

## **Submission to the Narrabri Underground Mine Stage 3 Extension Project**

Please accept this submission from Lock the Gate Alliance to the proposed Narrabri Underground Mine Stage 3 Extension Project. We note that the proponent, Narrabri Coal Operations Pty Ltd is a wholly-owned subsidiary of Whitehaven Coal, and we refer to them as NCOPL or Whitehaven throughout this submission.

We object to the project very strongly on the following grounds:

- The failure of Whitehaven to comply with the Aquifer Interference Policy and assess the impact on all private water bores, including their own.
- The negative impact on at least 17 water bores, and potentially many more, and the substantial water take from a number of important groundwater aquifers
- The recognition that the loss of landholder bores will render this land worthless from an agricultural point of view, and the evidence we have that there are additional bores in the impact zone that have been ignored and are not included in this assessmentThe negative impact on over 500 hectares of BSAL
- The likely impact on two culturally important grinding groove sites and other cultural sites
- The 'possible' risk of surface to seam cracking in the Pilliga Sandstone
- The subsidence impacts on third order watercourse Kurrajong Ck, Tulla Mullen Creek and other first and second order watercourses.
- The potential loss of 161 ha of high priority GDEs due to groundwater drawdown
- Post-mining reduction of base flow to the Namoi River of at least 200ML/pa.
- Potential impacts on water quality that have been ignored in the assessment
- The proposal to reinject toxic brine waste back into the goaf, when subsequent groundwater pollution cannot be rule, instead of ensuring that all waste is disposed of in an licensed waste facility designed to handle that type of waste
- The weakness of make good proposals for affected water bores
- The flawed Agricultural Impact Statement which includes a neighbour sample comprised almost entirely of Whitehaven talking to themselves and which fails to assess at least 4 neighbouring bores we are aware of, and probably misses many more
- The survey for the Social Impact Statement confirming that the company has ZERO social licence to operate, with 95% of local respondents disagreeing that Whitehaven is a good neighbour, 90% disagreeing that Whitehaven listens and response to community concerns and 82% disagreeing that Whitehaven contributes to and cares about the region.
- The shameful environmental history of Whitehaven Coal which shows that it is incapable of abiding by conditions which are set – including the fact that it has recently pled guilty to 19 charges of environmental non-compliance in the NSW LEC, which comes on top of more than 20 occasions where this company has been investigated or found in breach of environmental laws or conditions (see attached list of breaches).
- The fact that the GHGEs from this project would be significantly larger than all other new fossil fuel projects which have been assessed by DPIE since the Rocky Hill decision.
- The fact that annual emissions just to mine the coal are huge and would place this mine at #50 on the list of Australia's top 100 Scope 1 emitters of GHGs as a result of the proponent proposing to vent fugitive emissions directly to the atmosphere.
- The evidence that if externalised costs are internalised, the project is unlikely to be economically viable (for example if Transport for NSW's carbon price is used to cost Scope 1 and Scope 2 emissions).

- The biodiversity assessment is fundamentally flawed as it limits its assessment of impacts to a tiny fraction of the entire disturbance area, assessing only the impact of ‘direct vegetation clearance’ and ignoring the severe impacts of fragmentation and intensification of land use across the entire area.
- There is no meaningful attempt at assessing cumulative impacts on key species such as Corben’s Long-eared Bat from clearing of many thousands of hectares in the region, predominantly from coal mines and gasfields.
- The Black-striped Wallaby does not appear to have been properly considered and is not assessed as a species credit species in the assessment.

## Water

### Bore Assessments Flawed

The assessment of bores likely to be affected is flawed in two key respects. Firstly, we are aware of a number of bores, including registered bores on BSAL, that have not been included in the analysis. We know of at least four bores in the vicinity of the project that are likely to be impacted, and for which Whitehaven has spoken to the owners and admitted there will be impacts, but they are not included in bores maps and have not taken part in the bore survey. Therefore, the analysis of bore impacts is completely underestimated and is not reliable.

Secondly, the analysis fails to assess the likely impacts on 9 NCOPL bores which breaches the requirements of the Aquifer Interference Policy. The EIS focuses only on those bores on properties outside of NCOPL owned land, which diminishes the usefulness of the EIS in predicting actual long-term groundwater impacts on agricultural productivity. Indeed, nine additional bores identified in the Groundwater Assessment<sup>1</sup> were excluded from the IAP threshold assessment due to being NCOPL owned. The Bores Census Database (Appendix A) of the Groundwater Bore Census<sup>2</sup> only provides Groundwater Bore Report Cards for 4 of the NCOPL-owned bores.

**Table 2: Bores on NCOPL owned land excluded from assessment.**

	Bore ID	Unit impacted	Drilled Year	Status	Purpose	Screen Top and Bottom (MBGL)	Depth (MBGL)	Included in Bore Census
1	GW000013	08 Arkarula Formation	1914	Not in use	Water Supply	0-124.6	128.3	No
2	GW000018	09 Pamboola Formation or oldser	1915	Not in use	Unknown	0-134.2	135.9	No
3	GW005094	08 Arkarula Formation	1913	Not in use	Unknown	0-67	67	Yes
4	GW017215	09 Pamboola Formation or oldser	1915	Not in use	S&D		58.4-167.6	Yes
5	GW022595	03 Purlawaugh Formation	1915	Not in use	Water Supply	0-16.3	30.4	No
6	GW022596	09 Pamboola Formation or oldser	1965	Not in use	Water Supply	35.9	1.25-268.2	Yes
7	GW060976	05 Napperby Formation	1985	Not in use	Water Supply	14.5-26.5	26.3-28.35	Yes
8	GW902531	05 Napperby Formation		Not in use	Unknown		60	No
9	GW966836	04 Garrawilla Volcanics	1994	Not in use	S&D	10--30	30	No

The Agricultural Impact Assessment (Appendix G) argues that as groundwater is seldom, if ever, used for agricultural production within the Project Area, and is generally of poor quality, drawdown at bores on NCOPL-owned land would not affect ongoing use of these predominantly grazing

<sup>1</sup> Appendix F (Table F1). AGE, 2020. Groundwater Assessment. Narrabri Underground Mine Stage 3 Extension Project Environmental Impact Statement.

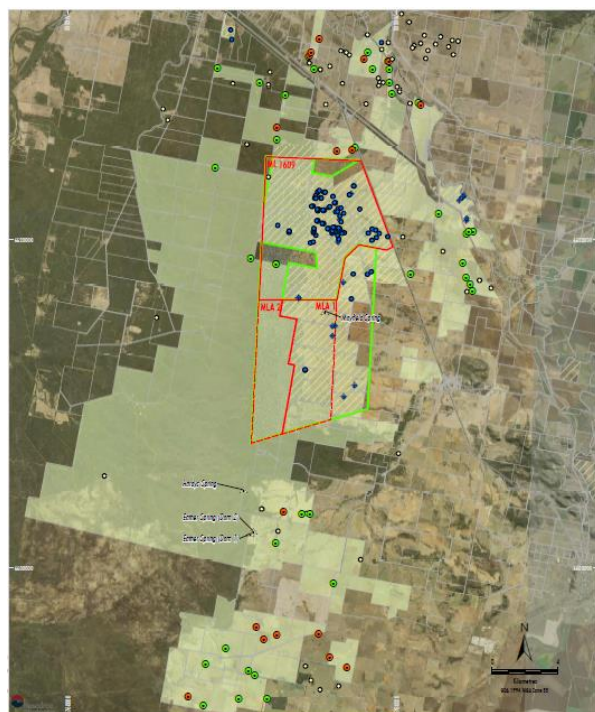
<sup>2</sup> ENRS, 2020. Groundwater bore census. Appendix G of AGE, 2020. Groundwater Assessment. Appendix B. Narrabri Underground Mine Stage 3 Extension Project Environmental Impact Statement.

properties during operations or post-mining. Such statements are disingenuous as they ignore the potential for impacts on intergenerational equity and the more serious long-term groundwater drawdown after mining has ceased and the mine owned land rehabilitated for agricultural use. Indeed, at least two NCOPL-owned bores are for stock and domestic use, and are likely essential drought refuge for stock.

The decision by NCOPL to exclude IAP assessments of affected bores on land it owns runs counter to previous decisions by the IPC and dangerously risks ignoring potential long-term groundwater declines and associated impacts on agricultural productivity. The Bylong Coal Project Applicant owned approximately 7,547 hectares of land within and surrounding the Project Site including 5,425 ha of freehold land or 78% of the Project Site with the remaining 21% either Crown land, State forest or freehold land under private ownership. Kepco acquired additional properties surrounding the Project subsequent to the EIS exhibition. The 2019 IPC Statement of Reasons for Decision for the Bylong Coal Project (SSD 6367) found;

*The Commission considers that the AIP applies to both privately-owned land, and mine-owned land. Accordingly, the Commission is of the view that the AIP applies to the Project Site. The Commission notes, in this context, that KEPCO concedes that in assessing the Project, the Commission may proceed "on the assumption that the minimal impact considerations in the AIP do apply to water supply works, even if they are owned by KEPCO" (see paragraph 263).*

DPIE must therefore maintain this precautionary position and demand a comprehensive assessment of the impacts on all bores within greater than 2m drawdown contours, and not accept the bore assessment put forward by NCOPL.



\* Note: The boundaries of eleven (11) of these properties extend their no bores were present on that property during initial consultation and therefore these properties were not inspected during the Bore Census.

Figure 2

### Known risks too great

The known risks from subsidence are too great for the project to be approved. The EIS acknowledges that there is a 'possible' risk of surface to seam cracking of the Pilliga sandstone, but then underplays that risk by saying the risk ranges from 'unlikely to possible'. Risk must be taken at its highest, and any possible risk of surface to seam cracking of the Pilliga sandstone should be sufficient for the project to be rejected.

Other unacceptable impacts and risks from the project include:

- Likely impact to two sites of grinding grooves located along drainage lines above proposed LW205 and 210 on sandstone bedrock.
- Potential impacts to 500ha of mapped BSAL
- The potential loss of 161ha of high priority GDEs due to groundwater drawdown.
- Subsidence impacts on the following watercourses;
  - Kurrajong Creek (3rd order watercourse);
  - Tulla Mullen Creek Trib1 (3rd order watercourse); and
  - other minor 1st and 2nd order watercourses.
- Post-mining reduction of base flow to the Namoi River of 200ML/pa.

### Uncertainty

The EIS for the Narrabri Underground Stage 3 Assessment does not adequately assess the full impacts on agricultural productivity in the area, and a number of uncertainties need to be more fully assessed before the project should progress in any form. Some of these uncertainties include:

1. Uncertainty surrounding the hydro stratigraphic units from which the bores extract water. The EIS suggests the majority of the non-NCOPL bores are predicted to experience more than 2 m of drawdown are "thought to" terminate in the Garrawilla Volcanics (three bores) or the Napperby Formation (three bores). As these bores are likely to be the focus of make good agreements, far greater certainty of the source aquifer is required.
2. Uncertainty also surrounds groundwater interactions with Kurrajong Creek and Tulla Mullen Creek, which are described as "likely" supported to some degree by groundwater, and major ion chemistry suggests "a possible" groundwater component. As these tributaries provide a proportion of flow to the Namoi River and the Namoi Alluvium, greater certainty is required.
3. There is also uncertainty surrounding the Quaternary alluvium's association with Tulla Mullen Creek, which the EIS suggest "if saturated" its likely groundwater flow direction mirrors topography and flows from the west to east towards the Namoi River. NCOPL must assess whether the alluvium is saturated or not.
4. There is also some confusion over the area of surface subsidence impacts. The EIS states that the Project would require the progressive rehabilitation of approximately 1,617ha of surface development areas, and a further 6,253ha of remediation of subsidence impacts of underground mine area. However, no map appears to have been included in the EIS setting out these surface subsidence impacts. At least a proportion of this additional area would be on State Forest land and it is essential in determining the risks and impacts of the Proposal.

### Water Quality risks downplayed

We do not accept the claim that the project will have no impact on water quality. There is a body of evidence that shows that longwall mining which leads to subsidence and cracking below creeks, such as that likely to be caused by the project, causes serious declines in water quality.

The EIS acknowledges that where cover depths are less than 375m above the wider longwalls (ie LW203 to 210), creek flows could be re-routed into open cracks to below-surface pathways and re-surface downstream of the mining extraction limits in the Project Area. It is highly likely that this 're-routing' would lead to substantial changes in water quality.

The EIS also appears to ignore the risk of methane migration into surrounding groundwater bores due to mining. Methane migration is another well acknowledged risk of longwall mining and the risks it poses to bores and to creeks and rivers should have been addressed in detail.

We also note the enormous risk posed by re-injection of brine into the goaf, and the threat that poses to groundwater. NOCPL must be required to dispose of brine at a registered facility that is able to manage the waste, and it should not be reinjected. We consider it absolutely unacceptable that brine would be reinjected in an area where groundwater connectivity cannot be ruled out. The risks are far too high.

### Make good provisions flawed

The NSW Government has not provided detail on Make Good provisions. The AIP simply states that, where the minimal impacts are exceeded then "make good provisions should apply". There is no guidance from government regarding make good.

The EIS states that NCOPL would provide 'make good provisions' for bores with greater than 2m drawdown, such as deepening or replacing the bore and/or providing an alternative water supply of suitable quality and quantity. Firstly, the most likely scenario is that there will be no option of deepening a bore, and the most likely scenario is that there is no longer access to the aquifer in question. This is a devastating blow to future agricultural production in the farm business and farming family affected. Relying on a mining company like Whitehaven to provide 'an alternative supply of water' is an appalling situation for any farmer to find themselves in.

Further, the EIS states that make good measures would only be implemented '*prior to drawdown exceeding the AIP minimal harm criterion*'. However, this provides no certainty, given that maximum groundwater impacts are not likely to be experienced for many years after mining has ceased.

We contend that, if the mine is approved, all landowners who's bores are predicted to be impacted should be given the option of being bought out before the project proceeds.

For any landholders who are not bought out, NCOPL should be required to reach make good agreements with all landholders with bores within modelled drawdown zones prior to any work commencing on the project. The EIS should also provide a model agreement from which affected landholders can be provided with some comfort that the legal framework is sound and not one that has been developed by Whitehaven to maximise their interests.

Make good provisions for affected bores must be enforceable to provide some certainty for farm business operators. Make good agreements must be legal agreements that provide;

- clear triggers,
- timely response from the proponent,

- fair dispute resolution and mediation, and
- fair compensation for the loss of farm businesses that allow for mandatory property purchase by the proponent should adequate alternative water or existing bore deepening/new bore construction be found to be inadequate to continue the farm business in the same manner as before the groundwater drawdown.

We also note that many of the bores affected by the Narrabri Underground are also possibly going to be affected by the Narrabri Gas Project, and it is possible affected landholders will be caught in the middle of the two projects, both claiming drawdown has been caused by the other. There should have been a clear process to address that.

### **Agricultural Impact Statement**

The following section assesses the Agricultural Impact Statement in Appendix G. In broad terms the community consultation undertaken for the Agricultural Impact Statement is woefully inadequate, with glaring gaps and a tendency to downplay negative impacts and overstate positive impacts.

For instance, page 10 outlines the interviews undertaken with neighbouring landholders. The table lists 12 properties, 9 of which Whitehaven itself is listed as the landholder, the NSW Government is the landholder of one property and two private landholders are listed from the properties of “The Bulga” and “Private Landholding”. Despite the rhetoric of the AIS saying that six people agreed to be interviewed, out of the three landholder options listed in their own table who are not the proponent themselves, the NSW Government did not have an interview and “The Bulga” owner did not have an interview. So the only “independent” interviewee was from an unspecified “Private Landholding”. We understand that this landholder does not live on the property anyway. This opacity and lack of independence weakens the Agricultural Impact Statement’s credibility.

Furthermore, other important landholders were not interviewed nor offered an interview such as the landholders from “The Bulga” and “Uambi” who are also both in the mining lease area. Landholders who are immediate neighbours to the mining lease area, not owned by Whitehaven were not interviewed, nor offered an interview. We understand this to be in excess of a dozen landholders. The AIS goes on to base all of its assumptions and claims on these “source” interviews. Therefore it could be reasonably assumed that the AIS is based almost entirely on evidence that the proponent gained from itself.

Claims from these “sources” include that “bores were reported by land managers to have provided poor quality water and to be currently disused and not maintained” for instance. We know from personal communication with the many neighbours to the project that many bores in the area provide good quality water and are well maintained and are not owned by Narrabri Coal.

We also know that Narrabri Coal has informed other neighbours not included on this list that “they will lose their bores”. Narrabri Coal apparently knows this with enough certainty to tell people but it does not include any of these “interviews” in its Agricultural Impact Statement. We know of at least four bores in this category and there are highly likely to be more. These neighbours have not taken part in the bore survey nor are they noted on the bore maps in Figure 2 and Figure 6-6, but NCOPL have informed them they will lose their bores.

Two agricultural experts are also claimed to have been interviewed but at least one of these claim to not have been approached by Whitehaven at all in recent years. The AIS is of poor quality and should not be regarded as any kind of source document.

It is important to note that 8 bores were identified in the Groundwater Assessment that will be impacted more than 2m. It needs to be clearly understood that the implications of a loss of those bores completely sterilises the use of that land for agriculture and effectively takes it out of production for agriculture and for living. Please note, we understand the impacts will be more than these 8 bores and that this will occur more quickly than claimed.

The “make good” provisions suggested include digging a deeper bore or replacing the bore which are inadequate. The properties that are identified that will be impacted should be given the option of being purchased before the approval for the Underground expansion is given. Just as water licences for all of the expected take are required to be held prior to approval given, so should the purchase of these properties for the inevitable loss of their water.

### **Social Impact Statement**

The Social Impact Assessment (SIA) provides a departure from the usual SIA’s provided in fossil fuel project EIS’s which is refreshing and enlightened.

The SIA notes meeting with 17 neighbouring landholders, an improvement on the 9 in the AIS. To claim that none of the negative impacts identified are of “high significance” is subjective and plainly wrong. As one example, neighbours who have been informed that “they will lose their bore” simply would not accept that this impact is not of “high significance”.

Of note on page ES-2 of the SIA is the statement that one of the negative impacts of “moderate significance” is that a “small number of land acquisitions (approximately six properties) would lead to a small loss of farming families over time” is preposterous for two reasons:

- Firstly, there is no local on-ground knowledge of the proposed acquisition of 6 farms. These acquisitions also do not appear to be mentioned anywhere else in the documentation of the EIS.
- Secondly, this must be contextualised within the region where Whitehaven and its subsidiaries have bought out more than 80 other family farms and now own more than 61,000ha of land. Whilst six more families may be considered “small” on its own, as a cumulative impact to this region, it provides a significant negative impact. Especially when taken in context with the SIA’s own quantifiable data in Appendix B of the SIA of the responses to community surveys that found 92% of respondents thought the rural/agricultural character was central to the region and 78% disagreed that mining was central to the character and 97% agreed that mining had changed the character. Obviously the removal of yet more farming families will further change the character of the region, that people find so important. This is not of “moderate significance”.

It is also interesting to note the positioning of the EIS is a refreshing change in that it does not cry false claims of massive employment gains. For too many years our communities have been told we have to have these mines because they create massive numbers of new jobs. These claims have been successfully debunked in many situations; due to poor methodologies used to base the claims, due to the high use of FIFO workers and the increasing use of automation in newly approved mines.

In the SIA it no longer clings to this industry practice and it provides refreshingly honest statements about the Underground expansion’s own limited employment generation and that of other state significant projects in the region such as the Narrabri Gas Project and the Vickery coal mine.

However, we question the claims it makes in relation to social benefits. It states on page 136 “*as with other resource projects in the area of social influence over the past 15 years, proposed major*

*projects may assist to arrest the trend of declining population in the area of social influence and contribute to a small net increase in population. This would likely have limited negative impact on the local community in terms of stress on existing services (and may not encourage growth to the provision of new services or amenities), but may beneficially support the ongoing viability of livelihoods and existing service provision, and help to offset ageing trends by attracting and retaining younger people.”* This appears to be clutching at straws for the actual social benefits that this project may create to help offset the raft of negative impacts that the project will create. As locals, we would argue this offset is far from being enough. Furthermore it is based on an assumption that there will be a future market for coal given the world’s and our primary markets’ trend away from fossil fuels and towards zero emissions goals.

The Department should seriously consider the merits of approving this project based on the track record on this company and its subsidiaries. With more than 20 environmental breaches and non-compliances to its name Whitehaven has no social licence and should not be granted more approvals. This was clearly demonstrated in the SIA community survey results in Appendix B Figure A-6:

- Around 95% of local respondents disagreed or strongly disagreed that Whitehaven is a good neighbour
- Around 90% of local respondents disagreed or strongly disagreed that Whitehaven listens to and responds to community concerns
- Around 82% of local respondents disagree or strongly disagree that Whitehaven contributes to our community and cares about our region

This is a company with ZERO social licence to operate and is not a fit and proper entity to hold a mining licence.

### **Climate Change Impacts**

We note the following impacts of the project in relation to greenhouse emissions and climate change:

1. GHGEs from this project would be significantly larger than all of the new fossil fuel projects assessed by DPIE since the Rocky Hill decision

This project will have a huge greenhouse gas emissions footprint. Total GHGEs from this project are calculated to be **482.3Mt**. Curiously, the project’s 93-page AQGHG does not contain a figure for the *total* GHGEs for this project, preferring instead to present the information as smaller multiples: a breakdown of Scope 1, 2 and 3 emissions or average annual totals. 482.3Mt is a large volume of emissions. This is more than 12 times the volume of emissions rejected by the Land and Environment Court in 2019 in the February 2019 Rocky Hill decision (38.1Mt).

2. Annual emissions just to mine the coal are huge and would place this mine at #50 on the list of Australia’s top 100 Scope 1 emitters of GHGs

Scope 1 emissions will range from 0.58Mt – 1.48Mt. In some years, Scope 1 emissions alone (direct emissions from the Narrabri Underground mine) will be greater than the entire emissions inventory of the Australian Capital Territory (the ACT has an economy bigger than Tasmania and the Northern Territory).



3. Approval of this mine would add new coal production at a time when UNEP says the world needs annual declines of 11% to meet a 1.5°C target

The 2020 Production Gap Report - produced in collaboration with the UN Environment Programme (UNEP) – finds that between 2020 and 2030, global coal production would have to decline annually by 11% if we are to “follow a 1.5°C-consistent pathway”.<sup>3</sup>

4. If Transport for NSW’s carbon price is used to cost Scope 1 and Scope 2 emissions, the project may not be economic

The economic analysis does not reveal the true cost of the 26.7Mt of Scope 1 and 2 greenhouse gas emissions from the project which if conservatively valued at \$30 per tCO<sub>2</sub>-e would equate to over \$34 million per annum on average or \$801 million (present value) over the mining period with all of the greenhouse cost attributed to NSW. Applying Transport for NSW’s carbon price of \$62.57 per tonne (in \$2019), as suggested in the Transport for NSW: Transport Economic Appraisal Guidelines<sup>4</sup>, would result in a present value cost of \$1.67 billion over the mining period, or more than \$72 million per annum on average.

5. Fugitive emissions from mine ventilation and gas drainage would be the most significant direct (Scope 1) emissions

Despite promises to investigate flaring, it is most likely these emissions will simply be vented to the atmosphere with no requirement suggested by DPIE or imposed by the IPC to offset what cannot be avoided or mitigated.

6. With 100% of major new fossil fuel projects assessed by DPIE since Rocky Hill being recommended for approval despite climate change impacts, it appears DPIE has no interest in applying planning requirements relating to ESD and the precautionary principle

Since the NSW Independent Planning Commission was created in March 2018, ten major new coal and gas projects have been assessed by NSW DPIE. All of them have been recommended as approvable. This seems to run directly contrary to the findings in the Rocky Hill case and the requirements of the NSW EPAA Act 1979.

**Table 1: Narrabri Underground's Scope 1 emissions would very large compared to other coal mines recently assessed / approved**

Coal projects determined by the IPC	Status	Date of approval	Total Scope 1 GHG Mt CO <sub>2</sub> e
Narrabri Underground	EIS exhibition		23.9
Maxwell Underground Project	Under assessment		9.9
Dendrobium	Under assessment		17 - 22
United Wambo (new mine)	Approved	29/08/19	5.8

<sup>3</sup> SEI, IISD, ODI, E3G, and UNEP. (2020). The Production Gap Report: 2020 Special Report, pg 4, <http://productiongap.org/2020report>

<sup>4</sup> Transport for NSW (2018) Principles and Guidelines for Economic Appraisal of Transport Investment and Initiatives, [https://www.transport.nsw.gov.au/system/files/media/documents/2018/Principles\\_and\\_Guidelines\\_for\\_Economic\\_Appraisal\\_of\\_Transport\\_Investment\\_and\\_Initiatives\\_Combined\\_0.pdf](https://www.transport.nsw.gov.au/system/files/media/documents/2018/Principles_and_Guidelines_for_Economic_Appraisal_of_Transport_Investment_and_Initiatives_Combined_0.pdf)

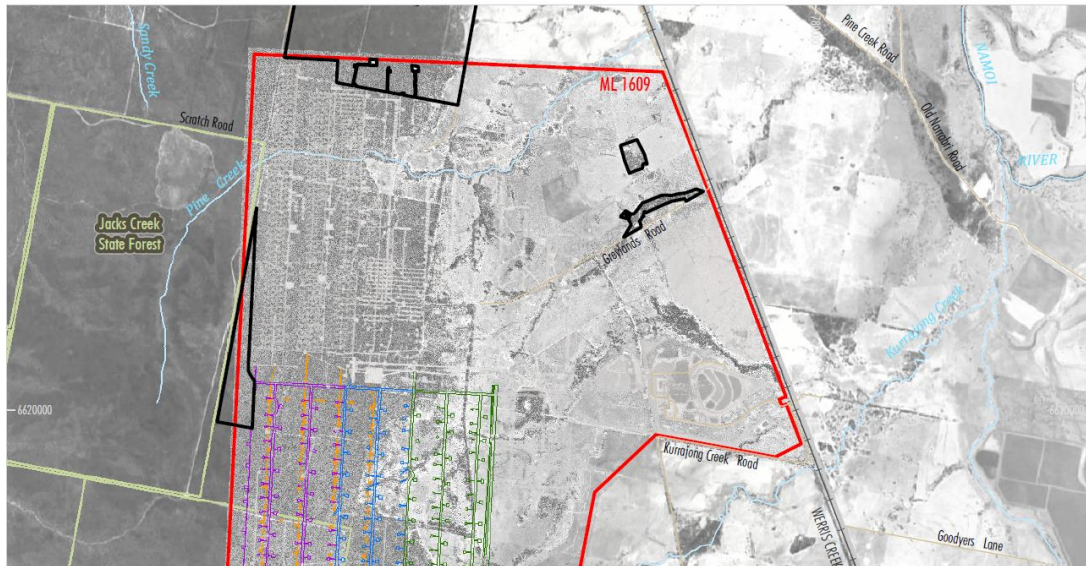
Vickery Coal Project (new mine)	Approved	12/08/20	3.1
Bylong (new mine)	Refused	18/09/19	2.1
Russell Vale	Approved	8/12/20	1.4
Rix's Creek South Mine (expansion)	Approved	12/10/19	0.8
Glendell Coal Mine pit (expansion)	Approved	4/03/20	0.1

### Biodiversity Impacts

The assessment of biodiversity is fundamentally weakened by the failure to consider impacts across the whole footprint of the project, but instead limiting it almost entirely to areas that will be directly cleared, and thus effectively ignoring the impacts of fragmentation. Therefore, the Development Footprint mapped in Figure 6 of Appendix D, does not actually represent the full footprint of the project, but merely a small subset that will be directly cleared.

As a result, instead of assessing the impacts of development across the total area of approx. 4,800ha hectares for the lease area, the project only assesses it across a designated 'Development Footprint' of 745.6ha of expansion. This is a fundamentally flawed approach to impact assessment and ignores the fact (which has been well-established in scientific literature) that fragmentation and intensification of land use leads to direct biodiversity impacts across an entire patch of vegetation. The actual area directly cleared is a very poor surrogate for biodiversity impacts of this intensity, and the entire combined lease area for the approved mine and expansion area should have been assessed. It is the entire area that will experience the impacts of edge effects, the spread of weeds and the ingress of feral animals due to the fragmentation of the area. This will impact directly on fauna and flora and ecosystem integrity. Similarly, it is the impacts to the entire area that should have been offset, but instead offsets are limited to the impacts on the artificial 'Development Footprint'.

As an example of the impact, the scale of disturbance evident in aerial photographs of the existing Narrabri underground mine to the north of the expansion project, provided in the EIS itself, is provided in the figure below. It reveals an extraordinarily high level of fragmentation, which will have a severe and long-term impact on biodiversity. Clearly the impact of that project is far greater than the direct clearing footprint. It is extraordinary that the actual disturbance footprint has effectively been ignored in the assessment for the current project, and that approach renders the entire assessment largely worthless. There is little point providing detailed submissions on an assessment that is so flawed from the outset.



In addition, the assessment largely ignores the impacts of subsidence (except for limited areas of modelled ponding and cracking), despite recognising elsewhere that it can lead to aboveground impacts. Notably, Attachment 5 of the EIS states that 6,253 hectares would require remediation of subsidence impacts, and yet it assumes that for the vast majority of that area (except for a few small exceptions), there will be no impact on vegetation.

The cumulative impact assessment purportedly conducted for the project is also vastly inadequate. It suggests that simply listing the total footprint of surrounding coal mines represents a cumulative assessment. However, it makes no attempt to tally the impacts by vegetation type or to identify the cumulative impacts on species. Species such as Corben's Long-eared Bat are likely to experience a heavy, cumulative impact from the disturbance of thousands of hectares of habitat for mining and other developments in the region but that impact is not considered in any meaningful way.

There is no explanation as to why the Black-striped Wallaby was not considered a species credit species for the project. Figure 17 in the Biodiversity Assessment reveals a significant number of Black-striped Wallaby records in the study area. But the species is not listed in the table of species credit species in Table 8, Table 11 or elsewhere in the assessment. However, the Black-striped Wallaby is a species credit species under the Biodiversity Assessment Method.

The assessment of the impact on Pilliga State Forest is incredibly sparse and inadequate. A large proportion of the proposed project is contained in the State Forest. However, the project makes no attempt to consider cumulative impacts with the Narrabri Gas Project, which is also targeting the eastern section of the Pilliga State Forest.

## Attachment 1

### Schedule of Whitehaven Coal's Non-Compliances

<i>Date</i>	<i>Action</i>	<i>Explanation</i>	<i>Mine</i>	<i>Amount</i>
Mar 2012	4 penalty notices <sup>5</sup>	Polluting waters and breaching its environment protection licences on 2 occasions	Narrabri Underground and Tarrawonga	\$6,000
Dec 2014	Penalty notice <sup>6</sup>	Disturbing an Aboriginal artefact	Narrabri Underground	\$3,000
Dec 2014	Penalty notice <sup>7</sup>	Mining more coal than licence allows	Tarrawonga	\$15,000
Jun 2014	Court undertaking	Enforcement action causing WHC to give an undertaking to the LEC not to clear forest habitat during sensitive seasons. <sup>8</sup>	Maules Creek	
Jul 2015	Investigation <sup>9</sup>	Blast fumes	Maules Creek	-
Aug 2015	2 penalty notices <sup>10</sup>	Failure to implement proper weed and feral animal control as per Biodiversity Management Plan	Maules Creek and Tarrawonga	\$6,000
Mar 2017	Penalty notice <sup>11</sup>	Failing to provide the government with information and records during the blast investigation	Maules Creek	\$1,500
Mar 2018	Official caution <sup>12</sup>	From DPIE for "failure to undertake annual road noise monitoring for the 2017 calendar year"	Rocglen	-
Mar 2018	Warning letter <sup>13</sup>	Failure regarding implementation of the Blast management plan.	Tarrawonga	-
Mar 2018	Official caution	Failure regarding implementation of the Noise Management Plan	Tarrawonga	-
May 2018	Penalty notice <sup>14</sup>	Failing to minimise dust pollution from truck movements on haul roads	Maules Creek	\$15,000

<sup>5</sup> EPA media release: <https://www.epa.nsw.gov.au/news/media-releases/2012/decmedia12033003>

<sup>6</sup> See Independent Environmental Audit 2017. Available here:

<http://www.whitehavencoal.com.au/sustainability/environmental-management/narrabri-mine/>

<sup>7</sup> EPA media release: <https://www.epa.nsw.gov.au/news/media-releases/2014/epamedia14120902>

<sup>88</sup> For details see a summary of this case from the Environmental Defenders Office

[https://www.edonsw.org.au/maules\\_creek\\_community\\_council\\_v\\_whitehaven\\_coal](https://www.edonsw.org.au/maules_creek_community_council_v_whitehaven_coal)

<sup>9</sup> EPA media release: <https://www.epa.nsw.gov.au/news/media-releases/2015/epamedia15070603>

<sup>10</sup> Department of Planning media release: <https://www.planning.nsw.gov.au/-/media/Files/DPE/Media-Releases/2015/August/26082015-Miners-fined-for-environmental-breaches.pdf>

<sup>11</sup> EPA media release: <https://www.epa.nsw.gov.au/nePws/media-releases/2017/epamedia17030801>

<sup>12</sup> This caution is cited in Rocglen Annual Review 2018.

<sup>13</sup> Referred to the Tarrawonga Annual Review 2018.

<sup>14</sup> EPA media release: <https://www.epa.nsw.gov.au/news/media-releases/2017/epamedia17052202>

<b>Date</b>	<b>Action</b>	<b>Explanation</b>	<b>Mine</b>	<b>Amount</b>
Dec 2018	Warning letter	Sound power levels of equipment exceeded those specified in the Noise management Plan	Narrabri Underground	-
Mar 2019	Court conviction <sup>15</sup>	Blast fume left site and drifted over neighbouring properties	Rocglen	\$38,500
Mar 2019	Penalty notice <sup>16</sup>	Blast exceeded the airblast overpressure criteria	Werris Creek	\$15,000
Apr 2019	Clean up Notice <sup>17</sup>	Dumping combustible canisters, resulting in fires breaking out at Narrabri Council's rubbish dump	Narrabri Underground	-
Jun 2019	Fine <sup>18</sup>	Failure to minimise dust, resulting clouds from stock pile	Narrabri Underground	\$15,000
Aug 2019	Suspension <sup>19</sup>	Suspension of exploration licence for unlawful clearing of bushland for access tracks	Narrabri Underground	-
Aug 2019	Statutory Notice	Rehabilitation	Tarrawonga and Rocglen	-
Sept 2019	Prosecution <sup>20</sup>	NRAR finds WHC has taken over 3 billion litres of surface water illegally over 3 years	Maules Creek	Outcome pending
Sept 2019	Prohibition notice <sup>21</sup>	Issued by Resources Regulator prohibiting the use of vehicles following a dangerous incident	Maules Creek	-
Oct 2019	Investigation	NRAR investigating whether mine is causing groundwater loss to local farmers	Maules Creek	Ongoing
Nov 2019	Investigation	NRAR and Dept Planning investigating construction of a water pipeline not included in approval	Maules Creek	Ongoing
Nov 2019	Penalty notices <sup>22</sup>	Two penalty notices issue for the carrying out of exploration activities without approval	Vickery	unknown

<sup>15</sup> EPA media release: [https://www.epa.nsw.gov.au/news/media-releases/2019/epamedia190320-whitehaven-coal-mining-ltd-convicted-and-fined-\\$38500-by-court](https://www.epa.nsw.gov.au/news/media-releases/2019/epamedia190320-whitehaven-coal-mining-ltd-convicted-and-fined-$38500-by-court)

<sup>16</sup> Department of Planning media release: <https://www.planning.nsw.gov.au/Assess-and-Regulate/About-compliance/Inspections-and-enforcements/March-2019-formal-enforcements/Penalty-Notice-issued-to-Werris-Creek-Coal-Pty-Ltd>

<sup>17</sup> EPA clean up notice: <https://apps.epa.nsw.gov.au/prpoeoapp/ViewPOEONotice.aspx?DOCID=-1&SYSUID=1&LICID=1578807>

<sup>18</sup> EPA media release: <https://www.epa.nsw.gov.au/news/media-releases/2019/epamedia190625>

<sup>19</sup> Resources Regulator suspension notice: [https://www.resourcesregulator.nsw.gov.au/\\_data/assets/pdf\\_file/0005/1153634/Suspension-Notice-Decision-document.pdf](https://www.resourcesregulator.nsw.gov.au/_data/assets/pdf_file/0005/1153634/Suspension-Notice-Decision-document.pdf)

<sup>20</sup> NRAR media release: <https://www.industry.nsw.gov.au/natural-resources-access-regulator/nrar-news/nsw-water-regulator-concludes-investigations-into-maules-creek-coal-mine>

<sup>21</sup> Resources Regulator media release: <https://resourcesandgeoscience.nsw.gov.au/about-us/news/2019/prohibition-notice-issued-to-maules-creek-open-cut-coal-mine>

<sup>22</sup> Annual report 2019. Vickery coal mine <https://whitehavencoal.com.au/Documentations/Vickery%20Extension%20Project/Environmental%20Management,%20Monitoring%20&%20Compliance/Annual%20Reviews/VIC-Annual%20Review%202019.pdf>

<b>Date</b>	<b>Action</b>	<b>Explanation</b>	<b>Mine</b>	<b>Amount</b>
Feb 2020	Clean up notice <sup>23</sup>	EPA investigating polystyrofoam balls pollution into Back Creek during flood event	Maules Creek	--
Feb 2020	Penalty Notice <sup>24</sup>	DPIE fine for failing to seek consent for three separate pipelines and associated infrastructure before building them and using them to water the mine.	Maules Creek	\$15,000
Apr 2020	Prosecution	South East Forest Rescue launch legal action for WHC failing to secure necessary biodiversity offsets when clearing endangered woodlands	Maules Creek	Pending Outcome
May 2020	Fine <sup>25</sup>	Sediment dam failure causing discharge into neighbours	Tarrawonga	\$15,000
August 2020	Prosecution <sup>26</sup>	19 charges relating to breaches of exploration licence	Narrabri Underground	Guilty plea December 2020. Prosecution continuing
Aug 2020	Enforceable Undertaking <sup>27</sup>	Workplace health and safety submission by Resources regulator over serious WHS incident	Maules Creek	\$800,000 plus costs
October 2020	Fine <sup>28</sup>	Uncontrolled water discharge	Werris Creek	\$15,000 fine

<sup>23</sup> EPA Clean up notice here: <https://app.epa.nsw.gov.au/prpoeoapp/ViewPOEONotice.aspx?DOCID=-1&SYSUID=1&LICID=1591771>

<sup>24</sup> DPIE media release <https://www.planning.nsw.gov.au/Assess-and-Regulate/About-compliance/Inspections-and-enforcements/February-2020-formal-enforcements/Penalty-Notice-issued-to-Aston-Coal-2>

<sup>25</sup> EPA media Release: <https://www.epa.nsw.gov.au/news/media-releases/2020/epamedia200528-tarrawonga-coal-fined-after-environmental-breach-at-mine>

<sup>26</sup> [https://www.resourcesregulator.nsw.gov.au/\\_data/assets/pdf\\_file/0006/1248567/Prosecution-proceedings-commenced-against-Narrabri-Coal-Pty-Ltd-and-Narrabri-Coal-Operations.pdf](https://www.resourcesregulator.nsw.gov.au/_data/assets/pdf_file/0006/1248567/Prosecution-proceedings-commenced-against-Narrabri-Coal-Pty-Ltd-and-Narrabri-Coal-Operations.pdf)

<sup>27</sup> <https://safetowork.com.au/whitehaven-commits-to-800000-undertaking-to-enhance-safety/> Resources Regulator media release <https://www.resourcesandgeoscience.nsw.gov.au/about-us/news/2019/maules-creek-coal-prosecuted-over-mining-truck-collision>

<sup>28</sup> EPA media Release [https://www.epa.nsw.gov.au/news/media-releases/2020/epamedia201007-failure-to-maintain-storm-water-controls-costs-werris-creek-mine-\\$15000#:~:text=The%20NSW%20Environment%20Protection%20Authority,on%2018%20February%20this%20year](https://www.epa.nsw.gov.au/news/media-releases/2020/epamedia201007-failure-to-maintain-storm-water-controls-costs-werris-creek-mine-$15000#:~:text=The%20NSW%20Environment%20Protection%20Authority,on%2018%20February%20this%20year)