James O'Reilly

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Tuesday 19th June 2018

Dear Sir/Madam,

The application for the development of a sandmine at the proposed site is both flawed at a 'state significance level' and at a local level. Additionally the applicant's submission is incomplete and reaches conclusions erroneously to support its position.

The attached response is split in two:

The first section deals with 'State Significant Development' and whether this application shows that this project is worthy of approval to advance NSW, countered by the impact to the local community. The opinion I express in this regard is in response the summary provided by the applicant.

The conclusion reached is that this development is not in the interests of NSW as there are many more alternatives that are likely to deliver more secure, closer, cheaper and longer term sand supply to Sydney. At a local level the net impact to the local community is close to zero with regards jobs and negative for the community in terms of lifestyle, amenity, implied property values and the precedent it would set for other unwanted mining activity in the region.

The second section covers the more detailed areas of response that are mandated as part of the EIS. My specific responses are in blue, and seek to show that the applicant's submission is in varying ways incomplete, inaccurate and biased. If we were to assume this project was approved we would be endorsing the management of this environmentally sensitive (dangerous) project to an applicant that to date has not been truthful, nor complete in its self-assessment.

Sincerely,

James O'Reilly

State Significant Development

In the applicant's section 7 proposal evaluating the objectives of its submission at 7-13 it makes the following four claims:

1). Securing supply of sand for Sydney's building needs, up to 0.86m tonnes p/a

2). Progressively rehabilitate proposed mine

3). Increase local employment levels

4). Maximise recovery of the natural resource

These objectives are flawed in the following way

1). Sydney does not need this site developed at all for the secure supply of sand. Alternates with far greater reserves and in areas already operational from a mining perspective are already available to the state. These include the neighbouring Penrose State Forest mine that within the forest's bounds has reserves of nearly 700m tonnes; or nearly 80-100 years of supply for all of Sydney's needs.

Other huge reserves of similar or larger size exist at Lithgow where the state could preserve existing coal mining and operational jobs in this areas by shifting to sand, and utilising the existing transport infrastructure. The largest reserves appears to be on the Somersby Plateau which has a far greater proximity to western Sydney, the Central Coast and Newcastle.

Overall these alternate sites contain close to 100x the reserves versus the proposed Sutton Forest, are closer to Sydney and/or have existing infrastructure in place. Thus there is no state need at any level for the development of this mine site.

The Department of Mineral Resources report from 2001 (attached) clearly shows that this project is not required.

2). Progressively rehabilitate the proposed mine

The applicant's submission is at best cursory in this regard. With a proposed mine life of 45 years, well beyond the 30 year plan, it mentions that full remediation would be looked at during the course of the project. In its summary (section 7) it had just 3 lines stating it would return the land to agricultural use and native forest. But what is not detailed at all is what the mine will be filled in with? If it takes 30 years or longer to empty, but no specific mention is made of what will end up filling the hole that is dug. Given the significant risk of water contamination to a creek that flows into the Sydney catchment, there must be a guarantee that the backfill is not refuse of any kind that could cause the waterways or groundwater to be polluted.

Additionally there does not appear to be any modelling done on noise pollution, water pollution, traffic noise etc that takes into account shipping upwards of 30m tonnes of backfill to the site, all work carried out concerning noise, traffic, water run-off etc was based on what would happen as sand was extracted, but no modelling has been done around remedidation.

3). Increase local employment levels is a nice idea but in a shire of around 50,000 in the catchment area adding around 30 jobs is not a massive driver of employment rates. Additionally the type of workers needed will be highly skilled mining engineers who are unlikely to currently reside in the Southern Highlands, or low skilled drivers etc that could in fact be residents of Sydney and still be able to do their job. The net impact of net new jobs to the existing population is therefore lower than quoted and when compared to the loss of amenity for the entire shire it is not worth it.

On a statewide level given that this proposal is aiming to take on the demand that would be available as supplies at Kurnell and the rest of the Sydney Basin diminish would therefore likely see employment just 'shift' within the state. This reinforces the likely outcome that net new employment to existing residents of the Wingecarribee Shire would be very low to zero

4). Maximise recovery of the natural resource. Whilst this is a fair aim, it does not make sense when considered against the following:

a). Whilst it may maximise the extraction at this site, it doesn't assist in the these same goals being achieved at the already active mine in the Penrose State Forest

b). This talks to just sand as the resource to be economically extracted to its fullest potential but does so at the expense of water, air, noise, vibration pollution to the surrounding environment that will adversely impact the lifestyle of residents of Canyonleigh and surrounds

In summary the proposal does not secure Sydney's sand supply, provide new jobs for local residents, show how the site would be remediated nor assist in maximising resource recovery in the neighbouring Penrose State Forest mine site. Thus under the applicants own criteria the proposal has failed to meet its objectives.

Response the Applicants stated Proposal Objectives.

In this section I am responding to what the applicant has meant to have supplied as part of the submission and commented as to both it's completeness and accuracy. All my comments are in blue

The EIS must address the following specific issues:

• Water Resources – including:

- detailed assessment of potential impacts on the quality and quantity of existing surface and ground water resources including the impacts on:

o existing user entitlements, affected licensed water users and basic landholder rights;

o groundwater-dependent and riparian ecology; and

o regional water supply infrastructure; and

- a detailed site water balance, including a description of site water demands, water disposal methods (inclusive of volume and frequency of any water discharges), water supply infrastructure and water storage structures;

- a detailed consideration of maintenance of an adequate buffer between all excavations and the highest predicted groundwater table;

- identification of any licensing requirements or other approvals under the Water Act 1912 and/or Water Management Act 2000;

A big gap appears to be around assumptions of annual rainfall. Currently the average being used is 902mm which is roughly the 950mm that the BOM notes for Moss Vale from a period of 1870 to 2018. However the average over the last 18 years is only 750mm, if this trend were to continue the assumptions around natural flows and acquifer refill rates would have to be lowered which means the current expectation that the plan doesn't have enough water in at least half the years of operation would have to lifted (likely substantially) and that the amount of water available to possibly sell to the mine from surrounding owners may also drop, meaning the entire operation could not operate.

- demonstration that water for the construction and operation of the development can be obtained from an appropriately authorised and reliable supply in accordance with the operating rules of any relevant Water Sharing Plan (WSP) or water source embargo; and

The submission notes a 33ML gap in water needs in half the years on average and proposes to gain access to an existing agriculture licenced bore and convert it to industrial use.

The problem with this logic is that this entire area is deemed agricultural as it ensures the groundwater and acquifer systems ultimately provide enough water for Sydney. To start changing 'names' to allow more fresh water to be taken from Sydney's supply would be a strange decision.

The other issue is the assumption the gap is only 33ML. With the likelihood of lower rainfall rates the amount of water collected on site will drop leading to significantly greater volumes being needed from agricultural licences. However with less rainfall it is entirely feasible that neighbouring properties will have as much excess capacity to sell off.

The other factor may be as part of the Sydney Water sharing plans that extraction amounts are limited by legislation in coming years, creating a further shortfall in water for the mine operations

From the above it does not appear that there is an adequate plan to ensure sufficient water supply to the site to operate at the proposed levels

- a detailed description of the proposed water management system, water monitoring program and other measures to mitigate surface and groundwater impacts;

The response from the applicant is incomplete to the point of being patronising and insulting.

These strategies include adoption of best-practice guidelines and design standards to prevent pollution of local watercourses and maintain to the greatest extent possible the current discharge regime of local watercourses. In addition, the transport, storage and handling of all chemical products such as fuel, oil and grease would be undertaken in accordance with the relevant codes of practice.

It cannot be acceptable that a plan to prevent the pollution of the Sydney Water catchment is nothing more than stating it will use 'best practice', 'maintain to the greatest extent possible' and adopt 'codes of practice' shows no detail plan, shows little to no interest in the importance of such a plan and infers that if should a plan be 'best practice' and follow standards then that would be sufficient reason to not hold them accountable should pollution flow into the catchment.

Traffic & Transport – including:

- accurate predictions of project-related traffic and a detailed assessment of the potential impacts of project-related traffic on the capacity, safety and efficiency of road networks, including modelling to predict queue lengths and intersection performance; and

The Northbound entry to the highway is on a slight upslope. The length noted in the Traffic assessment (Vol 1, Part 1) impact was 890m and notes that trucks would be merging at safe speed, but this speed is not noted anywhere. The concern is that trucks would be entering at too slow a speed given the gradient and therefore a longer entrance way may be needed. If that is the case the longer entrance way to the expressway may start to cause issues with the exit at Sally's Corner Road. Alternate mitigation strategies may be to limit the size of the trucks to ensure they can reach a safe merge speed.

• Air Quality – including a quantitative assessment of potential:

- construction and operational impacts;

- reasonable and feasible mitigation measures to minimise dust emissions; and

- monitoring and management measures;

• Noise – including a quantitative assessment of potential:

- construction, operational and transport noise impacts;

No noise impacts are mentioned in the transport/traffic study for trucks that will require rapid acceleration that would be needed to enter the Northbound lane of the expressway due to the long incline at the point of entry

At 4-6 it notes that impact of traffic noise is only 1dB at maximum movement of 50 trucks per day. However the time for maximum movements is between 4-6am, peoples sleeping hours, and the noise at the point on entry to the expressway will be louder than passing traffic as the trucks will be accelerating hard to reach a safe merge speed. The combination of the above factors should necessitate proactive noise reduction measures, which could include

- Banning exit hours before 8am

- Smaller trucks and / or less weight per truck

Additionally noise readings to use a baseline have come from properties mostly to the east and south of the property. The modelling for wind conditions takes note of a SE wind in but no baseline studies for noise have been taken for the majority of the properties to the North and West of the property that would be impacted by a lift in noise from when winds are from the SE

- The scenarios mapped out in Section 6 show that likely dB readings during the 3 operations will have noise levels at up to 15dB lower than the maximum thresholds for many properties. What doesn't make sense is that the maximum threshold is measured as the current noise levels plus 5dB. This implies the sound modelling only appears to be for the machinery of the plant and doesn't take into account the existing sounds levels at all the properties.

For example for property R11 it shows in Table 15 a neutral weather condition noise level of 21dB but in Table 5 for property N4 (seen as equivalent of Property r11) all readings are in the range of mid 30's to low 50's. It therefore just doesn't seem to make sense that modelling could show that ADDING noise from mining operations would lower the noise levels.

- Sound proof barriers
- off-site road noise impacts;

- Attention has been paid to properties on the eastern and southern sides of the property likely due to existing freeway noise, extra traffic from truck movements and westerly winds, however no attention has been paid to properties to the north and west of the site. Given what appears to be the inadequate simulation per the above point it would appear that the need to put up barriers to the north and west of the site should also be considered

- reasonable and feasible mitigation measures, including evidence that

- The only thing that appears to be a mitigating strategy is to build the high mounds of dirt as barriers to the east and south. No consideration has been given to limiting truck sizes or movements, offsite processing, enclosed buildings for processing, specific sound dampening equipment for machinery being operated on site

there are no such measures available other than those proposed; and

- monitoring and management measures;

- Monitoring stations need to be set up to the north and west. The company must be ready to undertake a stop work or lessen work approach if sound limits are breached. No mention is made in the submission that the company would halt or limit work until it had a fix.

In addition

No section for vibration but combination of heavy goods, blasting, earthworks and water table disruption could cause issues with the neighbouring Gas pipeline. Mitigation strategies including a bond should be in place to cover any repairs or loss of gas supply to Sydney region. As part of this application being a state significant development, the studies around the potential damage to such a state significant asset must be considered.

• Waste – including:

- accurate estimates of the quantity and nature of the potential waste streams of the development, including waste fines from processing; and

- a description of measures that would be implemented to minimise production of other waste, and ensure that that waste is appropriately managed;

Similar to other responses throughout the submission the applicant refers only to 'best practice' rather than specific actions.

• Hazards – paying particular attention to public safety and bushfires;

Little to no work appears to have covered the following items:

1) With the site to the northwest of the Penrose state forest and the Sydney Gas Pipeline no actions appear to in place to prevent fires from blowing toward these 2 areas. The risks of sparks one would assume to be high given heavy machinery and rock work, so during summer when days are warm and typically hot NW winds dominate there is no plan nor infrastructure to avoid a potentially calamitous fire.

   Mitigation strategy could be to stop all work on site when temperature exceeds 35 degrees for winds below 20km/h and 30 degrees for winds above that speed

   Additionally water storage, pumps etc on site

2) Given the known risks of silicosis and the majority of the southern highlands population being to the Northeast of the site, the long term health impacts of an open sand mine with open air blasting, cutting, sawing, storing, haulage needs to be addressed. The

conclusions drawn from the AWS installed on the site to make this recommendation though must be looked at in more detail.

For example the placement of the weather station in the SE corner of the site is entirely the wrong place as the storage of fines is in the NE corner of the site sitting in what appears to be the highest point of the site and would thus be far more exposed to winds

Additionally the quarry is mostly in the western half of the site. Furthermore the measure would have been taken with a full 'forest' of the existing site to the west thus further effecting the measurement of wind speed and direction. Finally, the submission notes that the equipment whilst installed in 2012 was only able to provide date for a 12 month period in 2014/15. (See 8-28).

Therefore to take a one off year and assume it to be the 'average' in locations that are not aligned to where the extraction and storage will take place means the data must be treated as incomplete at best and entirely invalid at worst.

• Social & Economic – including an assessment of the:

- potential impacts on local and regional communities, including impacts on social amenity;

- a detailed description of the measures that would be implemented to minimise the adverse social and economic impacts of the project, including any infrastructure improvements or contributions and/or voluntary planning agreement or similar mechanism; and

- a detailed assessment of the costs and benefits of the development as a whole, and whether it would result in a net benefit for the NSW community; and

The applicant has positioned this proposal as being necessary for the supply of building sand to the Sydney Basin region. Whilst it is absolutely true that Sydney needs this sand supply what is even more clear is that that this proposal would be entirely insufficient in size to make any material difference to Sydney over the medium to long term given the size of existing proven reserves already outlined in this response. As such there is not net benefit to the NSW community

Of greater concern to the NSW community would the approval of this application. The reasons are numerous but can be summarised as follows:

1). Approving mines in such close proximity to Sydney's water catchment streams would set dangerous precedents

2). Not utilising existing developed areas for mining activities (Lithgow) would not be utilising existing state assets and skill sets

3). No clear design principles in place to prevent this site from being a dumping ground once mining activities cease, creating further uncertainty around polluting water for Sydney

4). The application has chosen to use deliberately favourable date to support its arguments, by using 100+year averages for rainfall but only 12months of a possible 42 months from its own weather station (which was placed in the incorrect place)

5). The applicant is fundamentally seeking24x7 rights to engage in business which with noise, light, vibration would set a troubling example for the whole NSW community.

• Rehabilitation – including the proposed rehabilitation strategy for the site, having regard to the key principles in the Strategic Framework for Mine Closure, including:

- rehabilitation objectives, methodology, monitoring programs, performance standards and proposed completion criteria;

- nominated final land use, having regard to any relevant strategic land use planning or resource management plans or policies; and

- the potential for integrating this strategy with any other rehabilitation and/or offset strategies in the region.

A substantially more detailed plan is required. Of significant concern is simply, what will fill the hole, how will it be transported there, is it compatible with the current environment?