

# BULGA UNDERGROUND

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## GLENCORE

20 June 2016

Howard Reed  
Department of Planning and Environment  
GPO Box 39  
Sydney NSW 2001

Dear Howard

**RE: Modification to Bulga Underground Operations (DA 376-8-2003)**  
– Noise Criteria, Flora & Fauna Criteria, and Independent Auditing.

With the granting of SSD-4960 for the Bulga Optimisation Project (BOP), the Bulga Open Cut operations (BOC) now have some different environmental management criteria to the Bulga Underground Operations (BUO). Both operations are owned by the same joint venture and, with regard to the management of environmental aspects and impacts, are administered as a single unit.

When the BOC was granted SSD-4960 it included some slightly increased noise criteria for some residences as presented in the BOP noise assessment (attached). The increase in these criteria has been caused by BOC activity not the BUO activity which has not materially changed. Given the BOP noise assessment included the BUO activities, BUO is seeking to adopt the Complex criteria inclusive of the BOC as approved in SSD-4960.

**Noise Criteria** – Replace DA 376-8-2003, condition 30 of Schedule 4 (Noise Impact Assessment Criteria) Table 13 with Table 3 from SSD-4960

**Therefore we would like to remove the following conditions from DA 376-8-2003**

*Noise Impact Assessment Criteria*

30. Except for noise generated by gas drainage well construction for the Blakefield North Mine, the Applicant shall ensure that the noise generated by the development does not exceed the noise impact assessment criteria in Table 13 at any residence on privately-owned land, or on more than 25 percent of any privately-owned land.

Table 13: Noise Impact Assessment Criteria dB(A)

| Residence/Land                                                                                | Day                      | Evening                  | Night                    |                        |
|-----------------------------------------------------------------------------------------------|--------------------------|--------------------------|--------------------------|------------------------|
|                                                                                               | L <sub>Aeq</sub> (15min) | L <sub>Aeq</sub> (15min) | L <sub>Aeq</sub> (15min) | L <sub>A1</sub> (1min) |
| 249                                                                                           | 40                       | 40                       | 40                       | 45                     |
| 8, 195                                                                                        | 39                       | 39                       | 39                       | 45                     |
| 157, 179, 307                                                                                 | 38                       | 38                       | 38                       | 45                     |
| 237, 239, 261, 262                                                                            | 38                       | 38                       | 37                       | 45                     |
| 232, 234, 235, 240                                                                            | 38                       | 38                       | 36                       | 45                     |
| 1, 2s, 154, 250, 252, 308                                                                     | 37                       | 37                       | 37                       | 45                     |
| 241, 243, 263, 264, 265, 266, 267, 272, 273, 274, 275, 276, 277, 279, 280, 281, 283, 284, 288 | 37                       | 37                       | 36                       | 45                     |

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For and on behalf of the Bulga Joint Venture

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|                                                                                                    |    |    |    |    |
|----------------------------------------------------------------------------------------------------|----|----|----|----|
| 229, 230A, 230B, 231, 233, 236, 238, 242                                                           | 37 | 36 | 35 | 45 |
| 97, 153, 163, 169e, 171, 183, 184, 197, 217s, 217m, 217n, 282, 285, 311                            | 36 | 36 | 36 | 45 |
| 33, 156w, 222, 223, 226, 227, 228, 244, 254, 256, 286, 287, 289, 290, 291, 292, 293, 294, 295, 306 | 36 | 36 | 35 | 45 |
| All other privately owned land, excluding the land listed in Table 1.                              | 35 | 35 | 35 | 45 |

and replace with the following from SSD-4960

## Noise Impact Assessment Criteria

30. Except for noise generated by gas drainage well construction for the Blakefield North Mine, the Applicant shall ensure that the noise generated by the Bulga Coal Complex does not exceed the noise impact assessment criteria in Table 13 at any residence on privately-owned land, or on more than 25 percent of any privately-owned land.

Table 13: Noise Criteria dB(A)

| Residence/Land                                                                                                                                                              | Day                      | Evening                  | Night                    |                        |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|--------------------------|--------------------------|------------------------|
|                                                                                                                                                                             | L <sub>Aeq</sub> (15min) | L <sub>Aeq</sub> (15min) | L <sub>Aeq</sub> (15min) | L <sub>A1</sub> (1min) |
| 1A, 8                                                                                                                                                                       | 38                       | 38                       | 38                       | 45                     |
| 97                                                                                                                                                                          | 38                       | 38                       | 36                       | 45                     |
| 217n, 230, 232, 234, 323, 324, 325                                                                                                                                          | 37                       | 37                       | 37                       | 45                     |
| 1B, 94, 95, 103, 105A, 105C, 142A, 143B, 145, 164, 165, 179, 195, 217s, 217m, 222, 226, 227, 228, 229, 231, 233, 235, 237, 239, 240, 241, 261, 262, 263, 264, 265, 266, 272 | 36                       | 36                       | 36                       | 45                     |
| All other privately-owned residences                                                                                                                                        | 35                       | 35                       | 35                       | 45                     |

However, these criteria do not apply if the Applicant has a written agreement with the relevant landowner to exceed the noise criteria, and the Applicant has advised the Department in writing of the terms of this agreement.

It should be noted that no change to condition 31 of schedule 3 Additional Noise Mitigation Measures is sought.

## Noise - Remove Conditions 32 and 32A

These two conditions relate to Cumulative Noise Impact Criteria (Assessment and Acquisition). The Bulga open cut does not have any cumulative noise conditions in their recent approval and it is extremely unlikely that the Bulga Underground operations could ever be shown to trigger the *cumulative* noise impact criteria.

**Fauna & Flora** – The Bulga Optimization Project approval SSD- 4960 substantially alters or includes the Bulga Underground's opportunity for habitat creation and conservation (DA 376-8-2003, Schedule 3 condition 43). Similarly SSD- 4960 requirement for a Biodiversity Management Plan fulfils all of the requirements of the Bulga underground Flora and Fauna Management Plan (DA 376-8-2003, schedule 3 condition 44). As such it is requested that DA 376-8-2003, Schedule 3 condition 43 (Habitat Creation and Conservation) and condition 44 (Flora & Fauna management Plan) be removed and replaced with SSD-4960, Schedule 3, condition 34 (Biodiversity Management Plan).

It should be noted that the requirement to establish and maintain flora and fauna corridors and extend them into the voluntary conservation area (Schedule 3, Condition 43 b) & c)) has been addressed in **Section 5.6 Habitat Enhancement**, of the approved Bulga Open Cut Biodiversity Management Plan. An excerpt

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from the Section 5.6 of the Biodiversity Management Plan is included below:

Additionally, the 2003 Bulga Underground Continued Operations EIS (Umwelt, 2003) committed to the progressive establishment of habitat corridors throughout the life of the operation. The aim of these corridors was to link the areas of remnant vegetation in the Singleton Military Training Area (SMTA) to riparian vegetation along Wollombi Brook. As a result of the BOP, the majority of the BOC area will be rehabilitated to woodland vegetation (refer to Section 6), creating a significantly larger corridor between the SMTA and Wollombi Brook. Additionally, a large portion of this rehabilitation will have commenced within the first four years of the project (i.e. the noise and visual bund). Therefore these habitat corridors will no longer be established as originally designed, but will be integrated into the larger BOC rehabilitation and habitat enhancement programs.

Similarly Section 7.5 of the Bulga Open Cut Biodiversity Management Plan also refers to the Wollombi Brook Conservation Area of the Bulga Open Cut, an excerpt is included below, as well as Figure 2 from the Wollombi Brook Conservation Area Management Plan showing the existing (Underground) and expanded (Open Cut) conservation areas. A copy of Figure 2 is included at the end of this letter.

## 7.5 Wollombi Brook Conservation Area

The Wollombi Brook Conservation Area (WBCA) relates to 60 hectares of offset lands, located in the north western corner of the BOC, as shown on Figure 11. The WBCA adjoins an existing Aboriginal and Cultural Heritage Conservation Area. The boundaries of the existing Aboriginal and Cultural Heritage Conservation Area and the WBCA extension are shown on Figure 11. This section relates only to the 60 hectare biodiversity Conservation Area extension (herein referred to as the Wollombi Brook Conservation Area).

Whilst the WBCA has been established as part of the BOP Project Approval, the offset area also satisfies Conditions 34, 43d and 43e of the Bulga Underground Development Consent (refer to Table 1).

Therefore the Bulga Underground is requesting to remove the following conditions from DA 376-8-2003

### *Habitat Creation and Conservation*

#### *43. The Applicant shall:*

- a) take all practicable measures to minimise vegetation clearing during the development, and wherever practicable, avoid clearing the existing woodland vegetation on site;
- b) establish and maintain the proposed flora and fauna corridors on site (see Figure 12.2 of the EIS);
- c) investigate the feasibility of extending these corridors into the proposed voluntary conservation area (see Figure 12.2 of the EIS);
- d) conserve and maintain the existing Warkworth Sands Woodland ecological community (see Figure 12.1 of the EIS);
- e) investigate the potential distribution of the Warkworth Sands Woodland ecological community on company owned land on and adjacent to the site, and consider options for providing long-term protection to the existing and potential areas of the Warkworth Sands Woodland ecological community;
- f) Re-establish and maintain riparian vegetation along the northern and southern drainage lines following remedial works (see Figures 7.2 & 7.3 of the EIS); and
- g) Create temporary aquatic habitat in the proposed northern diversion channel during creek restoration works (see Figures 7.2 & 7.3 of the EIS), and re-establish and maintain aquatic habitat following remedial works in the northern and southern drainage lines (see Figures 7.2 & 7.3 of the EIS); and
- h) Conduct regular flora and fauna monitoring on site during the development, to the satisfaction of the Director-General.

### *Flora & Fauna Management Plan*

44. Within 12 months of the date of this consent, the Applicant shall prepare a Flora & Fauna Management Plan for the development, in consultation with the Hunter Coalfield Flora and Fauna Advisory Committee, and to the satisfaction of the Director-General. This plan must include:

- a) baseline data of the existing habitat on site;
- b) a detailed description of what measures would be implemented to satisfy the requirements in Condition 43;

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- c) performance/completion criteria for the habitat creation and conservation works;
- d) the detailed procedures to:
  - salvage and reuse material from the site;
  - clear vegetation on site;
  - control erosion and sediment flows;
  - collect and propagate seeds from the local area;
  - control weeds;
  - control access to certain areas on site;
  - manage any potential conflicts between flora and fauna and Aboriginal heritage
- e) a flora and fauna monitoring program; and
- f) a description of who would be responsible for monitoring, reviewing, and implementing the plan.

and replace with the following condition from SSD-4960

## *Biodiversity Management Plan*

34. The Applicant shall prepare and implement a Biodiversity Management Plan for the development to the satisfaction of the Secretary. This plan must:

- a) be prepared in consultation with OEH, and submitted to the Secretary for approval within 6 months of the date of this consent;
- b) describe how the implementation of the biodiversity offset strategy would be integrated with the overall rehabilitation of the site;
- c) establish baseline data for the existing habitat in the offsite biodiversity offset area and on the site;
- d) describe the short, medium, and long term measures that would be implemented to:
  - manage the impacts of clearing vegetation, including pre-clearance surveys;
  - manage the remnant vegetation and habitat on the site; and
  - implement the biodiversity offset strategy;
- e) include detailed performance and completion criteria for evaluating the performance of the biodiversity offset strategy, and triggering remedial action (if necessary);
- f) include a detailed description of the measures that would be implemented over the next 3 years, including the procedures to be implemented for:
  - enhancing the quality of existing vegetation and fauna habitat in the biodiversity offset areas;
  - restoring native vegetation and fauna habitat on the biodiversity areas and rehabilitation area through focusing on assisted natural regeneration, targeted vegetation establishment and the introduction of naturally scarce fauna habitat features (where necessary);
  - maximising the salvage of resources within the approved disturbance area – including vegetative and soil resources – for beneficial reuse in the enhancement of the biodiversity areas or rehabilitation area;
  - collecting and propagating seed;
  - protecting vegetation and fauna habitat outside the approved disturbance area on site;
  - minimising the impacts on fauna on site, including undertaking pre-clearance surveys;
  - managing any potential conflicts between the proposed restoration works in the biodiversity areas and any Aboriginal heritage values (both cultural and archaeological);
  - managing salinity;
  - controlling weeds and feral pests;
  - controlling erosion;
  - managing grazing and agriculture on site;
  - controlling access; and
  - bushfire management;
- g) include a seasonally-based program to monitor and report on the effectiveness of these measures, and progress against the detailed performance and completion criteria;
- h) identify the potential risks to the successful implementation of the biodiversity offset strategy, and include a description of the contingency measures that would be implemented to mitigate these risks; and
- i) include details of who would be responsible for monitoring, reviewing, and implementing the plan.

To further support the application to change the DA 376-8-2003 conditions, included at the end of this letter are two figures to assist with the comparison. The first is **Figure 12.2** from the Bulga Coal Continued Operations EIS that supported the DA 376-8-2003 application in 2003, which shows the proposed habitat corridors and conservation area. The second is **Figure 10** that shows the potential habitat corridors in the Bulga Coal Biodiversity Management Plan. It should be noted that the newer Bulga Coal Biodiversity Management Plan (**Figure 10**) satisfies both the Underground requirements and the Open Cut requirements.

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**Independent Environmental Audit** – Approval was granted to conduct the Bulga Underground independent compliance audit at the same time as the Bulga Open Cut (December 2015) because of the common EMS, management plans, mining lease and EPL. It is requested that Condition 7 of Schedule 6 be changed to schedule the next Bulga Underground independent audit in line with the Open Cut in December 2018 and every 3 years after that.

In summary, if approved these three changes will permit:

- Joining the OC and UG quarterly noise monitoring reports into a single report for the Bulga Complex;
- Managing biodiversity across the Bulga Complex under a single management plan; and
- Conducting the independent compliance audit as a Complex rather than as separate entities.

Do not hesitate to contact me if you require any further clarification or additional information.

Yours Sincerely



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Environment & Community Manger  
Bulga Coal

Figure 2 - WBCA Vegetation Communities and Threatened Species

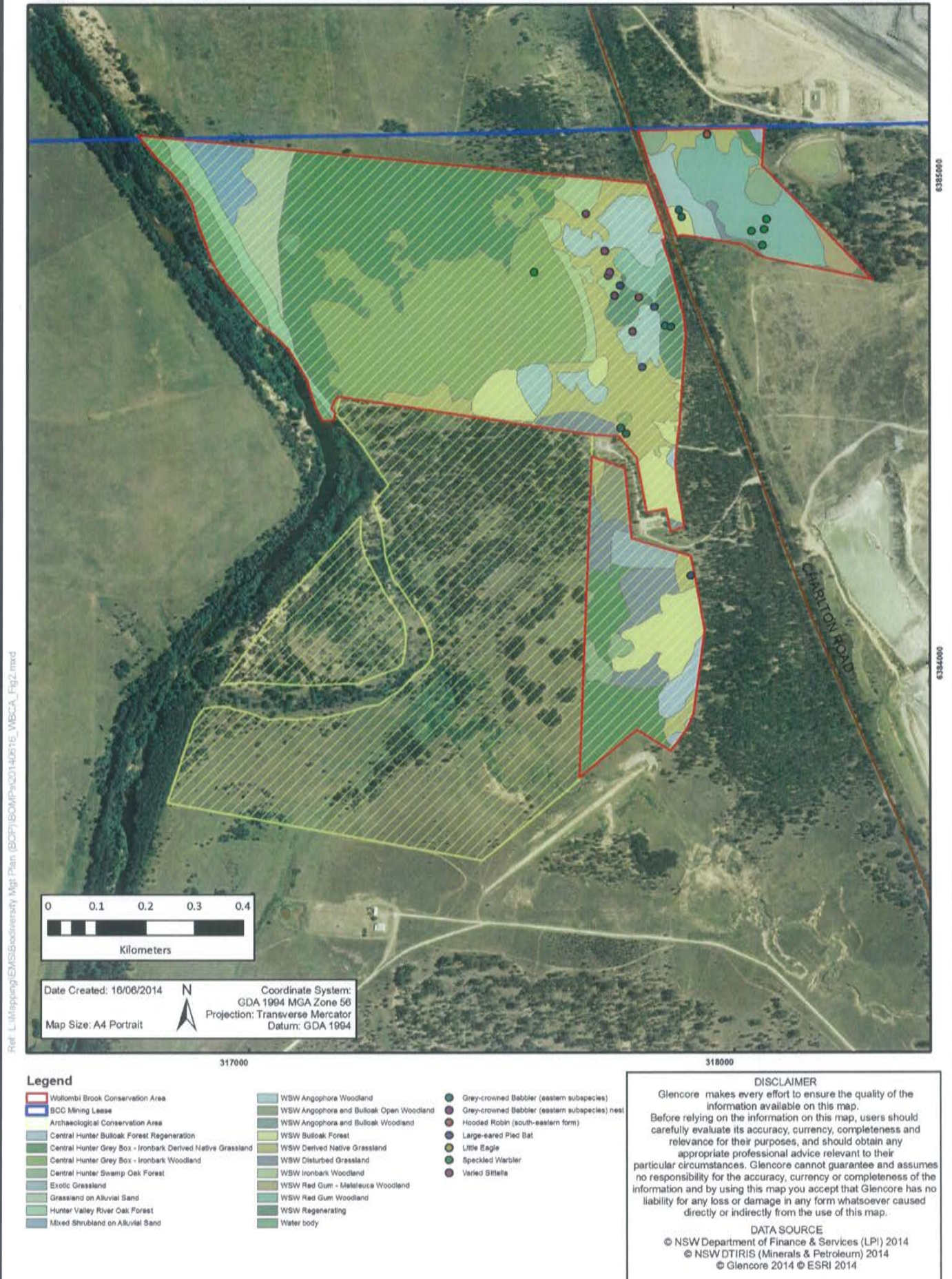
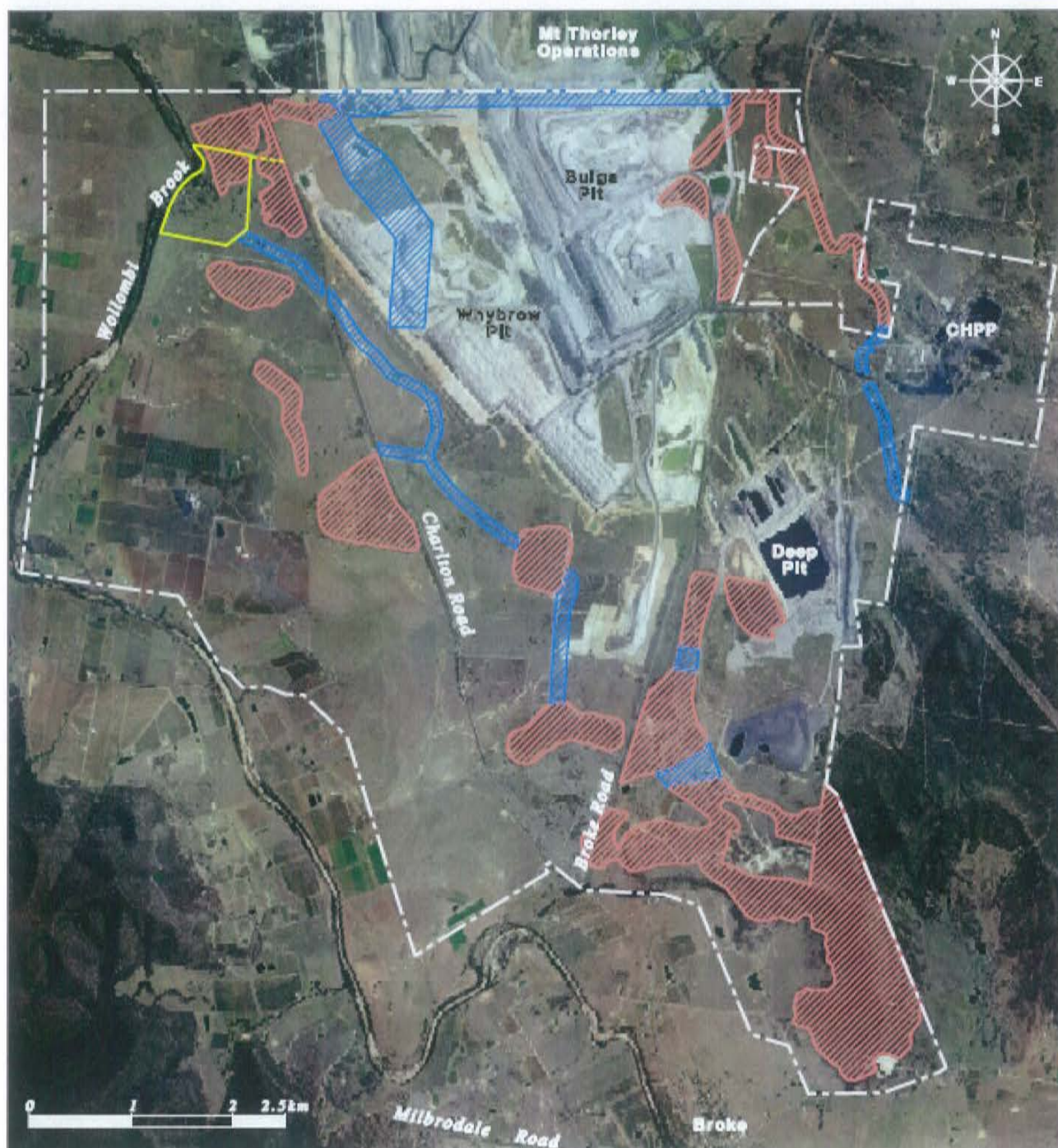


Figure 2 from the Wollombi Brook Biodiversity Conservation Area Management Plan, March 2016



- Legend**
- Project Area
  - Proposed Voluntary Conservation Area
  - Proposed Habitat Corridors
  - Existing Woodland Vegetation
  - Right of way access to VCA

**FIGURE 12.2**  
Proposed Habitat Corridors  
and Conservation Area

Ref No: R02\_V1/1468\_193.dgn  
Base Source: Bulga Coal Management & Hatch Aerial Photo (2003)

Figure 10 - Indicative Rehabilitation Vegetation Communities

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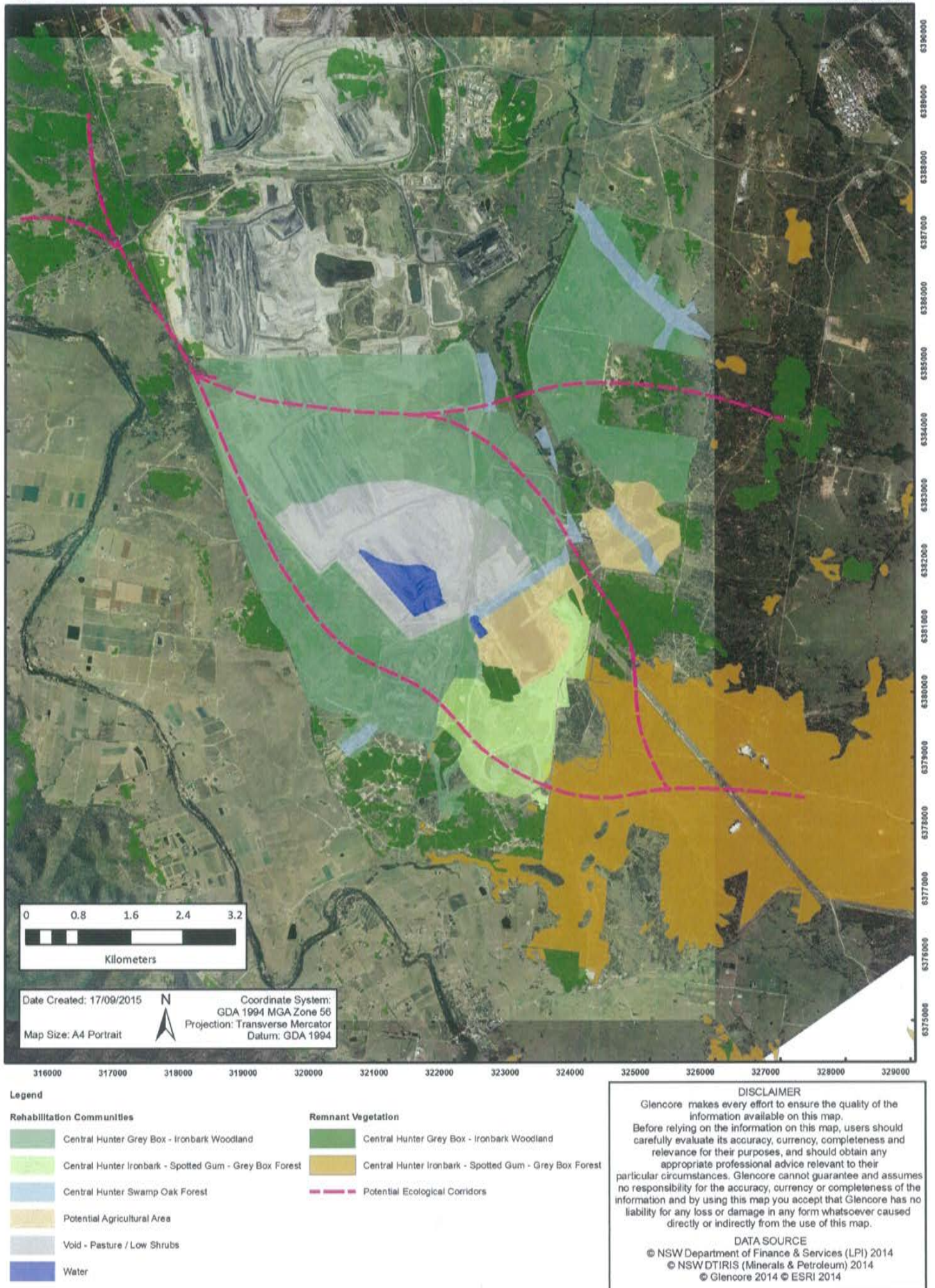


Figure 10 from the Bulga Coal Biodiversity Management Plan, March 2016