

Lake Macquarie Sustainable Neighbourhood Alliance (Inc)

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Submission to the Newstan Mine Extension Project Proposal

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To Whom It May Concern.

The Lake Macquarie Sustainable Neighbourhood Alliance (Alliance) objects to the Centennial Coal Newstan Mine Extension Project application in its current form. Our reasons are outlined below.

Whilst there are several key issues covered in the SEARS that are of concern, we focus on three- (i) is this project proposal in the public interest? (ii) potential impacts on the Eraring Ash Dam integrity and off site and (iii) potential effects on Awaba Conservation Area.

Is this project proposal in the public interest?

GHD's EIS report for this project proposal states: 'The coal resource [proposed to be mined] is a public asset owned by the State of NSW and it is in the public's interest to optimise resource recovery'¹.

But how could this be considered an important asset needing to be recovered, when NSW, much of Australia, and indeed, the world is rapidly moving into a post-coal economy in response to the urgency of limiting climate change? Indeed, Centennial's parent company, Banpu, is moving into renewable energies such as solar and underground pumped hydro². The NSW government has also just released its hydrogen production plan as a way of moving away from dependence on coal

We ask: 'In what way is it in the public interest'? It appears to be only argued in economic terms. It is stated that: ' The project would generate approximately \$80

¹ GHD Report for Centennial Newstan Pty Ltd - Newstan Mine Extension Project, 2220261 Pg.

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² Banpu Energy <https://www.banpuenergy.com.au/energy-storage> Cited 11.10.21

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million in royalties to the State and \$28 million in employee benefits....provide continued employment of 320 FTEs' and 'If the project were not to proceed, 25.9 Mt of coal would remain uncovered, and the economic benefits that flow from the recovery of this resource would not be realised'³.

GHD's report states that this project will '...produce a semi-soft coking coal product for the export market and a thermal coal product for both the domestic and export markets'⁴. What proportion of the mined coal will be for thermal vs coking (metallurgical) uses? How much of the mined coal is likely to be used by the Eraring Power Station? Centennial is known globally for its thermal coal. We interested to know why it is considering a semi-soft coking coal product when there is already an established metallurgical (coking) coal market, where Australia has a major export market⁵ In 2019 Australia exported 183Mt⁶ of metallurgical coal.

The Eraring power station is due to close in 2030-2032, with the first unit to close in 2030. Origin is already signalling its interest in renewables, with a large battery planned to be installed⁷. Newstan has not supplied coal to Eraring Power Station since 2014. Coal from the Myuna and Mandalong Collieries have supplied the power station. Myuna is due to close by 2032 and Mandalong's current development Consent operates until December 2040⁸. Coal is transported to the power station via conveyor belts and the use of private haul roads. The Newstan Pit Top and Washery logistically assist with this transport.

We therefore question the accuracy and validity of the objective [how this project will...] 'Help to ensure ongoing security of thermal coal supply for domestic electricity generation at the adjacent Eraring Power Station'.⁹

Eraring Ash Dam (the Dam)

Historically, the Dam has caused great concern and angst within the community. The Dam itself is large (occupying an area of approximately 150ha¹⁰), unlined¹¹ and estimated to contain **40 million tonnes** of ash waste¹². This ash waste contains heavy metals including selenium, lead and arsenic¹³.

³ GHD Report for Centennial Newstan Pty Ltd - Newstan Mine Extension Project, 2220261 Pg. 41

⁴ GHD Report for Centennial Newstan Pty Ltd - Newstan Mine Extension Project, 2220261 Pg. 5

⁵ Minerals Council of Australia 2021 pg.9

⁶ ibid

⁷ <https://www.originenergy.com.au/about/investors-media/>.

origin_progresses_plans_for_nations_largest_battery_at_eraring_power_station/. Accessed 11.10.21

⁸ Mandalong South Development Consent Mod 9. 2021 Pg.50

⁹ GHD Report for Centennial Newstan Pty Ltd - Newstan Mine Extension Project, 2220261 pg.5

¹⁰ HCEC 2020 Out of the Ashes II, pg 56

¹¹ GHD 2020 Report for Centennial Newstan Pty Ltd - Newstan Mine Extension Project pg. 126

¹² HCEC 2020 Out of the Ashes II : Summary of Key Findings pg 3

¹³ Ibid

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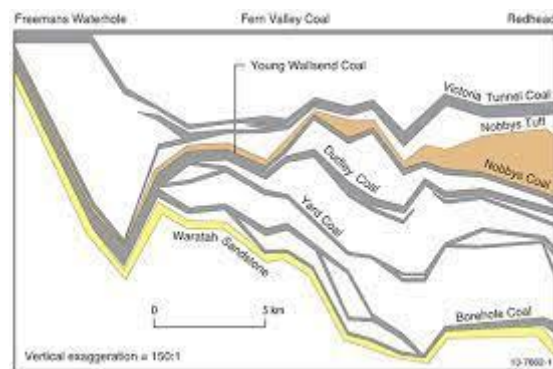
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Groundwater and surface water monitoring indicates that waste from the Dam is seeping into Lake Macquarie via the sub-catchments of Muddy Lake, Myuna Bay and Whiteheads Lagoon¹⁴.

In 2019 the Myuna Bay Sport and Recreation Centre was closed because of the risk posed to people and infrastructure if the Dam wall were to collapse due an earthquake.

The MSEC report (Appendix H), states that the coal seams are “characterised by complex patterns of splitting”¹⁵ and that dykes, faults and folds dominate¹⁶ the area. This demonstrated in the diagram below, produced by Geoscience Australia¹⁷



“Figure 1: Cross-section of the lower part of the Newcastle Coal Measures from Freemans Waterhole to Redhead showing seam splitting in the coals in the Lambton Formation and lower Adamstown Formation, with the intervening Nobbys Tuff (modified from Hawley & Brunton 1995)”¹⁸

Currently there are no first workings under the Dam and it states that the existing workings in the Great Northern Seam will be reactivated in order to source the coal from under the Dam.¹⁹ Figure .1.5²⁰ indicates that the Great Northern Seam is less than 50 metres under the floor of the Dam.

¹⁴ Ibid

¹⁵ MSEC 2020 SUBSIDENCE PREDICTIONS AND IMPACT ASSESSMENTS FOR NEWSTAN COLLIERY 201 TO 218 PANELS pg 7

¹⁶ Ibid

¹⁷ Geoscience Australia <http://www.ga.gov.au/ausgeonews/ausgeonews201309/inbrief.jsp> Cited 3.10.2021

¹⁸ Ibid

¹⁹ MSEC 2020 SUBSIDENCE PREDICTIONS AND IMPACT ASSESSMENTS FOR NEWSTAN COLLIERY 201 TO 218 PANELS pg. 10

²⁰ Ibid pg 7

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Less than 20 mm of vertical subsidence is predicted in areas of first workings only. Including under the dam wall²¹. The Alliance wonders how this is possible, when full extraction under the dam itself is proposed²².

Great consideration in mine design has been given with infrastructure such as the Main Northern Railway, a 132 kV substation, Ulan Rail Loop and Eraring Power Station, with only first or partial workings proposed.²³ Yet for the Ash Dam, a vital part of the Eraring Power Station's infrastructure, full extraction is proposed.

GHD's report states "Centennial Newstan held a dam safety risk assessment for the project on 19 November 2019. The risk assessment was attended by Centennial Newstan representatives, engineering consultants from Golder Pty Ltd who were experienced in dam design, earthquake and liquefaction risk management, and subsidence engineers from Mine Subsidence Engineering Consultants Pty Ltd (MSEC). The risk assessment reviewed risks to the existing Eraring Ash Dam wall and quantified the risk to that structure from mining, the potential effects of ash/water seeping into underground workings and the potential effects of ash liquefaction. The risks were considered in accordance with Dams Safety NSW risk rating methodologies (NSW Government, 2019b).

A copy of the risk assessment was provided to Dams Safety NSW on 25 November 2019. Dams Safety NSW acknowledged receipt of the risk assessment in a response provided to Newstan Colliery on 11 December 2019. **No issues were raised in the response**²⁴.

We are concerned that no issues were raised by Dams Safety NSW. It is stated that subsidence could occur with the reactivation of the workings²⁵ and that the overlying Teralba Conglomerate structural integrity would be compromised, should mining occur in the Great Northern Seam²⁶. The MSEC report goes further to suggest that the predicted vertical subsidence in the context of multi -seam conditions would be 3250mm (3.25m)²⁷.

In addition, GHD's report invokes the Precautionary Principle for ecological sustainable development: "*The precautionary principle states "that if there are threats of serious or irreversible environmental damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation."*²⁸ It states that all potential serious or irreversible risks have been quantified and avoided. We contest this argument with reference to the above. We therefore suggest that the Precautionary Principle appears to be overridden because

²¹ GHD Report for Centennial Newstan Pty Ltd - Newstan Mine Extension Project, 2220261 pg.iv Table ES-1

²² Ibid pg.4 Figure1-1

²³ Ibid pg.iv Table ES-1

²⁴ Ibid pg. 79

²⁵ Ibid pg. 27

²⁶ Ibid pg.29

²⁷ Ibid pg. 33

²⁸ Ibid pg.317

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of the argued importance of extracting this coal resource. The financial costs of potential degradation are not considered.

Awaba Conservation Area

Most of the area for this mine extension project is within the confines of the proposed Awaba Conservation Area (ACA). The ACA, which is mainly on Crown Land, is a vital wildlife corridor between the Watagans and Lake Macquarie. The importance of this area has been acknowledged since 1972 by the National Trust of Australia and subsequently by Lake Macquarie City Council (LMCC) in 1995 and the then NSW Department of Environment, Climate Change and Water in 2009.²⁹

We acknowledge LMCC's Awaba Biodiversity Conservation Area is not only part of Council's offset obligations but it is a part of the proposed ACA. While consultants have acknowledged the Awaba Biodiversity Conservation Area and other existing biodiversity conservation areas.³⁰ However, we have concerns around the area's that are designated for full extraction within the Biodiversity Conservation Area, other existing biodiversity conservation areas (i.e. the proposed ACA), Kilaben Creek³¹ catchment and the integrity of the Teralba Conglomerate Formation. If the Teralba Conglomerate Formation is compromised, how will this effect ground and surface water and thus the integrity of all biodiversity conservation areas in the projects boundaries?

RPS's report (Appendix M) makes no reference to natural assets and ecological/ecosystem services even though it is stated that 1036.27ha is native vegetation,³² which is 70.7%.³³ The concept of ecosystem services is now well established³⁴, with a universal consensus, that the "perceived and unobserved benefits people obtain from nature are important".³⁵ Services provided by the ecosystem include: oxygen production, water quality management, air quality management, carbon storage, pollination services, pollution control, tourism and recreational opportunities as well as cultural and spiritual opportunities. These services are natural assets in their own right and will provide a long term benefit to the majority, lasting decades, if not centuries into the future.

Additional concerns

We request Centennial not to clear native vegetation at the Awaba Colliery. Part the land to be cleared is 0.15 ha of PCT 1718 (Swamp Mahogany – Flax-leaved Paperbark swamp forest on coastal lowlands of the Central Coast)³⁶ which is an Endangered Ecological Community. The Alliance requests that Centennial leave this EEC as is and work around it.

²⁹ Charlton R 2015 Awaba Conservation Area

³⁰ GHD 2020 pg.310

³¹ Ibid Fig6.1 pg.99

³² RPS Newstan Mine Extension Project, Biodiversity Development Assessment Report pg.4

³³ Ibid pg. 12

³⁴ DEWHA *Ecosystem Services: Key Concepts and Applications* pg.2

³⁵ ICUN 2019 *Ecosystems Services: The benefits people obtain from the planet's natural resources*

³⁶ Ibid pg. 185

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In addition we would like all efforts to be made to leave hollow bearing trees intact and/or a major nesting box program be implemented for the area.

There are concerns around increased water discharge and contamination into Muddy Lake. How will this be mitigated? Muddy Lake is already under duress with levels of contamination and aquatic weed infestation.

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RPS: 2020 Newstan Mine Extension Project, Biodiversity Development Assessment Report