Nature Conservation Council
The voice for nature in NSW

Department of Planning and Environment
23-33 Bridge St
Sydney NSW 2000

5 March 2014

Submission of Objection: Mount Owen Continued Coal Mining Operations

Dear Sir/Madam,

The Nature Conservation Council of NSW (**NCC**) is the peak environment organisation for New South Wales, representing 130 member societies across the state. Together we are committed to protecting and conserving the wildlife, landscapes and natural resources of NSW.

NCC objects to the proposed expansion and continuation of the existing Mt Owen open-cut coal mine expansion, due to its impacts on biodiversity, including threatened species listed under both the NSW *Threatened Species Conservation Act* 1995 and the Commonwealth *Environment Protection and Biodiversity Conservation Act* 1999 (EPBC Act), and potential impacts on water resources as a result of surface and/or ground water changes caused by the proposed development. The cumulative impacts of the mine in the region, and the anticipated impacts on human health and climate are also significant matters for consideration.

Background to EIS Submission

If approved, the proposed Mt Owen open-cut coal mine expansion will result in the significant expansion of coal mining activities currently operating under an existing approval granted in 1994. The existing activities have already had a significant impact on the natural landscape and biodiversity in the area with approval already given to clear 55% of the Ravensworth State Forest[1] for an open-cut coal mine. The original approval was bitterly but unsuccessfully opposed by the local Hunter Valley environmental community at the time.

The high biodiversity values of the remnant Ravensworth Forest are illustrated by the maps showing threatened bird and mammal species identified on the site[2]. A similarly rich diversity of threatened species would undoubtedly have been found in the other half of the forest that was destroyed as a result of the 1994 approval.

[1] EIS Appendix 11, p 2.4
[2] EIS Appendix 11, Figures 4.3 – 4.5

NCC appreciates that you cannot change history and that the legislation governing decision-making was very different in 1994 compared to 2015. For example, there was no mention of ecologically sustainable development (ESD) in the objects of the NSW *Environmental Planning and Assessment Act* 1979 (EPA Act) in 1994[3]. ESD was a concept that was still in its infancy at the time. Nor was there a Commonwealth EPBC Act that would have had to be considered in the 1994 decision.

However, given the current state of environmental knowledge and development of legislation that includes the principles of ESD at both the NSW and Commonwealth level, the mistakes of 1994 must not be allowed to be repeated with respect to the current Mt Owen continuing coal mine proposal.

Recent media reports of cutbacks in coal production by Glencore are also relevant. Glencore has stated that it would:

"…cut coal production by about 15%, or 15 million tonnes, to avoid selling tonnes at a discount into an oversupplied market" [4].

The report also mentions that Glencore has cut about 3000 coal jobs in Australia since 2012 in a response to the coal market downturn. It makes no sense to NCC to be contemplating approval for an extension of a Glencore mine, at great environmental cost, at a time when the company is significantly cutting production in its existing coal mines.

Our key concerns with the proposed project are outlined below.

Project is inconsistent with the principles of ecologically sustainable development (ESD)

The EIS claims that the Project is consistent with the principles of ESD[5]. NCC challenges that assertion and suggests that it calls into question the scientific validity of the EIS. Ecologically sustainable development is defined in the EPA Act with reference to section 6(2) of the *Protection of the Environment Administration Act*, 1991 which lists the principles of ESD. We contend that the proposed development is fundamentally inconsistent with these ESD principles. In particular:

Section 6(2)(a) incorporates the precautionary principle into the decision making process. As outlined below, we consider that the EIS demonstrates a lack of full scientific certainty in relation to the proposal to develop an open cut coal mine above approved underground coal extraction operations, and potential impacts on water resources. The threat of serious and irreversible environmental damage requires that the precautionary principle be applied, and subsequently that the development not be approved.

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[3] The objects of the EPA Act were amended to include the principle of ESD by the *Environmental Planning and Assessment Amendment Act 1997* (Assented to 19.12.1997, Date of commencement, 1.7.1998)
[4] Australian Financial Review, 28th February 2015, p37
[5] EIS Volume 1, Executive Summary, p10

Section 6(2)(b) relates to the principle of inter-generational equity. Open cut coal mines fundamentally contravene this principle. They substitute the unsustainable extraction of coal (a non-renewable resource) for a one off financial gain, leaving behind (at least in this case) a permanent open cut mine void. The so-called rehabilitation of these open cut remnants cannot replace a fraction of the biodiversity that has been destroyed to create them[6]. In addition to the permanent depletion of rich biodiversity from the forested areas which have been destroyed, the development makes a contribution to climate change through the burning of the mined resource, leaving a negative legacy to future generations of humanity.

Section 6(2)(c) requires the conservation of biological diversity and ecological integrity to be fundamental considerations in decision-making. NCC believes that this requires much more than considering the rich biodiversity you plan to destroy and then dismissing the impacts of the proposal as "not significant", as the EIS has done. Our understanding of the significant impacts on biodiversity are outlined below.

Impacts on Threatened Species and Endangered Ecological Communities – State and Federal

A total of 29 threatened fauna species were recorded within the proposed disturbance area or wider project area[7]. Glencore is operating an open cut coal mine in a biodiversity 'hot spot'. Threatened species actually recorded in the proposed disturbance area which will have their habitat destroyed if the mine proposal goes ahead include[8]:

- Spotted-tailed quoll
- Koala
- Squirrel glider
- East coast freetail bat
- Eastern bentwing bat
- Southern myotis (bat)
- Greater broad-nosed bat
- Swift parrot
- Spotted harrier
- Little lorikeet

[6] See, for example, Maron, M., Hobbs, R., Moilanen, A,. Matthews, J., Christie, K., Gardner, T., Keith, D., Lindenmayer, D. and McAlpine, C. (2012) Faustian bargains? *Restoration realities **in** the context of biodiversity offset policies* Biological Conservation 155 (2012) 141–148

[7] Volume 1, p175

[8] EIS vol 1, Table 5.7.2, p176

- Masked owl
- Speckled warbler
- Grey-crowned babbler
- Diamond firetail

NCC believes that the proposed North Pit continuation should not be approved due to the devastating effects it will have on the forest dwelling species living in the area. If the open cut mine extension is approved, they will have to move or die – and there is nowhere to move to. The North Pit continuation will sever the bush corridor that currently exists between the remains of the Ravensworth State Forest and the forested areas to the south of the current north pit mine[9]. For the flying species, habitats in the remaining forested areas have limited capacity to accommodate additional, displaced species. Fig 2.13[10] is a magnified view showing how the forested areas in the proposed north pit continuation act as a bush corridor to the forested areas to the immediate south. Open cut coal mining of the north pit continuation will cut the bush corridor.

Individual Species Impacts

In order to highlight the significant impacts the proposed project will have on biodiversity and threatened species in the area, NCC has focused on a number of species listed under both NSW and Commonwealth threatened species legislation which will be or are likely to be adversely affected by the land clearance that is an inherent part of open cut coal mining[11]: the swift parrot, koala and the spotted-tailed quoll. All were recorded in the project area, and the last two species were also recorded in the proposed disturbance area[12]. Land clearing is listed as a key threatening process under the Commonwealth EPBC Act. In addition to these three species, the squirrel glider, a threatened species listed as 'vulnerable' under the NSW *Threatened Species Conservation Act* 1995, was recorded in the proposed North Pit continuation area[13].

Swift Parrot

This unique bird is listed under both NSW and Commonwealth threatened species legislation. It is listed as Endangered under the EPBC Act, and is also listed internationally as Endangered on the IUCN Red List of Endangered Species.

While not meeting the international criterion for listing under the EPBC Act as a migratory species, the swift parrot is clearly migratory in an Australian context. The swift parrot migrates annually from breeding grounds in

[9] See Volume 1, Figure 5.24 – 5.26
[10] Vol 1, main EIS text, following p34
[11] Volume 1, Table 5.7.2, p176
[12] Appendix 4, Table 5.2, p5.6 - 5.8
[13] Volume 1, Figure 5.26

Tasmania to its winter foraging grounds in mainland eastern Australia[14]. Since this bird's habitat extends across four States (Tasmania, Victoria, NSW and Queensland, plus the ACT), it seems logical to assess the potential threat posed by the development under the Commonwealth EPBC Act.

The Australian population of the swift parrot is at best stable, recorded at 940 pairs in 1995[15]. The sightings of swift parrots recorded in the remnant of the Ravensworth State Forest between 2005 and 2014 are therefore highly significant. Approximately 20 birds were recorded in 2005, representing 1% of the Australian population and 10% of the total estimated population of swift parrots in the Lower Hunter region. Sightings have been recorded in the project area as recently as 2014[16].

The EIS claims that no swift parrots were recorded in the proposed disturbance area during fauna surveys conducted between 2011 and 2014. However, in 3 out of the 7 recording periods[17], swift parrots would not be in the area anyway – they would either be in their Tasmanian breeding area or just commencing their winter migration to Victoria[18]. The EIS makes no mention of this discrepancy.

The EIS loses its credibility entirely in its assessment of the impact of the development on the swift parrot, contained in the summary of assessment of EPBC Act significance[19]. The assessment states

"It is considered unlikely that the proposed action would result in a significant impact on the swift parrot as it has not been recorded in the Referral Area and ***there is no breeding habitat for this species"***

Given that the EIS has acknowledged elsewhere that the birds breed in Tasmania during summer, this discrepancy provides little confidence in the EIS assessment of significance in relation to the swift parrot.

NCC believes that the proposed development **will** have a significant impact on the nationally and internationally listed swift parrot, and offers the following points in support of that proposition:

- The EIS acknowledges that there is known habitat for the swift parrot in the Referral Area, comprising 163.7 ha of box-gum ironbark woodlands[20]. If the mining proposal is approved, this habitat will be destroyed. This destruction, in an area that is capable of supporting at times 1% of the small Australian population of swift parrots, will clearly have a significant impact and should be assessed accordingly.

- Swift parrots are nectivorous, requiring mature blossoming eucalypts for food. Grey box and spotted gum are key food trees for this bird. Both tree species are found within the NSW listed Endangered Ecological Communities (EECs) located in the Referral Area.

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[14] EIS Appendix 4, p4.5
[15] National Recovery Plan for the Swift Parrot, Birds Australia (2011)
[16] EIS Appendix 4, Table 4.1, p4.5
[17] EIS Appendix 1, p172
[18] Background Document, National Recovery Plan for the Swift Parrot, Birds Australia (2009)
[19] Appendix 4, table 5.2, p5.6
[20] EIS Appendix 4, Table 5.2

- In 3 out of the 7 periods that the consultants claim they were looking for swift parrots in the Referral Area, the birds were not even present in NSW.

- The remnant Ravensworth State Forest is obviously core habitat for swift parrots during the foraging phase of their migratory life cycle[21]. Undoubtedly a significant portion of core NSW swift parrot habitat has already been destroyed with the removal of over 50% of the original Ravensworth State Forest under the 1994 approval. Current swift parrot sightings were recorded in the Ravensworth State Forest in its most southern extension, only a few hundred metres and a few seconds flight from the proposed disturbance area[22]. Obviously the North pit continuation area is part of swift parrot habitat.

Koala

The koala is an iconic species listed as vulnerable under both Commonwealth and NSW legislation. The EIS assesses the koala against Commonwealth Referral Guidelines, concluding that:

"The Referral Area is considered to contain habitat critical to the survival of the species in accordance with the draft referral guideline"[23].

The EIS then proceeds to argue that the impacts of the development on the koala population are not significant and the Referral Area is 'unlikely to contain an important population of the koala'[24]. NCC disputes this conclusion.

The koala is considered such an important species in NSW that is afforded protection under *State Environmental Planning Policy 44 – Koala Habitat Protection*[25]. This SEPP must be specifically considered in an assessment of the Mt Owen extension application under Section 79C of the Environmental Planning and Assessment Act 1979. In spite of this, the EIS dismisses the significance of SEPP 44 to the area with a 3 line entry[26]. NCC believes a full SEPP 44 assessment of the threat posed by the development to the koala is required.

The most current and authoritative advice available indicates that the NSW koala population has suffered a 26% population decline over the previous 3 generations (18-24 years)[27].

Koala activity in and around the project area is acknowledged in the EIS, with 4 sightings recorded[28]. The EIS, while assessing the referral area under EPBC Act criteria, noted that 163.7ha of woodland and forest contained

[21] EIS Volume 1, Figure 5.24
[22] Ibid
[23] EIS Appendix 4, p5.9
[24] EIS Appendix 4, p5.10
[25] SEPP No 44 – Koala Habitat Protection
[26] EIS Appendix 11, Section 5.8.3, p5.14
[27] John C. et al "*The Action Plan for Australian Mammals 2012",* CSIRO Publishing, 2014
[28] EIS Volume 1, Figure 5.26

at least one koala food tree. The grey box and grey gum are classified as secondary koala food trees[29]. NCC believes that there needs to be an independent ecological survey of the proposed disturbance area (i.e. not done by Umwelt) to determine if the area qualifies for classification as potential or core koala habitat under SEPP 44 – Koala Habitat Protection. There is insufficient information provided in the EIS to make a determination, and without this data, the NSW government cannot assess the development application under section 79C of the EPA Act and SEPP 44. In the Koala recovery plan, no mention is made of a koala population in the koala management area covering the Hunter[30], so the description of koala sightings in the project area raises the issue of scientific uncertainty which needs to be resolved before a decision can be made on whether the mine extension can proceed. To make the decision without obtaining more information on the status of the koala population in the area would be contrary to the principles of ESD and inconsistent with the aims and objectives of SEPP 44.

Spotted-tailed quoll

The EIS acknowledges that the spotted-tailed quoll (quoll) is listed as vulnerable under NSW legislation and endangered under the Commonwealth EPBC Act. Clearly a significant population of quolls exists in the project area (including the disturbance area) and the surrounds of the project area where there is adequate cover for this forest dependent species[31].

Proposed clearing of the North Pit Continuation for an open cut mine will have a significant impact on this species and result in the cutting of the bush corridor which allows the core population in the remnant Ravensworth State Forest to expand into suitable forested habitat to the south of the Project Area.

The EIS attempts to argue that the project area population of quolls is part of a broader regional population[32]. However, expert local advice provided to NCC indicates that the population is part of a discrete and highly threatened Hunter Valley population. The EIS actually acknowledges that few areas of the Hunter Valley "are of sufficient size to support the home range of this species"[33]. Until now, the EIS indicates that the area supports a viable population of quolls. However, there is considerable doubt whether there will be enough area to support a viable population of quolls once the destruction of the North Pit continuation forest and the southern bush corridor is complete.

NCC is of the view that the proposed action will have a significant adverse impact on the spotted-tailed quoll at the State level[34], and under the Commonwealth EPBC Act Significant Impact Guidelines.

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[29] Recovery plan for the Koala, NSW Department of Environment and Climate Change, Appendix 2, p 87.
[30] Op cit at 29, p16
[31] EIS Volume 1, Figure 5.26
[32] EIS Vol 1, p181
[33] EIS Appendix 4, p4.5
[34] Under Section 5A, Environmental Planning and Assessment Act 1979

Squirrel Glider

The squirrel glider is one of a number of threatened species under NSW legislation located in the North Pit continuation area[35]. However, unlike most of the other threatened species which are either bats or birds, the squirrel glider cannot fly away when the bulldozers come. The squirrel glider is a highly forest dependent species which does not utilize and avoids disturbed country[36]. NCC expects that at the end of the mining phase, when the North Pit continuation looks like the rest of the open cut area[37] and the bush corridor connection to the remnant Ravensworth State Forest has been destroyed, the sub-population of squirrel gliders currently living in the disturbance area will have nowhere to go and will be destroyed. NCC believes this constitutes a significant effect under Section 5A of the NSW Environmental Planning and Assessment Act 1979 and provides further justification for not proceeding with the development.

Endangered Ecological Communities (EEC's)

The EIS acknowledges that there are three NSW listed EECs within the proposed disturbance area which will be destroyed (or 'removed' in EIS language) if the North Pit continuation goes ahead. The largest of these is the Central Hunter Ironbark – Spotted Gum – Grey Box EEC, an area of 131.9 ha. The EIS also acknowledges that this EEC (plus seven threatened bird species and five threatened mammal species) are potentially significantly impacted (without mitigation) at a state level by the project[38].

The EIS also notes, in discussing the regional ecological context of the project, that there are few areas of Hunter Valley floor remnant vegetation that are over 100 ha left in the area – and yet the proposal will destroy another one[39]. The largest area is located within a military area and subject to Commonwealth law. Two large national parks are located 18 kms to the north, but there is no mention of whether they contain the largest EEC which will be 'removed' by the project. NCC maintains that there is scientific uncertainty about the value of this EEC in a regional ecological context, and in the absence of further information, the precautionary principle should prevail and the mining approval should not be given.

The EIS also mentions the importance of Ravensworth State Forest as an important component of the 'preservation of the flora and fauna of the upper Hunter Valley'. A key project design objective was to 'avoid disturbance of Ravensworth State Forest'[40]. NCC agrees that the Ravensworth Forest is critically important, but the EIS conveniently fails to mention that under the 1994 consent, more than half of the Ravensworth State Forest has already been destroyed by the project. Under the current proposal, the bush corridor that allows threatened fauna and flora to extend their range to the south of the project will also be destroyed.

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[35] EIS Vol 1, Fig 5.24 & 5.26
[36] David Paull, *Review of ecological assessment & significance of impact reports for the Mt Owen Continuation Project,* Ethical Ecology Australia, Feb 2015, p6
[37] See EIS Vol 1, Figs 5.24 – 5.26
[38] EIS Vol 1, p179-180
[39] EIS Vol 1, p171
[40] EIS Vol 1, p171

Offsets

NCC believes that the current offsets proposed[41] are inadequate, and inconsistent with the NSW Biodiversity Offsets Policy for Major Projects, which is applicable to the North Pit Continuation proposal. They would not pass any genuinely independent scrutiny as 'like for like'. NCC particularly wishes to point out that the NSW variation rules do not allow policy variation where like for like offsets are not available where, as in the case of the Mt Owen project, threatened species listed under the EPBC Act will be impacted by the proposed development[42].

NCC believes, based on information provided by local member organisations, that Mt Owen was allowed to get away in 1994 with so-called offsets for the destruction of over 50% of the Ravensworth State Forest that were obviously inappropriate even then. They would certainly not pass muster now as like for like offsets compensating for the destruction of over 50% of a major biodiversity hotspot.

At higher magnification, the so-called Southeast Corridor Offset and the Forest East Offset can be seen for what they actually are – mainly cleared cattle paddocks with negligible habitat value for forest dwelling species displaced by mining activities in the Ravensworth State Forest[43].

Fig 2.17[44] is a close up view showing how the Ravensworth State Forest forms both an eastern buffer to the current mine and is part of a bush corridor to the south. This figure also further demonstrates what poor examples of forest ecosystems some of the so-called 'offsets' for the part destruction of Ravensworth State Forest were. They are certainly not 'like for like' offsets compensating for the destruction of Ravensworth State Forest, and would not be appropriate forest habitat for any displaced species from the North Pit Continuation if it went ahead. The TSR "offset" is Crown land and could not be legally cleared anyway, so is not a legitimate offset since it is not additional.

A similar kind of thinking has gone into the three new offset areas that are supposed to compensate for the forest habitat destruction in the North Pit continuation area. NCC contends that these areas are not like for like as required under current NSW policy. In the case of the Esparanga Offset site, this site is too far away to provide habitat relief for threatened species displaced by mining at the Mt Owen site. The site is also not considered additional, since there is no evidence that it could legally be cleared if it had not been acquired as an offset site.

[41] EIS Vol 1, p187
[42] NSW Biodiversity Offsets Policy for Major Projects, p 11.
[43] EIS Appendix 4, Figure 3.1
[44] Vol 1, following p40

Water Resource Impacts

The Commonwealth Department of the Environment has determined that the proposed expansion of the existing Mt Owen open cut coal mine operations "is likely to have a significant impact on a water resource in relation to a large coal mining development", and will therefore activate the water trigger in Sections 24D and 24E of the EPBC Act. For such a significant impact to be considered "likely", it is sufficient that the impact is a real and not remote chance or possibility[45].

NCC believes that the development will have a significant impact on groundwater, particularly on Main Creek and Glennies Creek downstream of the Main creek junction[46]. It appears from the EIS that this represents an extension of the water resource impact into new areas not previously impacted by the current mining activities.

In several places in the EIS, the claim is made that the Project will have a "negligible impact" on all aspects of groundwater. We consider this statement misleading, given that the expected drawdown in alluvial aquifers exceeds the minimal impact criteria under the NSW Aquifer Interference policy, requiring detailed assessment[47]. By definition, this cannot be classified as a negligible impact.

Maps in the EIS indicate a potential groundwater drawdown of at least 2-4 metres in the Glennies Creek catchment by 2030 [48]. NCC has difficulty reconciling this information with the statement that "there will be negligible impact on the volume of water available to downstream water users[49]. NCC believes it is much more likely that the groundwater drawdown will interfere with surface flows in the Glennies Creek catchment so that ultimately, the downstream users will be deprived of their water rights.

NCC also wishes to draw attention to what we see as a serious scientific uncertainty in relation to the impact of the proposed development on water resources. The Significant Impact Guidelines[50] apply to a large coal mining activity such as the Mt Owen proposal, not only in its own right, but also when considered with other developments, whether past, present or reasonably foreseeable future developments[51]. The proposed project area partly overlays an already approved underground coal mine owned by Integra Mine[52]. It is reasonably foreseeable that, if the Mt Owen coal mine extension is approved, part of the open cut pit in the North Pit Continuation area will ultimately overlay a long wall mine that has been mined by Integra Coal.

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[45] Australian Government: Significant Impact Guidelines 1.3 – Coal seam gas and large mining developments – impacts on water resources, p14
[46] EIS Vol 4, Appendix 10, Fig 2.2
[47] EIS Vol 1, p 163 - 166
[48] EIS Vol 4, Figures 3.19 & 3.20
[49] EIS Executive Summary, Vol 1, p6.
[50] Op cit at 45
[51] EPBC Act Definitions, Section 528
[52] EIS Vol 2, Appendix 4, Fig 2.4

There are serious concerns about lack of scientific certainty relating to the impacts on the water table of the Glennies Creek catchment if the proposal goes ahead. The EIS has had to resort to modelling in an attempt to explain the complex impact upon groundwater of an open cut coal mine with an acknowledged groundwater drawdown of 2-4 metres overlaying an existing underground coal mine. The modelling is less than convincing.

Fracture zones in the model replicate the historical cracking that has occurred above all underground workings. Fracture zones in the model are **assumed** (our emphasis) to extend over a thickness of 200m above the base of the respective underground workings[53]. The consultants claim that there will be a minimum of 250m vertical distance between the base of the open cut pit and 'the approved Integra underground'[54]. NCC is highly dubious of the science on which these figures are based. NCC member groups working on the impacts of underground coal mining beneath rivers and swamps in the Sydney Drinking Water catchment have documented a number of instances where cracking above underground mines in the Southern Coalfields extended to the surface and drained watercourses and swamps. Local concerns about subsidence effects such as stream bed cracking led to a major State Government Inquiry into the effects of long wall mining under the catchment[55]. The Mt Owen consultants would be well advised to draw on the expertise of the State Government and mining experts who were involved in the preparation of that report to assess the environmental impacts on surface and groundwater of a combination of underground and surface mining in the same location.

There is nothing in the EIS modelling that guarantees that expected cracking above the Integra underground mine, in combination with the proposed Mt Owen open cut mine in the same location, would not cause potentially severe impacts on the Glennies and Main Creek surface and groundwater flows.

The scientific uncertainty of the impacts on the water table of the Integra Underground Mine plus the proposed North Pit Continuation is actually raised in Section 4.1.1.3 of the groundwater impact assessment. The rare moment of uncertainty in the EIS is worth quoting in full:

"At Mt Owen complex, the post-mining equilibrium water table will be heavily influenced by long wall panel development by Integra Underground mine beneath the proposed North Pit Continuation. The concurrent and overlapping operations make it extremely difficult to distinguish the relative influence and impacts of the operations on the post mining equilibrium water table"[56].

The Commonwealth Minister and the Department of the Environment are obliged to take into account the principles of ecologically sustainable development (ESD) in decisions made under the EPBC Act[57]. One of the principles of ESD in Section 3A is the precautionary principle – section 3A(b). NCC believes that, based on the information referred to above, there is a clear lack of full scientific certainty in relation to the potential impact

[53] EIS Appendix 10 Groundwater Impact Assessment, p70
[54] EIS Appendix 10 Groundwater Impact Assessment, p88.
[55] "Impacts of Underground Mining on Natural Features in the Southern Coalfields", NSW Department of Planning (2008)
[56] EIS Groundwater Impact Assessment, p114
[57] EPBC Act 1999 – Section 3A – Principles of ecologically sustainable development.

of the Mt Owen North Pit Continuation on the water resources (surface and ground water) of the Glennies creek catchment.

NCC considers that this adverse water impact can only be avoided by refusing the development application.

Impacts on climate

The proposed Mount Owen mine expansion will have long-term impacts on the climate due to the significant greenhouse gas emissions that will be produced from the burning of the recovered coal and its contribution to anthropogenic climate change.

The internationally renowned science journal *Nature* has recently stated that 95% of Australia's coal reserves must remain unburnt by 2050 if the world is to have a 50% chance of avoiding global warming in excess of 2 degrees C.[58] Further, the Australian Government has stated in international forums that it is committed to measures that will avoid global warming in excess of 2 degrees Celsius.

In light of the unequivocal evidence that the burning of coal contributes to anthropogenic climate change, we do not consider that the approval of the Mount Owen extension project is in the public interest.

Health Impacts

The existing operations at Mt Owen have demonstrated exceedances of current air quality criteria at a number of monitoring sites. The proposed extension of the mine closer to the Village of Camberwell and to residents in the Middle Falbrook area will cause an increase in air pollution and risk to human health.

The noise impact assessment has identified 20 properties that will experience increased noise impacts. The loss of amenity to rural residents and potential displacement of more families has major health and social impacts that have not been adequately assessed.

NCC considers the cost of impacts on human health has not been given the due consideration required in the EIS.

Cumulative Impacts

The Mt Owen expansion project will contribute to the ongoing expansion of the coal mining in the Hunter region, which is already having a devastating effect on the environment and communities, and causing significant environmental damage and irreplaceable biodiversity loss.

The cumulative impacts of mining operations in the Hunter region are likely to cause serious environmental and social problems now and into the future. Whilst the mines are in operation dust, noise impacts and traffic impacts will be immediate. Other impacts such as water contamination, loss of surface water, surface

[58] *Nature* 517, 187-190 (08 January, 2015)

disturbance and loss of biodiversity will be cause serious and potentially irreversible impacts in both the immediate and long-term.

The cumulative impacts of all mining activities in the region must be considered when determining these applications.

Conclusion

The continued expansion of existing as well as expanding mining operations in NSW contributes to air and water pollution, impacts on community health, destruction of sensitive environmental areas and climate change.

In particular, the Mount Owen expansion project will have significant impacts on biodiversity in the area including threatened species listed under NSW and Commonwealth legislation. The proposal is also likely to impact on water resources, and given the uncertainty of those impacts the precautionary principle should be applied. Finally, the expected climate change impacts of the proposal are not in the public interest.

For the reasons outlined above, NCC does not support the proposed project and recommends that the proposal be refused.

Yours sincerely,

Kate Smolski
Chief Executive Officer