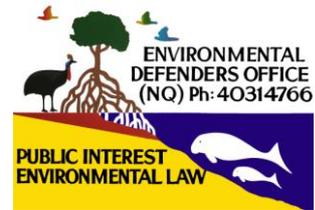




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18 November 2011

**VIA EMAIL ([epbc.referrals@environment.gov.au](mailto:epbc.referrals@environment.gov.au))**

The Honourable Tony Burke MP  
Minister for Sustainability, Environment, Water, Populations and  
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c/o Referrals Section (EPBC Act)  
Approvals and Legislation Division  
Department of Environment and Heritage  
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CANBERRA ACT 2601

*By facsimile: (02) 6274 1789 and email*

**Re: Wongai Underground Coal Mine Project, Queensland (EPBC  
2011/6092): Opportunity for Public Comment: Draft guidelines  
for the preparation of a Draft Environmental Impact Statement**

Dear Minister,

This is a public submission made jointly on behalf of the Environmental Defenders Office of Northern Queensland Inc. ("EDO-NQ"), the Cairns and Far North Environment Centre ("CAFNEC"), and The Wilderness Society ("TWS") (collectively, "Submitters"), in response to the 20 October 2011 public notice ("Invitation for Public Comment on Assessment Process Notice: Draft EIS guidelines") regarding EPBC Referral No. 2011/6092. We applaud the Minister's decision to assess the proposed Wongai Underground Coal Mine Project by an Environmental Impact Statement ("EIS") and are pleased to offer the following comments regarding the draft guidelines for the preparation of a draft EIS. We will organize our comments in accordance with the format utilized by the Minister in the EIS guidelines attached to the public notice.

## **JOINT COMMENTS**

### **GENERAL ADVICE ON GUIDELINES**

#### **2      FORMAT AND STYLE**

##### **COMMENT: INTERNET PUBLICATION AND ACCESS**

The guidelines provide that:

*The proponent should consider publication on the internet when determining the format and style of the document. The capacity of the website to store data and display the material may have some bearing on how the document is constructed.*

Guidelines, p 3. The Submitters agree that, in light of the ecological values near the proposed Wongai Mine, this is an important consideration and suggest that the guidelines be strengthened to make consideration of internet publication mandatory. Furthermore, the Submitters urge that the guidelines make it clear that the draft EIS – and all appendices or other supporting materials – published on the internet must be in Portable Document Format (.pdf) with text encoding (as opposed to scanned .pdf format). This will allow interested members of the public to not only undertake word searches within the draft EIS and supporting material but also allow for cutting and pasting from those materials for any future submissions.

With regard to this comment, the Submitters note for example that the Wongai referral document prepared by the proponent is in Portable Document Format (SECURED), meaning that while it is searchable, text within the document cannot be copied and pasted into a new document, making it more difficult to quote text out of the referral.

We ask for a strengthening of these guidelines to ensure maximum public participation in the EIS process for this significant project proposal.

### **SPECIFIC CONTENT**

#### **2      DESCRIPTION OF THE ACTION**

##### **COMMENT: DEFINE “ACTION”**

As an initial matter, the Submitters note that a key term in the draft EIS guidelines – namely “action” – is left undefined. This is a significant omission that must be remedied.

Not only does the term “action” need to be defined, it also needs to be defined in the draft EIS as broadly as the Wongai project is defined in the proponent’s referral. The proponent’s referral, for example, defines the Wongai project as:

*The proposed action will include geotechnical and exploration activities, construction and operational activities associated with site access, mining and export of approximately 1.5Mtpa of coking coal, stockpile areas, ancillary infrastructure, amenities, clearing of previously disturbed areas, supporting infrastructure*

*including offices, training centre, workshops, accommodation camp, caretakers houses, roadworks, onsite power generation, potable water treatment plant, stormwater management system, provisioning, sewage treatment, navigational aids, fire fighting infrastructure, development of a barge loading facility, jetty and moorings and ultimate decommissioning of the mine. New transport infrastructure will be developed and existing transport infrastructure upgraded to provide all weather road, air and water access to the Project Site<sup>1</sup>.*

With this definition of the “action” made clear, there is no room for interpretation regarding consideration, and full description of “[a]ll construction, operational and decommissioning components of the action”.

**COMMENT: GREATER DETAIL OF UNDERGROUND MINING METHOD**

The draft EIS guidelines direct that the “method of underground mining to be used should also be detailed” by the proponent<sup>2</sup>. In light of the fact that the method of mining is very likely to impact on the quantity and quality of any adverse impacts to matters of national environmental significance, **it is absolutely vital that the proponent be required – not just encouraged – to fully detail the method(s) and extent of underground mining** to be used. The 25 August 2011 referral submitted by the Wongai mine’s proponent provided only that:

*[T]he proposed action will see the development of an underground coking coal mine (bord and pillar)<sup>3</sup>.*

This mining method, the action’s proponent suggests, is less intrusive. This assertion, however, is largely dependent on a number of variables – which was made clear in the New South Wales Department of Planning’s July 2008 report reviewing the impacts of underground coal mining in the state’s southern coal fields<sup>4</sup>. The NSW 2008 report noted:

*The success of the [bord and pillar] method depends both on restricting the width of the bords (excavated rooms) to minimise the likelihood of roof falls, and on making the remaining coal pillars sufficiently large to carry the weight of the roof overburden without failing (see Figure 7). Typically in Australia, bord width is limited to around 6 m, whilst pillars have a width of at least 1/10th of the depth of cover or 10m, whichever is greater. Wider pillars may be required if the roof or floor is soft or weak or if the mining height is greater than about 3m. Bord and pillar mining is also referred to as first workings.*

<sup>1</sup> *Wongai Project Referral*, EPBC Ref. No. 2011/6092, s 2.1, p 4 (25 Aug. 2011). s 2.1, p 4.

<sup>2</sup> *Guidelines for the Content of a Draft Environmental Impact Statement: Wongai Underground Coal Mine Project* (Reference: 2011/6092) (“Wongai EIS Guidelines”), p 4.

<sup>3</sup> *Wongai Referral*, s 2.1, p 4; see also *ibid*, s 3.1.c, p 18 and Table 24, p 42.

<sup>4</sup> “*Impacts of Underground Coal Mining on Natural Features in the Southern Coalfield: Strategic Review*”, NSW Department of Planning (July 2008) (“NSW 2008 Study”), at [http://www.planning.nsw.gov.au/planningsystem/pdf/report\\_southern\\_coalfields\\_final\\_jul08.pdf](http://www.planning.nsw.gov.au/planningsystem/pdf/report_southern_coalfields_final_jul08.pdf).

\* \* \*

For reasons of safety, the roof and often the sides of all roadways in bord and pillar mining have to be supported. This represents a major operating cost and can impact adversely on productivity. **As the depth of mining increases, larger pillars are required in order to carry the extra weight of the overburden, resulting in a substantial decrease in resource recovery and a further decrease in productivity** (see Figure 8). Hence, with few exceptions, **it is now uneconomic in Australia to use bord and pillar mining as the primary production method at depths greater than about 200 m. However, it is used at greater depths for primary and secondary development.**

\* \* \*

**Economic viability and resource recovery in bord and pillar operations can be improved substantially if some or all of the coal pillars are subsequently extracted.** This type of mining is known as pillar extraction and is a type of second workings or secondary extraction.

**Pillar extraction usually results in collapse of the immediate roof of the mine workings. The height to which the collapse extends and its impact on the surface are determined in part by the width of the extraction.** In order to restrict the impacts of pillar extraction on the surface, the excavation width may be limited by only extracting selected coal pillars or portions of individual coal pillars. This is known as partial pillar extraction. . . . **The area from which the coal pillars are extracted is then left in an unsupported state and is known as a goaf (plural 'goaves'). The goaf may or may not collapse, depending on the nature of the geology and the mining dimensions.**

The wider excavations result in increased load being transferred onto the coal pillars. This results in an increase in both sag of the overlying strata and in compression of the coal pillars and the strata above and below the pillars. **Significant subsidence and resulting disturbance of the subsurface and surface may occur, depending on the mining layout. Pillar extraction is usually cheaper and much more productive than bord and pillar first workings because little or no support is installed during the pillar extraction operations. However, this also makes it potentially the most hazardous form of coal mining.** There has been a rapid decrease in its use in Australia over the past 20 years and, with a few exceptions, it is now confined to a number of small mines operating at shallow to moderate depths (to 300 m)<sup>5</sup>.

The draft EIS must include consideration of such details as the dimensions of bords and pillars proposed, the height of coal seam(s) to be extracted,

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<sup>5</sup> Ibid, ss 2.5.4.1 -2.5.4.2, pp 32-33 (emphasis added).

whether the proposed mine will incorporate pillar extraction (and if so, details of the extent of pillar extraction).

#### **4 DESCRIPTION OF THE ENVIRONMENT**

The draft EIS guidelines direct that:

*A description of the environment of the proposal site and the surrounding areas that may be affected, directly or indirectly, by the action. It is recommended that this include the following information . . .*<sup>6</sup>.

Five matters are then set forth that the proponent is “recommended” to include in the draft EIS.

##### **COMMENT: THE MATTERS MUST BE MANDATORY**

With all due respect, given the MNES identified as having the potential to be adversely affect by the proposed underground coal mine and ancillary facilities and operations, it is not enough to “recommend” that the draft EIS consider the enumerated five matters in describing the local environment. **These matters absolutely must be required** to be addressed in the draft EIS.

##### **COMMENT: ADDITIONAL MATTERS MUST BE INCLUDED IN THE DRAFT EIS’ DESCRIPTION OF THE ENVIRONMENT**

In addition to the five matters that the draft EIS should (i.e., must) describe, the Submitters urge the Minister to amend the draft EIS guidelines to also require the following matters to be addressed in describing the local environment that may be affected by the proposed Wongai mine (identified in order following the five enumerated in the draft):

(f) Identification of criteria for which the Nature Conservation Reserve, Conservation Park (marine), Princess Charlotte Bay (defined as its own bioregion within the Great Barrier Reef World Heritage Area), and Fish Habitat Area were prescribed and assessment of the impacts of the project on the values for which those tenures were originally prescribed.

(g) Analysis of the impacts from the project site and any other infrastructure and road development/improvements on the National Wilderness Inventory, with particular consideration of any impact the proposed Wongai mine will have on the wilderness index with regard to: (i) remoteness, (ii) intactness, and (iii) biophysical naturalness<sup>7</sup>. This is of particular concern to the Submitters given the potential for a world heritage nomination and connectivity between Melville and Lakefield NP’s.

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<sup>6</sup> Wongai EIS Guidelines, p 4.

<sup>7</sup> Such analysis is necessary in light of the world heritage nomination of, and connectivity between, nearby Melville and Lakefield National Parks.

(h) Analysis of impacts on the benthic environment and seagrass beds at Bathurst Heads/Bathurst Bay, given the precarious nature of local dugong populations referenced at p 49 of the Wongai referral.

(i) Geological analysis to determine the presence and extent of acid sulphate soils (actual or potential) in the vicinity of the action's location. Such analysis must include an appropriate risk assessment and mitigation strategy if there is a risk of impact associated with AASS/PASS.

(j) Analysis of climatic data affecting the action's location with particular emphasis on potential impacts associated with the proposed action and cyclonic or other storm surge, tidal inundation and wet season inundation<sup>8</sup>.

(k) Full analysis of impacts of the proposed action on the approximately 12 km of chenier plains located on the eastern shore of Princess Charlotte Bay towards Bathurst Head, which has been identified as an outstanding universal value for geodiversity<sup>9</sup>.

(l) Analysis of impacts of the proposed action on any groundwater-dependent ecosystems (e.g., fringing vine thickets).

(m) Analysis of any loss or fragmentation of habitat on or adjacent to the site of the proposed action that may result from the operation.

In addition, with regard to the surface and groundwater hydrology on the site of the proposed action and in the surrounding area (4(e) of the Wongai EIS Guidelines), the Submitters urge that the description of this environment include analysis of additional features of surface and groundwater hydrology, namely:

(1) Baseline surface and groundwater quality, including baseline quality during wet and dry season;

(2) Modeling of the proposed action's potential impacts on surface and groundwater resources, including wetlands, waterways and offshore areas; and

(2) Potential for dewatering or saltwater intrusion to surface and groundwater at or adjacent to the site of the proposed action.

## **5 RELEVANT IMPACTS**

This section of the draft EIS guidelines requires consideration of certain impacts during the construction, operational and decommissioning phases of the project.

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<sup>8</sup> In this regard, the Submitters note that the Wongai referral document included some consideration of shutdown of the operation during monsoon conditions. Wongai Referral, p 47.

<sup>9</sup> Brendan Mackey, Henry Nix and Peter Hitchcock, *The Natural Heritage Significance of Cape York Peninsula*, ss 4.4 and 4.4.4, pp 53-54 (2001), at <http://www.derm.qld.gov.au/register/p00582aj.pdf>.

**COMMENT: ADDITIONAL IMPACTS DURING EXTREME EVENTS AND POST-MINING**

In addition to the items to be considered specified in the draft EIS guidelines, the Submitters suggest that the draft EIS must also include an analysis of the following:

- (b) Analysis of adequate planning measures to eliminate or minimize release of contaminants during extreme weather events;
- (c) Analysis of impacts associated with proposed post-mining use of the project site and adjoining land; and
- (d) Impacts on key biodiversity values, terrestrial and aquatic, resulting from operation of the underground mine and associate operations.

**CONCLUSION**

The Submitters appreciate the opportunity to comment on appropriate guidelines for the draft EIS to be prepared with regard to the proposed action, particularly in light of the undisputed MNES on or near the site of the proposed action site.



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