Hunter Environment Lobby Inc.

PO Box 188
East Maitland NSW 2323

SUBMISSION OF OBJECTION

Moolarben Coal Complex Stage 2 _ Preferred Project Report: No. 08_0135

Mr Howard Reed
Mining and Major Industry Projects
Dept of Planning and Infrastructure
GPO Box 39
Sydney 2001

Monday 20 February, 2012

Dear Sir,

Hunter Environment Lobby Inc. (HEL) is a regional community-based environmental organisation that has been active for more than fifteen years on the issues of environmental degradation, species and habitat loss, as well as climate change.

While acknowledging that there has been an attempt to improve the initial proposal for a Stage 2 expansion of the Moolarben mine, HEL wishes to lodge this submission of objection to the Moolarben Coal Complex Stage 2 Preferred Project (the Project) on the following grounds:

1. The size of the mine footprint disturbing 1,546 ha of vegetation
2. The cumulative impact of loss of critically endangered ecological communities and threatened species habitat
3. The poor biodiversity offset strategy
4. The freehold title over The Drip and Corner Gorge and lack of permanent protection for this natural icon.
5. The cumulative impact on water sources in the Upper Goulburn River catchment
6. The need for an Independent Regional Water Study
7. The cumulative loss of Aboriginal cultural heritage sites in a significant regional context.
8. The increased Greenhouse Gas emissions caused by the production of 17 mtpa coal
9. The cumulative health, safety and environmental impacts from increased dust, noise, light pollution and traffic movements.
10. The negative social impacts of the exponential expansion of the coal industry in Mid Western Regional local government area

Please find attached our full submission of objection. We trust that the Department of Planning and Infrastructure will consider the important issues raised. This mine extension was proposed immediately after the approval of Moolarben Stage 1. The cumulative impacts of this mining operation together with the Ulan Mine, which has just doubled its production rate and the Wilpinjong Mine, which has also increased production must be considered independently from the reports commissioned by the mining industry.

The pressures placed on the local terrestrial, aquatic, social, transport and economic environments need to be fully considered.

Moolarben Stage 1 has approval to produce 10 mtpa until 2028. Major social and environmental impacts are now being experienced, beyond the predictions in the approved environmental assessment for this current mining operation.

The mine operators have proven to be irresponsibe environmental managers with a number of major breaches of conditions of approval already before the Land Environment Court.

HEL submits that the Project not be approved.

Yours sincerely

Jan Davis

SUBMISSION OF OBJECTION

1. **The size of the mine footprint**

The Project has caused an increase in vegetation disturbance of 38.7ha to 1,546 ha, up from the 1,507 ha in the original Stage 2 proposal (Stage 2). This increase includes an additional 4.95ha of White Box-Yellow Box Grassy Woodland which is a very important vegetation association included in the Critically Endangered Ecological Communities (CEECs), Box Gum Woodland and Derived Native Grassland.

While the Project concentrates on the disturbance of the area of clearing required for Opencut 4 operations, infrastructure and emplacements; the area of native vegetation impacted by subsidence from the underground operations is not clearly identified.

Both proposed underground mines will impact on vegetated areas containing important threatened species habitat. The Project outlines that the surface subsidence predictions from that shown in the Stage 2 Environmental Assessment (EA) have not changed.[1]

While the impacts of clearing on CEECs are considered, the possible impacts of subsidence on these significant vegetation types is not clearly reiterated in the Project.

The Stage 2 EA predicts that '*systematic tilts are likely to result in some reduced and also some increased grades where the CEECs occur*[2].' These changes may '*cause some ponding of surface runoff and fracturing and dilation of the bedrock and soils in areas containing CEECs.*'[3]

The mitigation of these impacts on remnant vegetation above the proposed longwall mining operations has not been clearly identified.

The impact of the loss of mature native vegetation with important habitat features such as large hollows and quality and quantity of food sources such as nectar and seed is not clearly identified in the Project.

The Project is a much larger footprint than Moolarben Stage 1 which was approved to disturb 1,120 ha including 416.8ha of native vegetation.[4]

The combined Moolarben Coal Complex will result in the disturbance of 2,666 ha including the destruction of 1,319 ha native vegetation that contains 188 ha of CEEC.

This is a major loss of woodland habitat that supports declining woodland bird populations, hollow dependent species and plants associated with woodland ecosystems.

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[1] Hansen Bailey, *Moolarben Coal Project Stage 2 Preferred Option*, Jan 2012, Executive Summary p viii
[2] Wells Environmental Services, *Moolarben Coal Project Stage 2 Environmental Assessment Report*, March 2009 pS5-103
[3] Wells Environmental Services, *Moolarben Coal Project Stage 2 Environmental Assessment Report*, Vol 1, March 2009 pS5-103
[4] Wells Environmental Services, *Moolarben Coal Project Environmental Assessment Report*, Vol 1, September 2006 pS5-95

2. The cumulative impact of loss of CEECs and threatened species habitat

The cumulative loss of the CEEC, Grassy Box Gum Woodland, and further impacts on remnants in the mine footprint are not adequately addressed by the Project.

While the Project causes a decrease of proposed clearing of CEEC by 33.46 ha, it will increase clearing of the significant White Box-Yellow Box Grassy Woodland CEEC by nearly 5ha. This vegetation community has proven difficulty in responding to revegetation programs[5], particularly in the Upper Hunter region. While the mine rehabilitation program proposes to replace CEECs, there is no proven record of success with White Box-Yellow Box Grassy Woodland CEEC on a large scale within existing mine rehabilitation programs.

The main rehabilitation will not be established until near the end of the life of mine in 2036. This means there will be a net loss of mature CEEC providing significant habitat values. Many of these values, particularly breeding hollows and food sources take many decades to fully develop. Woodland regeneration and revegetation programs will take a very long time to provide these necessary values. Those particularly provided by White Box-Yellow Box Grassy Woodland CEEC may be impossible to replace.

The Project does not address the cumulative impact of vegetation clearing approved in the region for current mining operations at Moolarben Stage 1, Ulan Continued Operations and Wilpinjong Mines.

Current estimates indicate that only 405,000 ha[6] of Box Gum Grassy Woodland remain across its former national range. The cumulative impact of ongoing clearing for opencut mining operations in the Upper Goulburn River catchment has not been adequately recorded or considered.

'*Fauna species are inextricably linked to a functioning woodland/grassland ecosystem. The ecosystem is a source of food and habitat for fauna, while ecosystem services provided by fauna include; plant pollination, seed dispersal, nutrient recycling, maintenance of soil structure, control of herbivorous insects and provision of disturbance which assists in maintaining floristic diversity (ACT Government 2004)*'.[7]

The Project assessment does not adequately consider the species recorded on all the mine sites with associated cumulative loss of habitat.

The NSW Government cannot continue to consider that threatened species using this area will be able to compete for habitat sites protected within the adjacent reserve system on an exponential scale.

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[5] National Recovery Plan, *White Box – Yellow Box – Blakely's Red Gum Grassy Woodland and Derived Native Grassland* Feb 2010 p 39

[6] National Recovery Plan, *White Box – Yellow Box – Blakely's Red Gum Grassy Woodland and Derived Native Grassland* Feb 2010 p 1

[7] National Recovery Plan, *White Box – Yellow Box – Blakely's Red Gum Grassy Woodland and Derived Native Grassland* Feb 2010 p 8

The severity of the impacts on remnant vegetation and threatened species habitat caused by increasing volumes of dust and pollutants released through blasting and diesel consumption, combined with increasing noise levels and light pollution have not been identified or adequately considered.

The proposed clearing of CEECs in conjunction with current approvals in the region contravenes the Recovery Plans for Box Gum Grassy Woodland, Regent Honeyeater, Swift Parrot and Greater Long-eared Bat.

3. The poor Biodiversity Offset Strategy

The proposed Biodiversity Offset Strategy (the offsets) is entirely inadequate for the purpose of mitigating the loss of an additional 900ha woodland vegetation including 123 ha CEEC from the region.

The proposed ratios of offset (ie 1:3.9 for native vegetation and 5:1 for CEEC) are of no consequence because of the site of the main offset properties. The proposed offset provides no connectivity to the area of impact or between the properties identified to provide the offset.

The issue of finding land with no existing mining tenement has been given the highest priority in the proposed offsets, rather than their suitability to provide mitigation for the proposed biodiversity impacts of the Project.

The recent case heard in the Land and Environment Court, Hunter Environment Lobby Inc vs Minister for Planning contesting the adequacy of the biodiversity offsets for the Ulan Continuous Operations approval, made a judgement that recognised the importance of connectivity in any offset arrangements.

None of the offsets proposed in the Project are connected in any way. The Dun Dun property and property 18, that provide the key offset ratios described in the Project, are not connected to each other or any other area with the identified conservation values that are to be replaced by the offsets.

The offsets do not meet Principle 6 of the Federal Draft Environmental Offset Policy: '*Environmental offsets should be located within the same general area as the development activity'*[8].

The extent of survey work carried out to identify the values in the offsets has been minimal and is inappropriate for drawing the conclusions reached in the Project. The information used to identify the exact area of CEECs present in the offsets is based substantially on interpretation of desktop data.

Only 27 quadrats were surveyed across the four properties proposed to make up the offsets, only 7 quadrats occurred in areas identified as containing CEECs and 5 of these quadrats were on property 18.

[8] Australian G overnment. Draft Policy Statement: Use of environmental offsets under the *Environment Protection and Biodiversity Conservation Act 1999*. August 2007 p 4

The offsets report produced by Cumberland Ecology[9] (the Report) does not clearly indicate how the areas of CEEC identified in Figures 3.4, 3.5, 3.6 and 3.7 were calculated and verified as lines on a map.

The Report states that *'The development of the offset package was influenced by the availability of land for purchase.'*[10]

Also that: '*Special emphasis was placed on finding large properties that are located outside existing mining tenements'*..[11]

Other than using aerial photography and desktop data, there was no concerted effort made to verify the areas of CEEC on the ground. The main onground survey work was conducted by one ecologist and one botanist in December 2010, February 2011 and March 2011, '*The investigation entailed drives across (or around) the properties..'*[12]

The lack of verification is a serious omission in the offset package because the areas of CEEC occurring on Dun Dun and property 18 are the main source of the 5:1 ratio that is key to the Project outcomes.

The offsets are not based on the best biodiversity outcomes but on a series of other considerations.

4. **The freehold title over The Drip and Corner Gorge and lack of permanent protection for this natural icon**.

HEL wishes to lodge a major objection to the conversion of the Crown Lease over the land containing The Drip picnic area, access track, The Drip and Corner Gorge to free hold title as occurred on 30 December 2010.

This area was a significant public natural icon that is accessed by local, national and international tourists and school groups. It is promoted widely as a recreational and educational destination.

The lack of permanent protection for the important natural values of this area should be addressed through this current planning process.

The Drip and Corner Gorge riparian corridor on the Goulburn River provides offsets for the loss of sandstone cliffs and escarpments through subsidence impacts and destruction of other important environmemtal features in the landscape.

[9] Cumberland Ecology, Moolarben Coal Project Stage 2, *Biodiversity Offset Strategy Final Report,* Appendix H Vol 3, January 2012
[10] Cumberland Ecology, Moolarben Coal Project Stage 2, *Biodiversity Offset Strategy Final Report,* Appendix H Vol 3, January 2012 p 2.5
[11] Cumberland Ecology, Moolarben Coal Project Stage 2, *Biodiversity Offset Strategy Final Report,* Appendix H Vol 3, January 2012 p 2.5
[12] Cumberland Ecology, Moolarben Coal Project Stage 2, *Biodiversity Offset Strategy Final Report,* Appendix H Vol 3, January 2012 p 2.4

This area is adjacent to the area of impact, provides connectivity and should be included in the Goulburn River National Park.

5. The cumulative impact on water sources in the Upper Goulburn River catchment

The Project proposal to destroy 4.1km of Murragamba Creek and Eastern Creek is additional to current approved mining impacts on the integrity of water sources in the Upper Goulburn River catchment.

The loss of the natural features and functions of these creeks is additional to the diversion of the Goulburn River, impacts on flows to Moolarben Creek and destruction of five creek systems in the Wilpinjong Mine footprint including Cumbo Creek.

The predicted loss of base flows to Wilpinjong Creek through groundwater interception is 16.8 megalitres (ML) per annum. The Project EA attributes only 6.2 ML per annum base flow reduction to the Moolarben Coal Complex.[13] There is no clear indication given of the cause for the additional 10.6 ML per annum loss.

The cumulative impact of the predicted loss of base flows in Wilpinjong Creek caused by the Wilpinjong Mine groundwater and surface water interceptions of 11 ML per annum has not been adequately identified or considered.

The significance of a loss of 27 ML of base flows to a spring fed intermittent creek system during times of drought is not considered.

The impact of the Project ground water draw down including permanent destruction of springs in the opencut disturbance area has not been adequately assessed or considered. The groundwater systems that provide base flows to Wilpinjong Creek are irreplaceable and cannot be rehabilitated.

6. The need for an Independent Regional Water Study

The discrepencies between the groundwater model developed for the Project and that used by Ulan Coal Mines Limited (UCML) are of major concern and need to be resolved.

The cumulative impact of loss of alluvial aquifer systems, natural springs, base flows, regional groundwater draw down over large areas for a period of up to 200 years, disturbance of surface flows and natural creek systems in the Upper Goulburn River catchment is a major environmental impact that has not been addressed.

The community has been calling on the NSW Government to conduct an independent regional water study on the impacts of coal mining on this important river system for over 8 years. The ongoing approval of expanded coal mining operations with different water modeling for adjacent projects within the same catchment, without independent review of the impact predictions at the catchment scale, is irresponsible.

[13] Hansen Bailey, *Moolarben Coal Project Stage 2 Preferred Option*, Jan 2012, Executive Summary p vi

The continued destruction of the Upper Goulburn River water source will leave an untenable legacy for future generations.

The Project should not be approved without full, independent consideration of the longterm impacts of mining on the water sources in the region.

7. **The cumulative loss of Aboriginal cultural heritage sites in a significant regional context.**

The Goulburn River valley was a significant trading route for Aboriginal people before European settlement connecting inland Australia to coastal regions.

The density of Aboriginal cultural heritage sites in this region indicates its significance.

HEL objects to the ongoing loss of Aboriginal cultural heritage through the disturbance of open cut mining and subsidence impacts from longwall mining operations. The proposal to destroy a further 148 sites in this Project area combined with the large number of sites approved to be destroyed by the Moolarben Stage 1, Ulan and Wilpinjong mining operations is unacceptable.

8. **The increased Greenhouse Gas emissions caused by the production of 17 mtpa coal**

The Project is predicted to produce 29,585,000 tonnes of carbon dioxide per annum. When combined with the emissions produced by all mining operations in this region, a significant contribution to global warming will occur.

The economic impacts of climate change on the region have not been provided in this Project proposal.

9. **The cumulative health, safety and environmental impacts from increased dust, noise, light pollution and traffic movements.**

This Project is another major expansion of a high impact industry in an environmentally sensitive region with an isolated rural community that is rapidly being destroyed.

The assessment of the cumulative environmental impacts relating to the increased production of coal to 17 mtpa has not been undertaken. The increased volume of dust emissions and pollutants from blasting and diesel combustion has not been adequately assessed, particularly in relation to the impacts on the natural protected areas in close proximity to the Project.

The cumulative increase in levels of noise and light pollution has also not been adequately predicted, particularly on threatened species habitat which has been identified as offset habitat for the loss of over 900ha woodland vegetation.

The remote rural communities in the vicinity of the coal mine expansion have suffered a major increase in pollution and traffic movements on local roads. The loss of amenity and the loss of social fabric through the ongoing mine acquisition program has caused vast areas in this region to become depopulated.

The far reaching health impacts caused by an unspecified volume of increased dust and air pollution, increased noise levels and increased risk through unsafe traffic volumes need to be fully considered.

There has been no planning associated with the major change in land use in this region over the past 8 years. The cumulative impacts have not been adequately assessed for the longterm cost to the environment, to current inhabitants and to future generations.

This project should not be approved on the basis of the cumulative impacts being too great for adequate mitigation and management.

10. The negative social impacts of the exponential expansion of the coal industry in Mid Western Regional local government area

While the Project identifies the economic benefits of increased jobs and income to the region, state and nation, there is growing criticism among economists about the veracity of the economic modeling used by the mining industry.[14]

The negative social impacts of an overheated housing market and lack of accommodation for an additional construction workforce of 220 people and direct employment of 439 people in the Moolarben Coal Complex when combined with the increased workforce generated by the recently approved Ulan Continuous Operations and Wilpinjong Mine expansion, have not been taken into account.

A proposal to provide temporary work accommodation for fly-in, fly-out (FIFO)workers in the region has a direct implication on the modeling provided for regional economic benefits. While local people employed in other industries can no longer afford the rental increases being charged in the local housing market, FIFOs are taking their earnings away from the local economy.

The Project proposes that it will provide '*Employmeny opportunities, focusing on opportunities for locals, which will generate wealth impacts allowing individuals and families to enhance their quality of life'*[15]

This statement ignores the fact that the three large mining operations in the region are now competing for a workforce and actively recruiting in national media outlets. Other local businesses and industries are losing trained employees to the mining industry and cannot compete with the high wages.

Some local people have been forced into poverty because of the overheated economy caused directly by the rapid expansion of the mining industry.

[14] Ross Gittens, Economics Editor, Sydney Morning Herald '*Dam lies and economic modelling'* 1 February 2012

[15] Hansen Bailey, *Moolarben Coal Project Stage 2 Preferred Option,* Jan 2012, Executive Summary p x

The increased pressure on health services in the neighbouring towns is considerable. The growth in mining income to the State has not been returned to the region in the form of improved Government services.

These negative economic and social impacts have not been identified in the Project assessment and the figures provided for economic benefit are highly inflated.

The NSW Government must take cumulative impacts of large scale mining operations into account.

HEL proposes for the reasons stated in this submission that the Project not be approved.

Sara Wilson - Moolarben Stage 2 Submission for HEL

From: "Jan Davis" <jandavis@swiftdsl.com.au>
To: <plan_comment@planning.nsw.gov.au>
Date: 2/21/2012 11:10 PM
Subject: Moolarben Stage 2 Submission for HEL
Attachments: HEL Submission of Objection Moolarben Stage 2 Preferred Project.pdf

Please find attached and in body of email our submission for the Moolarben Stage 2 project. Can you please advise that you have received this submission by return email, and also we are happy that this submission comes into the public arena.
Regards, Jan Davis
President, Hunter Environment Lobby Inc

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Please find attached our full submission of objection. We trust that the Department of Planning and Infrastructure will consider the important issues raised. This mine extension was proposed immediately after the approval of Moolarben Stage 1. The cumulative impacts of this mining operation together with the Ulan Mine, which has just doubled its production rate and the Wilpinjong Mine, which has also increased production must be considered independently from the reports commissioned by the mining industry.
The pressures placed on the local terrestrial, aquatic, social, transport and economic environments need to be fully considered.
Moolarben Stage 1 has approval to produce 10 mtpa until 2028. Major social and environmental impacts are now being experienced, beyond the predictions in the approved environmental assessment for this current mining operation.
The mine operators have proven to be irresponsibe environmental managers with a number of major breaches of conditions of approval already before the Land Environment Court.
HEL submits that the Project not be approved.
Yours sincerely
Jan Davis 3

SUBMISSION OF OBJECTION

1. **The size of the mine footprint**

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While the Project concentrates on the disturbance of the area of clearing required for Opencut 4 operations, infrastructure and emplacements; the area of native vegetation impacted by subsidence from the underground operations is not clearly identified.
Both proposed underground mines will impact on vegetated areas containing important threatened species habitat. The Project outlines that the surface subsidence predictions from that shown in the Stage 2 Environmental Assessment (EA) have not changed.1

1 Hansen Bailey, *Moolarben Coal Project Stage 2 Preferred Option*, Jan 2012, Executive Summary p viii
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While the impacts of clearing on CEECs are considered, the possible impacts of subsidence on these significant vegetation types is not clearly reiterated in the Project.
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The mitigation of these impacts on remnant vegetation above the proposed longwall mining operations has not been clearly identified.
The impact of the loss of mature native vegetation with important habitat features such as large hollows and quality and quantity of food sources such as nectar and seed is not clearly identified in the Project.
The Project is a much larger footprint than Moolarben Stage 1 which was approved to disturb 1,120 ha including 416.8ha of native vegetation.4
The combined Moolarben Coal Complex will result in the disturbance of 2,666 ha including the destruction of 1,319 ha native vegetation that contains 188 ha of CEEC.
This is a major loss of woodland habitat that supports declining woodland bird populations, hollow dependent species and plants associated with woodland ecosystems. 4

2. The cumulative impact of loss of CEECs and threatened species habitat

The cumulative loss of the CEEC, Grassy Box Gum Woodland, and further impacts on remnants in the mine footprint are not adequately addressed by the Project.

While the Project causes a decrease of proposed clearing of CEEC by 33.46 ha, it will increase clearing of the significant White Box-Yellow Box Grassy Woodland CEEC by nearly 5ha. This vegetation community has proven difficulty in responding to revegetation programs[5], particularly in the Upper Hunter region. While the mine rehabilitation program proposes to replace CEECs, there is no proven record of success with White Box-Yellow Box Grassy Woodland CEEC on a large scale within existing mine rehabilitation programs.

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The Project assessment does not adequately consider the species recorded on all the mine sites with associated cumulative loss of habitat.

The NSW Government cannot continue to consider that threatened species using this area will be able to compete for habitat sites protected within the adjacent reserve system on an exponential scale. 5

The severity of the impacts on remnant vegetation and threatened species habitat caused by increasing volumes of dust and pollutants released through blasting and diesel consumption, combined with increasing noise levels and light pollution have not been identified or adequately considered.
The proposed clearing of CEECs in conjunction with current approvals in the region contravenes the Recovery Plans for Box Gum Grassy Woodland, Regent Honeyeater, Swift Parrot and Greater Long-eared Bat.

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The proposed Biodiversity Offset Strategy (the offsets) is entirely inadequate for the purpose of mitigating the loss of an additional 900ha woodland vegetation including 123 ha CEEC from the region.
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The issue of finding land with no existing mining tenement has been given the highest priority in the proposed offsets, rather than their suitability to provide mitigation for the proposed biodiversity impacts of the Project.
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The extent of survey work carried out to identify the values in the offsets has been minimal and is inappropriate for drawing the conclusions reached in the Project. The information used to identify the exact area of CEECs present in the offsets is based substantially on interpretation of desktop data.
Only 27 quadrats were surveyed across the four properties proposed to make up the offsets, only 7 quadrats occurred in areas identified as containing CEECs and 5 of these quadrats were on property 18. 6

The offsets report produced by Cumberland Ecology[9] (the Report) does not clearly indicate how the areas of CEEC identified in Figures 3.4, 3.5, 3.6 and 3.7 were calculated and verified as lines on a map.

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The Report states that *'The development of the offset package was influenced by the availability of land for purchase.'*[10]

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Other than using aerial photography and desktop data, there was no concerted effort made to verify the areas of CEEC on the ground. The main onground survey work was conducted by one ecologist and one botanist in December 2010, February 2011 and March 2011, *'The investigation entailed drives across (or around) the properties..'*[12]

The lack of verification is a serious omission in the offset package because the areas of CEEC occurring on Dun Dun and property 18 are the main source of the 5:1 ratio that is key to the Project outcomes.

The offsets are not based on the best biodiversity outcomes but on a series of other considerations.

4. **The freehold title over The Drip and Corner Gorge and lack of permanent protection for this natural icon**.

HEL wishes to lodge a major objection to the conversion of the Crown Lease over the land containing The Drip picnic area, access track, The Drip and Corner Gorge to free hold title as occurred on 30 December 2010.

This area was a significant public natural icon that is accessed by local, national and international tourists and school groups. It is promoted widely as a recreational and educational destination.

The lack of permanent protection for the important natural values of this area should be addressed through this current planning process.

The Drip and Corner Gorge riparian corridor on the Goulburn River provides offsets for the loss of sandstone cliffs and escarpments through subsidence impacts and destruction of other important environmemtal features in the landscape. 7

This area is adjacent to the area of impact, provides connectivity and should be included in the Goulburn River National Park.

5. The cumulative impact on water sources in the Upper Goulburn River catchment

The Project proposal to destroy 4.1km of Murragamba Creek and Eastern Creek is additional to current approved mining impacts on the integrity of water sources in the Upper Goulburn River catchment.
The loss of the natural features and functions of these creeks is additional to the diversion of the Goulburn River, impacts on flows to Moolarben Creek and destruction of five creek systems in the Wilpinjong Mine footprint including Cumbo Creek.
The predicted loss of base flows to Wilpinjong Creek through groundwater interception is 16.8 megalitres (ML) per annum. The Project EA attributes only 6.2 ML per annum base flow reduction to the Moolarben Coal Complex.[13] There is no clear indication given of the cause for the additional 10.6 ML per annum loss.

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The cumulative impact of the predicted loss of base flows in Wilpinjong Creek caused by the Wilpinjong Mine groundwater and surface water interceptions of 11 ML per annum has not been adequately identified or considered.
The significance of a loss of 27 ML of base flows to a spring fed intermittent creek system during times of drought is not considered.
The impact of the Project ground water draw down including permanent destruction of springs in the opencut disturbance area has not been adequately assessed or considered. The groundwater systems that provide base flows to Wilpinjong Creek are irreplaceable and cannot be rehabilitated.

6. The need for an Independent Regional Water Study

The discrepencies between the groundwater model developed for the Project and that used by Ulan Coal Mines Limited (UCML) are of major concern and need to be resolved.
The cumulative impact of loss of alluvial aquifer systems, natural springs, base flows, regional groundwater draw down over large areas for a period of up to 200 years, disturbance of surface flows and natural creek systems in the Upper Goulburn River catchment is a major environmental impact that has not been addressed.
The community has been calling on the NSW Government to conduct an independent regional water study on the impacts of coal mining on this important river system for over 8 years. The ongoing approval of expanded coal mining operations with different water modeling for adjacent projects within the same catchment, without independent review of the impact predictions at the catchment scale, is irresponsible. 8

The continued destruction of the Upper Goulburn River water source will leave an untenable legacy for future generations.
The Project should not be approved without full, independent consideration of the longterm impacts of mining on the water sources in the region.

7. The cumulative loss of Aboriginal cultural heritage sites in a significant regional context.

The Goulburn River valley was a significant trading route for Aboriginal people before European settlement connecting inland Australia to coastal regions.
The density of Aboriginal cultural heritage sites in this region indicates its significance.
HEL objects to the ongoing loss of Aboriginal cultural heritage through the disturbance of open cut mining and subsidence impacts from longwall mining operations. The proposal to destroy a further 148 sites in this Project area combined with the large number of sites approved to be destroyed by the Moolarben Stage 1, Ulan and Wilpinjong mining operations is unacceptable.

8. The increased Greenhouse Gas emissions caused by the production of 17 mtpa coal

The Project is predicted to produce 29,585,000 tonnes of carbon dioxide per annum.
When combined with the emissions produced by all mining operations in this region, a significant contribution to global warming will occur.
The economic impacts of climate change on the region have not been provided in this Project proposal.

9. The cumulative health, safety and environmental impacts from increased dust, noise, light pollution and traffic movements.

This Project is another major expansion of a high impact industry in an environmentally sensitive region with an isolated rural community that is rapidly being destroyed.
The assessment of the cumulative environmental impacts relating to the increased production of coal to 17 mtpa has not been undertaken. The increased volume of dust emissions and pollutants from blasting and diesel combustion has not been adequately assessed, particularly in relation to the impacts on the natural protected areas in close proximity to the Project.
The cumulative increase in levels of noise and light pollution has also not been adequately predicted, particularly on threatened species habitat which has been identified as offset habitat for the loss of over 900ha woodland vegetation.
The remote rural communities in the vicinity of the coal mine expansion have suffered a major increase in pollution and traffic movements on local roads. The loss of amenity and the loss of social fabric through the ongoing mine acquisition program has caused vast areas in this region to become depopulated. 9

The far reaching health impacts caused by an unspecified volume of increased dust and air pollution, increased noise levels and increased risk through unsafe traffic volumes need to be fully considered.
There has been no planning associated with the major change in land use in this region over the past 8 years. The cumulative impacts have not been adequately assessed for the longterm cost to the environment, to current inhabitants and to future generations.
This project should not be approved on the basis of the cumulative impacts being too great for adequate mitigation and management.

10. The negative social impacts of the exponential expansion of the coal industry in Mid Western Regional local government area

While the Project identifies the economic benefits of increased jobs and income to the region, state and nation, there is growing criticism among economists about the veracity of the economic modeling used by the mining industry.14

14 Ross Gittens, Economics Editor, Sydney Morning Herald '*Dam lies and economic modelling'* 1 February 2012
15 Hansen Bailey, *Moolarben Coal Project Stage 2 Preferred Option*, Jan 2012, Executive Summary p x

The negative social impacts of an overheated housing market and lack of accommodation for an additional construction workforce of 220 people and direct employment of 439 people in the Moolarben Coal Complex when combined with the increased workforce generated by the recently approved Ulan Continuous Operations and Wilpinjong Mine expansion, have not been taken into account.
A proposal to provide temporary work accommodation for fly-in, fly-out (FIFO)workers in the region has a direct implication on the modeling provided for regional economic benefits. While local people employed in other industries can no longer afford the rental increases being charged in the local housing market, FIFOs are taking their earnings away from the local economy.
The Project proposes that it will provide '*Employmeny opportunities, focusing on opportunities for locals, which will generate wealth impacts allowing individuals and families to enhance their quality of life'*[15]
This statement ignores the fact that the three large mining operations in the region are now competing for a workforce and actively recruiting in national media outlets. Other local businesses and industries are losing trained employees to the mining industry and cannot compete with the high wages.
Some local people have been forced into poverty because of the overheated economy caused directly by the rapid expansion of the mining industry. 10

The increased pressure on health services in the neighbouring towns is considerable. The growth in mining income to the State has not been returned to the region in the form of improved Government services.
These negative economic and social impacts have not been identified in the Project assessment and the figures provided for economic benefit are highly inflated.
The NSW Government must take cumulative impacts of large scale mining operations into account.
HEL proposes for the reasons stated in this submission that the Project not be approved.