

**Approval Decision****Galilee Coal and Rail Project (EPBC 2009/4737)**

This decision is made under sections 130(1) and 133 of the *Environment Protection and Biodiversity Conservation Act 1999*.

**Proposed action**

**person to whom the approval is granted** Waratah Coal Pty Ltd

**proponent's ACN (if applicable)** ACN 114 165 669

**proposed action** To establish a new coal mine, railway and coal stockyards and supporting infrastructure to export high volatile, low sulphur, steaming coal from near Alpha in the Galilee Basin to Abbot Point, Queensland as described in the referral and referral attachments which were accepted by the department on 13 February 2009. [See EPBC Act referral 2009/4737]

**Approval decision**

Controlling Provision	Decision
World Heritage properties (sections 12 & 15A)	Approved
National Heritage places (sections 15B & 15C)	Approved
Listed threatened species and communities (sections 18 & 18A)	Approved
Listed migratory species (sections 20 & 20A)	Approved
Commonwealth marine areas (sections 23 & 24A)	Approved
A water resource, in relation to coal seam gas development and large coal mining development (sections 24D & 24E)	Approved

**conditions of approval**

This approval is subject to the conditions specified below

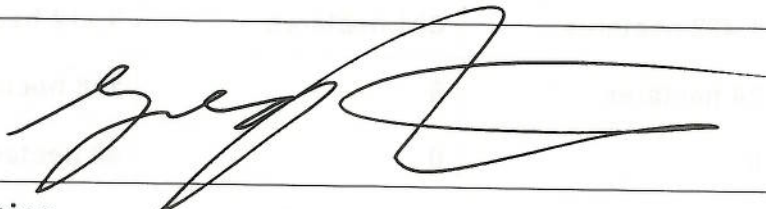
**expiry date of approval**

This approval has effect until 31 December 2073

**Decision-maker**

**name and position**

Greg Hunt  
Minister for the Environment

**signature**

**date of decision**

19:12:2013

## Conditions attached to the approval

1. The **Minister** may determine that a plan, strategy or program approved by the Queensland Government satisfies a plan, strategy or program required under these conditions.

### Project area

2. The **project area** is:
  - a) the area designated as the **project area** at Attachment A (mining lease application area) contained within the mine lease application (MLA) 70454. This area includes the following leases (as they are at the date of the decision to which these conditions are attached):
    - i. Exploration Permit Coal 1040; and
    - ii. Part of Exploration Permit Coal 1079; and
  - b) the rail alignment described in the finalised Environmental Impact Statement (August 2013), a 453km Standard Gauge Heavy Haul Railway from Exploration Permit Coal 1040 to the Abbot Point State Development Area.
3. For the purpose of the action, the **approval holder** must not clear outside the **project area**.

### Disturbance limits

4. Where habitat for **EPBC Act listed threatened species or communities** not previously identified and reported to the **department** is found in the **project area**, the **approval holder** must notify the **department** in writing within five business days of finding this habitat, and within 20 business days of finding this habitat outline in writing how the **approval holder** will avoid, mitigate and offset any impacts to **EPBC Act listed threatened species or communities**.
5. The maximum disturbance limits in Table 1 apply to authorised **impacts** on **EPBC Act listed threatened species and communities** as a result of exploration, construction, operation and decommissioning of the mine, associated infrastructure and rail corridor and associated infrastructure within the **project area** (i.e. they are 'whole of project' disturbance limits) for the duration of the project approval.

**Table 1: Disturbance limits for EPBC Act listed threatened species and communities:**

Species	Limit of disturbance associated with mining activities (Primary habitat)	Limit of disturbance associated with subsidence (Primary habitat)	Limit of disturbance associated with rail corridor activities (Primary habitat)
Listed threatened species – avian and mammal			
Black-throated Finch	2,789 hectares	801 hectares	38 hectares
Squatter Pigeon	2,789 hectares	801 hectares	1,161 hectares
Red Goshawk	0	0	383 hectares
Northern Quoll	84 hectares	2 hectares	63 hectares
Listed threatened species – reptile			
Yakka Skink	1,422 hectares	801 hectares	3,112 hectares
Ornamental Snake	34 hectares	0	148 hectares
Dunmall's Snake	0	0	48 hectares

Limit of disturbance for threatened ecological community			
Brigalow ( <i>Acacia harpophylla</i> dominant and co-dominant)	0	0	43 hectares

Note 1: Table 1 is derived from information provided in Waratah Coal Pty Ltd's finalised Environmental Impact Statement (August 2013) and rounded to the nearest hectare stated.

6. The **approval holder** must not exceed the disturbance limits specified in Table 1.
7. If any disturbance limits associated with Project mine or rail corridor activities for **EPBC Act listed threatened species and communities** stated in Table 1 are predicted to be exceeded, the **approval holder** must:
  - a) contact the **department** in writing before reaching the disturbance limit in Table 1 and provide the actual and predicted amount of disturbance in hectares for each species or ecological community;
  - b) submit a new offset proposal for the **EPBC Act listed threatened species and ecological community** in accordance with the **EPBC Act Offsets Policy** to the **Minister** for approval in writing; and
  - c) include timeframes for implementing and securing the proposed offsets in the offset proposal.
8. The offset proposal in condition 7 must be approved by the **Minister** in writing before the **approval holder** reaches the disturbance limits specified in Table 1.

#### Offset Management Plan

9. To compensate for authorised unavoidable **impacts** on **MNES** (see Table 1), the **approval holder** must submit an Offset Management Plan to the **Minister** for approval.
10. The following table specifies the minimum offsets which must be secured for unavoidable authorised **impacts** to **EPBC Act listed threatened species and communities** in respect of disturbance limits estimated in Table 1:

**Table 2: Offsets required for EPBC Act listed threatened species and communities:**

Species	Required offset: Primary Habitat
Black-throated Finch	10,000 hectares
Squatter Pigeon	6,000 hectares
Red Goshawk	383 hectares
Northern Quoll	500 hectares
Yakka Skink	5,800 hectares
Ornamental Snake	270 hectares
Dunmall's Snake	72 hectares
<b>Threatened Ecological Community</b>	
Brigalow ( <i>Acacia harpophylla</i> dominant and co-dominant)	199 hectares

The Offset Management Plan must be consistent with the **Galilee Basin Offset Strategy**, and must include:

- a) details of the offset areas (including maps in electronic Geographic Information System (GIS) format), site descriptions, environmental values relevant to **MNES**, amounts of **primary habitat** for each **MNES** (in hectares), connectivity with other

habitat and biodiversity corridors, a rehabilitation program, and conservation and management measures for long-term protection;

- b) a detailed survey and description of the condition of the offset area/s prior to any management activities, including existing **MNES** habitat and vegetation which has the potential to be restored or improved (the baseline condition);
  - c) details of how the offset/s have been or will be legally secured;
  - d) discussion of connectivity of the offset area/s with other habitats and biodiversity corridors;
  - e) a description of the potential risks to the successful implementation of the Offset Management Plan, and include details of the contingency measures that will be implemented to mitigate against these risks;
  - f) management measures for **MNES** and **MNES** habitat with written evidence of input from a **suitably qualified expert** who has relevant expertise in the management of native vegetation of the Galilee Basin;
  - g) a monitoring program for the offset site/s. The monitoring program must:
    - i. clearly set out performance indicators;
    - ii. measure the success of the management measures against stated performance criteria;
    - iii. include monitoring parameters, frequencies, triggers, corrective actions, timing and scope for the duration of project approval;
  - h) details of how the plan will be updated to incorporate and address outcomes from research undertaken for **EPBC Act listed threatened species and communities**, including the research required under this approval;
  - i) an outline of how milestones and compliance will be reported; and
  - j) details of who will be undertaking monitoring, review, and implementation of the Offset Management Plan (if this person is not the **approval holder**).
11. The Offset Management Plan must include, in writing, commitments from the **approval holder** that demonstrate that the offset area/s required in Table 2 will be met.
12. Offsets detailed in the Offset Management Plan must be legally secured within three years of commencement of **Project Stage 2** or as required under relevant Queensland legislation, whichever is earlier.
13. The Offset Management Plan must be approved by the **Minister** in writing within 12 months of the commencement of **Project Stage 2**.
14. The approved Offset Management Plan must be implemented.

*Note 2: Offsets for some species may be accommodated within ecological communities or overlap State approval requirements or other species habitat requirements, as long as they meet the requirements of these conditions of approval in respect of each individual species being offset.*

### **Biodiversity Offset Funding**

15. The **approval holder** must establish and/or contribute to a pool of funds established for the better protection and long term conservation of **EPBC Act listed threatened species and communities** listed in Table 1.
16. The mechanism to establish and/or contribute to a pool of funds, including terms of reference to support a regional approach, funding mechanisms and an initial work plan, which must be agreed by the **Minister** in writing and may be in the form of a trust fund, or other mechanism/s as agreed by the **Minister** in writing.
17. The **approval holder** must contribute \$100,000 (GST exclusive) per annum for 10 consecutive years to the pool of funds beginning from the commencement of **Project Stage 2**.
18. These funds must facilitate the development and implementation of research programs identified as a priority to manage development **impacts** on **EPBC Act listed threatened species and communities** listed in Table 1 which are consistent with, and take into consideration, any Recovery Plans, Threat Abatement Plans and/or Conservation Advices

for **EPBC Act listed threatened species and communities** listed in Table 1. Research programs must identify measures to mitigate and manage the **impacts on EPBC Act listed threatened species and communities** listed in Table 1 and must include:

- a) methodologies for a baseline survey that will report on each species' lifestyle, movement patterns, habitat requirements and population dynamics. Survey methodologies must be in accordance with the **department's survey guidelines** or alternative best practice methodologies that are agreed to in writing by the **Minister** prior to **commencement** and endorsed by a **suitably qualified ecologist**. The baseline survey must begin in the first year following the date of approval;
  - b) an ongoing monitoring program (developed from the baseline monitoring) for each species, to continue for the duration of the project approval, with annual reporting to the **department**;
  - c) commitments, including financial commitments and associated timeframes, that will be implemented by the **approval holder** to support the undertaking of research;
  - d) the time frames for undertaking each research component;
  - e) timing and methods of reporting research outcomes to the **Minister**, the scientific community and the public; and
  - f) outcomes of consultation with the **department** on how the proposed Research Plans align with other studies for **EPBC Act listed threatened species and communities** listed in Table 1.
19. Research programs must be approved by the **Minister** in writing prior to research commencing.
20. A review of funding must be undertaken 5 years after the commencement of the establishment of the pool of funds and/or the commencement of contributions or as otherwise agreed by the Minister in writing. This review must take into account progress of the research programs and any subsequent on ground actions, as well as the involvement of other approval holders in funding and administrative arrangements.
21. The **approval holder** must provide notice of the establishment of and/or contribution to the pool of funds to the **department** in writing prior to commencement of **Project Stage 2**. Documentary evidence must be provided to the **department** showing that the annual financial contributions to the pool of funds have been provided within 30 calendar days of each payment.
22. Identification of priority actions for funding must be decided by representatives including: the **approval holder**, **Queensland Department of Environment and Heritage Protection**, members of relevant Recovery Teams, and the **department**.

#### **Rewan Formation Connectivity Research Plan**

23. The **approval holder** must submit for the approval of the **Minister** a Rewan Formation Connectivity Research Plan ('Research Plan') that characterises the Rewan Formation, for the **Minister's** approval. The Research Plan must include but is not limited to the following:
- a) research aims;
  - b) personnel responsible for conducting research and their qualifications;
  - c) timeframes for research and reporting;
  - d) methods, including seismic surveys to determine the type, extent and location of faulting and fracturing and an examination of the hydraulic properties of the Rewan Formation, to better characterise the Rewan Formation and the contribution of fractures and faults to connectivity;
  - e) an explanation of how research will inform the future **Bioregional Assessment for the Galilee Basin sub-region and the Lake Eyre Basin**; and
  - f) an explanation of how outputs will inform the **Water Monitoring and Management Plan**.
24. The Research Plan must be peer reviewed by a **suitably qualified expert** approved by the **Minister** in writing. The peer review and the Research Plan must be submitted together to

the **Minister** for approval.

25. The findings of the research outputs of the Rewan Formation Connectivity Research Plan must be published on the **approval holder's** website and submitted to the department in accordance with the timeframes approved by the **Minister** for reporting.
26. The **approval holder** must not commence **Project Stage 2** until the **Minister** has approved the Rewan Formation Connectivity Research Plan in writing.
27. The approved Rewan Formation Connectivity Research Plan must be implemented.

### **Water Monitoring and Management Plan**

#### *Monitoring network*

28. The approval holder must submit a Water Monitoring and Management Plan (WMMP) for the **Minister's** approval.

Note 3: To ensure efficiency the approval holder may prepare and align the WMMP with the requirements of the Queensland Government, as long as the relevant matters under the conditions of this approval are clearly and adequately addressed.

29. The WMMP must:
  - a) include details of a best practice baseline monitoring network that will enable the identification of spatial and temporal changes to surface and groundwater, as a result of project activities;
  - b) include a rationale for the suitability of the proposed baseline monitoring network;
  - c) use the findings of the **numerical groundwater model** for the project where relevant;
  - d) review and update the monitoring network to reflect changes in understanding of impacts to water resources from:
    - (i) the results of baseline monitoring;
    - (ii) the research from the Rewan Formation Connectivity Research Plan; and
    - (iii) changes to the **numerical groundwater model** and outputs; and
  - e) provide details of an ongoing monitoring program that addresses:
    - (i) potential surface and groundwater **impacts**, including monitoring of downstream impacts resulting from the release of mine-affected water;
    - (ii) cumulative **impacts** spanning all project activities including creek diversions and construction;
    - (iii) **subsidence**;
    - (iv) operation and decommissioning/closure of the mine; and
    - (v) a rationale for the suitability of the proposed ongoing monitoring network.

Note 4: Information about cumulative impacts must include publicly available information and other related project information available to the proponent, such as information available for Queensland Government water balance modelling, monitoring and assessment programs.

30. The WMMP must include parameters and a sampling regime to establish baseline data for:
  - a) water quality and quantity for surface water;
  - b) water quality, water levels and/or pressures for groundwater;
  - c) connectivity between surface and groundwater; and
  - d) connectivity between the following formations: Alluvial deposits; Tertiary deposits; Bandanna Formation; Colinlea Sandstone; Joe Joe Formation; Moolayember Formation; Clematis Sandstone; Dundas Beds.
31. The WMMP must include timeframes for expansion of the surface and groundwater monitoring network.
32. The WMMP must include provisions to make monitoring results publicly available on the

approval holder's website.

33. The WMMP must be peer reviewed by a **suitably qualified expert** approved by the **Minister** in writing. The peer review must be submitted to the **Minister** at the same time the WMMP is submitted to the **Minister** for approval.
34. **Project Stage 3** cannot commence until the WMMP has been approved by the **Minister** in writing.

#### *Numerical Groundwater Model*

35. To predict impacts to water resources so they can be avoided or minimised, the **approval holder** must:
  - a) review and update the **numerical groundwater model** once two years of groundwater monitoring data is available, in accordance with the finalised Environmental Impact Statement (August 2013); and
  - b) use the outcomes of the **numerical groundwater model** in reviewing and revising the WMMP in accordance with these conditions.

Note 5: To ensure efficiency the approval holder may prepare and align the model required under these conditions with the requirements of the Queensland Government, as long as the relevant matters under the conditions of this approval are clearly and adequately addressed.

#### *Threshold and exceedance limits*

36. The WMMP must identify, and provide a rationale for, thresholds and exceedance limits in respect of the project's **impact** on surface water and groundwater. This must include:
  - i. in relation to **impacts** on surface water - thresholds and limits for water quantity and availability; stressors and contaminants; annual loads of salinity; and sediment; and
  - ii. in relation to **impacts** on groundwater – thresholds and limits for water quality and drawdown.

Note 6: Threshold values identified in the plan and during the life of the approval and related conditions may be varied by the Minister to reflect the best available data and scientific information.

37. Limits in the approved WMMP must not be exceeded.

#### *Management and response actions*

38. The **approval holder** must develop a risk based threshold response that details the actions the **approval holder** will take and the timeframes in which those actions will be undertaken if:
  - a) threshold values contained in the WMMP are exceeded or likely to be exceeded;
  - b) there are any unforeseen emergency discharges.
39. The approval holder must:
  - a) report exceedances to the department within 10 business days of the monitored exceedance; and
  - b) provide written advice to the department, within 90 calendar days of the occurrence of the monitored exceedance, stating the direct cause of, and the actions taken in response to, the exceedance and management responses.
40. The Minister may by written request, require the WMMP be reviewed by a **suitably qualified expert**. Within 6 months of the review, the **approval holder** must revise and update the **WMMP** for the **Minister's approval**. The approved **WMMP** must be implemented.

Note 7: The Minister may throughout the project life seek advice from experts, or an expert panel. As a consequence specific matters identified through such advice may need to be addressed in the Plan. Where such advice is sought the approval holder would be provided with opportunity to submit information and respond to the specific matters identified, in order to ensure the Plan is based on the best available information. Review requirements will facilitate adaptive management, alignment with Queensland Government approval requirements, and account for potential cumulative impacts as new scientific information becomes available over the life of the project.

## Date of commencement

41. Within 30 calendar days after the **commencement** of the action, the **approval holder** must advise the **department** in writing of the actual date of **commencement**.

## General

42. The **approval holder** must notify the department in writing of non-compliance with any condition of this approval as soon as practical and within no later than two business days of becoming aware of the non-compliance.

The notice provided to the Department under this condition must specify:

- i. the condition which the **approval holder** has potentially breached;
  - ii. the nature of the non-compliance;
  - iii. when and how the **approval holder** became aware of the non-compliance;
  - iv. how the non-compliance will affect the approved action;
  - v. how the non-compliance will affect the anticipated impacts of the approved action, in particular how the non-compliance will affect the impacts on the MNES;
  - vi. the measures the **approval holder** will take to address the impacts of the non-compliance on the MNES and rectify the non-compliance; and
  - vii. the time by when the **approval holder** will rectify the non-compliance.
43. The **approval holder** must maintain accurate records substantiating all activities associated with or relevant to the conditions of approval, including measures taken to implement the plans, strategies or programs required by this approval, and make them available upon request to the **department**. Such records may be subject to audit by the **department** or an independent auditor in accordance with section 458 of the **EPBC Act**, or used to verify compliance with the conditions of approval. Summaries of audits will be posted on the **department's** website. The results of audits may also be publicised through the general media.
44. Within three months of every 12 month anniversary of the **commencement** of the action, the **approval holder** must publish a report on its website addressing compliance with each of the conditions of this approval, including implementation of any plans, strategies or programs as specified in the conditions. Documentary evidence providing proof of the date of publication and non-compliance with any of the conditions of this approval must be provided to the **department** at the same time as the compliance report is published.
45. Upon the direction of the **Minister**, the **approval holder** must ensure that an independent audit of compliance with the conditions of approval is conducted and a report submitted to the **Minister**. The independent auditor must be approved by the **Minister** prior to the commencement of the audit. Audit criteria must be agreed to by the **Minister** and the audit report must address the criteria to the satisfaction of the **Minister**.
46. If the **approval holder** wishes to carry out any activity otherwise than in accordance with a plan, strategy or program as specified in the conditions, the **approval holder** must submit to the **department** for the **Minister's** written approval a revised version of that plan, strategy or program. The varied activity shall not **commence** until the **Minister** has approved the varied plan, strategy or program in writing. The **Minister** will not approve a varied plan, strategy or program unless the revised plan, strategy or program would result in an equivalent or improved environmental outcome over time. If the **Minister** approves the revised plan, strategy or program, that plan, strategy or program must be implemented in place of the plan, strategy or program originally approved.
47. If the **Minister** believes that it is necessary or convenient for the better protection of **EPBC listed species or communities** or a water resource to do so, the **Minister** may request that the **approval holder** make specified revisions to a plan, strategy or program specified in the conditions and submit the revised plan, strategy or program for the **Minister's** written approval. The **approval holder** must comply with any such request. The revised approved plan, strategy or program must be implemented. Unless the **Minister** has approved the revised plan, strategy or program, then the **approval holder** must continue to implement the plan, strategy or program originally approved, as specified in the conditions.



48. If, at any time after five years from the date of this approval, the **approval holder** has not **substantially commenced Project Stage 1**, then the **approval holder** must not **substantially commence** the action without the written agreement of the **Minister**.
49. Unless otherwise agreed to in writing by the **Minister**, the **approval holder** must publish all plans, strategies or programs referred to in these conditions of approval on their website. Each plan, strategy or program must be published on the website within 1 month of being approved (unless otherwise specified in these conditions) and remain on the website for the duration of project approval.

## Definitions

**Approval holder:** means the person to whom the approval is granted.

**Bioregional Assessment for the Galilee Basin sub-region and the Lake Eyre Basin:** will be conducted in conjunction with relevant state and territory government agencies and natural resource management bodies and entails a scientific analysis of the ecology, hydrology and geology for the purpose of assessing the potential risks to water resources in the area as a result of the direct and indirect impacts of coal seam gas development or large coal mining development.

**Black-throated Finch:** means the Black-throated Finch (Southern) (*Poephila cincta cincta*), listed as a threatened species under the EPBC Act.

**Brigalow (*Acacia harpophylla* dominant and co-dominant):** means the threatened ecological community listed under the EPBC Act.

**Commence/Commencement/Commencing:** means any physical disturbance including clearing of vegetation that is an EPBC listed species or community or that is habitat for a EPBC Act listed species or community or new road works, new rail works, new camps, development of mining associated infrastructure and mining operations. Commencement does not include:

- a. minor physical disturbance necessary to undertake pre-clearance surveys or establish monitoring programs or associated with the mobilisation of the plant, equipment, materials, machinery and personnel prior to the start of railway and road development or construction; or
- b. activities that are critical to commencement that are associated with mobilisation of plant and equipment, materials, machinery and personnel prior to the start of railway or road development or construction only if such activities will have no adverse impact on MNES, and only if the approval holder has notified the department in writing before an activity is undertaken.

**Department:** means the Australian Government Department administering the *Environment Protection and Biodiversity Conservation Act 1999*.

**Dunmall's Snake:** means the Dunmall's Snake (*Furina dunmalli*), listed as a threatened species under the EPBC Act.

**EPBC/ EPBC Act:** means the *Environment Protection and Biodiversity Conservation Act 1999* (Cth).

**EPBC Act Offsets Policy:** means the *Environment Protection and Biodiversity Conservation Act 1999 Environmental Offsets Policy* (October 2012).

**EPBC Act listed species and community/ies:** means a threatened species or community, or a migratory species listed under the *Environment Protection and Biodiversity Conservation Act 1999* (Cth).

**Galilee Basin Strategic Offset Strategy:** is the Queensland Government Department's Galilee Basin Strategic Offset Strategy (2013) or any future updated version.

**Impact/s/ed:** has the definition assigned to it in section 527E of the EPBC Act.

**Matters of National Environmental Significance/ MNES:** means matters of national environmental significance, being the relevant matters protected under Part 3 of the EPBC Act.

**Minister:** means the Minister administering the *Environment Protection and Biodiversity Conservation Act 1999* and includes a delegate of the Minister.

**Northern Quoll** means the Northern Quoll (*Dasyurus hallucatus*), listed as a threatened species under the EPBC Act.

**Numerical groundwater model:** means any computational method that represents an approximation of an underground water system that simulates hydraulic heads (and watertable elevations in the case of unconfined aquifers) and groundwater flow rates within and across the boundaries of the system under consideration.

**Ornamental Snake:** means the Ornamental Snake (*Denisonia maculata*), listed as a threatened species under the EPBC Act.

### **Primary habitat**

#### Black-throated Finch Primary Habitat Values means:

Grassy woodland habitat which is included within any QLD Regional Ecosystem on Land Zone 3, 5, or 7, which is either:

- within 600m of a permanent water body; or
- within 3km of a wetland or  $\geq 3^{\text{rd}}$  order stream (as mapped by the QLD Govt.).

#### Squatter Pigeon Primary Habitat Values means:

Grassy woodland habitat which is included within any QLD Regional Ecosystem on Land Zone 3, 5, or 7, which is either:

- within 1km of a permanent water body; or
- within 1km of a wetland or a  $\geq 3^{\text{rd}}$  order stream (as mapped by the QLD Govt.).

#### Yakka Skink Primary Habitat Values means:

Open forest or woodland habitat which is included within any QLD Regional Ecosystem on Land Zone 3, 4 (not associated with current alluvium), 5, 7, 9, or 10, which supports ground cover vegetation (>30% FPC) and >30% cover of leaf litter and fallen woody material and supports any combination of the following: abundant rock outcrops (containing crevices) or fallen logs (>30cm in diameter) and/or tree stumps and/or animal burrows with an abundance (combined or otherwise) of >10 per 100m x 100m sample plot.

#### Ornamental Snake Primary Habitat Values means:

- Woodland or open forest habitat which is included within any QLD Regional Ecosystem on Land Zone 4 and supports gilgai (melon-hole) mounds and depressions; or
- Woodland or open forest habitat which is included within any QLD Regional Ecosystem on Land Zone 3 or 4, or an area of mapped regrowth on Land Zone 3 or 4, which is within 200m of a mapped wetland or a  $\geq 4^{\text{th}}$  order stream (as mapped by the QLD Govt.) and supports an abundance of fallen logs (>30cm in diameter) of >10 per 100m x 100m sample plot.

#### Red Goshawk Primary Habitat Values means:

Open forest habitat which is included within any QLD Regional Ecosystem on Land Zone 3, 5, 7, 8, 10, or 11, and is part of either:

- A single mapped unit >50ha of remnant vegetation within 1km of a wetland or a  $\geq 4^{\text{th}}$  order stream (as mapped by the QLD Govt.); or

- A single mapped unit >50ha of remnant vegetation within an area of State Biodiversity Significance (as mapped by the QLD Govt.).

**Dunmall's Snake Primary Habitat Values means:**

- All habitat included within any QLD Regional Ecosystem on Land Zone 4 which is located between 2km south of the Belyando River crossing to 2km north of the Suttor River rail crossing; or
- All habitat included within any QLD Regional Ecosystem on Land Zone 4 which >50ha in patch area and within 200m of a wetland or a  $\geq 4^{\text{th}}$  order stream (as mapped by the QLD Govt.).

**Northern Quoll Primary Habitat Values means:**

All habitat included within any QLD Regional Ecosystem 10.7.1, 10.7.2, 10.7.3, 10.7.4, 10.7.5, 10.8.1, 10.9.2, 10.9.5, 10.10.2, 10.10.3, 10.10.4, 10.10.5, 11.7.1, 11.7.2, 11.8.3, 11.8.4, 11.8.5, 11.10.3, 11.10.4, 11.10.8, 11.11.19, 11.12.4, 11.12.12, 11.12.13, 11.12.14, 11.12.18, or 11.12.19, which is either:

- Part of an area of >300ha of mapped remnant vegetation; or
- Part of an area of >50ha of remnant vegetation within an area of State Biodiversity Significance (as mapped by the QLD Govt.).

**Project area:** means the area identified in Attachment A and Attachment B.

**Project Stage:** means the stages as specified within this definition and its sub-parts:

**Project Stage 1:** Project activities prior to commencement of Ground Disturbance include:

Pre-construction surveying and technical assessment including geotechnical, establishment of site security arrangements (including, signs, fences, safety barriers, and temporary security personnel facilities) and maintenance of existing roads and tracks. Installation of facilities for the purpose of environmental monitoring compliance. Other works limited to the existing site facilities and access roads.

**Project Stage 2:** Ground disturbance up to commencement of coal washing:

Removal of existing structures; Site clearance; access road; initial temporary water supply and waste water management; potable water treatment and sewerage treatment plants; power supply; communications; and minor administration buildings.

Civil earthworks; installation of permanent and temporary drainage and water diversions; trenching and laying of reticulated services and any other underground pipelines and services; road construction, rail formation and airport construction; ramps and walls; hardstand construction; water storage infrastructure; underground box cuts and stockpiles.

Mine Infrastructure Area building and Coal Handling and Preparation Plant: building construction; gravel quarries sourced onsite; two mid-sized draglines for overburden removal; clean up of construction waste, equipment and plant.

**Project Stage 3:** Coal mining activities for years 1-7 after commencement of coal washing

**Project Stage 4:** Coal mining activities for years 8-14

**Project Stage 5:** Coal mining activities from years 15 to beyond 29.

**Queensland Department of Environment and Heritage Protection:** means the Queensland Department of Environment and Heritage Protection or any department that succeeds the Queensland Department of Environment and Heritage Protection that is responsible for administering environmental offsets in relation to the Galilee Basin.

**Red Goshawk:** means the Red Goshawk (*Erythrotriorchis radiatus*), listed as a threatened species under the EPBC Act.

**Squatter Pigeon:** means the Squatter Pigeon (Southern) (*Geophaps scripta scripta*), listed as a threatened species under the EPBC Act.

**Subsidence:** means the totality of subsidence effects and subsidence impacts. Where 'subsidence effects': means deformation of the ground mass due to mining, including all mining-induced ground movements, such as vertical and horizontal displacement, tilt, strain and curvature; and 'subsidence impacts': means physical changes to the ground and its surface caused by subsidence effects, including tensile and shear cracking of the rock mass, localised buckling of strata caused by valley closure and upsidence and surface depressions or troughs.

**Substantially commenced:** means the commencement of **Project Stage 1**.

**Suitably Qualified Ecologist:** means a person who has professional qualifications, training, skills or experience related to ecology and can give authoritative assessment, advice and analysis on performance relative to the subject matter using the relative protocols, standards, methods or literature.

**Suitably Qualified Expert/s:** means a person who has professional qualifications, training, skills or experiences related to the nominated subject matter and can give authoritative assessment, advice and analysis on performance relative to the subject matter using the relative protocols, standards, methods or literature.

**Survey Guidelines:**

Matters of National Environmental Significance, Significant Impact Guidelines 1.1,  
*Environment Protection and Biodiversity Conservation Act 1999*  
<http://www.environment.gov.au/epbc/publications/nes-guidelines.html>

Survey Guidelines for Australia's Threatened Frogs, Threatened Mammals, Threatened Reptiles and Threatened Bats:  
<http://www.environment.gov.au/epbc/guidelines-policies.html>

Survey Guidelines for Australia's Threatened Birds  
Survey Guidelines for Australia's Threatened Birds:  
<http://www.environment.gov.au/epbc/publications/pubs/survey-guidelines-birds.pdf>

**Yakka Skink:** means the Yakka Skink (*Egernia rugosa*), listed as a threatened species under the EPBC Act.

FIGURE 3: Mining Lease Application Area

