

My name is Jamie Kelly, and I live at [REDACTED] Cabbage Tree Road, Williamstown, approximately 500m from the proposed entry to the Sand mine. I own my house, along with my wife Samantha Kelly, and our 6 week old son William James. I am a Mechatronic Engineer, and I have some important concerns regarding the environmental impacts of the proposed sand mine which are NOT adequately addressed by the EIS submitted by the proponent. In this submission I identify multiple key areas of concern, each of which are equally important and critical as to why the project should not proceed in its current form. I have summarised my objections into major areas of concern, which include the impacts the mine will have on local water and in turn how this might affect the emerging contamination issue present in the area, the effects on public health and safety which includes dust, noise and traffic issues, and the effect on the local natural environment, such as the disruption of habitats of the endangered Koala population and other species. There are also issues to do with the nature of the tender process which I believe should also be subject to examination but these are outside the scope of the EIS review.

#### 1. Water and contamination

The EIS submitted has attempted to alleviate concerns about possible effects of the sand mine on the local hydrology, by making the claim that provided that final level of the mine is left at minimum 75cm above the 'maximum predicted water table' there should be no significant effect on ground water or surface water. This concerns me greatly, as having lived in the area for a period of over 5 years, and having spoken to other members of the community with much longer experience here, the area is prone to localised flooding and dramatic changes in the water table. The importance of the local ground water is very critical, both to local use of the bores for irrigation and more importantly as a catchment area for the local water supply. The claim that the loss of vegetation and removal of a significant amount of filtration material will have no effect on local hydrology does not appear to take into account any of the factors specific to the site, and is drawn from conclusions from other areas without the same local factors.

In our time living on Cabbage Tree road we have experienced more than 3 significant flooding events in the past 18 months, where water has risen significantly, overloading the local network of drains, and very nearly causing water to enter our house (the water came to within 1m of the front and back entrances). The sand mine is likely to cause major changes to the area's ability to cope with flooding, and the removal of vegetation may actually cause the water table to rise due to the loss of the evaporative capacity of the trees that have been removed. The EIS indicates that a minimum of effort was put into the studying of the local hydrology, in particular with respect to the typical variations in the water table that occur during times of peak rainfall, and an estimated level was taken with very few data points taken. We request that the project be rejected until a much more comprehensive study of the water table be undertaken as a bare minimum before it can be determined what the effect of the mine will be on local hydrology.

The impact that mines changes local water movement will be compounded greatly by the most recently revealed contamination scandal of perfluorochemicals PFOS and PFOA which are of great concern to my family. As a new father, I am very worried about the possible health effects on my young son William of contamination of the local ground and surface water. To summarise the issue, there has been evidence released by the Department of Defence and the Environmental Protection Agency that PFOS and PFOA have been released from the Williamstown airbase into the local environment and has spread to a significant area as indicated by the 'red zone', which our property and the proposed sand mine both lie inside. The chemicals have significant potential health risks, and are currently being spread by the movements of ground water and surface water in the area. The EIS makes NO reference to this issue, no modelling of the effects the mine may have on the

movement of ground and surface water are made, and on this matter alone I would recommend that the proposal be rejected on public health concerns until a comprehensive study of this issue is complete. The contamination is currently NOT under control and EPA has reported that it continues to leach off the base and spread into the local environment. Any developments inside the area with a potential to exacerbate the issue by spreading the chemical further should be suspended until they can be assessed for their effect on surface water and ground water movement.

## 2. Public health and safety -> Noise, Traffic

The proposed sand mine has some significant concerns around the safety of the public who reside and travel in the local area, as well as the potential to cause significant long term health effects. This concerns me greatly as the father of a new child, who may be exposed to increased levels of noise and dust (in addition to the water contamination issue raised above).

### 2.1 Noise

With regards to noise, there is already a concern about the level of heavy vehicle movement and associated noise in the local area, and the additional loading and transport of heavy vehicles will only exacerbate this, despite modelling claims in the EIS which I believe are based on overly generous assumptions. The hours of operation of the sand mine are NOT limited to business hours, with commencement of activities from 5am to 7pm Monday to Friday, and 7am to 5pm on Saturdays. This includes the peak hours of travel, times when we will be transporting our child to school, and traveling to and from work. This will also be times when our child will be sleeping and likely to be disturbed by the additional noise. There is a statement in the EIS which claims that because the site is not operating at night, there is no need to be assessed against the sleep disturbance. Residents such as ourselves WILL however still be sleeping during the hours of operation as many people will still be asleep at this time of the morning. The street has many residents with young infants and the quality of their sleep will also be affected. I submit that the noise requirements need to be re-evaluated against more stringent criteria, or alternatively the project be rejected until more reasonable hours of operation of heavy vehicles and machinery be agreed to.

The EIS also makes no reference to the effect the removal of the sand beds may have on the aircraft noise from the nearby RAF base. The Department of Defence is proceeding with locating the new Joint Strike Fighters they have purchased at the Williamstown base, and the local geology is critical to insulating the residents from the runway noise. The proponents should be required to model the effect the removal of the sand hills will have on noise from the aircraft.

As a very minimum, we would require that the proponent provide funds for local residents to install noise barriers as needed in their properties, such as planting trees along the front boundary of our property.

### 2.2 Traffic and Safety

The introduction of a busy intersection on cabbage tree road where heavy trucks will turn onto and off the main road is likely to cause considerable risk and disruption to the flow of traffic. The road is 90 km/hr, single lane with minimal shoulder and is often poorly maintained. In periods of even light rain, it is common for water to pool in the tire marks from existing heavy vehicle movement, which can lead to aquaplaning and accidents. Even in dry conditions, I have had near-misses driving my car when attempting to pull into my drive way as visibility is poor, and you are required to slow to a very slow speed to make the turn into residential drive ways. Additional heavy vehicles filled with sand

travelling 80-90 kph will mean even more risk for local residents. The traffic mitigation strategies mentioned in the EIS do not adequately address this risk.

The EIS makes a claim that no cycling infrastructure is present in the area, but I myself am an avid cyclist and know of many cycling groups which use cabbage tree road to travel between Heatherbrae and Nelsons bay. The existing road already contains risks due to the inadequacy of the shoulder, roughness of the surface and speed and size of the vehicle traffic. Introducing further heavy vehicles to travel along Cabbage Tree road should require significant upgrades to the roads safety in order to proceed. At minimum the road should be resurfaced and periodically maintained due to the wear and tear of the heavy vehicles, a cost of which will greatly exceed the proposed amount. There should be a minimum 2m shoulder built on BOTH sides of cabbage tree road along its entirety to allow cycling to continue safely and for cars when they are turning into their drive ways without fear of being run over by a fast moving truck.

### 3. Local Ecology

The effect the sand mine will have on the local ecology, in particular endangered species such as the Koala and the Earp's Gum which are both listed as threatened species and in the EIS assessments own words:

#### **4.4.4 Assessment conclusion**

**The assessment of significance concludes that the Project is likely to have a significant impact on two threatened species listed under the EPBC Act. A referral to the Commonwealth will be prepared to address likely impact on matters of MNES. The Project will therefore require further consideration under the provisions of the EPBC Act. It is anticipated that biodiversity offsets could be required to compensate for potential significant impacts on certain MNES.**

The idea that the proponents can 'compensate' for the further threatening of endangered species in the local area is reprehensible. The EIS does NOT provide adequate provisions to prevent the serious threat to these species and on this fact alone should not be allowed to proceed. The local wild life is essential to the vitality and biodiversity of the Port Stevens area. In particular the local Koala population which the assessment demonstrates WILL be seriously affected by the sand mine, has been identified as of national significance. A green zone around the area has been established to prevent further loss of habitat and the proposed solution of maintaining a small, unconnected patch of trees in amongst the heavy equipment and deforested area is in NO WAY adequate to minimise the damage. The community has had multiple meetings regarding the local environment and there is a strong consensus that this project be rejected purely on this section alone.

As a VERY MINIMUM, the project size should be considerably adjusted to remove ANY removal of habitat for the threatened species. Further consultation with appropriate local bodies with concerns around the Koala population, such as the Hunter Koala Preservation Society which have more experience and knowledge should be conducted and their approval sort before the project be allowed to continue.

### 4. Community consultation and other concerns

The proposed sand mine in its current form will have a considerable impact on many areas of the local environment, some of which I have already described. The proponent has been very poor in their consultation with the community. The door knocking only occurred in a very brief period when any house hold with residents who worked normal business hours being away. The EIS includes a

survey which I was never made aware of, and it is obvious from the VERY small number of responses was not adequately circulated or publicised. The ESI section on social impact only conducted face to face interviews with 16 people from the local community and since that time the Williamstown and Surrounds Residents Action Group has organised meetings at which over 100 local residents attended to voice their concerns. There is likely to be a significant number of objections submitted to the EIS owing the lack of due diligence applied by the proponent in designing their project. I would submit that the proponent engage in some proper community consultation, document the findings properly and re-submit their project with the communities concerns addressed properly. Its notable that even amongst the small sample of residents many of my concerns have been raised, and as I have discussed have not been addressed by the EIS.

I have other concerns which I would like to mention, including the potential health effects of silicon dust, the potential for interruption of aboriginal heritage land, the visual impact it may have from ours and other nearby properties and the potential effect financially on our property value and the local economy. Each of these need to be address more adequately than the EIS as it currently stands. As a member of the Williamstown and Surrounds Resident Action Group, these are detailed in a community submission and I'd like to add my voice to their concerns.

#### Conclusions:

These issues, as well as others which have been outline in community meetings and other peoples submissions which discuss the potential for this project to impact negatively and irrevocably on our local environment. There is a potential for serious public safety issues, particularly given that a serious contamination scare is only just emerged directly where the mine and our house are located. The traffic issues need to be specifically addressed in much greater detail as the road is already dangerous and the proposed changes only address a very small number of the issues created. And the environmental impacts alone, particularly given the national importance of endangered species such as the Koala, should be enough to reject the project in its current form. I would ask that the proponents be asked to address each of these issues. The benefits to the local community are minimal, especially considering that only a very small number of local jobs will be created. At very minimum, I would ask that the sand mine plans be scaled back, with the amount of area mined be reduced until no endangered species are threatened by the development, and include adequate improvements to the road for public safety (a 2m shoulder on either side of Cabbage tree road is minimum). Also noise and dust barriers should be installed by the proponent for each of the local residents' properties.