The Director-General
Department of Planning
GPO Box 39
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Mining and Industry Project Application Warkworth Continuation 2014 and

the Mount Thorley Continuation 2014

I do not support the application to extend the Mount Thorley and Warkworth Mine (MTW) application and I object to the application for the reasons detailed in the following pages.

1 Introduction

This application follows from the denial of the Project Application Number 09_0202 by the Land and Environment Court of NSW (L&E NSW) and the dismissal of the appeal in the NSW Court of Appeal (CA NSW). This application is the same as Project Application Number 09_0202.

This application does not pass the "Duck Test" from the previous application:

a) The mine management company remains as Rio Tinto the same as the Project Application Number 09_0202.
b) The mining lease boundaries and the coal resource is exactly the same as the Project Application Number 09_0202.
c) The mining method of top soil removal, drill and blast to coal seam, removal of overburden and inter-burden by shovel and truck to remote dump sites the same as the Project Application Number 09_0202.
d) The drilling and blasting of the coal seam and removal by shovel or front end loader into trucks for transport to the same two Coal Handling Preparation Plants is the same as the Project Application Number 09_0202.
e) The use of the draglines to remove the lowest inter-burden remains exactly as the Project Application Number 09_0202.
f) The coal will be washed at the same two Coal Handling Preparation Plants (CHPP) to increase the saleability of the resource is the same as the Project Application Number 09_0202.
g) The coal will be loaded onto trains using the same coal loader and transported to the Newcastle Coal Loader exactly as the Project Application Number 09_0202.
h) The requirement for the closure of Wallaby Scrub Road the same as the Project Application Number 09_0202.
i) The need to have an addition crossing point for Putty Road is the same as the Project Application Number 09_0202.
j) The Commonwealth Minister for the Environment approved the 2010 extension on the 9th August 2012 EPBC 2009/5081 the same as for the Project Application Number 09_0202.

Any minor variations in this application for Continuation of Warkworth and Mount Thorley Mines and the Project Application Number 09_0202 are insignificant to the economic expenditure resulting from b) to i) above.

It looks like the previous application, tries to swim like previous application and generates the same noise as the previous application then it is the same application which has been denied by the NSW Land and Environment Court and upheld by the NSW Court of Appeal.

2 Noise

The L&E NSW in rejection of the previous application had serious concerns as to MTW ability to control noise from the mine. The current noise levels' emanating from the Mount Thorley and Warkworth Mines (MTW) is already causing

residences to experience noise invasion both during the day and of a night. The reported telephone complaints would confirm the increasing noise heard by people in the Bulga area. Numerous residents have purchased noise monitors and record the level of noise received at their residencies. The EA acknowledges the noise exceedances' has resulted in the parking of mining equipment to bring the noise levels to acceptable levels as determined by MTW. The measurement of the noise using only part of the INP and not the full standard provides a picture of the culture of Rio Tinto in that they prefer to work to a lower standard than that accepted by the NSW population. The low frequency noise generated by the earth moving equipment is a significant measure of the overall noise generation yet is ignored by Rio Tinto as evidenced in the 2014 EA EMGA report.

The only way to reduce the noise generated is by reducing the sound power levels at the source. This would require all the earth moving equipment being Sound Attenuated to the highest standard for current mining equipment. This attenuation does pose maintenance issues in servicing of the equipment and in the upkeep of the attenuation package. These issues are not a problem of a competent managed organisation as other Rio Tinto mines have demonstrated. The EA refers to Noise Attenuation of the earth moving fleet as being reduced, from levels spoken of in their previous application, below that achieved by their sister Rio Tinto Bengalla Mine. This also provides a picture of the culture and economic management of Rio Tinto MTW working to a lower standard than community expectations.

Section 10.5 of the EGMA has highlighted non-compliance of noise levels at 103 assessment sites, residences or adjacent to residences, with this lower attenuation package also provides a picture of the culture and economic management of Rio Tinto MTW working to a lower standard than community expectations.

My previous occupation before retirement was in the position of Mine Mechanical Engineer In Charge of the Bulga Open Cut. During the 14 year period in this position I have studied noise models of equipment to suppress noise originating from the mine. I believed that noise will propagate directionally unless interrupted by a solid buffer. The noise can be reflected back from the solid buffer causing an increase in the noise level prior to the buffer unless the buffer has noise absorption ability.

The elevated dump site on both Mt Thorley Mine and Warkworth Mine to RL 150 lift the dump above the existing high ground level and when dumping on the forward area will send noise directly at the Bulga Community. There is no Sattlers Ridge an agreed NDA to deflect the noise. But in the model the noise diminishes.

The equipment placement for modeling the noise output has very few trucks on the elevated dump sites as would be practiced by an 80 truck fleet. This does not follow a practical example of where the trucks would be dumping their loads. From watching the mine adjacent to the Putty Road, at dump sites I have seen more than four trucks at any one time . One truck entering onto the dump site, two truck dumping and one truck leaving the dump site, a water truck should regularly visit the dump area to control dust generation, though these visits are rare from

watching. A bulldozer would be expected to be present for clean up and maintenance of the safety windrow for the dump. The model shows a group of truck waiting at loading equipment. The trucks should only be lined up at the loading equipment at the shift commencement or the mine has a surplus of trucks sitting idling. The lower dumps are normally the domain of dragline dump sites or in pit dumps used when weather does not allow the movement of equipment to the higher dumps. If the diagrams are a representative picture of equipment then the high dumps would not be built and the in pit void would be filled and deny dragline working area.

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The costly construction of a bund wall to provide a sound buffer, as Saddler Ridge currently provides, is not practical as this would need to be to the 150m RL. The consideration of this in the EA acknowledges the buffering effect of the NDA's in noise propagation from the mine towards Bulga.

3 Wallaby Scrub Road Closure

I disagree with the closure of Wallaby Scrub Road.

I am currently an active member of the Bulga Rural Fire Brigade and an active member of Hunter Valley Communications Rural Fire Brigade that has it equipment stored at the Bulga Rural Fire Shed. I have attended Motor Vehicle accidents with the Bulga Brigade on both the Golden Highway and in Hunter Valley Mine when paged for urgent attention. The closure of Wallaby Scrub Road would add response time for the Bulga Brigade in attending such incidents placing person at greater risk. I have also attended building fires in the Denman area with the Communication Brigade and Wallaby Scrub Road provided the shortest route to attend the fires.

Wallaby Scrub provides for both local and mine traffic as an alternate to the New England Highway. The closure would force traffic in bypassing the New England Highway onto the Broke Road and increasing the traffic to the junction of the Golden Highway and Broke Road. This intersection has experienced a number of major accidents including fatalities. I have personally attended one of the fatalities. The Golden Highway has a narrow bridge prior to Mt Thorley Industrial Area, this bridge has been closed by major accidents that would isolate access via the Golden Highway to the north.

4 Air Quality

The EA states this is a high strip ratio mine, the previous General Manager has stated that the ratio is 11 to 1 overburden to coal at present and rising to 13 to 1 if approved. The mine will generate dust in excess of adjacent mine due to the amount of overburden it must remove to uncover the coal seams.

Not withstanding the best intentions of the workforce to minimise dust it will produce 50% more dust that the adjacent mines at 6-7 to 1.

The mine expansion causes solastasia as the impact from the cumulative generation of air borne contaminates from the Upper Hunter large Power Stations, the existing concentration of coal mine and from this proposed mine expansion and other local large mines moving west.

The NSW Government and the Australian Government are lax in the requirements to monitor and reduce dust levels especially those less than PM10 level, when compared to other countries for example the United States Of America commenced legislation for PM2.5 in 1997, Canada, France and our largest coal purchaser Japan have standards.

The Singleton Community have raised the air quality issues with the NSW Government Departments. The granting of any mine expansion should not be allowed until a detailed health study is affected on fine particulate air borne contaminates. The decrease in air quality must be a concern to the NSW Government, the increase in Mine Equipment exhaust discharges as well as the increase dust produced by increase equipment hours.

UK Industrial air pollution expert, Dr Dick van Steenis in an address to the Singleton Community asked the questions:
"What analysis is done to assess the future cost of health care that will be required to address the consequences of allowing PM2.5 dust to fall on residential subdivisions during the planning assessment process? Where does the health of the people of NSW rank vs economic considerations during the planning assessment process for open cut coal mines?"

A health study of school children in the Singleton Schools already has shown increase in asthma level over the national average.

My residence relies on capture and storage of rain water for domestic use and stock drinking. Over the last five years with the increase in mining activity the frequency of cleaning the gutters on my buildings has increased to being required on a quarterly basis. I have needed to install dirt traps on all gutters to capture the initial flush of dirt laden water prior to my storage tanks. These traps while capturing the first 15 litres from each gutter does not capture all dirt from the roofs that still ends up in the bottom of my rain tank. I regularly clean the bottom sludge from the tanks unlike at my previous residence adjacent to Glenbawn Dam this was unnecessary.

MTW Community Consultative Committee have been given documentation that in January 2010 the levels of dust recorded in Bulga rural village reached the permissible limit under the existing mine approval. The movement of the mine to within 2 kilometres of my residence does not give me assurance that the dust level will not exceed the permissible limits. The mine should not be permitted to exceed the PM10 permissible levels and should be required to monitor and control PM2.5. MTW need to explain how they will control the cumulative air quality issues emanating from the mine and adjacent mines to the north and

south. Independent live monitoring of air quality in the Bulga rural village should be a requirement of the existing lease costed to MTW and the adjacent mines.

The health related issues from mine dust and the cumulative liberation of heavy metals by Power Stations and coal production in the Hunter Valley is causing increased community concern. The cumulative impact from the nearly continuous mining belt from Broke in the south to Musclebrook in the north requires a detail health study to be completed before the granting of additional or extension of coal leases.

This is the opportunity for the NSW Government to commence the requirement of World Best Practice for open cut mine approvals in Air Quality.

4 Ecology

The L&E NSW decision recognised that the Warkworth Sands Woodland and Hunter Lowlands Red Gum Forest are listed as EECs under the TSC Act. Central Hunter Grey Box – Ironbark Woodland and Central Hunter Ironbark – Spotted Gum – Grey Box Forest have been recently determined as EECs by the NSW Scientific Committee on 12 February 2010. The L&E NSW decision should be respected and accepted that no mining should occur within these EEC's.

The proposed mine will remove significant areas of the listed EEC's. MTW has proposed to use an adjacent farm area "Archerfield" to reestablish the flora using The University of New England (UNE) to provide a facsimile of the Warkworth Sands Woodland. Only the flora is to be trialed at Archerfield and the site is a degraded farming environment. The rehabilitation of Archerfield is commendable but will not provide "like for like" offset. The soil profile that makes the Warkworth Sands Woodland unique will not be duplicated. UNE stated in a presentation to members of the public at Armidale that MTW had not requested UNE to look at establishing soil profiles to match the Warkworth Sands Woodland soil. UNE also stated that the plants they are growing and trailing at Archerfield are not rare but DNA testing will be required to compare with those occurring elsewhere in NSW. The loss of the unique biodiversity of the Warkworth Sands Woodland is not being replaced. The UNE has estimated that they require 25 years for the trial to be evaluated.

The open cut mining to the west of Wallaby Scrub Road will not provide ecologically sustainable use of natural resources. Ecologically sustainable use means use of the natural resources within their capacity to sustain natural processes while maintaining the life-support systems of nature and ensuring that the benefit of the use to the present generation does not diminish the potential to meet the needs and aspirations of future generations.

The offsets are not "like for like" as per L&E NSW decision. The total Warkworth Sands Woodland and Hunter Lowlands Red Gum Forest is 1133ha and is exclusive to the local area. The offsets do in no way represent ECC's in NSW and other states.

The biodiversity of the Warkworth Sands Woodland and Hunter Lowlands Red Gum Forest are slowly recovering from previous farming activities. The ecosystem that is the Warkworth Sands Woodland and Hunter Lowlands Red Gum Forest will not recover from open cut mining.

The fauna in the area will be displaced by the open cut and will not return while equipment is operating in the mining area. The wildlife corridors shown will not be freely available to fauna within the working mine area. The chance of survival for wildlife contacting heavy mining equipment is nil. Example of fatal encounters can be seen on visiting any mine haul road. The regeneration process is a slow process on a very small scale, historically rarely more than 40ha per year. The regeneration of flora on spoil dumps will occur but takes decades. The quite habitat will not be present till mining ceases. The movement of equipment throughout both the MTW Mines will be maintained to provide shortest access to each end of the open cut. The maintaining of the haul roads throughout the mine will cause fauna to leave the area. The access to the adjoining mine rehabilitation area is also across a working haul road.

MTW used the concept of the existing Green Offset Strategy and NDA to enter environmental competitions to show Rio Tinto "Best Practice" for the mining community. In announcing the approval of the 2002 extension Coal & Allied Managing Director Gary Goldberg stated "We have also included a Green Offsets Strategy that has reserved over 1,500 hectares of land next to the extension area to protect and enhance native vegetation." This will now be mined if the EA is approved.

Warkworth Coal Mine Green Offset Strategy is an area that was to be actively managed for conservation purposes to offset the flora and fauna impacts of the approved mining to the east of Wallaby Scrub Road.

Other mines have referred to Warkworth Coal Mine Green Offset Strategy in application to develop mines trying to maintain the "Best Practice" model set by Rio Tinto.

The precedent that the L&E NSW denied the mining company in their application provides community opinion on the "Continuation Applications.

5 **Mining Methods**

The proposed extension to mining of the coal resource to the west of Wallaby Scrub road by open cut will cause major community adversity. The destruction of valuable EECs and the NDAs can be avoided by underground mining methods.

The coal reserve can be successfully extracted by alternate methods as shown by the adjoining Beltana Highwall Mine. Mount Thorley has engaged in a drilling core sample project to establish the viability of underground mining. The efficiency of the highwall concept has made Beltana Mine and the new South Blakefield Mine one of the most efficient and cost effective ventures in Australia.

The methodology of using MT Thorley Mine for relocating overburden spoil from the MTW mine will economically sterilize the coal reserve to the west of Charlton Road in front of the Mt Thorley Lease. The final landscape would have overburden spoil placed against the highwall face preventing highwall mining. The resource would need to be accessed by drifting from adjacent reserves with the extra cost associated with underground conveyor systems, difficult longwall relocation, problems with air circulation and extra length in service distances. The accessing of the resource through the spoil heaps would also be uneconomical.

The coal reserve to the west of the final open cut bench of the proposed mine extension will be economically sterilized. The length of panels to extract the resource would be short resulting in uneconomical longwall movements.

The coal resource to the west of Wallaby Scrub Road and Charlton Road can be economically recovered by highwall mining extending to a safe distance from Wollombi Brook thus recovering a higher percentage of the coal resource.

The coal resource can be accessed by efficient highwall mining techniques that will not cause excessive noise and air quality degradation.

The MTW EA has placed a figure of 19% recovery of the resource by underground methods. The figure quoted in the current approval quoted 29% recover potential by underground methods. There is no detail resource recover table in the EA that includes all the coal reserves from the final highwall in Mt Thorley Mine to the banks of the Wollombi Brook and the coal reserve from the final highwall of the existing approval for Warkworth Mine to the Wollombi Brook.

An assessment of the total resource to the west of Mt Thorley and Warkworth Leases to the Wollombi Brook will show that a higher percentage of the resource can be recovered economically, efficiently and utilising the resource without the high community cost of the open cut.

The energy used to achieve the coal to a Run of Mine stock pile at the CHPP will be 50% greater than the adjoining lower strip ratio mines. This results in the transport, consumption of nonrenewable resource diesel and oil for servicing equipment. The draglines are a mismatched fleet, the older two are not as efficient as the P&H dragline and would consume greater electricity. The electric shovels in the movement of larger overburden quantises also consume greater amounts of electricity.

6 Water

The open cut has the potential to disrupt the Wollombi Brook alluvial ecological profile. The coal resource is not without faults that have occurred over millennium. The removal of the strata profile will release saline salts from the coal seams. Once the mine has removed the Saddlers Ridge as part of the mining process the incline is directed towards the Wollombi Brook. Water seepage will occur into any fault within the mine and track towards the Wollombi Brook. This has the potential to change the flora in front of the mine as any major rain event as seen in June 2008 will overload the mine capacity to contain water onsite.

The disruption of water flow from the ridge down to the Wollombi Brook will affect the flora as the loss in runoff deprives the flora from a water resource that would normally be available. The verges of the Wollombi Brook will not receive this added flow. The Wollombi Brook goes through extended period without flows, the removal of this water must affect flora to the east of the Wollombi Brook.

Water discharged from the mine is transferred to the Hunter River. The water will be removed from the Wollombi flora eco system. MTR are to purchase 73 megalitres from existing water licensees to return an equilivant flow to the Wollombi Brook. The Wollombi Brook is an over allocated stream and the return of only 73 megalitres will do little to return water into the stream. The stream flows that this water returns will not be accessible to flora outside of the alluvial flats. This flora includes EECs Warkworth Sands Woodland and Hunter Lowlands Red Gum Forest. The denial of the water runoff would further degrade the last remnants of the Warkworth Sands Woodland and Hunter Lowlands Red Gum Forest.

MTW currently discharges saline water under the Hunter River Saline Trading Scheme. This is not "Best Practice". The NSW Government should quarantine all water that has been contaminated by contact with coal or mining processes and require that contaminated water remains on site. No releases of contaminated water should be permitted into any stream in NSW.

The contaminated water currently released is pumped from the Hunter River by farms and two Private Irrigation Districts (PID) schemes onto farm land for irrigation of lucerne, grapes, olives and for general non potable farm use. The contamination of the Hunter River by the mine saline water spreads the salt over large areas of Pokolbin, Broke, Milbrodale and Bulga. The NSW Government has shown concern on salinisation of rural land. The continued discharge of mine contaminated water increases the spread of salt contaminates into the Hunter Valley rural landform.

7 Conclusion

The "Continuation" application has a number of different quoted employment figures from 1300 to under 1000 showing a lax attitude in preparation of the application. Nowhere in the EA is a guarantee of continuing high employment numbers.

A number of existing mines have realised the economic disadvantage of mining a high strip ratio resource in today's economic climate. The increase in availability of coal from Indonesia, South Africa and USA will have a detrimental effect on lower economic generating coal resources. Europe has an excess of coal on stockpiles as higher dependence on renewable electrical resources expand. China will have stopped the use of coal fires within their major cities and close by older power generators by 2020 and the increase in renewable electricity generation continuing to decrease the sale of high cost coal resource.

This application should be rejected as the previous application was rejected. A lot of resources has been used to disguise this application from the previous but it still admits residual impacts on the local community the same as the Project Application Number 09_0202.