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The Hon. Brad Hazzard MP  
Minister for Planning  
NSW

**Vaughan submission in objection to State Significant Development Application 5144 (Development)  
Mandalong Southern Extension of Centennial Mandalong Pty Ltd (Centennial)**

We act on behalf of Gillian and Barry Vaughan and are instructed to make this submission in objection to the Development on their behalf.

This is a submission made pursuant to s89F of the Environmental Planning and Assessment Act 1979 (NSW) (**EP&A Act**) on behalf of Barry and Gillian Vaughan (**Vaughans**), owners of 247 Toefers Road, Wyee, NSW, (**Property**), the closest property to the Mandalong South Surface Site (**MSSS**) and underneath which the long wall mining is proposed. Pursuant to s89F(3) the basis of the Vaughans objection to the Development is as follows:

- (i) The construction noise for the MSSS facilities including 2 large ventilation fans, is predicted to be 55dB (A). The construction period is predicted to run for 2.5 years 7am-6pm Monday to Friday and 8am-1pm Saturdays. This will have a very significant adverse impact on the ability of the Vaughans to run their Rainbows Reach Retreat business (**Retreat**) on the Property. It will have a significant impact on the Vaughans quiet enjoyment of their Property. This increase in noise is at least 28dB(A) above existing background noise levels, or more than 4 times as loud as existing background levels;
- (ii) The ventilation shaft drilling and construction of the ventilation fans noise is predicted at between 34dB(A) and 36dB(A). The ventilation shaft drilling and construction of the ventilation fans is proposed to take place 24 hours a day, 7 days a week, for a period of 1.5 years. The shafts will supply the 2 x 3 storey ventilation fans with air from the longwall mining that is to occur across all of exploration licence area 6317, being 4467 ha. This noise will be concurrent with the construction noise set out in paragraph (i) above. The air is to be ventilated at 500m/s in an east noreast direction. This additional noise will have a significant adverse impact on the ability of the Vaughans to run their Retreat on the Property. This noise is considered to be almost twice as much as existing background noise levels at the Retreat;
- (iii) The operational noise of the Development will increase the background ambient noise levels at least 4dB (A) above the current background ambient noise levels. This will be for the operation of the mine, 21 years. This will adversely impact upon the operation of the Retreat compared to its current operation;

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Sunday, 8 December 2013

- (iv) The 2 proposed ventilation fans are predicted to have odour exceedances. The Vaughans Property is situated almost directly south of the MSS Site. A northerly wind will blow these odours over the Property. These odours are incompatible with the running of a retreat and will adversely impact the Retreat and the Vaughans general amenity;
- (v) The Development's mine plan will result in longwall mining under the entire Property. The Vaughans significant improvements on the Property will be adversely impacted by any subsidence, including their principal dwelling house and guest lodge, barn, shed dams, meditation room and other improvements; and
- (vi) The Development's construction and mining operations under the Vaughan's Property will also presumably cause vibrations which will adversely impact upon the Vaughans amenity and the running of the Retreat.

The Vaughans request that development consent not be granted. However if it is, they request that at the earliest opportunity, their Property and business be acquired by Centennial at market value determined in 2009. Further, that the Vaughans seek to be compensated for disturbance which the re-establishment of their business to another location will cause, and that relocation costs and all legal and related expert fees in relation to this objection and the acquisition be paid by Centennial.

Objections (i), (ii) and (iv) are dealt with in more detail below.

## **1 Background: Vaughans and Rainbows Reach Retreat**

The Vaughans acquired the Property in 1998 specifically for the purpose of running a nature/spiritual retreat completely removed from urban life and its stresses, for groups of up to 30 people. The Retreat provides accommodation and services to individuals and groups wishing to participate in meditation, yoga, re-birthing, healing and massage. Workshops are run throughout the year focused around these practices. This Retreat business has been very successful. It has operated at a profit for the last 15 years and the Vaughans have had more than 2000 people staying at the Retreat over that period.

The Retreat is situated within pristine bushland and is fully self sustainable, in so far as use of water, energy and waste. The Property consists of 77 acres, which, with the exception of possibly less than 7 acres, is native bushland, as removed as possible from any urban, industrial or rural noise. The closest public road is 3 kms away, the closest neighbour is 565m away. The closest urban centre is Durren Durren 3.6kms away. The Vaughans currently are unaffected by the operation of the Mandalong mine. Attachment 1 contains google earth photos of the relative position of and infrastructure at the Retreat. Not unsurprisingly, the Retreat business is very sensitive to any and even barely audible intrusive noise, particularly if that noise is incompatible or contrasting with the noises found in the surrounding native bushland.

At a retreat such as this, there is an expectation that there will be very low noise levels. Attachment 2 is a photo of the meditation room which sits open on the central lawn. Attachment 3 is a photo of that lawn. Attachment 4 is a compilation of photos of some of the activities run at the Retreat. Attachment 5 is a copy of the material that is currently on the Retreat website [www.rainbowsreachretreat.com.au](http://www.rainbowsreachretreat.com.au) and sets out the upcoming events to be run from November 2013 to January 2014.

The Vaughans submit the Retreat business and the Property are intimately related, and cannot be separated without significant diminution in value of both, as a hotel is intimately related to the land upon which it is situated. In normal market conditions, this Property would be sold as an operating business, like a hotel business. The Property was valued in 2009 at \$1.5m. Attachment 6 is a copy of the Sales Inspection Report undertaken by the local real estate agent where he advises the Vaughans to set the price of the Property at \$1.5m. The Property was valued again in 2013 by Centennial. Although the Vaughans did not see that valuation, Centennial advised the Vaughans over the phone that the Property and the business were valued at \$1,045,000 and gave a break down of the respective values. The Vaughans reject those respective values. Attachment 7 sets out contemporaneous notes of that conversation with Centennial made by Gillian Vaughan.

The Property is located within Exploration Licence 6317 and the Centennial's proposed Southern Extension Area and within 800m of the proposed Mandalong South Surface Site. Attachment 12 is Figure A on p.2 of the Centennial Executive Summary of the Environmental Impact Statement (EIS), showing the project area and the Property marked as "x". The Property is the closest property to the proposed Mandalong South Surface Site and is anticipated to be the most affected by the Development.

## **2 Centennial's Mandalong mine**

In 1998, Centennial obtained development consent with conditions to develop the Mandalong Mine as a long wall coal mine [DA97/800] some 8-15 kms away from the Vaughans Property. This was the same year, and unbeknownst to them, that the Vaughans bought the Property and commenced the Retreat business. In 2005, Centennial acquired EL6317 which overlapped the Vaughans Property. Attachment 12 shows the Mandalong Mine's existing and proposed activities and the position of the Vaughan's Property.

Since 1998, Centennial has developed the Mandalong Mine and sought 7 modifications to the development consent conditions. Currently, the closest surface operations to the Vaughan Property are approximately 8kms [Mandalong mine access site] and 15kms [Cooranbong Entry Site] as the crow flies.

The existing relevant development consent conditions in DA97/800 in relation to noise and vibration in the construction and operations phases are set out in Attachment 13, being conditions 43 and 44 respectively.

In 2011, Centennial sought to increase the mine's overall noise criteria. We note that the Planning Assessment Commission while approving new "development" noise levels, left condition 43 in relation to noise levels for construction phase unamended.

The current development consent conditions require the existing operations be regularly audited. The *URS Report Mandalong Mine Independent Environmental Audit 13 May 2013*<sup>1</sup>, states that Centennial is non compliant in relation to almost all aspects of noise compliance. Attachment 14 includes pages of that audit which set out Centennial's current non compliance.

## **3 Centennial's Southern Extension Project - Construction noises**

The Construction phase is stated to run for 2.5 years<sup>2</sup> commencing in 2016 and completed in phases. The construction will include the construction of the access road, the ventilation shafts for 2 ventilation fans, the ventilation fans and additional site infrastructure and servicing. With the exception of the ventilation shafts, it is proposed that construction activity will occur between 7am and 6pm Monday to Friday and 8.00am to 1pm Saturdays. The excavation and construction of the ventilation shafts and construction of the fans however will be conducted 24 hours a day 7 days a week and take up to 78 weeks [or 1.5 years].

The predicated general construction noise level is 55dBA, being 28dBA above the current background noise levels [55dBA - 27dBA = 28dBA]. This is the equivalent of over 4 times the existing background noise level and clearly unacceptable to the Vaughans. Attachment 15 sets out noise criteria and the perception of dBs. Attachment 16 is Table 54 of the EIS setting out the predicted construction noise at R20, which is the Vaughans Property at 55dBA.

The predicted construction noise for the ventilation fans shafts and construction of the fans is between 34dBA to 36dBA, being between 7 and 9dBA above Vaughan Property background levels 24 hours a day 7 days a week. According to the table in Attachment 15, this will make a change in perceived loudness to twice

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<sup>1</sup> Unfortunately the printing has not captured the whole page, however the URL to the report is here: <http://www.centennialcoal.com.au/~media/Files/Mandalong%20documents/Independent%20Audit/Mandalong%20Independent%20Environment%20Audit%202013.ashx>

<sup>2</sup> EIS para 4.13.2 see <https://majorprojects.affinitylive.com/public/dbffc4df1cecdde499610de29968f768/04.%20Mandalong%20Southern%20Extension%20%20EIS%20%20Section%204%20%20The%20Project.pdf>

as loud. Attachment 17 is a scan of a page in the EIS which provides that as part of the construction phase, the ventilation shaft for the 2 ventilation fans will occur over a period of 78 weeks.

The Vaughans submit they will be the worst affected by the noise. Attachment 18 is a diagram of the noise impression from construction on the landscape. The Vaughans Property is in the direct line of fire of the noise.

These construction noises will not only be intrusive, they will increase the background amenity noise level substantially and they will be annoying noises, excavating noises, such as: continuous operation of drill rig, hydraulic pumps operating continuously, compressor, excavator, telehandler and mobile crane 50% of the time, presumably the excavation of the shafts will involve dropping rocks into empty trucks, trucks reverse beeping, truck accelerating, banging, crashing, droning of trucks, revving, changing gears, drill hammering. Attachment 19 is the page of the EIS dealing with the shaft sinking noises. None of these noises are currently part of the noises at the Retreat and are incompatible with the operation of a Retreat. They will adversely impact upon the operation of the Retreat, of the Property's existing land use.

#### **4 Issues with the EIS Noise Impact Statement: Overstating background levels, Incorrect placement of noise loggers and readings during excessive extraneous noise**

##### **4.1 INP is not applicable to set limits on construction noise**

The EIS contains a Noise Impact Statement in Appendix R of the EIS (**NIS**). The NIS overstates existing ambient levels at the Vaughans by setting them as <30dBA. The Department has advised the Vaughans that this is what is provided in the Interim Noise Policy 2000 (NSW) (**INP**). The EPA has referred the Vaughans to page 24 of the INP last paragraph column 1 in the definition of the background rating level "*where the rating background level is found to be less than 30 dB(A), then it is set to 30dB(A)*". We note however, the INP does NOT apply to construction noise, see paragraph 1.3<sup>3</sup> of the INP.

The Vaughans submit, for the purpose of assessing the noise limits for the construction phase of the Development, the actual existing background noise levels at the Vaughans Property must be taken.

##### **4.2 Overstating existing background noise levels elevates noise limits**

In fact, the background noise levels at the Vaughans' Property are significantly less than 30dB and are between 24dB and 27dB (see Attachment 11 readings taken on 20 June 2012). Overstating the background levels results in the project specific limits on noise being higher than they should be<sup>4</sup>. This was pointed out by Chief Justice Preston in the case of *Bulga Milbrodale Progress Association Inc v Minister for Planning and Infrastructure and Warkworth Mining Limited* [2013] NSWLEC 48 [**Warkworth Case**]. The Chief Judge rejected the analysis of starting at higher than existing background levels because it results in the project specific noise levels being increased. Effectively the Chief Judge noted the proposed project noise limits were "increased to equate with the predicted noise levels for the project" at [327]. At [328] the Chief Judge provides "In my view, these greater noise impacts are unacceptable."

The Chief Judge continued

*"A second consequence flows from the setting of noise limits at too high levels. If the noise limits were to be reduced to the levels that would result from the application of the INP, more extensive noise mitigation strategies would be required. In particular many more properties would need to have mitigation works undertaken, such as insulation, double glazing of windows and air conditioning, or be acquired by Warkworth."*

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<sup>3</sup> [http://www.environment.nsw.gov.au/resources/noise/ind\\_noise.pdf](http://www.environment.nsw.gov.au/resources/noise/ind_noise.pdf)

<sup>4</sup> *Bulga Milbrodale Progress Association Inc v Minister for Planning and Infrastructure and Warkworth Mining Limited* [2013] NSWLEC 48 at [327]

### 4.3 INP and the particular land use characteristics of the Retreat

The NSW Industrial Noise Policy suggests a method of noise management and starts with the assessment of noise levels for intrusiveness and amenity. Intrusiveness objective is to control intrusive noise impacts for residents. Amenity objective is to protect and maintain noise level amenity for particular land uses for residences and other land uses.

The land use at the Retreat is meditation, yoga, healing. The Retreat requires quiet. The land use at the Property is not "rural", "suburban", urban" or "industrial", the land use is essentially for meditation or as a retreat. As such, the Vaughans submit references to amenity criteria of "rural" in the NIS in relation to their Property of the Retreat are inappropriate and a misrepresentation of the Vaughans' "land use" and consequently the amenity noise criteria. The common noises on rural properties include machinery running such as generators, tractors, slashing, vehicles, motor bikes, quad bikes, they have working dogs, farm animals. None of these noises are currently present at the Retreat or would ever be normally present at the Retreat. The INP frequently refers to the need to refer to the actual land use.

The Vaughans submit the actual land use of the Property has not been taken into account in the EIS. The Vaughans Property has been described as a sensitive receiver however the actual characteristics of the Retreat have not been taken into account in the NIS to evaluate the acceptability of the Development. Chief Justice Preston states in Warkworth at [338]:

*Finally, there should be an evaluation of the acceptability of the residual noise impacts. The evaluation of acceptability should take into account:*

*(a) characteristics of the area and receivers likely to be affected, such as the extent of the areas and the numbers of receivers likely to be affected by noise level above the project-specific noise levels, the daily activities of the community (in particular, effects such as sleep disturbance and level of annoyance), the potential change in the ambient noise level as a result of the Project, cumulative noise impacts in the area, and whether parts of the area that are already moderately or badly affected by noise will be more affected;*

*(b) characteristics of the project and its noise, such as the noise characteristics of the activity, the extent to which any remaining noise impact exceeds the project-specific noise levels, the circumstances and times when the project-specific noise levels are likely to be exceeded, the circumstances and times when the source noise levels are likely to be below the project-specific noise levels (for example when wind blows source noise away from the receiver), the accuracy with which impacts can be predicted and the likelihood that the impacts will occur in the manner predicted, and the economic benefit and social worth of the project for the local area, the region or the nation;*

*(c) the feasibility of additional mitigation or management measures; and*

*(d) equity issues in relation to the costs borne by some for the benefit of others, the long term cumulative increase in noise levels, and the opportunity to compensate effectively those affected (INP, 8.2.1, pp 43-44).*

None of the matters raised for evaluation have been touched upon in the NIS. There is insufficient information in the NIS to assess any of these factors. However, if the actual background levels of noise and actual amenity criteria were applied to the Vaughans, the predicted project noises both in construction and operation will result in a very significant adverse impact on the Vaughans and their ability to run their Retreat as it has been run to date.

### 4.4 Noise monitoring done during a period when the Vaughans constructing a shelter

The Vaughans submit the readings taken at their Property were not taken in accordance with the requirements of the INP. The readings were taken at the same time the Vaughans were undertaking renovations at the Retreat. The generator was on over night to charge the power tools which were used during the day. Attachment 8 are photos taken during the renovations with times dated on the photos. Only on 15 and 20 June 2013 were no renovations taking place. The noise readings reflect this in Attachment 11 with the average background levels (the green line) between 24dBA and 31dBA for these 2 days.

#### **4.5 Noise monitoring equipment placement and consequent noise data misrepresentative**

The Vaughans submit the noise readings taken at their Property are not representative of the actual background noise. The noise logger was placed amongst the trees on the boundary of the Property. Attachment 9 is a photo showing the placement of the noise logger in the middle of small trees, surrounded by larger trees on the boundary of the Property (See red cross on the photo in Attachment 9). The INP specifically states in Appendix B at p68 that

***“noise loggers should be sited as far away from trees as practicable to avoid noise produced by wind blowing through foliage”***

Attachment 10 is a copy of the relevant page of the INP. The noise logger could have been placed in the open away from the trees, for example on the lawn or at a place on the boundary where there were no trees. It is interesting to note that the NIS readings of noise at the Property show substantially increased noise readings when the wind is greater, and substantially less noise that is between 24dBa and 30dBA when the wind is at 0m/s (See Attachment 11).

#### **4.6 Noise monitoring methodology fundamentally flawed**

The Vaughans submit as a matter of common sense the noise monitoring methodology appears to be fundamentally flawed.

- Table 8 of the NIS (Attachment 28) sets out no actual background noise readings, we submit relevant to setting construction noise limits.
- The measure of LAeq (Period) is flawed as the logger was placed in the trees.
- There is no existing discernible industrial noise at NM5 (the Vaughans) (as set out in Table 9), yet despite this, Table 8 sets out “estimated existing industrial noise” levels at <44, <39 and <34 when there is no industrial noise discernible. We submit no figure should be set as “existing industrial noise”, as there is no “existing industrial noise”.
- The Vaughans also query Table 9’s statement that there is “no existing industrial noise” because, as stated, renovations were taking place at the Retreat between 16-23 June 2012, when the noise was logged.

The NIS undertook noise monitoring at 5 locations. Two of these locations are so far away as to be irrelevant to MSSS, but are relevant to MMAS (NM1 and NM2). NM3 is situated next door to Centennial’s current site office and approximately 3.5 kilometers away from the MSSS. NM4 is currently being investigated and NM5, the Vaughans, which is the closest of the noise monitors to the MSSS was set amongst as much foliage as possible. These locations compared with the MSSS are set out in Attachment 26 google earth shot.

The Vaughans submit, the noise data in the EIS NIS is not representative of the background noise at the Property. For the EIS to be properly evaluated, the EIS should contain noise baseline data at each of the sensitive receptors set out in Figure 4 of the NIS (Attachment 27) and taken in accordance with the INP guidelines for the placing of noise loggers.

In summary, the Vaughans submit the Noise Impact Statement has serious misgivings and cannot be relied upon to properly assess the background noise levels at the Vaughans’ Property, or the impact of the construction phase or the operational phase on the Vaughans or their existing land use. The Vaughans submit the Development is likely to seriously adversely affect the operation of the Retreat as a Retreat and their general amenity at the Property.

### **5 Mitigation strategies of little assistance to the Vaughans**

None of the standard noise mitigation strategies: at the source; in transmission; or at the receiver, proposed by Centennial in its EIS will assist the Vaughans in running their business as it currently is run.

The Vaughans submit the temporary barrier will do little to reduce the noise levels of the Development. They further submit they do not understand the logic of the predicted noise levels with the barrier installed as

reducing the level by 1dBA at night but with no change during the day. The Warkworth case at para [238] indicates that a barrier, in the Warkworth case a ridge side, was generally insufficient to reduce noise, and at para [284] notes the best buffer is distance. The Retreat is only 800m from the proposed Mandalong South construction site. Further, a number of the activities at the Retreat are carried on outside and a feature of the Retreat is its self sustainability, air conditioning and air conditioner noise is contrary to that philosophy.

## **6 Odour problem**

The Vaughans submit they have concerns about the potential odours caused by the Development and predicted to be present during the operations phase. The EIS states that odour “concentrations were predicted to exceed the criteria at 8 sensitive receptors during all scenarios”: Attachment 20. The exceedances are due to the operation of the ventilation fans. References are made to existing odours being “chicken manure, wheetbix and bushfire”. These are related to sites along Mandalong Road and in no way reflect the prevailing odour at the Retreat, which is that of pristine bushland and has no existing artificial odours. Yet no odour monitoring data has been taken from the Vaughans Property.

The Vaughans request that odour monitoring data be taken from their property before the Development commences.

During the operation phase, this odour will presumably become a significant nuisance for the Retreat and the amenity of the Retreat, particularly in northerly winds.

There has also been some inconsistency in relation to communications with the Vaughans in relation to the size of the ventilation fans. The Vaughans were told the 2 ventilation fans at MSSS would be 20% bigger than those at MMAS. They were subsequently told the fans would be the same size. There is insufficient detail in the EIS to understand the size or nature of the ventilation fans. Certainly the size of the fans may have a significant effect on the odour vented from the fans and one questions the modelling if the fans are to be bigger than those at MMAS.

## **7 Untenable position**

Centennial has left the Vaughans in an untenable position, being now unable to sell the Property and the business because of the imminent extension of the mine in close proximity with their Property, in fact, neighbours of their Property. From 2009 the Vaughans have been prevaricating in relation to selling the Property and since then have twice put the Property on the market for sale. Due to discussions with Centennial they have twice taken the Property off the market, to have Centennial change their offer to in each case be something less than formerly discussed. This now leaves the Vaughans in an untenable position as they now cannot find a buyer for the Property due to the imminent expansion of the mine which has also undermined the value of the Property quite substantially since the 2009 valuation of \$1.5m, Centennial initially offered \$820,000 for the Property. Then subsequently offered only to buy the business, then changed the time frame of the offer to buy the business such that the Vaughans were locked into staying at the Property for the next 6 years, and unable to sell or object to the Development or seek acquisition should that be available to them. Attachments 21-25 set out the history of these unsatisfactory negotiations.

None of the offers made to date by Centennial reflect the market value given to the Property in 2009.

## **8 If Development consent is granted**

If development consent is granted, the Vaughans request that the conditions of consent require Centennial to compensate the Vaughans for the loss they have already sustained and as follows:

1. acquire the Property and the existing use of the Property, the Vaughans' business run on it, at market value;
2. pay the relocation costs of the Vaughans;
3. pay a disturbance cost; and
4. pay the Vaughans reasonable legal costs for obtaining advice and expert witnesses,

within 6 months of the granting of development consent.

### **In conclusion**

The Vaughans object to the proposed Development Application SSD5144.

The Vaughans reject the noise analysis in the EIS particularly for the construction phase.

Further, the Vaughans submit there are serious issues with the noise monitoring undertaken at the Vaughans Property, setting the noise logger amongst the trees resulting in elevated noise levels, inconsistent with the recommendations of the INP to place noise loggers as far as possible away from trees to avoid foliage noise. Other issues with the noise readings at the Vaughans are that they were taken when the Vaughans were undertaking renovations at the Retreat.

Nevertheless, even with these anomalies in the noise monitoring, the predicted construction and operation noise is well above actual background levels. This will result in both intrusive noise and an increase in amenity noise at the Retreat. The Vaughans submit such increases will significantly adversely impact upon the Vaughans ability to continue to operate the Property as a Retreat and their general amenity. Without this business the Vaughans are left with no income and the Property is of little use to them without the business which is run on it. In these circumstances, the Vaughans object to the granting of development consent. However, if the consent authority was to grant development consent, the Vaughans request that their Property with its business be acquired by Centennial at the market value recommended in 2009 and as set out in paragraph 8.