December 18, 2011

The Coordinator-General
Attn. EIS project manager – Galilee Coal Project
Significant Projects Coordination
Department of Employment, Economic Development and Innovation
PO Box 15517
City East Qld 4002

Re: Submission in response to Waratah Coal's Environmental Impact Statement for the proposed Galilee Coal Project (Northern Export Facility)

Dear Coordinator-General,

As co-owners of the Bimblebox Nature Refuge (BNR), please find below some of our comments in respect to Waratah Coal's Environmental Impact Statement for their proposed Galilee Coal Project (Northern Export Facility).

Firstly, please note we strongly believe that the abject failure of Waratah Coal and more importantly the State Government to immediately notify affected landholders (including us) upon submission of the EIS (*despite an assurance from the former Minister of Environment, Kate Jones*), the appallingly brief time frame provided to time- and resource-limited stakeholders (including us) to research and then respond to the large and complex body of information in the EIS, the failure of the State Government to provide even the barest of resources to key non-mining stakeholders to enable reasonably adequate responses to any EIS to be drafted in order to achieve a modicum of balance in the process (*despite the State Government set to receive some $3.4 billion from mining royalties in the 2011-12 financial year* [(1)]), representing an inherent and overwhelming bias in the system in favour of the proponent, Waratah Coal.

Given also the lack of political independence in the decision-making process (indeed our understanding is that the relevant Minister of this government – a government which has previously given strong political support to the project in the absence of an EIS at the time – is to make the final determination), the failure of critical aspects of the EIS to be independent of the mining company, along with the almost complete absence of any policing by DERM of the significant, multiple and ongoing breaches by Waratah Coal of the Environmental Code with respect to exploration at BNR (and presumably throughout the tenement EPC 1040), it is difficult to draw any other conclusion than the EIS process is simply a rubber-stamping approvals process for the State Government and that the outcome is really *a fait accompli*. Nevertheless, the clear and grave ramifications for BNR and indeed the entire government-sponsored Nature Refuge program, as well as for the endangered Black-throated finch and the suite of regionally significant, near threatened and vulnerable flora and fauna species should mining be approved for BNR, will be a crucial and highly scrutinised test of the integrity (or lack thereof) of the EIS and approvals processes.

Please find below a discussion with recommendations in respect of some of the overarching concerns in relation to Waratah Coal's proposal and their EIS. Please note, as indicated above, that a far more comprehensive range and discussion of issues could and would have been provided had a reasonable time frame and even minor support been provided.

Recommendations in relation to the EIS process

1. There must be a comprehensive and independent review undertaken of the EIS and approvals processes to enable a reasonable level of balance be introduced to the EIS process and a concomitant balanced, politically independent decision-making process also established

2. Such a review should be conducted and implemented before any supplementary EIS is submitted by the proponent in relation to the project

Indirect Implications of Mining on Bimblebox Nature Refuge

Matters of Major Concern:
The proponent has failed to mention, let alone assess, in any part of the EIS, the likely and significant indirect damage that a decision to allow mining on BNR would have on the Queensland Nature Refuge (NR) program in particular and conservation efforts on private land more generally.

The Queensland Governments' Nature Refuge program website states that a nature refuge "..is a voluntary agreement between a landholder and the Queensland Government that acknowledges a commitment to manage and preserve land with significant conservation values" [(2)].

The Bimblebox NR is 7,912ha of predominantly uncleared (96% intact) open and semi-open eucalypt woodlands in the Southern Desert Uplands bioregion. It was purchased in 2000 by a group of individuals concerned about the rate of habitat loss through broad-scale land clearing in the region and determined to do what we could to save an important habitat area. The property was purchased with the assistance of funding from the Federal Government under its National Reserve System program, largely in recognition of its high understorey floristic diversity. The property was declared as a perpetual Nature Refuge in 2003 with the strongest level of protection available and is also recognised as a Category IV IUCN Protected Area [(3)]. Under DERM's Biodiversity Planning Assessment (BPA) for the Desert Uplands, BNR is identified as an area of "State Significance" being of "High Species Richness", a "Wildlife Refugia" and containing hollow-bearing trees [(3)]. To date, there have been 143 bird species identified on BNR including sightings and vocalisations recorded of the endangered black-throated finch (southern species) and sightings of two near-threatened species (black-chinned honeyeater and black-necked stork) as well as other bird species of regional significance Appendix I). BNR contains three areas covering 801ha mapped as "Essential Habitat" for the near-threatened Large-podded Tick-trefoil [(3)] and it is likely that further surveys conducted under suitable conditions will find additional specimens and perhaps other areas that could be mapped as essential habitat for the species.

The revelation that the relevant minister, in concert with the Cabinet of the Queensland Government, would act to allow mining on any Nature Refuge, let alone one of the size and significance of BNR, would be a clear breach of trust of any such agreement by the Government. Further, it would be an acknowledgement that Nature Refuges offer landowners with absolutely no any assurance whatsoever that ".. the values contained within the Nature Refuge are managed appropriately today and into the future" (Nature Refuges Fact Sheet, Queensland Government).

Accordingly, we are of no doubt that any decision by the State Government to approve mining on BNR would send a very clear and highly publicised message to existing and potential future NR holders and the general public that NRs are "open slather" to mining and that any so-called 'protection' afforded by a NR is subject only to .. the passing whims of government. Further, that the significant efforts of many individuals to protect and enhance the ecological values on their properties are neither appreciated nor respected. The widespread disillusionment created by the State Government hypocritically approving the complete obliteration of over half of an important and substantial NR after it had agreed to help protect it 'in perpetuity' would almost certainly lead to the abandonment of the program by a proportion of existing NR holders, a significant scaling down of individual conservation efforts by NR holders and other existing and prospective conservation volunteers, a reduction in the uptake of NRs into the future and a mistrust of any other government initiatives to encourage conservation on private land.

Similarly should the Federal Government approve mining on BNR, it would send an equally clear message to environmental agencies, NGOs and individuals across the country that it gives little if any credence, value or regard to the conservation of endangered species on private land or of the efforts by individuals to help conserve important habitats outside of the National Parks system. This would almost certainly also lead to a further loss of confidence, participation and involvement in, any initiative by the Federal Government to encourage conservation on private land.

The full extent of the loss of conservation outcomes on private land as an indirect consequence of the State and/or Federal governments approving mining on BNR cannot readily be determined but is likely to be severe and possibly catastrophic. The costs of Governments making up such a conservation deficit would be enormous. On this basis alone, mining on BNR simply cannot be justified.

Recommendations in relation to the Indirect Implications of mining on BNR:

1. Given the serious, and possibly catastrophic, indirect ramifications that mining BNR would have on the Queensland NR program, and nature conservation outcomes on private land more generally, mining on BNR must not be approved under this EIS or under any development application at any time now or in the future.

Biodiversity Offsets Strategy

Matter(s) of Major Concern:

The entire so-called Biodiversity Offsets Strategy (BOS: Volume 5, Appendix 27) offered by Waratah appears to be almost a completely pointless document, totally lacking in substance in regards to outcomes. Firstly, the majority of the so-called offset 'proposals' appear to consist of no more than vague "feel-good" phrases with no details provided whatsoever. Secondly, where so-called "offsets" are described in any detail, they are revealed as being illusionary – providing no meaningful offsetting at all. Thirdly, various other impacts including both direct impacts and very significant indirect impacts are not listed at all and so no offsets for such are mentioned.

In Table 3 (Vol 5, Appendix 27) entitled "Offsets required at the State level" and under the section of 'Protected Area Bimblebox Nature Refuge (BNR; p23)' the following approach is stated – "The proposed approach to compensation (i.e. offset for the proposed impacts on the BNR) is to identify another parcel of land within the same bioregion (Desert Uplands) that is of 'ecological equivalence' to the BNR…..It is currently estimated that the BNR compensation area may be twice the total area (around 16,000ha) and the intent is it will become a future protected area".

In other words, Waratah are initially proposing to identify some 16,000ha of land of 'ecological equivalence' to the BNR. That would give a grand total of land of 'ecological equivalence' to the BNR that CURRENTLY EXISTS of nearly 24,000ha i.e. the 16,000ha identified by Waratah plus of course the nearly 8,000ha that comprises the BNR. Then Waratah intend to obliterate 3,926ha of the BNR, compromise the remaining 3900ha plus destroy yet a further 600ha of remnant vegetation adjacent to BNR.

So in effect Waratah seem to be quite seriously suggesting that a reasonable "offset" for wiping out nearly 4600ha of remnant woodland (including the complete obliteration of some 3,926ha of a very high conservation value Nature Refuge which is part of Australia's National Reserve System and compromising the remaining 3,900ha) is to "exchange" that for 16,000ha of vegetation ….THAT ALREADY EXISTS!!

From an ecological perspective therefore, Waratah's so-called "offset" is completely meaningless. Indeed Waratah's "offset", if approved, would actually guarantee a net loss of some 4,600ha of old growth, high conservation value woodland, plus degradation of the remaining area of the BNR with no real offset provided. This point cannot be overemphasised.

Similarly, Waratahs so-called "offset strategy" for the other listed negative ecological impacts of the project (Vol 5, App 27, Tables 2 and 3) are either a) as equally illusionary to that proposed for the BNR and/or, b) to be so vague as to be meaningless. The following examples are provided –

- In discussing offsets for the destruction of threatened brigalow (71ha) and natural grassland (48ha) ecological communities, Waratah merely say that "…it is proposed the offset …. will be located within 50km of the rail corridor…" (Table 2, p18). There is no mention whatsoever of what the offset may actually consist of, let alone any details! How can one possibly make any assessment as to the adequacy or otherwise of the "offset" when one hasn't the faintest idea of what it may consist of?
- For the destruction of potential habitat for the Yakka Skink (5,004ha), Striped-tail Delma (354ha), Ornamental Snake (1,990ha) and Brigalow Scaly-foot (154ha), Waratah state "The approach is to co-locate offsets … with other Brigalow Belt reptiles …" (Table 2, pp 18-20). Again, this says nothing in terms of what offsets (if any) are actually proposed. It is so vague and completely lacking in any content as to be utterly meaningless
- With respect to the endangered black-throated finch, which has been positively identified within, and likely to be reproducing on BNR (based on sound recordings consistent with courting or nesting black-throated finches (P Julien, *personal communication*), there is at least acknowledgement that further ecological studies are required - "Further refinement of impacts to Black-throated Finch will be undertaken after further ecology studies have been undertaken " (Table 2, p20). We completely agree that the ecological surveys undertaken on BNR to date have been inadequate and much more work needs to be done to understand the population ecology of the finch in the area and the likely impacts that the Waratah mine (and others) are likely to have on the viability of this colony and the species as a whole. However, Waratah then state that "The approach for offsets is to identify other potential Black-throated Finch habitat that reflects similar ecosystems and habitat features to that impacted. This offset is likely to be co-located with the compensation area for the BNR". Firstly, it is astounding that Waratah can state with any authority what may be an appropriate offset strategy when they have just acknowledged that the impacts on the black-throated finch are not known and is in direct contravention to the Precautionary Principle (Vol 1, Ch 3.2.2.2, p37). Secondly, any belief that such an approach is in any way a satisfactory offset to the destruction of known habitat for this endangered species is clearly absurd. In a similar fashion to their BNR offset, Waratah seem to be seriously proposing that a reasonable exchange for the complete destruction of an area of KNOWN habitat for this endangered species is to identify other similar habitat that is of completely unknown suitability (no ground assessments have been undertaken by Waratah) and, in any event, is an area that ALREADY EXISTS!! Hypothetically (but unrealistically), if black-throated finches do happen to exist on such a so-called "offset" area then the outcome will obviously be a net deficit of habitat caused by Waratah obliterating some of its KNOWN habitat on BNR. If the black-throated finch is not currently found on a so-called "offset" area then there are probably very good reasons why it is not – it is almost certainly unsuitable. Naturally under this scenario, it could also not possibly be considered as an offset. As a former member of an endangered species recovery team, it is clear to me (CR) that the proponent has very little understanding of either the theoretical or practical aspects of species conservation and seems to have utterly failed to consult with some of the obvious specialists/stakeholders in this area including the Black-throated Finch Recovery Team.
- For all of the other deleterious ecological impacts listed in Tables 2 and 3, the so-called "offsets" proposed/discussed by Waratah seem to be similarly flawed – being so ill-considered, illusionary and/or so devoid of content as to be meaningless. If this is not evident to the reader, then I would be pleased to provide further details on request

In terms of the proposed BNR offset area, Waratah may argue from the EIS that the actual value of their so-called "offset" area is the intention for it to become a future "protected" area. However this suggestion is also fundamentally flawed on multiple levels.

Firstly, we very much doubt that an offset area as Waratah propose actually exists. For it to have the 'ecological equivalence' to the BNR, it would have to have the following characteristics (plus more) –

a) be in very good to outstanding floristic condition throughout,
b) have a very high level of avifauna diversity (143 species identified on BNR to date),
c) have a high level of understorey floristic diversity (BNR had one of the highest levels of grass diversity of any surveyed poplar box woodland in Central Qld in the late 1990's and was in part the reason for it receiving Federal Government funding to become part of Australia's National Reserve System),
d) be officially recognised and identified as an area of 'High Species Richness'. BNR is identified as such an area under DERM's Biodiversity Planning Assessment for the Desert Uplands (Vol 5, App 27, p23)
e) contain multiple areas recognised as being Essential Habitat for a Near-Threatened plant species (BNR is acknowledged in having this for the Near-Threatened Large-podded tick trefoil (*Desmodium macrocarpum*),
f) contain an endangered bird species and one likely to be reproducing. BNR contains the southern subspecies of the black-throated finch, with audio recordings suggesting it is reproducing on BNR (as discussed above).

Waratah state in their EIS that they have undertaken "Spacial Analysis" to determine potential "offset" areas (Vol 5, App 27, p31). This so-called "analysis" seems to consist wholly of a single table (Table 5) listing the total area of remnant vegetation in those Regional Ecosystems found on BNR in leasehold and freehold tenures located within 100km of BNR and a single map (Figure 4) supposedly showing potential "offset" areas. There seems to have been absolutely no effort whatsoever in assessing any of these areas from an ecological perspective in order to determine if any even come close to meeting the suite of characteristics listed to enable them to be determined as being of 'ecological equivalence' to BNR.

Secondly, if an area of 16,000ha of 'ecological equivalence' to the BNR was actually identified (hypothetically) then what exactly would it need protecting from if has existed so successfully thus far? Clearly, there would be little or no practical or meaningful reason from an offset perspective in formally "protecting" an area if there were no real threats – unless the point is something less tangible such as an exercise in public relations. Presumably, there would be little or no threat from broadscale clearing under current ownership and management as this is now illegal under the Vegetation Management Act (1999). However, there is one obvious exemption from broadscale clearing of remnant vegetation in most agricultural areas across Queensland – that being for …. mining!

So given that one of the clear threats to any remnant vegetation is currently from mining, how would any proposed "offset" area be quarantined from such a threat? The simple answer is that it couldn't be. It is our understanding that under current legislation, the strongest protection available to private landholder (freehold or leasehold) to protect the ecological values over a particular parcel of land is through the landholder establishing a perpetual (999 year) Nature Refuge agreement with the Queensland Government which is attached to the title of the land.

BNR <u>is</u> indeed such a Nature Refuge but it is also much more. Importantly, it is part of Australia's National Reserve System (as an IUCN Category IV Protected Area) having received funding from the Federal Government back in 2000 for its purchase and "protection" in view of its significant ecological values – values which have only been enhanced with the discovery of the endangered black-throated finch and other species of conservation significance.

Importantly therefore, if a decision was made to allow mining on BNR it would clearly demonstrate that Nature Refuges, even large scale refuges with the strongest protection available, being formally part of Australia's National Reserve System and containing endangered species (likely to be reproducing), would offer NO protection from mining. Obviously then, any so-called "offset" area proposed by Waratah for the BNR could not possibly

be considered as a protected area as the only available means for 'protection' (i.e. a Nature Refuge) would clearly offer none to any future mineral extraction.

The proponent has also failed to consider or include a range of ecological impacts from the project in their BOS as summarised below.

As discussed in some detail in the section entitled "Indirect Implications of Mining on BNR" (above), Waratah have failed to discuss the likely severe indirect ecological consequences of mining BNR in their EIS and have so failed to provide an offsets proposal for such. This needs to be thoroughly examined and discussed.

Waratah have failed to mention the clearing of approximately 2,530ha of least concern remnant vegetation within the rail corridor (Vol 3, Ch6, Table 11) in their BOS and so have failed to provide an offsets proposal for such. This should be addressed in a meaningful way.

Waratah have failed to mention that BNR and surrounding remnant vegetation is mapped as Koala Habitat and Koalas have been seen on BNR (information available on request). Impacts to Koala habitat is one of the three offset policies in operation within the Queensland Government Environmental Offsets Policy (Vol 5, App 27, p14) and so must be addressed in the EIS/BOS.

There have been inadequate surveys of the fauna and flora of BNR and surrounds. The avifauna of BNR has received most attention over the years, yet additional species still continue to be recorded, including the endangered Black-throated Finch and other birds of conservation significance. Surveys of BNR and surrounds of the flora as well for non-avian fauna groups including mammals, reptiles and amphibians are relatively scant. And the effectiveness of the surveys undertaken on behalf of Waratah must be called into question given the fact they were only able to identify 88 bird species throughout the study area (Vol 2, Ch 6, p185) compared to the 143 bird species recorded by Birds Australia members and others on BNR to date (Appendix A). This amounts to only a 61.5% find rate. Furthermore, the surveys undertaken on behalf of Waratah also failed to find any of those birds recorded on BNR that are listed as Endangered (Black-throated Finch) or Near-Threatened (Black-chinned Honeyeater, Black-necked Stork). This is a matter of great concern and reveals a serious inadequacy of the flora and fauna surveys conducted on behalf of Waratah. Accordingly, it must be considered at least possible (if not likely) that more comprehensive surveys will discover other Endangered, Rare, Vulnerable, Near-Threatened and/or Noteworthy (ERVNTN) species on BNR and surrounds. Such surveys must be undertaken to be able to comply with the requirements of the Terms of Reference (ToR) for the project [(5)] in regards to considering the "impacts on any plants of potential or recognised environmental or economic significance" (ToR, p38) and "impacts on rare and threatened or otherwise noteworthy animal species" (ToR, p40). Obviously, Waratah must formulate satisfactory offsets strategies for those Near-Threatened species and other noteworthy species that exist on BNR but it failed to mention as well as any other ERVNTN species discovered during future comprehensive surveys.

We wish to offer one final, but important, issue in relation to the BOS. In various newspaper articles published on October 21 (in the Brisbane Times, Sydney Morning Herald, The Age and Canberra Times) the Managing Director of Waratah Coal Mr Nui Harris, in discussing offsets for the project was quoted as saying "What we will do will be guided by the owners of the Bimblebox operations" [(6)]. This is consistent with the statement on p15 of the BOS "..Waratah Coal is committed to providing offsets to the impacts on the BNR and is liaising with DERM and stakeholders to identify an appropriate offset that will achieve a net conservation gain to Queenslands protected area estate for this loss." We agree wholeheartedly that the owners should have indeed guided the offsets strategy given our demonstrated commitment, experience and understanding of BNR and its ecology – as well as strongly developed networks with those with expertise in BNR species conservation and ecology. Regrettably, and in contrast to both Mr Harris's public comments and Waratahs BOS however, we wish to make it absolutely clear that we were NEVER contacted by Waratah in relation to our views on potential offsets

leading up to submission of the EIS. Similarly Paola Cassoni (the other owner) has assured me that she also was never invited to provide such input. Consequently Waratahs statement that it "..is liaising with .. stakeholders to identify an appropriate offset .." is blatantly untrue. We were NOT in any way a party to, let alone provide any input or guidance to, the "offset" strategy in the EIS. Nor were any of us invited to do so. We believe the Biodiversity Offsets Strategy submitted by Waratah Coal is one of the most appallingly deficient, ill-considered and meaningless documents we have ever encountered. Any suggestion that it will ".. achieve a net conservation gain .." in its current guise is utterly preposterous.

Recommendations in relation to the Biodiversity Offset Strategy:

1. The project must not be allowed to proceed based on the overwhelming failure of Waratah to provide adequate or meaningful offsets that adhere to its own offset principles, nor reasonably comply with the range of offsetting principles described under relevant State and Federal legislation (outlined on pp 13-14 of the BOS) and as required under the ToR (Section 3.3)
2. The outcomes section of the BOS is so hollow that it should be discarded in its entirety. Should Waratah genuinely wish to develop a meaningful offsets strategy as indicated, the proponent must fully consult with all major stakeholders (including the Bimblebox owners) and the full range of relevant experts throughout the entire development of any future proposed offsets strategy
3. Comprehensive surveys as well as comprehensive population ecology studies of ERVNTN species in the project area must be undertaken to determine the full and true extent of all ecological impacts from the project and a meaningful and appropriate offsets strategy be developed for all relevant impacts.
4. All indirect impacts from the project, particularly the impacts that any decision to mine BNR would have on the Nature Refuge program in Queensland in particular and conservation on private land in general must be fully analysed and discussed; and an appropriate offsets strategy be formulated and implemented

BNR, Sustainability, and the Financial Viability of the Galilee Coal Project

Matter(s) of Major Concern:

We have extreme doubts over the proponents claims that the project would be unviable without the coal reserves under BNR; and that the clearing of just over half of the BNR is "unavoidable".

In section 1.6.1, p20 of the Executive Summary the proponent states that "The coal within the BNR is the highest quality and most shallow coal and contributes over 30% of the coal to be mined. As such, the project will not be viable without the coal reserves under BNR."

The uncompromising declaration by the proponent that "..the project will not be viable without the coal resources under BNR" is clearly based significantly on the previous premise including that "The coal within the BNR is the highest quality and most shallow coal ..".

However, it is overwhelmingly evident that the most shallow coal is NOT located within the BNR, but rather in the main planned open cut area to the north of the BNR. In the chapter devoted to the coal resource and mine plan, the proponent states that "Tertiary sediments … rang(e) from 20metres below ground level (mbgl) in the North of the proposed MLA, but increasing in thickness to the south to greater than 100 mbgl limiting the open cut potential in this area" (Vol 2, Ch 1, p14). Clearly this reveals that the most shallow coal is actually in the north, yet BNR encompasses the southern extent of the open cut operations.

A full depiction of the depth of the coal throughout the proposed open cut area is shown in Figure 9 (Vol 2 Ch1, p16). The BNR is clearly seen as the near fully vegetated block in the south west quartile of the image. This figure unequivocally shows that the vast majority of the coal in the proposed open cut area is only between 0-40m deep north of the BNR, but 40-80m

deep within the BNR boundaries. This suggests that the ore within the BNR would be more costly, and hence less profitable, to extract.

However, it is the strip or stripping ratio (the tonnage of waste that has to be removed for each tonne of ore recovered) that gives the more accurate insight to the cost structure of an operation and it is well known that, all factors being equal, mining at a higher stripping ratio is less profitable than one with a lower stripping ratio (http://en.wikipedia.org/wiki/Stripping_ratio). In this respect, Figure 12 (Vol 2, Ch 1, p19) clearly shows that the strip ratio is, on average, greater within the BNR as compared to the main open cut mining area to the north of the BNR. This in turn, indicates lower profitability within the BNR relative to the main open cut mining area to the north of the BNR.

Indeed, the proponent makes the critically important evaluation of such in discussing the open cut mining plan (V2, Ch 1.2.2.1, p22) as follows –

"The Project open cut mine limits are defined by the following: (including)

- the southern boundary has been defined by the economic limit, mostly due to the deeper tertiary sediments and weathering profile".

In contrast, the northern extent of the open cut operations seems constrained merely by the lease boundary as indicated in the discussion of such in the open cut mining plan (V2, Ch 1.2.2.1, p22) and as depicted in Figures 9-12 (V2, Ch 1, pp 16-19). There is no suggestion that the northern limit is constrained by any economic considerations as is clearly the case in the south (i.e. the BNR area).

Furthermore, we could find no evidence for the proponents assertion that "The coal within the BNR is the highest quality..". There is no suggestion in the section on "Coal Quality" (Vol 2, Ch 1.1.10) or in the Appendix on Soils and Geology (Vol 5, Appendix 6) that there is any variation in coal quality across the tenement. The only hint we could find that there may be a difference is within the statement (above) that "the southern boundary has been defined by the economic limit, mostly due to the deeper tertiary sediments and weathering profile" (V2, Ch 1.2.2.1, p22). We are not geologists, nevertheless a relevant google search provided references that show that weathering typically negatively impacts the quality of coal in various ways including reducing calorific value [(7)]. The stated 'weathering profile' in the more southern areas of the open cut operations (i.e. within the BNR) may actually suggest that the coal therein is of somewhat lower quality of coal than that which occurs in the north, although this requires clarification.

Finally, the proponent claims that "The coal within the BNR … contributes over 30% of the coal to be mined.". However, this is certainly not the case at least in the initial phase of the project as the open cut mining schedule is set to begin with two draglines in the D North pit (located north of the BNR as shown in Figure 14, p23), one in the D South pit (mostly within the BNR as per Fig 14) and one in the B North pit (north of BNR, Figure 14). Thus, three of the four draglines will begin operations outside (north of) the BNR. Moreover, given that the D South pit has the highest strip ratio average (Figure 12), it seems logical to assume the dragline operating in this pit will also be the least efficient, uncovering and hence producing, the least coal. It follows then that the coal within the BNR will contribute less than 25% of the total coal mined in the initial phase.

In summary then, the proponent has claimed that "The coal within the BNR is the highest quality and most shallow coal and contributes over 30% of the coal to be mined."

However, it is evident from the proponents' own EIS and the above discussions that the coal within the BNR:

- is actually the deepest of all that occurring across the proposed open cut operations,
- appears to be of no higher quality to the coal that exists in the rest of the open cut area, with some suggestion it may be of somewhat lower quality,

- would contribute less than 25% of the total coal extracted in the initial phase of the project and
- would also be the least profitable to extract

In these respects, one of the proponents' claims is revealed as being blatantly untrue, with another also false based on the available information. Accordingly, their subsequent declaration "As such, the project will not be viable without the coal reserves under BNR" is based on several incorrect assumptions and simply cannot be justified or believed on the available information.

We certainly acknowledge that the project is likely to be somewhat more profitable through the inclusion of the coal within BNR in the mining operations. However, given the very large scale of the project but relatively smaller contribution to production and especially profit derived from any coal extracted from BNR, we would be extremely surprised if the project was actually unviable in the absence of the coal within BNR.

Moreover, if the project was indeed found to be unviable through excluding the relatively less important contributions of BNR (especially in terms of profitability), then surely the viability of the entire project must be regarded as highly questionable.

Given the circumstances, it is therefore essential that a completely independent analysis be undertaken to fully and thoroughly assess the financial viability of the project with and without BNR in the mining plan.

Even in the highly unlikely chance that the project is found to be viable with BNR but unviable without, there are still opportunities to take advantage of the mining opportunities in the tenement without mining BNR (and the severe ramifications that would bring). This could be achieved through a variety of mechanisms that would involve an arrangement between the proponent and the holder of the Exploration/Mining Lease immediately to the north of the Galilee Coal Project area to extract the coal in the main open cut mining area immediately north of BNR. It appears that no such options were even considered, let alone assessed, in the section that supposedly examined alternatives to the mine (Executive Summary, Ch 1.6.1, p22).

The exclusion of BNR from any mining plan may result in a less profitable outcome for the proponent; or it may result in some inconvenience to stakeholders through negotiating arrangements/agreements that would allow mining to proceed in the remainder of the project area.

In considering all of the above discussions, we would be astounded if the project was found to be unviable without BNR or if other alternatives could not be found to profitably extract the coal from the project area in the absence of coal within BNR. Consequently, we simply cannot believe nor see any justification for the proponents claims that the clearing of BNR is "unavoidable" (Vol 2, Ch 6, p172).

Recommendations in relation to the BNR and Financial Viability of the Galilee Coal Project:

1. A full, thorough and <u>independent</u> analysis needs to be undertaken to ascertain the true financial viability of the project with and without the coal resources within BNR in the mining plan
2. The relevant sections of the EIS must be substantially re-written to <u>accurately</u> reproduce and/or summarise a) the actual findings of the original EIS studies, b) any supplementary studies and c) most importantly, the findings of the independent analysis
3. In the unlikely event that the Galilee Coal project is found to be viable with BNR but unviable without BNR, alternatives to exploit the resources in the project area without mining BNR must be fully evaluated and implemented.

REFERENCES

1. Roche, M (2011) Quote in a radio interview on ABC radio with Andrew Fraser (Queensland Treasurer). Available at: http://www.abc.net.au/rural/qld/content/2011/06/s3244483.htm

2. Queensland Government ((2011) The Nature Refuges Program. Available at: http://www.derm.qld.gov.au/wildlife-ecosystems/nature_refuges/the_nature_refuges_program.html

3. Waratah Coal (2011) Environmental Impact Statement – Galilee Coal (Northern Export Facility) Project, Volume 5 Appendix 27. Available at: http://www.waratahcoal.com/eis-volume-5

4. Queensland Government (2011) Clearing and development. Available at: http://www.derm.qld.gov.au/vegetation/clearing/index.html

5. Coordinator-General, Queensland Government (2009) Terms of Reference for an environmental impact statement: Galilee Coal Project (Northern Export Facility)

6. Various newspaper articles listed at and available via http://bimblebox.org/?page_id=218

7. de Korte, GJ (2001) Beneficiation of Weathered Coal. Division of Mining Technology, CSIRO. Available at: http://www.coaltech.co.za/chamber%20databases/coaltech/Com_DocMan.nsf/0/D1887A4A1676BCD142257436002B53EC/$File/Oxidised%20Coal%20Report.pdf

ABBREVIATIONS

BNR	Bimblebox Nature Refuge
BOS	Biodiversity Offset Strategy
EIS	Environmental Impact Statement
mbgl	metres below ground level
NR	Nature Refuge
ToR	Terms of Reference