2601

- If submitting via mail, please also provide electronic copies of documentation (on CD/DVD or by email)..

Email to: epbc.referrals@environment.gov.au

- Clearly mark the email as a 'Referral under the EPBC Act'.
- Attach the referral in a suitable electronic document format (e.g. Microsoft Word and, if possible, PDF).
- If submitting via email, please also mail a hardcopy of the referral including copies of any attachments or supporting reports.

What happens next?

Following receipt of a valid referral (containing all required information) you will be advised of the next steps in the process, and the referral and attachments will be published on the Department's web site for public comment. Any person may give the Minister comments on the referral within 10 business days of publication on the Department's website.

The Department will write to you within 20 business days to advise you of the outcome of your referral and whether or not assessment and approval under the EPBC Act is required. There are a number of possible decisions regarding your referral:

The proposed action is NOT LIKELY to have a significant impact and does NOT NEED approval

No further consideration is required under the environmental assessment provisions of the EPBC Act and the action can proceed (subject to any other Commonwealth, state or local government requirements).

The proposed action is NOT LIKELY to have a significant impact IF undertaken in a particular manner

The action can proceed if undertaken in a particular manner (subject to any other Commonwealth, state or local government requirements). The particular manner in which you must carry out the action will be identified as part of the final decision. You must report your compliance with the particular manner to the Department.

The proposed action is LIKELY to have a significant impact and does NEED approval

If the action is likely to have a significant impact a decision will be made that it is a *controlled action*. The particular matters upon which the action may have a significant impact (such as World Heritage values or threatened species) are known as the *controlling provisions*.

The controlled action is subject to a public assessment process before a final decision can be made about whether to approve it. The assessment approach will usually be decided at the same time as the controlled action decision. (Further information about the levels of assessment and basis for deciding the approach are available on the Department's web site.)

The proposed action would have UNACCEPTABLE impacts and CANNOT proceed

The Minister may decide, on the basis of the information in the referral, that a referred action would have clearly unacceptable impacts on a protected matter and cannot proceed.

For more information

- call the Department of the Environment Community Information Unit on 1800 803 772 or
- visit the web site <http://www.environment.gov.au/epbc>

All the information you need to make a referral, including documents referenced in this form, can be accessed from the above web site.

Referral of proposed action

**Proposed
action title:**

Goonyella Riverside Mine to South Walker Creek
Mine Dragline Move

1 Summary of proposed action

NOTE: In addition to completing the fields below, you must also attach a map of the area affected by the action that includes the following features (if relevant): the location of the action; the approximate boundary of the areas and habitat mentioned in items 3.1 and 3.2; and to the extent practicable and relevant, the tenure of the project area of the proposed action (e.g. freehold, leasehold etc.).

It is the Department's preference that maps are provided in A4 size and that the geographic information system (GIS) vector (shapefile) dataset associated with the maps is also provided.

1.1 Short description

BHP Billiton Mitsui Coal (BMC) is proposing to relocate a dragline from Goonyella Riverside Mine (GRM) to South Walker Creek Mine (SWC) along a route approximately 77km in length. This proposal is referred to as the "Dragline Move". The Dragline Move is planned to take place so that the dragline can be operational by 1 July 2017 or earlier if possible. A dragline is a large excavator used in the mining sector with a bucket pulled in by a wired cable. The relevant dragline is a Marion 8050 dragline weighing approximately 3500 tonnes. It has a boom length of 99 metres (m) and width of 28m. The dragline will be travelling with the boom up and the bucket removed. It will be approximately 68m high with an additional 5m for the transporter.

As part of the Dragline Move, BMC proposes to:

- decommission the current dragline operations at Goonyella Riverside Mine as part of current approved mining activities
- transport the dragline along a temporary special purpose track or roadway, established through the implementation of vegetation clearing, fill placement and related civil work activities in areas within the proposed Dragline Move corridor where ground conditions are inadequate to enable the dragline to advance
- rehabilitate the Dragline Move corridor
- commission and operate dragline at South Walker Creek Mine as part of current approved mining activities.

The dragline transport route is located in the vicinity of the towns of Moranbah, Nebo and Coppabella within the Isaac Regional Council Local Government Area of Queensland. The proposed alignment of the relocation route generally follows the alignment used for a previous dragline move from South Walker Creek Mine to the Goonyella Riverside Mine carried out in 2000. However, the alignment has changed in certain locations due to changes in land use since 2000. The proposed Dragline Move will involve the construction of a temporary unsealed roadway, 40m to 80m wide, and the transport of the dragline on a specialised transporter, followed by rehabilitation of disturbed areas. A map providing an overview of the project is at Attachment 1.

1.2	Latitude and longitude Latitude and longitude details are used to accurately map the boundary of the proposed action. If these coordinates are inaccurate or insufficient it may delay the processing of your referral.	location point	Latitude (south)			Longitude		
			degrees	minutes	seconds	degrees	minutes	seconds
		1	21°	47'	27.8"	147°	59'	44.9"
		2	21°	47'	38.6"	148°	1'	19.0"
		3	21°	50'	7.9"	148°	2'	34.0"
		4	21°	50'	9.9"	148°	4'	49.2"
		5	21°	48'	52.4"	148°	6'	27.4"
		6	21°	49'	4.6"	148°	7'	2.7"
		7	21°	48'	46.8"	148°	7'	50.7"
		8	21°	54'	16.5"	148°	17'	26.5"
		9	21°	55'	50.9"	148°	17'	31.5"
		10	21°	56'	50.6"	148°	19'	37.9"
		11	21°	56'	50.5"	148°	20'	42.3"
		12	21°	54'	28.9"	148°	26'	9.7"
		13	21°	52'	40.1"	148°	27'	22.6"
		14	21°	51'	37.6"	148°	29'	56.1"
		15	21°	50'	25.9"	148°	29'	6.2"
		16	21°	49'	40.5"	148°	29'	1.5"
		17	21°	49'	34.4"	148°	28'	12.0"
		18	21°	48'	8.5"	148°	27'	55.4"
		19	21°	48'	6.5"	148°	28'	22.5"

Do not use AMG coordinates.

1.3 **Locality and property description**
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 Dragline Move corridor is between the Goonyella Riverside Mine, located approximately 20km north of Moranbah, to the South Walker Creek Mine, located approximately 24km south-east of Nebo. The corridor is located within the Isaac Regional Council Local Government Area. The 77km-long Dragline Move corridor traverses 10 properties. The main land uses are pastoral and mining.

1.4 **Size of the development footprint or work area (hectares)** 645 ha

1.5 **Street address of the site** Not applicable.

1.6 **Lot description**

Describe the lot numbers and title description, if known.

Lots intersected by the Dragline Move corridor are as follows:

Table 1 – Intersected properties

Property Owner	Lot on Plan Numbers	Tenure
Coppabella Coal and Others	1 SP158697	Freehold
Vale Australia Pty Ltd	18 SP262679 4 SP252740	Freehold
Private landholder	1 SP251730	Freehold
BHP Coal and Others	10 SP235299 16 SP235299 20 SP235298	Freehold Freehold Leasehold
Wotonga Pastoral Pty Ltd	13 SP178466	Leasehold
Private landholder	18 SP208194	Leasehold
Private landholder	2 SP214498	Freehold
Queensland Rail	21 SP130064 24 SP221564 25 SP130068	Leasehold
Private landholder	4 SP144274	Leasehold
Private landholder	5270 SP144274	Leasehold
BHP Billiton Mitsui Coal Pty Ltd	7 SP155252 8 SP155252	Freehold

1.7 **Local Government Area and Council contact (if known)**

If the project is subject to local government planning approval, provide the name of the relevant council contact officer.

Manus Basson
Manager Planning Services
Isaac Regional Council
PO Box 97 Moranbah, QLD 4744
E: manus.basson@isaac.qld.gov.au
Ph: 4941 4576

1.8 **Time frame**

Specify the time frame in which the action will be taken including the estimated start date of construction/operation.

The Dragline Move is proposed to be implemented so that the dragline can be operational at South Walker Creek Mine by 1 July 2017 or earlier if possible. The aim is for the move related works to commence as early as possible in 2017, subsequent to completion of the current dragline operations at Goonyella Riverside Mine (30 December 2016). The civil works for the temporary Dragline Move track / roadway will be undertaken between one and seven days (approximately) before the passage of the dragline transporter. Works will therefore precede the dragline transporter along the alignment, starting at Goonyella Riverside Mine and progressing towards South Walker Creek Mine. It is anticipated that it will take approximately 3 months to complete the move of the dragline subject to weather conditions and constraints associated with infrastructure crossings.

1.9	Alternatives to proposed action Were any feasible alternatives to taking the proposed action (including not taking the action) considered which are not proposed?	<input checked="" type="checkbox"/>	Yes, please also complete section 2.2
1.10	Alternative time frames, locations or activities Does the proposed action include alternative time frames, locations or activities?	<input checked="" type="checkbox"/>	No
		<input type="checkbox"/>	Yes, you must also complete Section 2.3. For each alternative, location, time frame, or activity identified, you must also complete details in Sections 1.2-1.9, 2.4-2.7 and 3 and 5 (where relevant).
1.11	Commonwealth, State or Territory assessment Is the action subject to other a Commonwealth, State or Territory environmental impact assessment?	<input checked="" type="checkbox"/>	No
		<input type="checkbox"/>	Yes, please also complete section 2.5
1.12	Component of larger action Is the proposed action a component of a larger action?	<input checked="" type="checkbox"/>	No
		<input type="checkbox"/>	Yes, please also complete section 2.7
1.13	Related actions/proposals Is the proposed action related to other actions or proposals in the region?	<input checked="" type="checkbox"/>	No
		<input type="checkbox"/>	Yes, provide details:
1.14	Australian Government funding Has the person proposing to take the action received any Australian Government grant funding to undertake the proposed action?	<input checked="" type="checkbox"/>	No
		<input type="checkbox"/>	Yes, please also complete section 2.8
1.15	Great Barrier Reef Marine Park Is the proposed action inside the Great Barrier Reef Marine Park?	<input checked="" type="checkbox"/>	No
		<input type="checkbox"/>	Yes, please also complete section 3.1 (h), 3.2 (e)

2 Detailed description of proposed action

NOTE: You **must** complete each of the sections below. Please ensure that the description is complete and includes all components and activities associated with the action. If relevant, each of the matters below need to be addressed in respect of each alternative location, time frame, or activity that is identified as part of the description. If certain related components are not intended to be included within the scope of the referral, this should be clearly explained in section 2.7.

2.1 Description of proposed action

Please provide a detailed description outlining all activities and aspects of the proposed action and reference figures and/or attachments, as appropriate.

Alignment

The proposed alignment of the Dragline Move route generally follows the alignment used for a previous dragline move from South Walker Creek Mine to Goonyella Riverside Mine carried out in 2000. However, the alignment has changed in certain locations due to changes in land use since 2000.

The proposed alignment is illustrated in Attachment 1.

Dragline Move route design

Dragline roadway

The following design parameters apply to the dragline roadway:

- Minimum travel path width is 35m
- Standard corridor width is 40m.
- Minimum horizontal curve radius shall be 150m at standard corridor width
- Curve widening to 40m is required for sharp turns to 60 degrees
- Curve widening to 50m required for sharp turns 60 to 90 degrees
- Maximum longitudinal grade is 10%. Desirable maximum is 8%
- Minimum vertical curve radius is 250m
- Maximum crossfall is 2%
- As a minimum the travel path needs to be clear of obstacles such as rocks or trees, uniformly supporting and have a minimum bearing capacity of 300kPa
- Embankment slopes will generally be 1V:4H in fill, and 1V:2.5H in cut

Crossings

Road crossings

The proposed alignment intersects the following roads:

- Goonyella Mine Access Road (chainage 0.05 km, unsealed)
- Red Hill Road (chainage 0.64 km, unsealed)
- Peak Downs Highway (chainage 43.7 km, sealed)
- Moorvale Mine Access Road (chainage 48.4 km, sealed)
- Peak Downs Highway (chainage 68.2 km, sealed)

To avoid damage to the road surface, ramps will be temporarily installed at sealed road crossings to accommodate the dragline's passage. These ramps will consist of compacted select fill placed on the road surface, overlain by steel road mats. It is estimated that a minimum of 600mm cover from the crown of the road to the underside of the steel mats will be required at sealed road crossings.

Temporary bypass lanes will be installed to accommodate traffic flow around the dragline as it traverses the roadway. These bypass lanes will have an operating speed of 40km/h and will have a nominal gravel pavement.

The temporary bypass road to be constructed at intersections between the Peak Downs Highway and the Dragline Move route will be designed in accordance with the following criteria:

- Operating speed: 40 km/hr
- Design traffic: 2000 vehicles per day
- Design life: 1 week
- Temporary signage will be supplied in accordance with the Manual of Uniform Traffic Control Devices (MUTCD).
- Road pavement and geometry shall be determined in accordance with the ARRB Unsealed Roads Manual.

Railway crossings

The proposed alignment intersects Aurizon-owned railways in three locations as detailed in Table 2.

Table 2 Railway crossings

Rail crossing	Railway chainage	Move Route Chainage	No. Tracks	Electrified
Goonyella Line	154.24 km	40.5 km	2	Yes
Norwich Park Line	6.20 km	47.4km	1	Yes
Goonyella Line	129.1 km	68.6 km	2	Yes

To provide passage for the dragline transporters, a select fill ramp will be placed adjacent to the formation and to a height of 1200mm above the formation level. Following removal of the electrification wires, steel beams will be placed over the formation to the level of the ramps. Steel plates will be placed over the beams to form a trafficable platform over the ballast and rails.

Powerline crossings

The proposed alignment intersects a number of powerlines as detailed in Table 3.

Table 3 HV Powerline crossings

Move Route Chainage	Voltage	Owner
0.25 km	66 kV	BHP Billiton Mitsubishi Alliance (BMA) (GRM)
2.0 km	66 kV	BMA (GRM)
2.1 km	132 kV	BMA (GRM)
2.4 km	132 kV	BMA (GRM)
7.6 km	132 kV (Double Circuit)	Powerlink
19.1 km	132 kV (Double Circuit)	Powerlink
40.7 km	19.1 kV (SWER)	Ergon
45.7 km	66 kV (Hybrid SWER, 1 x 66 kV)	Ergon
47.4 km	11 kV (Hybrid SWER, 2 x 11 kV lines)	Ergon
64.4 km	19.1 kV (SWER)	Ergon
65.1 km	19.1 kV (SWER)	Ergon
70.4 km	66 kV (Hybrid SWER, 1 x 66 kV)	Ergon
72.9 km	66 kV (SWC Dragline Feeder)	BMC

At locations of powerline crossings, it is expected the conductors will be isolated, lowered into trenches and protected or moved before the dragline traverses the powerline alignment. For critical power line crossings with limited outage opportunities, diversion circuits (e.g. buried cable or re-routed powerline) may be required. All work associated with Utility-owned powerline assets (i.e. Powerlink and Ergon assets) will be carried out by the powerline asset owner. All work associated with BMA and BMC powerline assets will be managed directly by the Project proponent.

Watercourses

The proposed alignment crosses a number of ephemeral watercourses and drainage lines as detailed below:

- Named watercourses:
 - Isaac River

- Skeleton Gully
- Teviot Brook
- North Creek
- Thirty Mile Creek
- Humbug Gully
- Sandy Creek
- Unnamed tributaries, many of them drainage lines, to the following watercourses:
 - Isaac River
 - Skeleton Gully
 - Teviot Brook
 - Hat Creek
 - Smoky Creek
 - North Creek
 - Harrybrandt Creek
 - Bee Creek
 - Humbug Gully

The dragline will only cross watercourses when there is no flowing water in the relevant part of the watercourse.

To support the dragline and achieve the required vertical geometry, the watercourses will be temporarily filled to provide a 35m wide crossing point. Low flow culverts will be installed to convey any unexpected incidental water flow during transportation. Construction of the watercourse crossings will be started as late as possible, remain in place for the minimum time required for the dragline to cross, be removed and the watercourses rehabilitated as soon as possible after the crossing event. Refer to Attachment 2 for a typical plan and section of a watercourse crossing.

Water pipeline

The proposed alignment crosses Sunwater's Eungella water pipeline where it runs alongside the Goonyella Branch rail line and the Peak Downs Highway. As this pipe is underground, it will be protected with steel plates during passage of the dragline.

In addition, the Mallowa Pipeline (Peabody Energy Australia) will be crossed at a single location and the Braeside Pipeline (BHP Mitsui Coal) will be crossed at four locations. In all instances additional protection will be provided by provision of additional earth fill cover, steel plates or a combination of both.

Communication lines

Dial Before You Dig' (DBYD) enquiry response indicated that the alignment intersects buried fibre optic communication lines running alongside the Goonyella Branch Line, the Peak Downs Highway and the South Walker Creek Access Road. It is proposed that steel plate will be placed on the ground above the buried lines, to distribute the load over a wider area and reduce the pressure on the buried line.

Description of civil works

The project's civil construction works and the move operations will involve the following:

- Vegetation clearing
- Removal of obstacles such as rocks and logs
- Earthworks, including:
 - Soil stripping
 - Trenching
 - Stockpiling
 - Placement of fill material
 - Transport of soil and fill material
 - Ground compaction
- Establishment of temporary site offices, laydown and parking areas.

Civil works for the construction of the move roadway will be undertaken between one and seven days (approximately) before the passage of the dragline transporter. Works will therefore precede the passage of dragline transporter along the alignment, starting at Goonyella Riverside Mine and progressing towards South Walker Creek Mine.

Clearing and soil stripping

The project will require clearing of all vegetated sections of the relocation route to a minimum 40m width (35m travel width plus 5m side clearance). The required corridor width will be greater than the minimum 40m in some sections of the alignment due to ground conditions (i.e. for stockpiling of stripped topsoil). In vegetated areas, the required corridor width will in some cases be 60m or 80m to allow for vehicular traffic past the dragline and cleared vegetation stockpiling on the edges of the roadway. However, in ecologically sensitive areas involving MNES, the minimum 40m width corridor will be applied for the majority of cases in order to limit disturbance. In those areas, "breakout" stockpiling areas of cleared vegetation are required

when the 40m wide section of corridor is 500m long or more. These vegetation stockpiling areas have been chosen wherever possible to avoid MNES but will increase the corridor width locally. This approach will result in a lesser total disturbance to MNES than a standard rule involving a breakout area every 500m or so.

Trees and obstacles will be moved with a dozer. Clearing of established trees will be minimised to those required to achieve the required corridor width. Removed vegetation and obstacles will be stacked along the edges of the corridor.

In areas with unsuitable topsoil, the topsoil will need to be stripped and the underlying material graded to achieve a uniform surface. Topsoil will be stripped with a dozer or grader and stockpiled along the edges of the corridor.

Soft spots will require compaction or alternatively, unsuitable material will require removal and replacement with select fill and compaction. Approximately 60% of the total corridor area will need to be stripped.

Where no topsoil stripping is required, earthworks will be limited to filling of sharp gullies.

Crossing works

Standard earthworks equipment will be used to construct the infrastructure crossing. This may include dozers, graders, compactors, excavators, dump trucks and water carts.

Railway crossings

Earthworks on either side of the railway corridor boundaries will be carried out by BMC's contractor. The execution methodology for the works within the rail corridor is yet to be finalised, however it is anticipated that the works from the rail corridor boundary to within 3m of the track will be carried out by BMC's contractor in a site protocol arrangement, with the works within 3m of the tracks being carried out by Aurizon as the principal contractor.

Powerline crossings

The Powerline Utility owners (Powerlink and Ergon) will be responsible for handling their own conductors. Protection works (to aerial conductors installed in temporary trenches or buried cables) may be undertaken by BMC's civil contractor if required. For BMA/BMC powerline crossings, a Contractor will be engaged directly by the Project to undertake this work.

Laydown areas and site offices

Laydown areas may be located outside of the corridor footprint, but locations will be selected to minimise disturbance to established vegetation. All fuel and lubricant storage facilities will be bunded. Site offices may include portable buildings for offices and ablutions. Sewage will be stored and transported to licensed disposal facilities.

Access to site

Access to various sections of the relocation route will be from existing roads and property tracks as well as via the constructed roadway itself.

Description of transporter operations

It is anticipated that the dragline will be transported using a Lampson transporter or equivalent (refer photograph below).



The transporter is a self-propelled track-mounted platform that supports the dragline. Other potential transporter involve tyres rather than tracks. The average daily travel of dragline transporters on flat ground is 5km without any infrastructure crossings. The route length is approximately 77 km, therefore transportation time will be 16 days, excluding infrastructure crossings and delays.

Rehabilitation

Following completion of the dragline movement, the transportation corridor will be rehabilitated by replacing:

- cleared vegetation, including seedbank (only where necessary to enable the regeneration over time of vegetation equivalent to the vegetation that was cleared)
- stripped topsoil with seeding in selected locations

In areas where the ground has been compacted and/or topsoil has not been stripped, the area will be tyned to loosen compacted soil.

Seeding will occur progressively after the passage of the dragline. A native seed mix will be applied where necessary to ensure revegetation. Watercourses and drainage lines will be a particular focus for rehabilitation activities to ensure bank stability and revegetation where vegetation has been cleared as part of the Dragline Move.

Rehabilitation of watercourse crossings will involve the following:

- The fill placed in the bed of the watercourse will be removed and placed back in the appropriate borrow area
- The ground profile will be returned to its original state
- Erosion and sediment control measures/devices will be installed, where/as required by ground conditions (e.g. ripping of slopes, placement of rocks/gravel, erosion control blankets, hydromulching, etc.)
- Measure will be implemented to reinstate cleared riparian vegetation. Subject to local ground conditions, this may include placement of cleared vegetation over the disturbed area (including seedbank), seeding (e.g. hydroseeding), planting of seedlings.

Traffic Management

The Project's generation of additional traffic on the nearby road network will be negligible. Traffic at the Peak Downs Highway crossings will be managed in accordance with DTMR's specifications and the Manual of Uniform Traffic Control Devices.

Work Force and hours of operation

Site personnel

The approximate number of personnel involved on site will be 30. It is anticipated that site personnel will reside, or be accommodated overnight in Moranbah, Coppabella or Nebo.

Hours of operation

Construction hours will be 6am to 5pm. Transport hours will be 6am to 5pm.

Limited night work is currently planned as follows. Temporary lighting plant may be provided as a safety measure at the Peak Downs Highway crossing points if the bypass roads are to remain active at night. Due to the limited duration and availability of

scheduled outage periods, the dragline may be required to cross the first two rail crossings and first highway crossing during night hours. This would extend over 1-2 nights as a maximum. Depending on the outcomes of current discussions with Powerlink there may also be a need to cross powerline infrastructure at times of low network demand (e.g. at night).

2.2 Feasible alternatives to taking the proposed action

If you have identified that alternatives to taking the action were considered, but are not proposed (in section 1.9), please complete this section. Please provide a detailed description outlining any feasible alternatives to taking the proposed action (including not taking the action) that were considered but are not proposed. (Please note that these do not include any proposed alternative locations, time frames, or activities that form part of the proposed action which are to be discussed below at section 2.3).

BMC considered alternative routes for the Dragline Move to the north and further south of the Carborough Range (which is not able to be traversed by dragline transporters). However, all these alternatives involved greater clearing of native vegetation, and longer routes.

The selected route predominately follows the path of a previous dragline move and maximises use of previously cleared areas.

2.3 Alternative locations, time frames or activities that form part of the referred action

If you have identified that the proposed action includes alternative time frames, locations or activities (in section 1.10), please complete this section. Please describe any alternatives related to the physical location of the action, time frames within which the action is to be taken and alternative methods or activities for undertaking the action. For each alternative location, time frame or activity identified, please also complete (where relevant) the details in sections 1.2-1.9, 2.4, 2.7, 3 and 5. Please note, if the action that you propose to take is determined to be a controlled action, any alternative locations, time frames or activities that are identified here may be subject to environmental assessment and a decision on whether to approve the alternative.

No alternative locations and timeframes form part of the referred action.

2.4 Context, including any relevant planning framework and state/local government requirements

Please explain the context in which the action is proposed, including any relevant planning framework at the state and/or local government level (e.g. within scope of a management plan, planning initiative or policy framework) and social and economic context including population size, economic opportunities and employment information. Describe any applicable Commonwealth or state legislation or policies (other than those related to other environmental impact assessment which are to be discussed below at section 2.5).

State and local Government planning framework

At State and local Government level, the project triggers the following regulatory approvals under Queensland legislation:

- Operational Work approval under the *Sustainable Planning Act 2009* (SP Act), including:
 - Operational work under the Isaac Regional Council planning scheme
 - Native vegetation Clearing
 - Work near and over railway corridors
 - Work near and over road corridors
 - Work in powerline corridors
- Protected Plant Clearing permit under the *Nature Conservation Act 1992* (NC Act) - Potentially
- Permit to tamper with animal breeding places under the NC Act
- Quarry material sales permit under the *Forestry Act 1959* - Potentially
- Road Corridor Permit and Traffic Control Permit under the *Transport Infrastructure Act 1994*.

Socio-economic context

Isaac Regional Council's website provides the following socio-economic information.

The Isaac local government area (LGA) spans an area of approximately 58,000 km² in Central Queensland, from the coast to the coalfields, located 1,000km north-west of Brisbane and 900km south of Cairns.

Historically the Isaac economy has been driven by the resource sector which still contributes over 75% of the region's GRP of \$5.7 billion. The Isaac LGA hosts 23 operational coal mines which produced 54% of Queensland's total saleable coal in 2015 and consistently generates in excess of \$1 billion in royalty payments each year. Agriculture is also an important industry with agricultural output in Isaac being valued at \$192m.

The Isaac LGA is strategically placed to capitalise on the economic opportunities associated with the rise of Asia and northern Australia Development initiatives. Consistently high solar radiation and proximity to existing transmission infrastructure and markets make Isaac an ideal location for solar farm development. The region also presents opportunities for biofuel production. The Isaac coast is identified as an emerging tourism precinct for development in the Mackay Destination Tourism Plan 2014. The coast also hosts commercial fishing and aquaculture operations.

Moranbah is a regional coal mining town with a permanent population of approximately 9,000 and an itinerant population working in the mining industry of about 1,500. The Moranbah region employs approximately 6,500 people, half of them employed by the mining industry.

2.5 Environmental impact assessments under Commonwealth, State or Territory legislation

If you have identified that the proposed action will be, is being or has been subject to a Commonwealth, State or Territory environmental impact statement (in section 1.11), please complete this section. Please describe any environmental assessment of the relevant impacts of the proposed action that has been, is being, or will be carried out under Commonwealth, State or Territory legislation. Specify the type and scope of the assessment (for example, whether the assessment relates to part or the whole of the proposed action, or the proposed action, as a component of a larger action), the relevant legislation and the current status of any assessments or approvals. Where possible, provide contact details for the relevant assessment contact officer. Further, please describe or summarise any public consultation undertaken, or to be undertaken, during the assessment. Attach copies of relevant assessment documentation and outcomes of public consultations (if available).

Applications for required state and local government approvals (refer section 2.4 above) are required to be supported by environmental impact assessments including:

- Applications for operational work that is native vegetation clearing under the SP Act and the *Vegetation Management Act 1999* will be supported by terrestrial ecological impact assessment which gives consideration to mapped Regional Ecosystems and fauna Essential Habitat.
- Applications for permits to clear listed plants (if confirmed to occur) and disturb animal breeding places (approved Species Management Program) under the NC Act will address the clearing of specific species listed as Vulnerable or Endangered under the Act and the management of disturbed breeding places for species identified as potentially present in the project area.

Additionally, the eastern and western ends of the alignment are within areas where previous environmental impact assessments have been undertaken for State and Commonwealth approvals associated with the Red Hill and South Walker Creek Mines.

At the time of lodgement of this referral, assessment reports are being prepared but the above approval/permit applications have not yet been lodged with Queensland regulators.

Contact details for the DILGP officers for the approval application under the SP Act and VM Act is:

Megan Rosenberg
Principal Planner
Planning & Development Services | Mackay Isaac Whitsunday
Department of Infrastructure, Local Government and Planning
Level 4, 44 Nelson Street, Mackay QLD 4740 PO Box 257, Mackay QLD 4740
p. 07 4898 6817 | e. megan.rosenberg@dilgp.qld.gov.au
(Part time hours – Thursday, Friday and every second Wednesday)

Odette Langham
A/Manager (Planning)
Planning & Development Services | Mackay Isaac Whitsunday
Department of Infrastructure, Local Government and Planning
Level 4, 44 Nelson St, Mackay QLD 4740
p. 07 4898 6816 | e. odette.langham@dilgp.qld.gov.au
Part-time – Monday to Thursday (9am -2:30pm)

Contact details for the DEHP officer in charge of assessment of permit applications under the NC Act is:

Sally Egan
A/Director
Wildlife Operations
Nature Conservation Services
Environment and Heritage Protection
Toowoomba QLD 4350
PH: 07 4688 1258
MOB: 0477 308 755
Sally.egan@ehp.qld.gov.au

2.6 Public consultation (including with Indigenous stakeholders)

Your referral must include a description of any public consultation that has been, or is being, undertaken. Where Indigenous stakeholders are likely to be affected by your proposed action, your referral should describe any consultations undertaken with Indigenous stakeholders. Identify the relevant stakeholders and the status of consultations at the time of the referral. Where appropriate include copies of documents recording the outcomes of any consultations.

Public consultation has been focused on consulting with the landholders whose properties will be affected by the project. Consultation with landholders involves negotiations of land access agreements covering the proposed works and associated ancillary activities.

Aboriginal parties, Barada Barna represented by WINNAA Pty Ltd will undertake a cultural heritage survey across the Project Activity footprint. BMC will work in accordance with our Cultural Heritage Management agreements to ensure Indigenous values are managed in an appropriate way.

2.7 A staged development or component of a larger action

If you have identified that the proposed action is a component of a larger action (in section 1.12), please complete this section. Please provide information about the larger action and details of any interdependency between the stages/components and the larger action. You may also provide justification as to why you believe it is reasonable for the referred action to be considered separately from the larger action (e.g. the referred action is 'stand-alone' and viable in its own right, there are separate responsibilities for component actions or approvals have been split in a similar way at the state or local government levels).

Not applicable.

2.8 Related actions

If you have identified that the proposed action has related actions (in section 1.13), please complete this section. Please provide information about the related actions including, as appropriate:

- the nature, scope and location of the related action;
- the nature and scope of the assessment under the relevant legislation;
- a statement confirming how the action relates to the Proposed Action;
- the key documents produced as part of the assessment, by whom and when (using active statements), and the extent to which the assessment of the action is relevant to the assessment of the impacts of the Proposed Action on the matters protected by the Controlling Provisions of the EPBC Act and the related findings of this Report. Please cross reference to the analysis of the impacts of the Proposed Action below;
- public consultation during the assessment including the extent (i.e. duration and means) and results; and
- if available, the conclusion of the assessment and final decision following assessment, i.e. approval, approval subject to conditions or refusal.

Not applicable.

3 Description of environment & likely impacts

Note: If you have identified alternatives in relation to location, time frames or activities as part of the proposed action at section 1.10 and 2.3, please complete this section in relation to each of the alternatives identified.

3.1 Matters of national environmental significance

Describe the affected area and the likely impacts of the proposed action on 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.

For each matter protected by the EPBC Act, provide a description of the matter including, as appropriate:

- a brief description of the matter (for example, for threatened species, the population size, habitat, breeding, diet and life cycle etc);
- the status, extent and condition of the matter within the affected area and also more broadly in the region; and
- the key threats and threatening processes and beneficial actions and processes for the Protected Matter(s) excluding those from the proposed action, for example, under relevant approved conservation advices, recovery plans or threat abatement plans, management plans or other strategic plans, management principles or obligations under International Conventions.
- Having identified the relevant matters protected under the EPBC Act, identify the impacts the proposed action will or is likely to have on these matters (e.g. light, noise, biodiversity loss, water quality etc). For each type of impact, provide a concise description of the likely nature, scope and consequences of the impact on the Protected Matter(s). In doing so, consider factors such as, as appropriate: whether the impact is a direct or indirect impact - **note that, even if your proposed action will not be taken in a World Heritage area, Ramsar wetland, Commonwealth marine area, the Great Barrier Reef Marine Park or on Commonwealth land, it could still impact upon these areas (for example, through downstream impacts) by its indirect impacts;**
- the timing and duration of the likely impact, for example, one-off, re-occurring or ongoing, short term or long term;
- the extent of the impact, for example, uncertain or certain, permanent/irreversible or temporary/ reversible, and localised or broad-scale;
- the likely consequence of the impact on the Protected Matter(s), including both adverse and beneficial impacts and any related social and economic impacts;
- the likelihood of the impact affecting the Protected Matter(s); and
- whether there are any measures available to prevent and avoid, or mitigate and repair the consequences of, the impact.

Your assessment of likely impacts should refer to the following resources (available from the Department's web site):

- specific values of individual World Heritage properties and National Heritage places and the ecological character of Ramsar wetlands;
- 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*; and
- Associated sectoral and species policy statements available on the web site, as relevant.

Your assessment of likely impacts should also consider whether a bioregional plan is relevant to your proposed action. The Minister has prepared four marine bioregional plans (MBP) in accordance with section 176 of the EPBC Act. It is likely that the MBPs will be more commonly relevant where listed threatened species, listed migratory species or a Commonwealth marine area is considered.

The ecological assessment carried out for the project (included at Attachment 3) provides a detailed assessment of MNESs over the project area, which is summarised below.

The project area contains no World Heritage Properties, National Heritage Properties or Wetlands of International Significance. However, several threatened ecological communities (TECs), threatened species and migratory species are recognised as having potential to occur.

The following TECs are identified by the Department of Environment and Energy's (DOEE) Protected Matters Search Tool as having potential to occur in the study area:

- Brigalow (*Acacia harpophylla* dominant and co-dominant)
- Natural Grasslands of the Queensland Central Highlands and the northern Fitzroy Basin
- Semi-evergreen vine thickets of the Brigalow Belt (North and South) and Nandewar Bioregions.

The EPBC Act Protected Matters Search Tool identifies four EPBC Act threatened flora and 16 threatened fauna species as having potential to occur in the study area.

The desktop assessment carried out found that the following three threatened flora species should be considered to have potential to occur:

- King Blue-grass *Dichanthium queenslandicum* (Endangered)
- Blue-grass *Dichanthium setosum* (Vulnerable)
- Black Iron-box *Eucalyptus raveretiana* (Vulnerable).

The following four EPBC Act threatened fauna species were considered likely or to have potential to occur:

- Squatter Pigeon *Geophaps scripta* (Vulnerable)
- Ornamental Snake *Denisonia maculata* (Vulnerable)
- Koala *Phascolarctos cinereus* (Vulnerable)
- Yakka Skink *Egernia rugosa* (Vulnerable).

Nineteen migratory fauna were considered as part of the assessment. The desktop assessment carried out found that four migratory species should be considered as likely or potential to occur:

- White-throated Needletail *Hirundapus caudacutus*
- Fork-tailed Swift *Apus pacificus*
- Eastern Great Egret *Ardea modesta*
- Oriental Cuckoo *Cuculus optatus*.

The Protected Matters Search Tool identified potential habitat for the Fitzroy River Turtle and Southern Snapping Turtle along the alignment. However the ecological assessment concluded that both species were unlikely to occur due to a lack of suitable habitat (refer Appendix A of Attachment 3).

Subsequently to field surveys, it was found that the project is predicted to have a significant residual impact on the following MNES (Attachment 3):

- Threatened species:
 - Ornamental Snake
 - Yakka Skink.

However, no significant residual impacts are predicted on the Koala and Squatter Pigeon (Southern Subspecies) or migratory species. The other species listed above were not found to be present on site.

With regards to the Brigalow TEC, although the Terrestrial Ecology MNES Assessment (Attachment 3) finds significant residual impacts will be caused by the Project, these are solely related to clearing within the South Walker Creek Mine mining leases. This clearing has been approved under State legislation prior to the enactment of the EPBC Act and it is therefore considered that it will neither require approval for the Project nor associated offsets. Refer to section 6.5 of Attachment 3 for further details.

A detailed profile of each MNES is provided in Appendix E of the attached Terrestrial Ecology MNES Assessment (Attachment 3). Section 6 of the attached Terrestrial Ecology MNES Assessment (Attachment 3) provides a detailed description and assessment of the extents of impacts on each MNES.

Project impacts on the above MNESs will:

- Include direct impacts caused by necessary vegetation clearing
- Be associated with the one way movement of the dragline. Following rehabilitation of the corridor, the vegetation would not be subject to further disturbance.
- Localised due to habitat and vegetation proposed to be cleared being located along the edges of previously cleared corridors (dragline move corridor cleared in 2000, powerline and road easements, fence lines) or in distinct vegetated areas that cannot be avoided.

The assessed impacts are those that cannot be avoided. Wherever possible, avoidance of MNESs was achieved during the planning/design phase by optimising the transportation corridor alignment and width to the maximum practicable. The unavoidable residual impacts are proposed to be offset. The Project offset strategy is being developed in accordance with the EPBC Act Environmental Offsets Policy and will be submitted to DOEE as soon as finalised.

3.1 (a) World Heritage Properties

Description

Not applicable. The closest World Heritage Property (Great Barrier Reef) is located approximately 140km from the Dragline Move corridor.

Nature and extent of likely impact

[Address any impacts on the World Heritage values of any World Heritage property.](#)

3.1 (b) National Heritage Places

Description

Not applicable. The closest National Heritage Place (Great Barrier Reef) is located approximately 140km from the Dragline Move corridor.

Nature and extent of likely impact

[Address any impacts on the National Heritage values of any National Heritage place.](#)

3.1 (c) Wetlands of International Importance (declared Ramsar wetlands)

Description

Not applicable. The closest declared Ramsar wetland (Shoalwater and Corio Bays Area) is located approximately 220km from the Dragline Move corridor.

Nature and extent of likely impact

[Address any impacts on the ecological character of any Ramsar wetlands.](#)

3.1 (d) Listed threatened species and ecological communities

Description

A detailed profile of the listed threatened species and the Brigalow TEC affected by the Project is provided in Appendix E of the attached Terrestrial Ecology MNES Assessment (Attachment 3).

Nature and extent of likely impact

[Address any impacts on the members of any listed threatened species \(except a conservation dependent species\) or any threatened ecological community, or their habitat.](#)

A detailed description of the nature and extent of likely impacts on listed threatened species and the Brigalow TEC affected by the Project is provided in the attached Terrestrial Ecology MNES Assessment (Attachment 3, section 6 and Appendix E).

In summary the assessment determined that the Project is likely to have significant residual impacts on Ornamental Snake and Yakka Skink.

With regards to the Brigalow TEC, although the Terrestrial Ecology MNES Assessment (Attachment 3) finds significant residual impacts will be caused by the Project, these are solely related to clearing within the South Walker Creek Mine mining leases. This clearing has been approved under State legislation prior to the enactment of the EPBC Act and it is therefore considered that it will neither require approval for the Project nor associated offsets. Refer to section 6.5 of Attachment 3 for further details.

Refer to section 6.3 and to the Terrestrial Ecology MNES Assessment at Attachment 3 for further details on the significant impact assessment.

3.1 (e) Listed migratory species

Description

Nineteen migratory fauna were considered as part of the assessment. After examination of available literature sources, database records, mapped vegetation communities and aerial imagery across the study area, four species were considered likely or potential to occur in the study area (the other species are unlikely to occur):

- White-throated Needletail *Hirundapus caudacutus*
- Fork-tailed Swift *Apus pacificus*
- Eastern Great Egret *Ardea modesta*
- Oriental Cuckoo *Cuculus optatus*.

The attached Terrestrial Ecology MNES Assessment (Attachment 3) provides a description of each migratory species relevant to the Project and an assessment of likelihood of occurrence (refer Appendix A of the report).

Nature and extent of likely impact

[Address any impacts on the members of any listed migratory species, or their habitat.](#)

The ecological assessment carried out for the Project determined that the Project would not result in any significant impact for migratory species when assessed against the significant impact criteria.

The attached Terrestrial Ecology MNES Assessment (Attachment 3) provides an assessment of significant impacts on migratory species (refer section 6 and Appendix E of the report).

3.1 (f) Commonwealth marine area

(If the action is in the Commonwealth marine area, please complete 3.2(c) instead. This section is for actions taken outside the Commonwealth marine area that may have impacts on that area.)

Description

Not applicable. The closest Commonwealth marine area (Exclusive Economic Zone and territorial sea) is located approximately 240km from the Dragline Move corridor.

Nature and extent of likely impact

[Address any impacts on any part of the environment in the Commonwealth marine area.](#)

3.1 (g) Commonwealth land

(If the action is on Commonwealth land, please complete 3.2(d) instead. This section is for actions taken outside Commonwealth land that may have impacts on that land).

Description

If the action will affect Commonwealth land also describe the more general environment. The Policy Statement titled *Significant Impact Guidelines 1.2 - Actions on, or impacting upon, Commonwealth land, and actions by Commonwealth agencies* provides further details on the type of information needed. If applicable, identify any potential impacts from actions taken outside the Australian jurisdiction on the environment in a Commonwealth Heritage Place overseas.

Not applicable. There is no Commonwealth land within or adjacent to the Dragline Move corridor.

Nature and extent of likely impact

Address any impacts on any part of the environment in the Commonwealth land. Your assessment of impacts should refer to the *Significant Impact Guidelines 1.2 - Actions on, or impacting upon, Commonwealth land, and actions by Commonwealth agencies* and specifically address impacts on:

- ecosystems and their constituent parts, including people and communities;
- natural and physical resources;
- the qualities and characteristics of locations, places and areas;
- the heritage values of places; and
- the social, economic and cultural aspects of the above things.

3.1 (h) The Great Barrier Reef Marine Park

Description

Not applicable. The Great Barrier Reef Marine Park is located approximately 140km from the Dragline Move corridor.

Nature and extent of likely impact

Address any impacts on any part of the environment of the Great Barrier Reef Marine Park.

Note: If your action occurs in the Great Barrier Reef Marine Park you may also require permission under the *Great Barrier Reef Marine Park Act 1975 (GBRMP Act)*. If so, section 37AB of the GBRMP Act provides that your referral under the EPBC Act is deemed to be an application under the GBRMP Act and Regulations for necessary permissions and a single integrated process will generally apply. Further information is available at www.gbrmpa.gov.au

3.1 (i) A water resource, in relation to coal seam gas development or large coal mining development

Description

If the action is a coal seam gas development or large coal mining development that has, or is likely to have, a significant impact on water resources, the draft *Policy Statement Significant Impact Guidelines: Coal seam gas and large coal mining developments—Impacts on water resources* provides further details on the type of information needed.

Not applicable. The decommissioning of the dragline at the Goonyella Riverside Mine and its commissioning and operation at South Walker Creek Mine represent the continuation of existing approved mining production activities (i.e. no amendments to existing approvals are required to enable ongoing mining production activities) and the use of the dragline will replace an existing truck and shovel fleet.

Nature and extent of likely impact

Address any impacts on water resources. Your assessment of impacts should refer to the draft *Significant Impact Guidelines: Coal seam gas and large coal mining developments—Impacts on water resources*.

3.2 Nuclear actions, actions taken by the Commonwealth (or Commonwealth agency), actions taken in a Commonwealth marine area, actions taken on Commonwealth land, or actions taken in the Great Barrier Reef Marine Park

You must describe the nature and extent of likely impacts (both direct & indirect) on the whole environment if the proposed action:

- is a nuclear action;
- will be taken by the Commonwealth or a Commonwealth agency;

- will be taken in a Commonwealth marine area;
- will be taken on Commonwealth land; or
- will be taken in the Great Barrier Reef Marine Park.

Your assessment of impacts should refer to the *Significant Impact Guidelines 1.2 - Actions on, or impacting upon, Commonwealth land, and actions by Commonwealth agencies* and specifically address impacts on:

- ecosystems and their constituent parts, including people and communities;
- natural and physical resources;
- the qualities and characteristics of locations, places and areas;
- the heritage values of places; and
- the social, economic and cultural aspects of the above things.

3.2 (a)	Is the proposed action a nuclear action?	X	No
			Yes (provide details below)

If yes, nature & extent of likely impact on the whole environment

3.2 (b)	Is the proposed action to be taken by the Commonwealth or a Commonwealth agency?	X	No
			Yes (provide details below)

If yes, nature & extent of likely impact on the whole environment

3.2 (c)	Is the proposed action to be taken in a Commonwealth marine area?	X	No
			Yes (provide details below)

If yes, nature & extent of likely impact on the whole environment (in addition to 3.1(f))

3.2 (d)	Is the proposed action to be taken on Commonwealth land?	X	No
			Yes (provide details below)

If yes, nature & extent of likely impact on the whole environment (in addition to 3.1(g))

3.2 (e)	Is the proposed action to be taken in the Great Barrier Reef Marine Park?	X	No
			Yes (provide details below)

If yes, nature & extent of likely impact on the whole environment (in addition to 3.1(h))

3.3 Description of the project area and affected area for the proposed action

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 above). If at Section 2.3 you identified any alternative locations, time frames or activities for your proposed action, please also complete each of the details below (where relevant) for each alternative identified.

3.3 (a) Flora and fauna

Refer to Attachment 3 for a detailed ecology report.

The proposed corridor traverses vegetation landscapes consisting mainly of pasture grasslands and wooded vegetation (remnant and regrowth), mostly composed of dry sclerophyll species.

Wooded vegetation encountered along the corridor is primarily comprised of:

- Eucalyptus woodland and open forest
- Acacia woodland and shrubby woodland
- Acacia and/or Casuarina open forest

The presence of the Brigalow (*Acacia harpophylla* dominant and co-dominant) TEC on the transportation corridor was confirmed during the field survey.

Despite extensive searches, no signs of potential communities that could represent the Natural Grasslands of the Queensland Central Highlands and the northern Fitzroy Basin were identified during the course of the field surveys.

After examination of available literature sources, database records, mapped vegetation communities and aerial imagery across the study area, the following three EPBC Act threatened flora species are considered to have potential to occur:

- King Blue-grass *Dichanthium queenslandicum* (Endangered)
- Blue-grass *Dichanthium setosum* (Vulnerable)
- Black Iron-box *Eucalyptus raveretiana* (Vulnerable).

The following EPBC Act threatened fauna species are considered likely or potential to occur:

- Squatter Pigeon *Geophaps scripta* (Vulnerable)
- Ornamental Snake *Denisonia maculata* (Vulnerable)
- Koala *Phascolarctos cinereus* (Vulnerable)
- Yakka Skink *Egernia rugosa* (Vulnerable).

The ecological assessment concluded that the Fitzroy River Turtle and Southern Snapping Turtle species were unlikely to occur due to a lack of suitable habitat.

Four migratory species are considered likely or potential to occur in the study area:

- White-throated Needletail *Hirundapus caudacutus*
- Fork-tailed Swift *Apus pacificus*
- Eastern Great Egret *Ardea modesta*
- Oriental Cuckoo *Cuculus optatus*.

3.3 (b) Hydrology, including water flows

The proposed transportation corridor traverses the ephemeral watercourses listed below.

- 1.14 km Isaac River Isaac River
- 8.34 km Skeleton Gully
- 15.65 km Tributary to Teviot Brook
- 17.41 km Teviot Brook
- 29.55 km Tributary to Smoky Creek
- 36.37 km North Creek
- 38.40 km Tributary to North Creek
- 43.07 km Tributary to North Creek
- 45.90 km Tributary to North Creek
- 56.55 km Tributary to Harrybrandt Creek
- 57.38 km Tributary to Harrybrandt Creek
- 63.57 km Thirty Mile Creek
- 71.42 km Humbug Gully
- 75.23 km Sandy Creek.

The above watercourses are ephemeral, with larger watercourses such as the Isaac River carrying flows longer than smaller ones, particularly creek tributaries.

To avoid the likelihood of the watercourse conveying flow during the dragline crossing, the transportation will occur outside of the wet season. To support the dragline and achieve the required vertical geometry, the watercourse will be filled to provide a 35m wide crossing point. Low flow culverts will be provided at larger crossings such as the Isaac River, Skeleton Gully, Teviot Brook and Thirty Mile Creek to convey any incidental water flow while the crossings are in place.

Construction of the water crossings will be scheduled such that they are completed just prior to the dragline crossing occurring, and then removed immediately to minimise the amount of time that the watercourses are filled. The dragline will only cross a watercourse when no water is flowing in the path of the dragline in the watercourse.

3.3 (c) Soil and Vegetation characteristics

From a geological perspective, the route can be divided into three sections, namely:

- 0 – 17 km Tertiary sediments comprising sandstone, mudstone and conglomerate and their weathered derivatives
- 17 – 43 km Triassic lithic sandstone, green to reddish brown mudstone and minor conglomerate
- 43 - 77 km Tertiary colluvial and residual clay, silt sand and gravel developed over older land surfaces.

Except for an isolated area of volcanic rock, the bedrock geology along the route is similar comprising low strength sedimentary strata (sandstone, siltstone and mudstone) overlain by alluvial, colluvial and residual soils.

Greater variability can be seen in the soils mapping with the soils comprising four groups:

- Shallow rocky soils (Du)
- Texture contrast soils comprising a leached sandy surface layer overlying a clayey subsoils (Co, Mo)
- Uniform red and yellow low medium plasticity sandy clay and clayey sand (J)
- High plasticity, potentially expansive heavy clay soil with some gilgai (Bl, Da, & Hu)

The expected soil types and estimated lengths along the route are provided below:

- Bl: Brigalow plains and cracking clay soils on weathered Tertiary clay and older rocks along the central axis of the area (2.4km)
- Co: Alluvial plains with box on texture-contrast soils throughout the area (5.0km)
- Da: Lowlands with Brigalow and cracking clay soils on weathered and fresh Permian shales and lithic sandstone in the north and centre (12.5km)
- Du: Hills with lancewood and narrow-leaved ironbark on weathered Tertiary and Permian rocks in the north-west, centre and south-east; shallow rocky soils (3.8km)
- Hu: Blackbutt and Brigalow on weathered clay plains occurring in most parts of the area; texture-contrast and cracking clay soils (12.2km)
- J: Table lands and plains with narrow-leaved ironbark and red and yellow earths on intact Tertiary land surface throughout the area except in the north-east and extreme south (8.2km)
- Mo: Lowlands with box and texture-contrast soils on undissected Tertiary land surface throughout the area except in the extreme south and north-east (33.0km)

3.3 (d) Outstanding natural features

No outstanding natural features existing along the corridor.

3.3 (e) Remnant native vegetation

Table 4 provides a description of the mapped remnant native vegetation intersected by the corridor.

Table 4 – Remnant vegetation on the corridor

Regional Ecosystem	Short description
11.3.1	<i>Acacia harpophylla</i> and/or <i>Casuarina cristata</i> open forest on alluvial plains
11.3.2	<i>Eucalyptus populnea</i> woodland on alluvial plains
11.3.4	<i>Eucalyptus tereticornis</i> and/or <i>Eucalyptus</i> spp. woodland on alluvial plains
11.3.25	<i>Eucalyptus tereticornis</i> or <i>E. camaldulensis</i> woodland fringing drainage lines
11.3.36	<i>Eucalyptus crebra</i> and/or <i>E. populnea</i> and/or <i>E. melanophloia</i> on alluvial plains. Higher terraces
11.4.9	<i>Acacia harpophylla</i> shrubby woodland with <i>Terminalia oblongata</i> on Cainozoic clay plains
11.5.3	<i>Eucalyptus populnea</i> +/- <i>E. melanophloia</i> +/- <i>Corymbia clarksoniana</i> woodland on Cainozoic sand plains and/or remnant surfaces
11.5.9c	<i>Eucalyptus crebra</i> and other <i>Eucalyptus</i> spp. and <i>Corymbia</i> spp. woodland on Cainozoic sand plains and/or remnant surfaces
11.7.2	<i>Acacia</i> spp. woodland on Cainozoic lateritic duricrust. Scarp retreat zone

Regional Ecosystem	Short description
11.7.3	<i>Eucalyptus persistens</i> , <i>Triodia mitchellii</i> open woodland on stripped margins of Cainozoic lateritic duricrust
11.8.5	<i>Eucalyptus orgadophila</i> open woodland on Cainozoic igneous rocks
11.9.1	<i>Acacia harpophylla</i> - <i>Eucalyptus cambageana</i> woodland to open forest on fine-grained sedimentary rocks
11.9.3	<i>Dichanthium</i> spp., <i>Astrebla</i> spp. grassland on fine-grained sedimentary rocks
11.9.4a	11.9.4a: Semi-evergreen vine thicket, generally dominated by a low tree layer (5-10m high) which is floristically diverse and variable. Common codominant species include <i>Croton insularis</i> , <i>Denhamia oleaster</i> .
11.9.5	<i>Acacia harpophylla</i> and/or <i>Casuarina cristata</i> open forest on fine-grained sedimentary rocks
11.9.7a	<i>Eucalyptus populnea</i> , <i>Eremophila mitchellii</i> shrubby woodland on fine-grained sedimentary rocks

3.3 (f) Gradient (or depth range if action is to be taken in a marine area)

Overall the land traversed by the alignment of the transport route is flat to mildly undulating. Due to the Dragline Move involving transportation of a large structure, steep areas were avoided.

3.3 (g) Current state of the environment

Include information about the extent of erosion, whether the area is infested with weeds or feral animals and whether the area is covered by native vegetation or crops.

The ecological field survey noted quite significant erosion in many places along the alignment, especially on Oben Park property (lot 5270 SP144274). Rabbit activity was noted to be prolific in the vicinity of the South Water Creek mine and patchy elsewhere. Weed infestation was found to be widespread, including *Opuntia* spp., *Harrisia* Cactus and *Parthenium*. The groundcover in non-remnant areas was generally dominated by pasture grasses, while it is mainly dominated by native species in remnant habitats.

3.3 (h) Commonwealth Heritage Places or other places recognised as having heritage values

Not applicable.

3.3 (i) Indigenous heritage values

Aboriginal parties have been engaged to undertake a cultural heritage survey across the Project footprint and BMC will work with the appropriate Traditional Owners to ensure Indigenous values are managed in an appropriate way.

3.3 (j) Other important or unique values of the environment

Describe any other key features of the environment affected by, or in proximity to the proposed action (for example, any national parks, conservation reserves, wetlands of national significance etc).

No important or unique values have been identified over the transportation corridor.

3.3 (k) Tenure of the action area (e.g. freehold, leasehold)

The corridor intersects both leasehold and freehold properties as listed in Table 1 under Section 1.

3.3 (l) Existing uses of area of proposed action

The land traversed by the transportation route mainly comprises pastoral properties and mining leases. The main land uses are coal mining and cattle grazing. The route also intersects a quarry area as well as road and railway corridors. The remainder of the land traversed is unused natural bushland and watercourses.

3.3 (m) Any proposed uses of area of proposed action

The transportation corridor will only be used temporarily, for the transport of the dragline only. No permanent use is proposed over the corridor. Once the move is completed, the corridor will be returned to its pre-existing uses.

4 Environmental outcomes

Provide descriptions of the proposed environmental outcomes that will be achieved for the matters protected by the EPBC Act that are likely to be affected by the proposed action. Include details of the baseline data upon which the outcomes are based, and the confidence about the likely achievement of the proposed outcomes. Where outcomes cannot be identified or committed to, provide explanatory details including any commitments to identify outcomes through an assessment process.

If a proposed action is determined to be a controlled action, the Department may request further details to enable application of the *Outcomes-based Conditions Policy 2016* (<http://www.environment.gov.au/epbc/publications/outcomes-based-conditions-policy-guidance>), including information about the environmental outcomes to be achieved by proposed avoidance, mitigation, management or offset measures, details of baseline data, milestones, performance criteria, and monitoring and adaptive management to ensure the achievement of outcomes. If this information is available at the time of referral it should be included in the description of the proposed measures.

General commitments to achieving environmental outcomes, particularly relating to beneficial impacts of the proposed action, CANNOT be taken into account in making the decision about whether the proposal is likely to have a significant impact on a matter protected under the EPBC Act. However, those commitments may be relevant at the later assessment and approval stages, including the appropriate level of assessment, and conditions of approval, if your proposal proceeds to these stages.

The proposed clearing areas of threatened species Ornamental Snake, Yakka Skink, Koala and Squatter Pigeon habitat and clearing areas of Brigalow TEC were calculated using a two-staged approach. The first stage involved clearing areas calculation based on Government mapping data. The results obtained were then refined via ground-truthing during an ecological field survey. Field surveys were conducted over the majority of the corridor during August and September 2016. The field survey verified the existence and extents of threatened species habitat and Brigalow TEC along the corridor, and the predicted extents of clearance. Refer to the Terrestrial Ecology MNES Assessment (Attachment 3) for further details on the desktop assessment, field survey and findings.

Having considered the amount of threatened species habitat proposed to be cleared (refer section 6 of the Terrestrial Ecology MNES Assessment (Attachment 3)), it is considered readily achievable to provide offsets for the loss of habitat where clearing is not already authorised within BMC, and related entity, held Mining Leases. In addition to offsets, the rehabilitation of cleared threatened species habitat will promote regrowth of cleared vegetation from the reinstated seedbank.

BHP Billiton can therefore commit to an overall beneficial outcome that will result in an overall increase of threatened species habitat.

The offset strategy is currently being prepared in accordance with the EPBC Act Environmental Offsets Policy and will be provided to DOEE as soon as it is finalised.

5 Measures to avoid or reduce impacts

Note: If you have identified alternatives in relation to location, time frames or activities as part of the proposed action at sections 1.10 and 2.3 please complete this section in relation to each of the alternatives identified.

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.

For each proposed measure, specify:

- a concise description of the nature, scope, work plan and consequence of the measure for the relevant impact and any statutory or policy basis for the measure;
- in doing so, include analysis and findings on whether each measure is likely to achieve the environmental outcomes for the matters protected by the EPBC Act which are likely to be affected by the proposed action, including noting:
 - the likely effectiveness of the measure in avoiding or mitigating the relevant impact on the matters protected by the EPBC Act;
 - the level of commitment by the person proposing to take the action to achieve the proposed environmental outcomes and implement the proposed mitigation measures. For example, identify if the measures are preliminary suggestions only that have not been fully researched, or are dependent on a third party's agreement (e.g. council or landowner);
 - any likely residual impacts (being, impacts likely to occur having implemented mitigation and/or avoidance measures) and, if such impacts will or are likely to occur, the measure available to compensate or offset these residual impacts. Please consider the Department's *EPBC Act, the EPBC Environmental Offsets Policy* (October 2012) (and *How to use the Offsets Assessment Guide*) and the *draft Policy Statement on EPBC Act Advanced Environmental Offsets*;
 - the likely consequences for the matters protected by the EPBC Act should the measure not be effective; and
 - any other likely consequences of the measure including both adverse and beneficial, such as efficiency, cost and cost-effectiveness and public acceptability (noting however, beneficial consequences of the measure will not be considered

in deciding whether or not the proposed action is likely to have a significant impact on the matters protected by the EPBC Act).

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.

Note, the Minister may decide that a proposed action is not likely to have significant impacts on a protected matter, as long as the action is taken in a particular manner (section 77A of the EPBC Act). The particular manner of taking the action may avoid or reduce certain impacts, in such a way that those impacts will not be 'significant'. More detail is provided on the Department's web site.

For the Minister to make such a decision (under section 77A), the proposed measures to avoid or reduce impacts must:

- clearly form part of the referred action (e.g. be identified in the referral and fall within the responsibility of the person proposing to take the action);
- must be clear, unambiguous, and provide certainty in relation to reducing or avoiding impacts on the matters protected; and
- must be realistic and practical in terms of reporting, auditing and enforcement.

Measures to avoid impacts include avoidance/reduction, mitigation measures and offsets. The proposed measures form part of a tried and tested approach used for BMA's Dysart Road Relocation Project (referral EPBC 2013/6868).

Avoidance/reduction measures

Avoidance of impacts to MNES was the key consideration when conducting the route selection study and identifying the required clearing corridor.

Key to this approach was the decision to use a pre-existing corridor that had been cleared in 2000 for the purpose of a similar dragline relocation carried out between the two same mines. Therefore the large majority of the proposed corridor is located within the same footprint as the corridor used in 2000. The only deviations from the pre-existing corridor were required due to the presence of infrastructure that did not exist at the time of the dragline relocation in 2000. As such, these deviations were unavoidable. However, where possible, deviations have been located so as to avoid or limit clearing of TECs and threatened species habitat.

Additionally, an iterative review of the corridor allowed for further avoidance of MNESs. A series of reviews of the corridor were undertaken using information collected by ecologists during their desktop assessment. This involved optimising the corridor alignment and width based on MNES mapping and threatened species habitat modelling by ecologists. Field surveys by ecologists were then carried out along the alignment to verify the results of the desktop assessment and further refine the extent of MNESs in the field. Using data collected during the field surveys, ecologists amended MNESs mapping to reflect field observations, which allowed to further refine the corridor alignment and width with the aim to avoid MNESs.

To further avoid or reduce vegetation clearing and associated impacts to MNESs, the following were undertaken:

- Decision was made to limit sections traversing areas of TECs or threatened species habitat to the absolute minimum width practicable for travel of the dragline (40m). In those sections, "breakout" stockpiling areas of cleared vegetation are required when the 40m wide section of corridor is 500m long or more. These vegetation stockpiling areas will increase the corridor width locally, however this approach was found to result in a lesser total disturbance to MNESs.
- The transport corridor was located wholly or partly onto existing cleared corridors such as powerline easements, road corridors and fence lines.

During works on site, areas requiring vegetation clearing are proposed to be physically delineated using GPS in order to ensure the mapped corridor limits are strictly followed.

The above avoidance measures are considered to be the most effective in limiting impacts to MNESs, thereby contributing the most to achieving the desired environmental outcomes.

Mitigation factors and measures

Mitigation measures aim to alleviate residual impacts that were unavoidable.

The short-term nature of the Project will constitute a mitigation factor as it will not generate activities likely to cause ongoing disturbance or risks to MNESs. Rehabilitation of cleared areas combined with the absence of further activities following completion of the dragline move will allow for the reestablishment of native vegetation.

Construction Environmental Control Plan

Prior to construction, BMC will develop specifically for this project a Construction Environmental Control Plan (CECP). The CECP will describe the environmental management program, policies and procedures for the construction of the road. Roles and

responsibilities for ensuring environmental compliance of the Project will be defined, and environmental management controls and environmental requirements detailed. The environmental requirements will cover matters such as:

- Flora and fauna management
- Water management
- Management of erosion and sedimentation
- Weed management
- Air quality
- Noise and vibration
- Cultural Heritage
- Waste and hazardous materials management.

Implementation of the CECP will ensure minimal impact to protected and endangered flora and fauna species. It will be prepared to meet the requirements of relevant conditions under Commonwealth and/or Queensland Government approvals. In particular, it will aim to:

- Develop management practices for flora and fauna protection and conservation
- Establish a strategy for rehabilitation of the construction area
- Protect and preserve threatened species and communities and the regional biodiversity value
- Describe roles and responsibilities to maintain compliance with environmental requirements and commitments
- Provide a framework for inspections and monitoring to evaluate environmental compliance.

The CECP will also establish the approach and methodology to minimise and mitigate adverse effects on the environment and water quality resulting from erosion and sedimentation during the construction phase. It will identify potential soil, erosion, pollution and water quality issues potentially arising from construction activities in order to minimise the adverse impacts on waterways and adjacent land. It will also address the broad controls and strategies to be implemented on site that are able to be planned prior to the commencement of construction.

In addition, the CECP will be developed to minimise the adverse effects of weeds on biodiversity resulting from construction activities. It will describe the environmental management programs related to the prevention of weed introduction and spread during activities. BMC and BMC-managed contractors will be responsible for implementing the mitigation and management controls outlined in the CECP during all construction activities.

Vegetation Clearing Procedure

The CECP's provisions on vegetation clearing will be supported by a Vegetation Clearing Procedure (VCP) (refer Attachment 4). The VCP outlines the process and key points that will be implemented during the clearing of vegetation within ecologically significant areas. This procedure covers clearing guidelines, induction and Tool Box notes, inspections and monitoring, incident reporting, recording and reporting and continual improvement. The clearing guidelines are broken into activities prior to clearing and during clearing, and include the following measures targeting at avoiding impacts to MNESs:

- Pre-clear fauna surveys to identify, investigate and flag habitat features such as fallen timber and burrows, including rabbit burrows that may support Yakka Skink colonies, areas of cracking clay soils that may support Ornamental Snakes and squatter Pigeon nests.
- Clear demarcation of remnant vegetation and habitats adjoining the dragline transport corridor within which no construction activity, machinery, stockpiles or equipment storage can occur
- Engaging suitably qualified fauna spotter/catchers during clearing activities to prevent injury or death to fauna detected prior to clearing, with specific focus on habitat features flagged during pre-construction pre-clear surveys and any vegetation that may support Koalas.

Species Management Program

The activities of the Fauna Spotter/Catchers will be guided by a Species Management Program (required under the Queensland NC Act) designed to minimise impacts on animal breeding places.

The Species Management Program details species-specific methods to avoid harm to fauna. It addresses the full range of measures including nest relocation, habitat (e.g. tree hollow) preservation, fauna relocation and incident management. For instance, it will include clearing and soil disturbance techniques to unearth Yakka Skink colonies (if confirmed or suspected to be present), and retrieve sheltering Ornamental Snakes from soil cracks.

Rehabilitation

Post-move decommissioning and rehabilitation will also mitigate residual impacts to MNESs. Areas that currently support remnant vegetation and high value regrowth will be rehabilitated to encourage regeneration of the original vegetation community types. Preparation of the ground surface will include respreading of topsoil and cleared vegetation in areas identified for restoration in order to encourage the regrowth of native vegetation from the existing seedbank.

Rehabilitation will also involve the following activities, as required:

- Removal of any fill sourced externally
- Reseeding with native species
- Native species planting
- Erosion prevention/control measures where required

Rehabilitation of watercourse crossings will involve the following:

- The fill placed in the bed of the watercourse will be removed and placed back in the borrow area
- The ground profile will be returned to its original state
- Erosion and sediment control measures/devices will be installed, where/as required by ground conditions (e.g. ripping of slopes, placement of rocks/gravel, erosion control blankets, hydromulching, etc.)
- Measure will be implemented to reinstate cleared riparian vegetation. Subject to local ground conditions, this may include placement of cleared vegetation over the disturbed area (including seedbank), seeding (e.g. hydroseeding), planting of seedlings.

Offsets

It is proposed to provide environmental offsets for significant residual impacts on Ornamental Snake and Yakka Skink habitat. A land-based offset selected from BHP Billiton's portfolio, which includes land owned by BHP Billiton or by landholder partners, will be proposed through an offset strategy being developed in accordance with the EPBC Act Environmental Offsets Policy. The offset strategy will be submitted to DOEE as soon as finalised.

6 Conclusion on the likelihood of significant impacts

Identify whether or not you believe the action is a controlled action (i.e. whether you think that significant impacts on the matters protected under Part 3 of the EPBC Act are likely) and the reasons why.

6.1 Do you THINK your proposed action is a controlled action?

- | | |
|-------------------------------------|---------------------------|
| <input type="checkbox"/> | No, complete section 6.2 |
| <input checked="" type="checkbox"/> | Yes, complete section 6.3 |

6.2 Proposed action IS NOT a controlled action.

Specify the key reasons why you think the proposed action is NOT LIKELY to have significant impacts on a matter protected under the EPBC Act by reference to each relevant matter protected by the EPBC Act.

6.3 Proposed action IS a controlled action

Type 'x' in the box for the matter(s) protected under the EPBC Act that you think are likely to be significantly impacted. (The 'sections' identified below are the relevant sections of the EPBC Act.)

Matters likely to be significantly impacted

- | | |
|-------------------------------------|---|
| <input type="checkbox"/> | World Heritage values (sections 12 and 15A) |
| <input type="checkbox"/> | National Heritage places (sections 15B and 15C) |
| <input type="checkbox"/> | Wetlands of international importance (sections 16 and 17B) |
| <input checked="" type="checkbox"/> | Listed threatened species and communities (sections 18 and 18A) |
| <input type="checkbox"/> | Listed migratory species (sections 20 and 20A) |
| <input type="checkbox"/> | Protection of the environment from nuclear actions (sections 21 and 22A) |
| <input type="checkbox"/> | Commonwealth marine environment (sections 23 and 24A) |
| <input type="checkbox"/> | Great Barrier Reef Marine Park (sections 24B and 24C) |
| <input type="checkbox"/> | A water resource, in relation to coal seam gas development and large coal mining development (sections 24D and 24E) |
| <input type="checkbox"/> | Protection of the environment from actions involving Commonwealth land (sections 26 and 27A) |
| <input type="checkbox"/> | Protection of the environment from Commonwealth actions (section 28) |
| <input type="checkbox"/> | Commonwealth Heritage places overseas (sections 27B and 27C) |

Specify the key reasons why you think the proposed action is likely to have a significant adverse impact on the matters identified above by reference to each matter protected by the EPBC Act identified in section 3 above.

The Project is likely to have significant impacts on

- Ornamental Snake because the species is patchily distributed in the landscape and there is potential for the population in the project area to be an important population. Clearing for the Project could potentially:
 - lead to a long-term decrease in the size of an important population of the species
 - reduce the area of occupancy of an important population
 - disrupt the breeding cycle of an important population of the species.
- Yakka Skink because the species is patchily distributed in the landscape and there is potential for the population in the project area to be an important population. Clearing for the Project could potentially:
 - lead to a long-term decrease in the size of an important population of the species
 - disrupt the breeding cycle of an important population of the species.

The above conclusions were reached through a significant impact assessment undertaken against the Significant Impact Guidelines 1.1 (Department of the Environment, 2013). Refer to the Terrestrial Ecology MNES Assessment at Attachment 3 for further details on the significant impact assessment.

7 Environmental record of the person proposing to take the action

	Yes	No
<p>7.1 Does the party taking the action have a satisfactory record of responsible environmental management?</p> <p>Provide details</p> <p>BMC has an excellent record of responsible environmental management and a strong commitment to continual improvement of environmental performance. BMC has been the sole manager of South Walker Creek Mine since 2010 and no significant non-conformance of its Environmental Authority has occurred in that time, nor has the mine performed any unauthorised activities. Between 1996 and 2010 the mine was managed by BM Alliance Coal Operations Pty Ltd, during which time only one non-compliant environmental incident is known to have occurred, being that of a tailings pipeline failure which was remedied in accordance with government and community expectations. BHP Billiton has an overriding commitment to environmental responsibility. We strive to achieve the efficient use of resources, including reducing and preventing pollution, and enhancing biodiversity protection by assessing ecological values and land use in our activities. Our stewardship approach is designed to ensure that the lifecycle health, safety, environment and community impacts associated with resources, materials, processes and products related to our businesses are minimised and managed.</p>	X	
<p>7.2 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 against:</p> <p>(a) the person proposing to take the action, or (b) if a permit has been applied for in relation to the action - the person making the application.</p> <p>BMC has not been subject to any environmental related proceedings in any of the following Courts - High Court, Federal Court, Supreme Court, District Court, and Planning and Environment Court. To the best of our knowledge and enquiries, nor has BMC been involved in any proceedings within the various Queensland Magistrate's Courts.</p> <p>If yes, provide details</p>		X
<p>7.3 If the person taking the action is a corporation, please provide details of the corporation's environmental policy and planning framework and if and how the framework applies to the action.</p> <p>South Walker Creek Mine currently operates under an Environmental Management System which provides the framework for environmental management and details the management plans to be created and implemented and also stipulates the legal aspects to be considered in all actions.</p> <p>The Dragline Move will be conducted in accordance with the South Walker Creek Environmental Management System, the BHP Billiton Charter, and internal governance processes and standards (e.g. Code of Conduct, BHP Billiton Environment Standard).</p> <p>BHP Billiton's approach to environmental management is incorporated in the Charter, which states that we have 'an overriding commitment to health, safety, environmental responsibility and sustainable development'. A copy of the BHP Billiton Charter is provided as Attachment 5.</p>	X	

7.4 Has the party taking the action previously referred an action under the EPBC Act, or been responsible for undertaking an action referred under the EPBC Act?	X	
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Provide name of proposal and EPBC reference number (if known)

Wards Well Exploration Program (EPBC 2011/5820)
Poitrel Mine (EPBC referral 2004/1770)
South Walker Creek – Kemmis 2 Project (EPBC 2013/7025)
South Walker Creek – Mulgrave Resource Project (2014/7272)

8 Information sources and attachments

(For the information provided above)

8.1 References

- List the references used in preparing the referral.
- Highlight documents that are available to the public, including web references if relevant.

Isaac Regional Council website, in particular research and statistical resources (REMPLAN) at <http://www.isaac.qld.gov.au/social-and-economic-data>

Outcomes-based Conditions Policy 2016, DOE 2016 (<http://www.environment.gov.au/epbc/publications/outcomes-based-conditions-policy-guidance>)

Refer to the Terrestrial Ecology MNES Assessment at Attachment 3 for references used to prepare the report.

8.2 Reliability and date of information

For information in section 3 and the map required by section 1, specify:

- source of the information;
- how recent the information is;
- how the reliability of the information was tested; and
- any uncertainties in the information.

Information in section 3 has been sourced from ecological and geotechnical desktop and field assessments carried out during the month of September 2016. The information was collected by specialist geotechnical engineers and ecologists specifically for the purpose of the Project, and is therefore reliable. Ecological field assessments were conducted using best practice floristic sampling and habitat scoring methodologies. The ecological data was collected by ecologists grouped in teams, enabling them to verify their survey findings while on site, in case of uncertainty. Any uncertainties are those inherent to the methodology used for the ecological assessment described in the Terrestrial Ecology MNES Assessment (Section 2 of Attachment 3), i.e. use of representative fauna habitat sites, representative sampling of RE types. However, the method used is recognised as best practice, thereby keeping levels of uncertainty low.

A small portion of the corridor could not be surveyed, however it will be surveyed in the near future and the MNES ecological assessment updated accordingly. Should the additional survey change the findings of the ecological assessment, it will be brought to DOEE's attention immediately.

8.3 Attachments

Indicate the documents you have attached. All attachments must be less than three megabytes (3mb) so they can be published on the Department's website. Attachments larger than three megabytes (3mb) may delay the processing of your referral.

		✓ attached	Title of attachment(s)
You must attach	figures, maps or aerial photographs showing the locality of the proposed action (section 1)	✓	BMC Dragline Project Move – Project Locality
	GIS file delineating the boundary of the referral area (section 1)	✓	
	figures, maps or aerial photographs showing the location of the proposed action in respect to any matters of national environmental significance or important features of the environments (section 3)	✓	Terrestrial Ecology MNES Assessment Typical plan and section of a watercourse crossing
If relevant, attach	copies of any state or local government approvals and consent conditions (section 2.5)		
	copies of any completed assessments to meet state or local government approvals and outcomes of public consultations, if available (section 2.6)		
	copies of any flora and fauna investigations	✓	Terrestrial Ecology MNES

and surveys (section 3)		Assessment
technical reports relevant to the assessment of impacts on protected matters that support the arguments and conclusions in the referral (section 3) conclusions in the referral (section 3 and 4)	✓	Terrestrial Ecology MNES Assessment
report(s) on any public consultations undertaken, including with Indigenous stakeholders (section 3)		

9 Contacts, signatures and declarations

NOTE: Providing false or misleading information in response to a requirement under Part 7 of the EPBC Act is an offence punishable on conviction by imprisonment and/or fine (section 489 of the EPBC Act).

Under the EPBC Act a referral can only be made by:

- the person proposing to take the action (which can include a person acting on their behalf); or
- a Commonwealth, state or territory government, or agency that is aware of a proposal by a person to take an action, and that has administrative responsibilities relating to the action.

Proposed action title:

9.1 Person proposing to take action

This is the individual, government agency or company that will be principally responsible for, or who will carry out, the proposed action. It may be a trustee (either being an individual or a body corporate) acting on behalf of the trust for which they have responsibility (but not the trust).

If the proposed action will be taken under a contract or other arrangement, this is:

- the person for whose benefit the action will be taken; or
- the person who procured the contract or other arrangement and who will have principal control and responsibility for the taking of the proposed action.

If the proposed action requires a permit under the GBRMP Act¹, this is the person requiring the grant of a GBRMP permission.

The Minister may also request relevant additional information from this person.

If further assessment and approval for the action is required, any approval which may be granted will be issued to the person proposing to take the action. This person will be responsible for complying with any conditions attached to the approval.

Name and Title: Michael Lovely
Manager Project Development, Minerals Australia, BHP Billiton

Organisation (if applicable): Organisation name should match entity identified in ABN/ACN search
BHP Billiton Mitsui Coal

Trust deed (if applicable): attached; OR
 not applicable

ACN / ABN (if applicable):
34 009 713 875

Postal address:
GPO Box 1389 Brisbane Qld 4001

Telephone:
07 3329 8809

Email:
Mick.Lovely@bhpbilliton.com

¹ If your referred action, or a component of it, is to be taken in the Great Barrier Reef Marine Park the Minister is required to provide a copy of your referral to the Great Barrier Reef Marine Park Authority (GBRMPA) (see section 73A, EPBC Act). For information about how the GBRMPA may use your information, see http://www.gbrmpa.gov.au/privacy/privacy_notice_for_permits.

COMPLETE THIS SECTION ONLY IF YOU QUALIFY FOR EXEMPTION FROM THE FEE(S) THAT WOULD OTHERWISE BE PAYABLE

- I qualify for exemption from fees under section 520(4C)(e)(v) of the EPBC Act because I am:
- an individual; OR
 - a small business entity (within the meaning given by section 328-110 (other than subsection 328-119(4)) of the *Income Tax Assessment Act 1997*); OR
 - not applicable.

If you are small business entity you must provide the Date/Income Year that you became a small business entity:

Note: You must advise the Department within 10 business days if you cease to be a small business entity. Failure to notify the Secretary of this is an offence punishable on conviction by a fine (regulation 5.23B(3) *Environment Protection and Biodiversity Conservation Regulations 2000* (Cth)).

COMPLETE THIS SECTION ONLY IF YOU WOULD LIKE TO APPLY FOR A WAIVER

Note: Applications for a waiver must be supported by information in writing setting out the grounds on which the applicant considers that a waiver should be made and the reasons why it should be made. The Minister may, at his or her discretion, waive all or part of a fee that would otherwise be payable in the following circumstances:

- the action's primary objective is to protect the environment, or protect and conserve heritage, in a way that is consistent with the objects of the EPBC Act;
- it is in the public interest to do so; or
- there are other exceptional circumstances justifying the waiver.

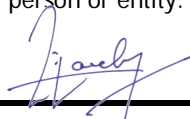
The Minister will consider the application within 20 business days.

- I would like to apply for a waiver of full or partial fees under regulation 5.21A of the [EPBC Regulations](#). Under 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:
- not applicable.

Declaration:

I declare that to the best of my knowledge the information I have given on, or attached to this form 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: 3 October 2016

9.2 Designated proponent

Individual or organisation who is proposed to be designated as the proponent if the Minister decides that the action is a controlled action and further assessment and approval is required. The proponent is responsible for meeting the requirements of the EPBC Act during the assessment process. The proponent may or may not be the person proposing to take the action.

Name of proposed proponent:

If the name of the proposed proponent is not the same person as named at item 1 of section 9.1 above, please complete all of the below fields in section 9.2.

ACN / ABN (if applicable):

Postal address:

Telephone:

Email:

Declaration by the proposed proponent:

I, the proposed proponent, consent to the proposed designation of myself as the proponent for the purposes of the action described in this referral.

Date:

Signature:

I, the person proposing to take the action, consent to the proposed designation of..... as proponent for the purposes of the action described in this referral.

Declaration by the person proposing to take the action:

Signature:

Date:

9.3 Person preparing the referral information (if different from section 9.1)

Individual or organisation who has prepared the information contained in this referral form.

Name:

Title: Brett Garner

Organisation: Manager Approvals, Land & Tenements
Organisation name should match entity identified in ABN/ACN search

ACN / ABN (if applicable): BHP Billiton Mitsui Coal

Postal address: 34 009 713 875

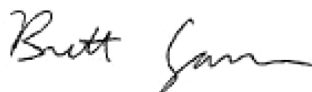
Telephone: GPO Box 1389, Brisbane Qld 4001

Email: +61 417 712 009

brett.garner@bhpbilliton.com

Declaration: I declare that to the best of my knowledge the information I have given on, or attached to this form is complete, current and correct.
I understand that giving false or misleading information is a serious offence.

Signature:



Date: 3 October 2016

REFERRAL CHECKLIST

NOTE: This checklist is to help ensure that all the relevant referral information has been provided. It is not a part of the referral form and does not need to be sent to the Department.

HAVE YOU:

- Completed all required sections of the referral form?
- Included accurate coordinates (to allow the location of the proposed action to be mapped)?
- Provided a map showing the location and approximate boundaries of the project area for the proposed action?
- Provided a map/plan showing the location of the action in relation to any matters of NES?
- Provided a digital file (preferably ArcGIS shapefile, refer to guidelines at [Attachment A](#)) delineating the boundaries of the referral area?
- Provided complete contact details and signed the form?
- Provided copies of any documents referenced in the referral form?
- Ensured that all attachments are less than three megabytes (3mb)?
- Sent the referral to the Department (electronic and hard copy preferred)

Geographic Information System (GIS) data supply guidelines

If the area is less than 5 hectares, provide the location as a point layer. If the area greater than 5 hectares, please provide as a polygon layer. If the proposed action is linear (e.g. a road or pipeline) please provide a polyline layer.

GIS data needs to be provided to the Department in the following manner:

- Point, Line or Polygon data types: ESRI file geodatabase feature class (preferred) or as an ESRI shapefile (.shp) zipped and attached with appropriate title
- Raster data types: Raw satellite imagery should be supplied in the vendor specific format.
- Projection as GDA94 coordinate system.

Processed products should be provided as follows:

- For data, uncompressed or lossless compressed formats is required - GeoTIFF or Imagine IMG is the first preference, then JPEG2000 lossless and other simple binary+header formats (ERS, ENVI or BIL).
- For natural/false/pseudo colour RGB imagery:
 - If the imagery is already mosaiced and is ready for display then lossy compression is suitable (JPEG2000 lossy/ECW/MrSID). Prefer 10% compression, up to 20% is acceptable.
 - If the imagery requires any sort of processing prior to display (i.e. mosaicing/colour balancing/etc) then an uncompressed or lossless compressed format is required.

Metadata or 'information about data' will be produced for all spatial data and will be compliant with ANZLIC Metadata Profile. (http://www.anzlic.org.au/policies_guidelines#guidelines).

The Department's preferred method is using ANZMet Lite, however the Department's Service Provider may use any compliant system to generate metadata.

Privacy and Confidentiality Notice

The Department is required under section 74(3) of the *Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act)* to publish the information (including personal information of the author and/or third parties) provided in this referral on the internet. The information published may include your personal information.

Information including your personal information included in this referral will be used for the purposes of administering the EPBC Act. The information may be provided to various Commonwealth, State and Territory agencies for the purposes of administering the Act or other Commonwealth, State or Territory legislation. For example, if the proposed action (or a component of it) is to be taken in the GBRMP, the Minister is required to provide a copy of your referral to GBRMPA (see section 73A, EPBC Act). For information about how the GBRMPA may use your information, see http://www.gbrmpa.gov.au/privacy/privacy_notice_for_permits.

The Department will collect, use, store and disclose the personal information contained in this referral in a manner consistent with its obligations under the *Privacy Act 1988* and the Department's privacy policy.

The Department's privacy policy contains details about how respondents may access and make corrections to personal information that the Department holds about the respondent, how respondents may make a complaint about a breach of an Australian Privacy Principle, and how the Department will deal with that complaint.

A copy of the Department's privacy policy is available at: <http://environment.gov.au/privacy-policy>.

The Department is not obliged to publish information that the Minister is satisfied in commercial-in-confidence. If you believe that this referral contains information that is commercial-in-confidence, you must clearly identify such information and the reason for its confidentiality at the time of making the referral. The Minister cannot be satisfied that particular information included in a referral is commercial-in-confidence unless you demonstrate to the Minister (by providing reasons in writing) that:











- release of the information would cause competitive detriment to the person; and
- the information is not in the public domain; and
- the information is not required to be disclosed under another law of the Commonwealth, a State or a Territory; and
- the information is not readily discoverable.

The Department is subject to certain legislative and administrative accountability and transparency requirements of the Australian Government including disclosures to the Parliament and its Committees. While the Department will treat all referral information provided in this referral sensitively, any information contained in or relating to a referral, including information identified by a person as commercial-in-confidence, may be disclosed by the Department:

- to its employees and advisers in order to evaluate or assess a referral;
- to the Parliamentary Secretary;
- within the Department or other agencies where this serves the legitimate interest of the Australian Government;
- in response to a request by a House or Committee of the Parliament of the Commonwealth of Australia;
- where information is authorised or permitted by law to be disclosed; and
- where the information is in the public domain other than by the Department's disclosure of that information.

Attachment 1 – Project overview map

BMC Dragline Move Project Project Locality

-  Dragline move route
-  Dragline move corridor
-  Existing roads
-  Queensland Rail network
-  Private rail network
-  Mining tenements
- Intersected cadastral parcels
-  Lot parcel
-  Easement
- Cadastral parcels
-  Lot parcel
-  Easement

Source Information:
 Rail network - Queensland, Physical Road Network - Queensland,
 Watercourses, Cadastral boundaries (19/09/2016)
 Queensland Department of Natural Resources and Mines
 BMA tenements
 Supplied by BMA/Hatch 19/07/2016

While every care is taken to ensure the accuracy of this data, WorleyParsons makes no representations or warranties about its accuracy, reliability, completeness or suitability for any particular purpose and disclaims all responsibility and all liability (including without limitation liability in negligence) for all expenses, losses, damages (including indirect or consequential damage) and costs which might be incurred as a result of the data being inaccurate or incomplete in any way and for any reason.

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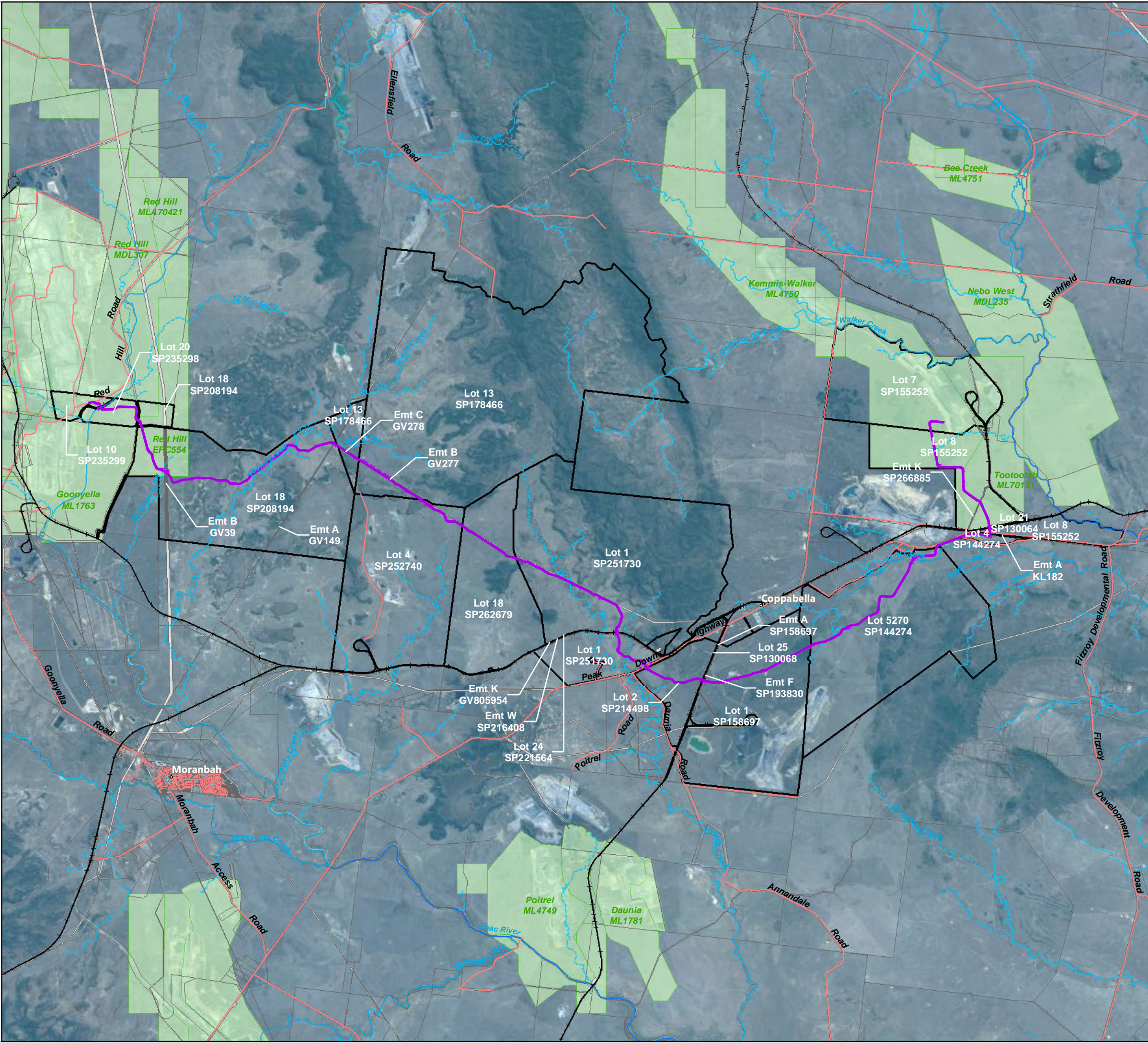
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 Datum: GDA 1994
 Scale at A3 - 1:225,000



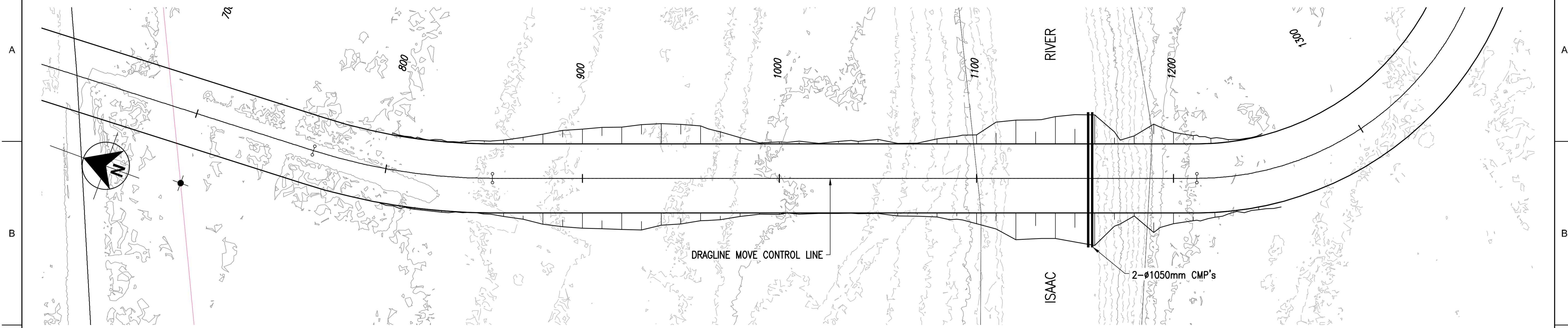
Sources: Esri, HERE, DeLorme, USGS, Intermap, increment P Corp., NRCAN, Esri Japan, METI, Esri China (Hong Kong), Esri (Thailand), MapmyIndia, © OpenStreetMap contributors, and the GIS User



G:\301310a\13545 PROJ - BMC Dragline Move\10.0 Engineering\10 GM - Geomatics\Output\301310-13545-00-GM-SKT-0005-A (EPBC overview).mxd
 Rev: A 22/09/2016 "ISSUED FOR INFORMATION" Orig: KM Chk: SL



Attachment 2 – Watercourse crossing typical design



PLAN - ISAAC RIVER CROSSING
SCALE 1:1000

LEGEND
--- (E) OVERHEAD POWERLINES

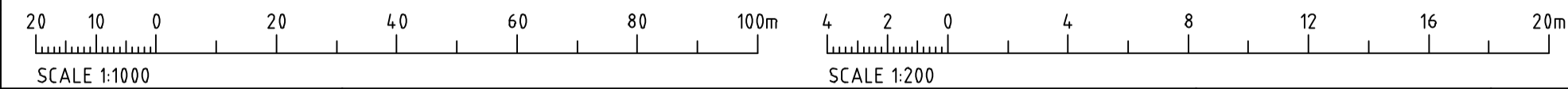
IP CH 983.974 HT 250.381
 IP CH 1061.475 HT 248.831
 IP CH 1132.943 HT 243.114
 IP CH 1218.284 HT 249.941

Horiz Curve Data

Vertical Geometry Grade (%)	3.35	1.34	0	-2	-8	8	1	-0.636
Vertical Grade Length	12.58	110.3	170.37	77.502	71.467	85.341	79.219	12.497
Vertical Curve Length (m)				40m VC	50m VC	80m VC	50m VC	
Vertical Curve Radius (m)				R = 2000	R = 833.33	R = 500	R = 714.29	

EARTHWORKS	CUT	2753	6474	279	1597	1124																										
	FILL	158	42	1183	10550	8																										
DEPTH TO NATURAL SURFACE		0.000	-0.038	-0.704	-0.846	-1.369	-1.964	-2.078	-1.936	-1.411	-0.778	-0.042	0.213	-0.142	-0.279	-0.194	0.615	0.352	0.861	1.982	3.289	3.516	1.056	0.554	-2.196	-1.257	-1.017	-0.589	0.109	0.083	0.148	0.104
DESIGN HEIGHT		250.039	250.381	250.381	250.381	250.381	250.381	250.381	250.381	250.381	250.381	250.057	249.981	249.561	249.331	248.951	247.670	246.831	246.314	245.799	244.777	245.005	246.314	246.479	247.941	248.447	249.186	249.775	250.191	250.259	250.509	250.718
NATURAL SURFACE		250.039	250.419	251.086	251.228	251.751	252.346	252.459	252.317	251.793	251.129	250.099	249.769	249.703	249.610	249.145	247.056	246.479	245.453	244.518	241.508	241.489	245.258	245.925	250.138	249.704	250.202	250.363	250.082	250.176	250.360	250.613
CHAINAGE		800	825	850	854.366	875	900	925	950	963.974	975	1000	1003.974	1025	1036.475	1050	1075	1086.475	1092.943	1100	1125	1150	1172.943	1175	1193.284	1200	1211.857	1225	1243.284	1250	1275	1300

LONGITUDINAL SECTION - DRAGLINE CORRIDOR



PRELIMINARY
NOT FOR CONSTRUCTION

SUBJECT TO FINAL VERIFICATION AND APPROVAL

THIS DRAWING WAS PREPARED FOR THE EXCLUSIVE USE OF [NAME OF CLIENT] ("CLIENT") AND IS ISSUED PURSUANT TO THE RELEVANT AGREEMENT BETWEEN CLIENT AND HATCH LTD ("HATCH"). UNLESS OTHERWISE AGREED IN WRITING WITH CLIENT OR SPECIFIED ON THIS DRAWING, HATCH DOES NOT ACCEPT AND DISCLAIMS ANY AND ALL LIABILITY OR RESPONSIBILITY ARISING FROM ANY USE OF OR RELIANCE ON THIS DRAWING BY ANY THIRD PARTY OR ANY MODIFICATION OR MISUSE OF THIS DRAWING BY CLIENT. AND IS THE DRAWING IS CONFIDENTIAL AND ALL INTELLECTUAL PROPERTY RIGHTS EMBODIED OR REFERENCED IN THIS DRAWING REMAIN THE PROPERTY OF HATCH.



BHP BILLITON PROJECTS

BMC DRAGLINE MOVE STUDY

ISAAC RIVER CROSSING - PLAN AND PROFILE
SHEET 1 OF 1

DRAFTSPERSON	B DUNNE	BRD	16/02/16
DESIGNER			
CHECKER	B GINTY	BG	16/02/16
DESIGN COORD.			
RESP. ENG.	I GORDON	IAG	16/02/16
LEAD DISC. ENG.			
ENG. MANAGER			
PROJ. MANAGER			
ROLE	NAME	SIGNATURE	DATE
DRAWING APPROVAL STATUS: PRELIMINARY			

SCALE AS SHOWN OR AS NOTED	DWG. No. H350689-00000-223-272-0002	REV 0
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DRAWING No.	DRAWING TITLE
REGISTERED PROFESSIONAL	

No.	DESCRIPTION	BY	CHK'D	DATE
O	ISSUED FOR USE - PRELIMINARY DESIGN	BRD	BG	08/03/16
A	ISSUED FOR CLIENT REVIEW	BRD	BG	16/02/16

Attachment 3 – Terrestrial Ecology MNES Assessment

Attachment 4 – Vegetation clearing procedure



1.0 Vegetation Clearing Procedure

This procedure should be read in conjunction with the relevant Environmental Authority, permit and licence conditions and Environmental Management Plans for the specific project underway.

The following procedure outlines the process and key points which will be implemented during the clearing of vegetation within ecologically significant areas. Ecologically significant areas are those identified during environmental assessment and approval process and/or those recorded on relevant databases and maps.

1.1 Clearing Guidelines

Prior to Clearing Activities

1. Where practicable, schedule clearing to occur outside of known breeding seasons. **Site Environmental Officer**
2. The Environmental Officer will ensure any necessary vegetation clearing approvals are obtained prior to clearing. **Site Environmental Officer**
3. **Hold Point reference:** Prior to any clearing, the site shall be ground truthed and areas where vegetation is to be cleared/ and or retained, and will be clearly marked. Clearing of vegetation shall not occur outside those boundaries. **Site Supervisor and Site Environmental Officer**
4. **Hold Point reference:** Prior to any clearing a suitably qualified fauna spotter/catcher will undertake a pre-clearance fauna survey to identify all wildlife that may potentially inhabit the area. The survey should:
 - a. identify and flag all Hollow Bearing Trees (HBTs) and potential breeding sites within the clearing area and where possible search hollows for resident fauna using methods that may include the use of binoculars, cameras on poles, ladders or mechanical methods such as cherry-pickers where feasible and appropriate .
 - b. involve a search of likely ground habitats such as rocky areas, fallen logs and woody debris, gullies and waterways and banks (including any artificial habitat sites such as discarded mine or farm equipment, water tanks etc)
 - c. if fauna is present and can be relocated, this shall be undertaken by the fauna spotter catcher, with GPS coordinates recorded at both the original and relocated sites. The relocation site should be located in near-by habitat that is not subject to vegetation clearing. **Site Environmental Officer, Fauna Spotter/Catcher.**
5. All HBTs identified as having habitat value will be marked using flagging tape. All HBTs will be removed in accordance with the procedure outlined below. **Site Environmental Officer**
6. The Environmental Officer shall ensure the name and contact details for the local animal hospital/veterinary surgeon shall be included on the Emergency Contacts List and is made available to the Site Supervisor. **Site Environmental Officer, Fauna Spotter/Catcher.**

During Clearing

7. The Site Supervisor is to ensure all **HOLD POINTS** have been met prior to commencing vegetation clearing. **Site Supervisor.**
8. A fauna spotter/catcher will be present during clearing of vegetation with high ecological values to prevent injury or death to fauna detected prior to clearing. **Site Supervisor, Fauna Spotter/Catcher.**
9. Where a fauna spotter is required to be present during clearing, works should not commence/continue until the fauna spotter/catcher has given notification that no fauna lies directly in the path of clearing plant. **Site Supervisor / Fauna Spotter/Catcher.**
10. **HBT Removal:** All HBTs that require removal will be inspected for resident fauna immediately prior to clearing by a fauna spotter /catcher using methods that may include the use of binoculars, cameras on poles, ladders or mechanical methods such as cherry-pickers where appropriate. All reasonable attempts will be made to clear these trees as late in the day as possible to avoid disturbing/dislocating nocturnal fauna in the middle parts of the day and thus exposing them to a greater period of daylight without shelter.
 - a. The method for clearing HBT that are confirmed habitat trees will incorporate the use of a 'grab' or 'sling' on an excavator to slowly lower the HBT.
 - b. All hollows will be inspected immediately after felling to ensure that no fauna are present in the hollows that were missed by the original pre-clearance survey. **Site Supervisor, Fauna Spotter/Catcher**
11. When certain fauna is located, e.g. gliders or other nocturnal fauna at risk of predation, the spotter catcher will ensure the fauna is taken into care and released either that evening into in suitable habitat as close to the capture site as possible. **Fauna Spotter/Catcher.**
12. Once cleared and where possible, the hollow bearing sections of the tree will be set aside for relocation into designated areas of remnant vegetation where possible. This will contribute toward habitat provisions for terrestrial fauna (Coarse Woody Debris). **Site Supervisor.**
13. Any native fauna injured as a result of construction shall be transported to a native animal hospital / refuge or veterinarian by appropriate / qualified persons. Note: should the fauna be considered dangerous to human health, e.g. venomous snake, flying fox, obviously diseased, the Environmental Officer should be notified. These animals should only be handled by appropriately qualified persons. If unable to be moved, the Vet shall attend the site to determine the course of action in the best interest of the animal. If required, BMA will provide appropriate compensation for the management of injured fauna. **Environmental Officer** (assisted by fauna spotter catcher if required).
14. Land clearing debris must not be pushed into gullies, watercourses, other drainage lines or waterlogged areas. **Site Supervisor.**

1.2 Induction and Tool Box Notes

During induction/tool box sessions all persons will be made aware of these requirements, including:

- instructions to stay within the clearing footprint to prevent damage and harm to adjacent fauna and habitat;
- weed control and hygiene rules;
- vegetation protection and clearing limited; and
- fauna protection and action for injured fauna.

1.3 Inspections and Monitoring

Clearing limits and protective measures are informally inspected daily as part of routine construction activity. Formal inspections are conducted weekly and recorded on the inspection form. These inspections will include weed, vegetation and fauna management requirements. Any maintenance or repairs shall be undertaken as soon as practicable after observance of the defect. Welfare of native fauna and habitat shall be monitored as part of routine construction activity throughout the duration of the construction phase of the project.

1.4 Incident Reporting

In the event of injury or death of any significant fauna species (i.e. threatened or rare species) , all incidents will be recorded and reported to DEHP by BMA or its delegated authority within 48 hours of the incident occurring. The details for reporting incidents to DEHP are as follows:

- The coordinates of where the incident occurred will be recorded;
- The checking methods will be outlined i.e. confirmation the pre-clearance surveys were undertaken in accordance with the methodology outlined above;
- Confirmation that the spotter/catcher was suitably qualified; and
- Suggested mitigation measure to ensure that a similar incident does not occur in the future.

Furthermore, all injuries to, and deaths of native fauna will be recorded by the spotter catcher (including species type and GPS location), and provided to the site Environmental Officer and BMA on completion of the clearing works. These records will be kept by the Environmental officer and will be made available to DEHP upon request.

1.5 Recording and Reporting

Reporting will be undertaken by the licensed spotter-catcher whilst on site during clearing works and the completed register will be forwarded to DERM by BMA upon completion of the clearing. The fauna spotter catcher shall supply a report to BMA detailing:

- spotter catcher activities undertaken at each area;
- types of habitats removed during clearing, including GPS locations.
- fauna relocated and/or injured/ killed, including GPS coordinates;
- number of hollow bearing trees or nests removed or relocated during clearing works, including GPS coordinates and photos of new locations;
- number of hollow bearing trees removed confirmed as hosting the listed species or are existing breeding places; and
- types of habitats removed during clearing, including GPS locations.

1.6 Continual Improvement

The effectiveness of this procedure in delivering specified and desirable outcomes is monitored through the results of inspections and non-conformances, which are issued as the works progress. Any corrective actions or amendments to the procedure that are required are initiated at the time of inspection.

Attachment 5 – BHP Billiton Charter



Our Charter

**We are BHP Billiton,
a leading global resources company.**

Our Purpose

Our purpose is to create long-term shareholder value through the discovery, acquisition, development and marketing of natural resources.

Our Strategy

Our strategy is to own and operate large, long-life, low-cost, expandable, upstream assets diversified by commodity, geography and market.

Our Values

Sustainability

Putting health and safety first, being environmentally responsible and supporting our communities.

Integrity

Doing what is right and doing what we say we will do.

Respect

Embracing openness, trust, teamwork, diversity and relationships that are mutually beneficial.

Performance

Achieving superior business results by stretching our capabilities.

Simplicity

Focusing our efforts on the things that matter most.

Accountability

Defining and accepting responsibility and delivering on our commitments.

We are successful when:

Our people start each day with a sense of purpose and end the day with a sense of accomplishment.

Our teams are inclusive and diverse.

Our communities, customers and suppliers value their relationships with us.

Our asset portfolio is world-class and sustainably developed.

Our operational discipline and financial strength enables our future growth.

Our shareholders receive a superior return on their investment.

A handwritten signature in black ink that reads "Andrew S Mackenzie".

Andrew Mackenzie
Chief Executive Officer

September 2016
