People who may be susceptible to the health effects of airborne coal dust are:

- infants, children and adolescents (there is an increase of young families moving into Wyong Shire and an increase in child-care facilities)
- elderly (there a large aged population in Wyong Shire)
- people with respiratory conditions such as asthma, bronchitis and emphysema
- people with heart disease people with diabetes

The impact on your health from breathing in coal dust can be:

- cough
- wheeze, or worsening of asthma
- increased need for medications (eg puffers, antibiotics)
- increased breathlessness

High levels of Total Suspended Particulate Matter (TSP) may also cause coughing, sneezing and sore eyes.

15.2
Coal Dust Pollutants and Coal Handling Facility

Coal Dust Pollutants, both respirable and inspirable suspended particulate matter indicates a health hazard as coal dust entering the respiratory tract may be further divided into respirable (very fine dust) which reaches the lower bronchiales and alveolar regions of the lung. Local Meteorology –wind speed direction and stability from the Tooheys Road rail loop coal dump and infrastructure site - would most certainly transport particulates from the 250,000 tonnes product stockpile, the 4000 tonnes' p/hr. constant traffic input from the minehead into Tooheys Road coal dump, a 2000t.p/hr. overhead tripper to stack crushed coal on the 250,000 tonne product stockpile and a 4500t/phr. train loading system. Coal dust particulates will, under suitable wind pressures, extend to some 10kms from Tooheys Road rail loop, which will inundate Wyong Hospital, schools, the new Warnervale Township, and the urban expansion around it, and extending into the outer urban areas and Wyong Township. Coal loading, dust and noise will be a repetitive 24hr. cycle operation continuing for 42 years. The ACA has viewed coal dust problems in the Hunter mining area and note that although dust suppression requirements are in force, it is quite inadequate to control. We consider that these polluting conditions will prevail in the Wallarah 2 project and this will compounded by uncovered coal trains permitting continual release of coal dust particulates throughout their transit areas to Newcastle docks.

Coalmine dust is heterogenous mixture containing more than 50 elements and their oxides, which cause severe lung disorders and other invasive registered dangerous medical conditions.

The current National Environmental Protection Measures (NEPM) for ambient Air regarding particulate matter, specifies a goal of 50 ugm-3 with a diameter of less than 10 microns (PM10). Recent studies confirm that in urban areas, PM 2.5 is overwhelmingly the most significant fraction-60%- of total suspended particulates (TSP) taking into consideration

particle size, weight and wind velocity, which determines distance to a receptor. Particle fractions (PM10 and PM2.5) are capable of entering the human respiratory tract whereas coarse particulates - larger particles - although considered a nuisance is unable to enter the human respiratory tract and are not generally considered to pose a health risk. It is recorded that sensitive receptors, at less than 3km. distance from active areas of the mine, is at risk as air quality standards deteriorate with greater concentrations of heavier particulates. Transport of fine particulates leads to higher proportionate of distribution at some distance from the coal mine/ workings. The new Warnervale town site and other residential areas will be subjected to serious coal dust particulates/pollution.

15.2.1
Control of Coal Dust

The experience in other areas has shown that it is impossible to control the spread of airborne coal dust. In Gladstone, Queensland, it has been clearly demonstrated that control of dust is not successful. Anger is growing in Central Queensland that black coal dust is blanketing the community of Gladstone.

The community is seeking answers as to what they see as a growing problem.

"The coal dust is coming into my house and into my cupboards, I have to wash my plates before I even use them," one resident said.

"I'm going to court and I'm seeking massive damages," said local business owner Evan Ryan.

This example in Gladstone demonstrates that it is not possible to guarantee that coal dust won't be emitted from the area causing adverse effects.

The medical profession views the potential risk of coal dust as serious and this would add to the already high levels of respiratory problems experienced by residents on the Central Coast. Avoidable deaths from respiratory system diseases are already above State and Australian averages. Central Coast children have high rates of Asthma. (*Population health profile, Central Coast NSW Division of General Practice: supplement. March 2007*).

15.3
Health Impacts and Air Quality

Page 11 of the Executive Summary candidly points to the expected death ratio associated with this development caused by exposure to dust and contaminants. It states, ***"Analysis provided conservative estimates of the increase in annual and daily mortality due to dust emissions from the Project at the most affected receiver on the worst day. The increase in risk of daily mortality on the worst day of the life of the Project is estimated to be approximately 1 in 100,000 and as such represents a small risk."***

Pages 9 to 17 of the Health Assessment Risk Report, again candidly points to the expected death ratio associated with this development caused by exposure to dust and contaminants. It again states there is a chance of an increase in mortality of 1 in 100,000 of the population. This is a conservative estimate only and does not take into account the increasing population growth of the northern suburbs of Wyong Shire, nor does it take into account people with

diabetes, heart disease and respiratory ailments, all of who are extremely susceptible to debilitating and terminal illness from fine airborne coal dust particulates.

Further, the EIS does not seem to be based on localised data even though for decades the medical profession has voiced its concern over the higher rates of respiratory diseases particularly in the northern areas of Wyong Shire. Surely the rate of mortality and morbidity would be greater given the following data being taken into account.

As far back as 1985, Lake Munmorah Public School respiratory conditions were evident in about 40% of children, including 76 children having asthma. Doctors at Lake Munmorah recorded 30% of children attending their surgery had respiratory problems, which was double the national average, and they signed a letter to suggest that, from their own research, the source of this problem was the power industry (including coal stockpiling and handling) complexes existing in near proximity.

Since that time the broad community has called on successive governments to begin a cumulative air quality study of the area but each time this has failed to emerge. This was clearly pointed out at the 2010 PAC Hearing into this same Wallarah 2 proposal.

According to Wyong Council State of the Environment Report 2008/9 Total Suspended Particles (TSP) in the shire DOUBLED between 1994 and 2008.

Dr. Peter Lewis, Director of Public Health for the Central Coast and Northern Sydney in his submission to the previous PAC in 2010 (which was incidentally hidden out of public view by the Department of Planning at the time) states:

"A major concern is the level of increased particulate pollution experienced well beyond the boundaries of the land owned by the proponents at both Buttonderry and Tooheys Road sites. This concern exists because any increased exposure to particulate pollution is associated with increased adverse health outcomes, EVEN IF the levels are BELOW the current guidelines."

"The predicted 10ug/cm increase in PM10 will produce increased respiratory and morbidity among residents.

"Assessment focuses on deaths and hospitalisations, ignoring the more commonly seen increase in respiratory symptoms associated with increasing particulate pollution, e.g., children having chest colds, night-time cough and trips to the doctor. There is little acknowledgement of population growth in the areas with increased particulate pollution for the Health Risk Assessment".

"Projects of the scale of Wallarah 2 Coal Project must be considered in the context of the whole region, not as a standalone project".

Doctor Lewis is highly qualified to comment as he did. He won the Medical Journal of Australia Wyeth Award for his research on the effects of particulate pollution on children in Newcastle and Wollongong.

One would have thought that on the basis of history of health issues in the northern area of Wyong that the previous PAC would have rejected the project. It must be remembered that the previous Government in March 2011 eventually rejected this mine proposal on the basis of unacceptable impacts to the region.

It continues to astound residents of this region that companies such as Kores and Governments themselves are prepared to push on regardless knowing full well that major impacts will almost certainly result in growth of respiratory diseases and other more serious diseases perhaps various cancers in the local population as time proceeds.

Disappointingly, the current NSW Government, without any on ground consultation with those of us involved in expressing public health concerns over decades, decided to place an air monitor system to evaluate Wyong air quality on the Wyong Racecourse complex. This location is remote from emitting industries in the north, and is an isolated and benign atmosphere with only the nearby railway to impact upon it. Lower range pollutant readings are highly likely to result.

The Tooheys Road complex is only 2klms from nearby Blue Haven which contains schools and several pre-schools and only 3klms to the new expanding Wyee township, where only recently a 1000 housing lot development has been planned right next to the railway upon which the coal trains will travel.

The EIS states that Annual Coal Dust emissions from the Tooheys Road stockpiles, works and conveyor systems will total about 68,000 kilograms of TSP's and at Buttonderry another 23,337 kilograms of TSP's will emanate from the ventilation shaft.

In both circumstances that is a huge impost into the air in which the associated population must endure. The EIS (in Appendix M page 6) states that:

"Over the last few decades, there has been a substantial amount of research that added to the evidence that breathing PM is harmful to human health".

The EIS lacks a proper map of probable deposition of dust particles encompassing the broad area including addressing the deposition of coal dust along the rail corridor. It is known that the coal trains will not be covered and so coal dust will be of a concern both in the loaded trip and the return trip. Recent revelations along the Hunter rail corridor emphasise that this problem is downplayed.

The PAE Holmes report (Appendix L, page 55) suggests that the trip from Tooheys Road to the Port of Newcastle is "relatively short" (Relative to what, at trip through deserted regions of WA?). Any casual observer would laugh that this be considered a truthful statement and suggest that the author should take this trip through the southern suburbs of Lake Macquarie and Newcastle.

The accumulated Greenhouse Gas Emissions from this project over an extent of 38 years are totalled as 360,866,275 tons of CO2 expressed as (t CO2-e). (Appendix L, page 59). It would seem that for the sake of future generations and for the general health of the planet, that this mine should never be considered. The costs are too great. The cost to our health and our environment is never expressed in valued cost to us now or for the future.

15.3.1
Airborne Coal Dust

Population projections in the northern suburbs of Wyong Shire (the area that would be most affected by airborne coal dust) show a staggering 100% increase in growth in the 10-year

period to 2106. With diabetes for the Central Coast matching the NSW prevalence, the projected growth will place greater demands on the health system and that need must be supplemented. A NSW Health publication (issued January 2006) indicates that people such as those with diabetes may be ***"more susceptible to the health effects of fine and coarse particles"***. Further, the department of Health advise that those more susceptible to health effects of dust emissions in the air as a result of mining activities include infants, elderly, those with respiratory conditions such as asthma and heart disease.

The northern area of Wyong Shire has a high prevalence of young families moving into the area, and an extremely high aged population - the two groups most susceptible to disease and respiratory ailments from coal dust.

Twenty years ago it was firmly established that the incidence of asthma and other respiratory ailments was high in the northern part of Wyong Shire due the placing of the power stations and their coal facilities. A coal handling facility adjacent to the largest urban growth area in NSW would only exacerbate this problem.

16
NOISE

Another consideration in terms of noise must be on the employment activities of current and future residents. Residential suburbs such as Blue Haven have a high number of commuter residents. People choose to live there because of its proximity to the F3 Freeway. The people characteristically leave home early in the morning and return in the early evening. Many may also be involved in night work. Sleep patterns for these residents are very important and reduced sleep resulting in noise related activities may result in heightened levels of stress and associated productivity losses. The most consistent impact of insomnia is a high risk of depression.

(1. Insomnia: Epidemiology, Characteristics, and Consequences. Clinical Cornerstone Vol. 5, No. 3. 2003 Excerpta Medica, Inc.

(2. Maria Thomas, Helen Sing, Gregory Belenky, Henry Holcomb, Helen Mayberg, Robert Dannals, Henry Wagner Jr., David Thorne, Kathryn Popp, Laura Rowland, Amy Welsh, Sharon Balwinski, Daniel Redmond (2000) – Neutral basis of alertness and cognitive performance impairments during sleepiness. 1. Effects of 24 h of sleep deprivation on waking human regional brain activity. Journal of Sleep Research 9 (4), 335-352.)

17
INTERGENERATIONAL EQUITY & CLIMATE CHANGE

The topic of green house gas production is one that cannot be dismissed. Whilst the proposed final destination of the coal to be extracted is overseas, the proposed development will generate as a final end, produced green house gas. The two forms of green house gas concerns lodged by the Alliance are the burning of the coal and the coal seam methane released as the coal is extracted. Australia has the highest per capita green house gas emission's figure in the world (Australian Institute Figures) and coal accounts for approximately 35% of Australia's greenhouse emissions (2003 Australian Greenhouse Office figures) with coal being the fastest

growing source of greenhouse gas emissions in Australia.

For the next 42 years of the proposed development, coal will be burnt, green house gas, both in the extraction and the burning of the product, will occur and the generations of successive Australians will suffer as result of this.

The ruling, by Justice Nicola Pain, has ramifications when considering major projects such as the KORES proposal. The ruling requires that the Government will now have to take account of the greenhouse gas emissions from burning the mine's output. There seems to be no calculations made in regards to the Wallarah 2 proposal at this stage. The Panel might like to explore this area, as the final project would impact heavily on Climate Change issues, to determine the total amount of CO2 that will be produced and how the proponent seeks to modify or ameliorate the greenhouse gases as a result of this development.

Similarly, Central Coast residents have raised very strong concerns by the use of desalination plants for water purifying. These water-purifying plants are themselves large users of power as well as noise production. The Alliance seeks more information on the total power consumption of the mine's operation.

Intergenerational equality questions arise from the alienation of the State Forests for mine ventilation stacks for the proposed 42 years of the lease. How will these ventilation stacks be monitored and what impacts will they have on flora and fauna in the State forests? What height are these units and what noise do they produce from operation?

Other intergenerational equality concerns are the proposed rezoning and alienation of 6(a) open space lands. Can the proponent outline the cost to the community of the alienation of these lands for 42 years?

Further amenity issues arising from the preliminary report by the proponent are the use of lighting. Lighting in what areas and for what times? And how is the lighting to be diffused so as not to disrupt local amenity?

Further concerns of intergenerational equality are the subsidence issues as a direct result of the proposed development. Whilst water is one area of potential damage by subsidence, the Alliance raises issues of road construction and maintenance, building construction and restrictions (reference is made to the Valleys Studies of Wyong Shire Council) and any damage done to local open space and recreational areas such as the State Forests and sporting fields.

17.1
Climate Change

The mine is unacceptable from changes to climate. These impacts include:

- Increased global average temperatures – unacceptable
- Increased acidity of the ocean – unacceptable
- Direct economic cost – unacceptable
- Increased human suffering – unacceptable

- Decreased rainfall – unacceptable
- More intense drought – unacceptable
- Increased storm intensity – unacceptable
- Increased flooding / storm surge – unacceptable
- Loss of biodiversity – unacceptable
- Decreased water supply – unacceptable
- Decreased food supply – unacceptable
- Loss of coastal land / property – unacceptable
- Decreased human health – unacceptable
- Increased human disease – unacceptable
- Decreased fish and other ocean resources – unacceptable
- Political unrest – unacceptable
- Destabilization of human society – unacceptable

The EIS and the Statement of Commitments does not adequately address the impact of the mine on global warming or on ocean acidification.

It is noted that the conditions imposed on mines are not enforced and mines break their conditions as a matter of course. This makes the proposed mine even more unacceptable.

The EIS has not provided sufficient justification for approval.

Detail

We consider there is plenty of evidence to support the following contentions that form the basis of our submission:

a) Green house gases have been significantly increased in the atmosphere by human activities. In this case the green house gas under consideration is CO2 which has increased approximately 40% as a result of human burning of fossil fuels, mostly in the last 30 years.

b) The scientific evidence is incontrovertible that increased CO2 in our atmosphere is causing increased global average temperatures, which will continue to rise into the future.

c) There is sufficient scientific evidence that the increase currently threatens to be more than 2 degrees (average global temperature rise) and that under current policies 3 to 6 degrees is likely.

d) The results of such a rise represent a catastrophe for the human race and must be avoided.

A short list of the impacts under a warming global temperature, include all the objections listed above. It would appear to be madness to continue to increase our burning of fossil fuels under these conditions but that is exactly what is proposed under the Wallarah 2 Coal Mine project. In this case we are actually to expand the use of fossil fuels by opening up a new resource.

Recent reports by Price Waterhouse Coopers, the International Energy Agency and the World Bank indicate that we are taking insufficient action to reduce emissions. A report issued in May 2013 (Unburnable Carbon) indicates that to have an 80% chance of remaining below the 2 degree threshold agreed by countries at the Copenhagen 2009 UN conference, total fossil carbon burned by 2050 must be less than 900 Gt. Current recognized global assets of fossil carbon amount to more than 2,500 Gt. This effectively means we must leave most of the currently 'banked' fossil fuel assets in the ground.

In this submission we intend to focus on the economic costs of the mine but it should be borne in mind by the approver of this mine that the social, human and environmental impacts of our current path towards more and more combustion of fossil fuels are too huge to quantify.

Just taking one example, how do we value the cost to a thousand generations into the future of the loss of land to sea level rise. A rise of more than 5 metres (likely in the longer term of hundreds of years if we continue on our current path) would result in the loss of all the major river deltas of the globe: Lower Egypt, Amazon delta, Bangladesh, Yellow River delta, and many more. Such losses would displace hundreds of millions of people from the most productive agricultural lands of this planet. We do not believe this could be evaluated purely on an economic basis.

Economic impacts

Many economists have estimated the economic impact of climate change! A reasonable range of estimates is from $20 to $150 per tonne. The value depends on the discount rate and the actual effort to reduce emissions that is undertaken.

The Wallarah 2 mine intends to mine 150.9 million tonnes of coal which results in emit 369 million tonnes of CO2-e green house gas emissions. This value does not appear to include transport outside Australia. All but 2.5% of the 369 MtCO2-e comes from burning the coal (equivalent to 100.64 MtC).

Adopting a value of $40 /t for social cost of carbon gives a total of: $4.03 billion.

If the social cost of carbon were to be in the upper range of assessments ($150/tC) the total cost of this mine relating to climate change would be: $15.1 billion.

To put this into perspective:- this single mine, not large when considered in the context of coal mines in Australia, could cause climate change costs equivalent to the entire military budget of a mid-sized developed country (e.g., Israel's military budget is $15 billion).

A decision to allow this mine will unleash costs of billions of dollars onto future generations. This must be taken into consideration in the economic assessment of this mine. This mine will

see the likely costs per tonne of carbon to go up as will the likely trend in temperature increase into the next century and beyond. The costs associated with a rise of 4 degrees will be increased enormously over the costs of a 2-degree rise due to the disruption of society and collapse of nations.

As the recent statements by the Chief Economist of the International Energy Agency, Fatih Birol (to the UN climate talks conference of parties in Bonn, June 2013) – Two-thirds of all proven reserves of oil, gas and coal will have to be left undeveloped if the world is to achieve the goal of limiting global warming at two degrees Celsius:

"We cannot afford to burn all the fossil fuels we have. If we did that, it [average global surface temperature] would go higher than four degrees."

"Globally, the direction we are on is not the right one. If it continues, the increase would be as high as 5.3 degrees and that would have devastating effects on all of us."

It is better to leave this coal un-developed rather than expose future generations to huge costs for adapting to the impacts of climate change. It is highly likely that the State Government will to have to buy the mine back in 10 years time when we finally realize the madness of allowing it to start in the first place.

Conclusion

This proposed coalmine is not in the local community, the State's or the wider global public interest. The Environmental Impact Assessment (EIS) does not provide sufficient justification for it to be approved considering the huge costs both economic and in human terms from the impacts of climate change.

References:
IEA Report 2013:
http://www.worldenergyoutlook.org/media/weowebsite/2013/energyclimatemap/RedrawingEnergyClimateMap.pdf
PwC Report 2012 Too late for 2 degrees:
http://www.pwc.com/en_GX/gx/low-carbon-economy-index/assets/pwc-low-carbon-economy-index-2012.pdf
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World Bank Turn down the Heat:
http://climatechange.worldbank.org/sites/default/files/Turn_Down_the_heat_Why_a_4_degree_centrigrade_warmer_world_must_be_avoided.pdf

18
FLORA AND FAUNA ISSUES

Whist the submission contains a detailed section of the use and potential damage of the groundwater supplies, similar concerns are raised on the potential damage to the local creeks such as Wallarah Creek from dust emissions and transfers. How are these emissions to be calculated? What effect will they have on the local streams and creek? How are they to be monitored for subsequent effects on the fauna in the area?

19
ECONOMIC CONSIDERATIONS

Significant concerns are raised over the numbers proposed by the applicant. Startling figures show those job numbers in the coal industry are falling in the face of larger production and booming export numbers.
"Between 1996 and 2001, the number of coal mining jobs in the Lower Hunter in NSW fell to 3,560, a drop of 27%. In the rest of the Hunter, the number fell 18% to 2,443. Mining of all kinds (which is mostly coal) makes up just 2% of the employment in the Lower Hunter (of 4,099 jobs) and 8% in the rest of the hunter (2,717 jobs)."
(www.australiancoal.com.au/industrystats.htm#employment).

Remediation of the proposed ventilation sites, subsidence sites, road and open space damage, flora and fauna impacts, amenity (specifically including health costs) and property values are just some of the economic criteria that the proponent should be examining and forecasting some type of recompense to the community as a result of the proposed development if it were to proceed.

19.1
Social and Economic significance to the local community, the region and State

The draft Central Coast Regional Plan provides for future growth in population of between 68,000 and 100,000 new residents. Underground mining and/or any surface facility would not be compatible with a large population interface and other desirable employment opportunities, but would be counter productive in attracting business and residential investment.

Potential negative effects from coal dust and subsidence, in fact are not denied by proposed mining plans currently put forward for consideration. Instead the Preliminary Risk Assessment for the Wallarah 2 proposal talks about minimising and monitoring. This clearly indicates that it can't be prevented.

19.2
Negative Impacts on Employment

The Wyong Employment Zone, which extends from Sparks Road through to the Link Road, (adjacent to the Kores coal handling facility site) has the potential to create 6,000 new jobs. Both the Wyong Council and the Wyong-Tuggerah Chamber of Commerce are campaigning to attract clean industry to this area, in particular the food industry to compliment the already existing Woolworths food distribution centre.

The existence of a coal mine and coal loading facility close by would discourage industry into the area and would mean the sacrifice of many jobs for the sake of the few generated by the mining company.

The Central Coast Regional Strategy states in regards to future employment growth:
Key opportunities for the Region include –

- *Intensified economic activity and provision of quality office space to increase local business services such as accounting, financial management, IT service and legal firms*
- *Significant retail growth, including more speciality shops, bulky goods outlets and*

department stores

- *Growth in health services, driven by population growth, lifestyle preferences, an aging population and growing sophistication and complexity of services. The number of health-related jobs is forecast to increase substantially over the life of the Strategy.*
- *Growth in education services, with a corresponding increase in the associated employment in this sector. New schools, vocational education and higher education infrastructure will be required to support a growing population with participation in education and skills training*
- *Development of business parks, which provide good building design and layout, emphasis on light industrial and value-adding industries and integration of industrial, warehousing and office activities. Significant opportunities also exist to expand technology-based jobs in the Region*
- *Forecasted high rates of growth for cultural industries as well as accommodation and hospitality. The Region's tourism advantages are also likely to increase*
- *Growth of home-based businesses.*

The Strategy also says:

> *The Department of Primary Industries, the Department of Energy, Utilities and Sustainability and the Department of Planning, in conjunction with the Department of Natural Resources, to review planning for the Central Coast plateaus and Wyong valleys to consider agriculture, extractive resources, water supply values and tourism uses and address any conflict between these uses.*

The proposed mining activities and in particular the pit head near Blue Haven would be incompatible with the Strategy. It is reasonable to conclude that while it is predicted that mining will generated a limited number of jobs this type of industrial use will discourage other industries mentioned in "Key Opportunities" listed previously, including the proposed Wyong Employment Zone. Many of the proposed employed lands are within 2.5 kilometres of the Tooheys Road site and are well within zones for noise and coal dust issues.

Further, the Strategy also states:

> *The Wyong Employment Zone is a major employment opportunity for the Central Coast Region. Planning for this area will include investigation of land to the immediate west of the Sparks Road - F3 Freeway interchange for future employment opportunities that take advantage of this key transport interchange.*

The intent of the Central Coast Strategy is to create employment opportunities that meet the needs of the increased population. Using the principles of "sustainable communities", residential development needs to be close to transport hubs and employment opportunities. This type of employment use needs to also provide a healthy environment that is compatible with being close to residential development, making the area attractive to both business and potential population movement.

An extractive resource industry, such as the Wallarah 2 coal proposal, would be in conflict with other possible employment/residential uses and in fact that land at Tooheys Road would be more valuable for other use that would be more compatible with interfacing residential developments at Blue Haven, Warnervale and proposals at Wyee.

19.3
Potential Negative Impacts on Current and Proposed Residential Areas

Any potential mining and above surface related infrastructure by their mere nature has the potential to adversely effect the values of residential property. Subsidence, noise and dust can severely lower house and land values across the northern suburbs of Wyong and in those suburbs of Jilliby, Dooralong and Wyong Creek.

This would occur at a particularly bad time with many residents already suffering from increased mortgage commitments and already falling house values. In many cases, a large number of people would owe more than their property is worth. This could have a serious impact on the Central Coast economy.

This same problem could also impact on new housing developments, making them less attractive and not drawing necessary investment. The Central Coast does not have an existing mining culture mentality, and the general community would see so new mining projects in the Wyong LGA as a negative.

The Wallarah 2 proposal would have its main surface facility in close proximity (2.4 kilometres) to the new Warnervale Township and hub. This development could be heavily impacted by a coal loading facility, pushing much needed investment elsewhere.

Other considerations are:

- Proximity of Tooheys Road site to Blue Haven and Wyee Schools
- Proximity to new residential area at Warnervale and Charmhaven
- Increased health impacts related to dust and noise in residential areas
- Decreased tourism leading from adverse publicity and public perception
- Location of Tooheys Road site to "gateway" off F3 to Northern Wyong Suburbs

20
LAND USE AND MANAGEMENT STRATEGY IN THE WATER CATCHMENT VALLEYS

Closer rural settlements are envisaged in a selection over 15 sites in the Dooralong Valley and one site in the Yarramalong Valley.

Adverse environmental impacts will arise from subsidence and *it will be impossible to maintain a healthy fresh water river system,* which is envisaged as and when ***new Riparian Corridors are created*** under this new management strategy. Subsidence will create addition flooding over the 37 sq. km of sub-surface mining zones. This will adversely impact upon groundwater levels, flood levels, wetlands, streams, and have potential impacts upon environmentally significant areas, which are vulnerable to land subsidence and changed groundwater levels. It is envisaged there will be serious pollution arising from fractures in the subsurface overburden allowing interception of heavily polluted coal waters to discharge into local streams and rivers. The potable water system will be destroyed by mining subsidence.

The distribution of plant communities is strongly influenced by the geological features and soil types that are evident in the two valleys that contain five (5) soil landscapes. ***The two valleys present an ecological overlap of two climatic zones,*** which results in a ***"uniqueness***

of habitat" between species ***of tropical areas from the North and the temperate areas from Southern Australia***. It is recorded that ***the ecological phenomenon of plant and animal diversity is extremely high***. These attributes are considered to be of the highest conservation value and must be protected.

The following points must be considered:

- Will longwall coal mining activities be compatible with the aims and ideals of the water catchment? No.
- Is it possible to constrain and/or manage subsidence? No, it is indeterminable.
- Will this mining project satisfy the STATUTES of the Proclaimed Catchment Protective Act? No.
- Can Kores quantify, qualify and satisfy
    - The Threatened Species Conservation Act 1995? No.
    - The Commonwealth Environment Protection and Biodiversity Conservation Act 1999? No.
- Will coalmining pollution waters be controllable? No.
- Will active, residual and horizontal subsidence perpetuate? Yes.

20.1
Current Dooralong and Yarramalong Valley Land Use Activities

The following business activities identified as occurring in the valleys and would be subject to adverse environmental impacts caused by subsidence (see 23).

- Hydroponics vegetable growing
- Organic Vegetable Farming and Orchards
- Farm riding trails
- Farm tours (lavender farm)
- Stain glass manufacture
- Vineyards
- Macadamia farm
- Turf farms
- Cattle farms
- Horse studs
- Horse spelling farms
- Orange orchards
- Apiaries

20.2
Agricultural, Equestrian, Rural and Tourist Activities

Yarramalong and Dooralong Valleys are the rural hinterland of the Wyong LGA. Wyong Council and those who live and work in the valleys are committed to maintaining the rural character of the area.

Within the valleys there are thoroughbred horse breeding, spelling and training establishments, turf farms, cattle breeding properties, a lavender farm, alpaca farms, riding schools, hydroponic farming and orchards. There are also tourist destinations such as Dooralong Valley Resort, Yarramalong Macadamia Farm and Cedar Park Lavender Farm. These destinations are attracting visitors not only from the Central Coast and Sydney, but increasingly inbound tourists from eastern Asian countries such as mainland China and South Korea.

To a greater or lesser extent all of these activities are dependent, and rely, on an assured water supply from Wyong Creek, Jilliby Jilliby Creek or the aquifers within the valleys.

Reducing the streams in the valleys to the condition of Diega Creek, as shown in the Rivercare Plan would decimate these activities. Even assuming it were available, the purchase of water from the town water supply system would not be an economically viable option for most of these activities.

Without the investment required to support ongoing agricultural and rural activities, in the absence of water, properties would fall into disrepair and become unkempt and overgrown. Noxious weeds would proliferate, as property owners would have no incentive to eradicate them. The attractive and scenic quality of the valleys would be lost and the area would cease to be a desirable attraction for tourists. The proprietors of the various business activities in the valleys and their staff will lose their livelihoods and the contribution made by these businesses to the economy of the Central Coast would be lost. In short, the two valleys would be devastated.

21
OTHER CONCERNS

21.1 - Rail Capacity

There is concern as to whether the extra coal trains using the already busy Main Northern Rail line between Sydney and Newcastle would adversely affect current freight and passenger services. The Panel should examine in detail capacity issues and whether the current line could cope with additional coal trains, as well as increasing freight and passenger needs over the life of the project.

21.2 - Foreign Export

Concern is also expressed that this coal is destined for foreign export. We have more than 50 ships sitting off our coast on a regular basis, waiting to be loaded. Even with the newly touted third coal loader in Newcastle, the port is already at capacity. Bringing on line a new coal mine on the Central Coast would further choke this system.