Friday, 29th January, 2021

Submission by Rachel Webster, Resident of Nundle, NSW

Development Title: Hills of Gold Wind Farm

Application Number SSD-9679

Part 1. Objection to Traffic and Transport Assessment, Appendix G

Background

I am a Nundle resident living on Oakenville Creek Road, 1km from Nundle. I also own an Airbnb property on Shorten's Lane, 1km further away from Nundle along Oakenville Creek Road. I commute to work in Tamworth on Monday and Wednesday via the Nundle Road, and to Quirindi along Lindsay's Gap Road and New England Highway, once per week. Our family also frequently travels to Hanging Rock via Barry Road for recreation activities, 2-3 times per week. My partner Jeff Gibson (see separate submission), travels all over the Nundle district for his job as a Shearer, utilising all of the roads listed in Appendix G as transport routes. As a family, we often walk or run into around Nundle township from Oakenville Creek Road, along Oakenville Street/Barry Road or via Happy Valley Road as a form of exercise and recreation. Sometimes this will include pushing our 2 year old in a pram and/or walking with our 2 dogs. I have guests utilising my Shorten's Lane Property as accommodation on average 3 days/week. My concerns with regard to traffic and associated impacts, is also on behalf of and in consideration of my Airbnb guests.

My Key Concerns:

- Increased traffic and the nature of the vehicles using the proposed transport routes will reduce the quality of the road surface, especially Nundle Rd (Nundle to Tamworth) resulting in increased likelihood of accidents
- Accumulated traffic on Nundle, Barry, and Lindsays Gap Roads will have the following impacts: reduced safety for pedestrians around Nundle village, increased travel times for commuters and residents, increased risk of accidents, road rage and traffic-related stress/frustration
- The appeal of Nundle as a primary tourist destination for the North West region, is that it is a quiet, quaint village which provides an escape from the bustle of metropolitan areas. This project will irreversibly change the nature of this sleepy village, to a busy thoroughfare and reduce its value as a tourist destination.
- As an Airbnb host, the most common comment of guests is that this is a "peaceful", "rustic" town with unique natural beauty, that reflects a "simple life". Many guests report

that they enjoy the "easy" stroll into Nundle Village along Oakenville Road into Oakenville Street/Barry Road. Increased traffic and associated new infrastructure will make the country roads no longer safe for pedestrians and remove the enjoyment for city folk who rarely get to experience a stroll down a quiet country lane.

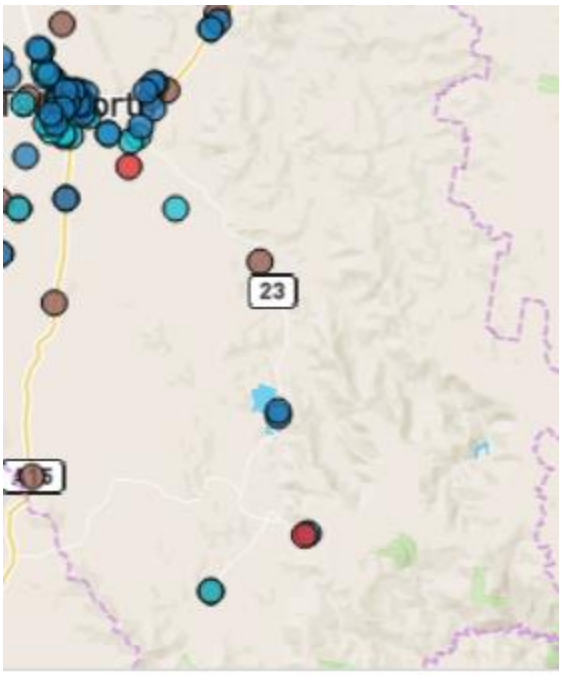
- For 26 months and possibly much longer, the increased level of traffic and associated infrastructure will personally affect my business and main source of income as an Airbnb host
- Walking/exercising in and around Nundle village will become much more dangerous when sharing the road with heavy vehicles. Unlike cities and towns that have adequate pathways for pedestrian movement, this village is not set-up for this. Increased traffic will make crossing roads in the village more hazardous for pedestrians, particularly young children, school-aged children and pets
- For school children waiting for buses on the side of the road, there will also be increased risk of pedestrian/vehicle accidents

Clarifications on errors in Appendix G

In Appendix G (p. 9), Nundle Road is incorrectly described as an 'alternative route' to Tamworth without a posted speed limit and therefore with a default speed limit of 100km/hr. Like many Nundle residents, as a regular user of this road as my main route to Tamworth, I am very aware of the variations in speed limit from 100km/hr to 40km/hr which are all clearly sign posted. The document later states (p. 23) that 90% of workers on the proposed traffic will also be utilising this road to access the proposed project site. This road is also used by commuters in the townships and rural surrounds of Woolamin, Pialamore, Dungowan and Nemingha as well as areas south of Nundle, Barry, Hanging Rock and Crawney. Nundle Road meets the New England Highway for the final stretch to Tamworth and as a main highway, traffic variations may not always be attributable at this project. So for the purpose of this document, I will just refer to the 50 km stretch of road between the Peel Inn and Nemingha Post Office.

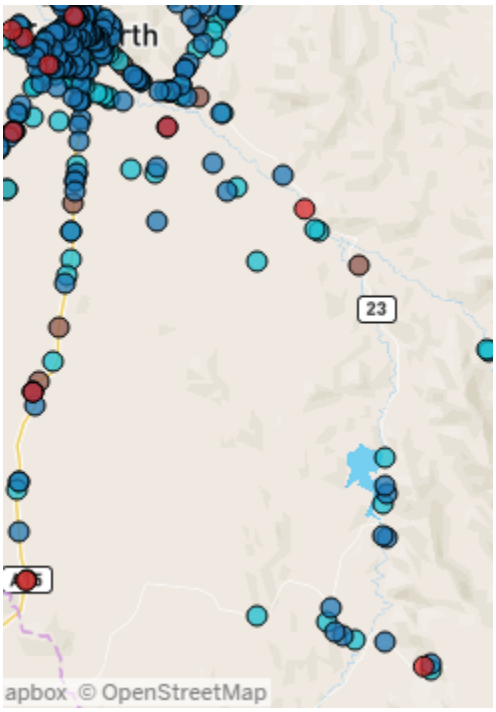
Increased risk of accidents as a result of this project

The crash history referred to on p. 12 of the document shows a map of the Nundle area, but doesn't show all of the roads listed as transport routes for this project and of particular interest, the Nundle to Tamworth section. Only 1 fatal crash was listed in the area over the 5 year study period of 2014- 2018. In 2019 (which was not mentioned) there was another fatal crash on Barry Rd involving a motorbike on a corner. The crash history map (p. 13) shows only a small section of Nundle Rd (Nundle to Tamworth). As "90% of workers" (p. 23) will be travelling this road and it is a key road connecting Nundle to the major centre of Tamworth, this was a serious oversight and needs addressing. Only 11 accidents are discussed, however over the past 5 years, there has been over 20 accidents on the transport routes (Figure 2), 9 serious accidents and 2 fatalities. Given the current condition of the road and the expected increase in traffic due to this project, it is expected that accidents on the Nundle Road which are already common, will increase.



Source: https://roadsafety.transport.nsw.gov.au/statistics/interactivecrashstats

Figure 1. 2019 accident data for Nundle (Route 23) and Barry Rd between Tamworth and Hanging Rock.



Source: https://roadsafety.transport.nsw.gov.au/statistics/interactivecrashstats

Figure 2. 2015- 2019 accident data for Nundle area including Nundle Rd, Barry Road and New England Highway

"Nundle Road" is stated as an alternative route, however p.23 states that 90% workers will be coming from Tamworth. The fact that the "Existing Traffic Volumes" vehicle maps (p. 14-16) don't show figures for Nundle-Tamworth Rd is either an intentional omission or a poor oversight. This map doesn't give accurate info about impact on Nundle/Tamworth route. Fortunately p. 31 provides some more useful data and I have summarized the key points below which raise concern for myself personally.

Traffic Impacts in summary- vehicles through Nundle Township

- Currently 845 vehicles pass through Nundle, on average per day with 12 trucks per hour. In the morning peak, (7am-8am), approximately 38 cars pass through Nundle.
- During project other vehicles we expect to see include: mini buses, light vehicles, machinary trucks, water trucks and a range of over-sized vehicles.
- Over 13 months site establishment, total additional vehicles passing through Nundle during morning peak hour will be 80
- Over 13 months construction phase during the morning peak there will be an additional 141, vehicles, 20% of these being trucks.
- Per day during site establishment phase: extra 240 vehicles
- Per day during construction phase: 502 vehicles

This means:

- traffic passing through Nundle will increase from 845 vehicles per day to 1350 per day over 2 year site establishment and construction phases
- An additional 30 trucks/hr will pass through Nundle in the morning peak times (7.00am-8.00am). This means 1 vehicle every 20 seconds and 1 truck every 85 seconds

Traffic Impacts in summary- Nundle Road

- For Tamworth commuters (Nundle and surrounds to/from Tamworth), there will be an increase from 46 vehicles per hour (vph) to 189 (1 vehicle every 20 seconds)

For Hanging Rock- Nundle commuters along Barry road

- An increase from 10vph to 156 in the morning and in the evening peak, from 38vph to 184 vph.

My concerns as a response to the above

I currently travel to Tamworth from Nundle at the peak times, 2 days per week for my job at Tamworth Tafe, starting at 8.30am. Due to coordinating childcare drop-offs and managing other commitments, my timeframe to reach work on time is very limited. Currently it takes me approximately 50 mins, but this can vary considerably if there is cattle on the road, a tractor, a car and caravan, school bus or slower heavy vehicle. I am

unsure whether these factors have been considered in the V/C ratio, and if not, I suggest that the conclusion that the traffic interruptions is not statistically significant, in this case is not valid and needs to re-addressed. My experience of this trip is certainly not unique as there are many people between Nundle and Tamworth who utilise this road at some point for work travel, school drop-off or other.

The existing state of the Nundle Road is quite poor with uneven surfaces, pot-holes, broken road edges, minimal road verges and often dead animal carcasses. I personally have had 2 accidents on this road, 1 causing my car to be written off following a dead carcass strike. To add to the poor condition, visibility is low in sections with many corners and road crests. With the expected traffic volumes, I expect travel times on this road will be significantly increased, with an increased risk of accidents as a result. Given that much of this road is 100km/hr, and 90% of head-on collisions at this speed result in a fatality (Transport NSW, 2021), it is possible that the accidents may be not only more frequent but more severe. Driver frustration is also a known factor in crashes, and with increased travel times due to more traffic, accident numbers are likely to increase for this reason as motorists take more risks, particularly in overtaking.

A closer look at the existing conditions of the Nundle Road

To investigate the impact of increased traffic and potential for more accidents, I have conducted an extensive survey of overtaking opportunities with the results outlined below.

Table 1. Survey of dividing road lines on Nundle Road between Peel Inn, Nundle and Nemingha Post Office (travelling in Nundle to Tamworth direction) and analysis of overtaking opportunities

	Legal overtaking (Nundle to Tamworth)		No overtaking (Nundle to Tamworth direction)	
	Single broken line (overtaking both directions)	Double white lines with a broken line closer to you (overtaking allowed)	Double unbroken lines (no overtaking either direction)	Double white lines with an unbroken (continuous) line closer to you
Distance (km)	13.1	7.45	21.9	8.25
Total distance (km)	20.55		30.15	
Distance as a percentage of total	40%		60%	
Absolute number of each section <100m in length	7	10	45 non-overtaking opportunities	

Absolute number of each section >100m in length	14	8	
Percentage of legal overtaking <100m in length	43%		
Percentage of legal overtaking >100m in length	57%		
% of safe overtaking vs non-overtaking (absolute spots)	35% (22 absolute overtaking spots)		65% (62 absolute non-overtaking)

When travelling from Nundle to Tamworth, and measuring in distance, 40% of the road is marked as overtaking, and 60% is marked as non-overtaking. This however, does not give an accurate representation of the safe opportunities to overtake. When travelling at 100km an hour, it takes 3.6 seconds to travel 100m. The table above shows that 43% of the overtaking opportunities are less than 100m long which means that mostly, these sections of road, despite being legally overtaking areas, are not safe to do so. In some cases, the 100m may be slightly longer, as a single white line is usually connected adjacent to a double white lines with a broken line closer to you (overtaking allowed) (Figure 1). However, in most cases the distance of one or the other was usually "transitional", and therefore the total distance of the adjoining overtaking markings may only be 200m anyway.

Figure 1. A 100m length of a single broken line, followed by 100m broken line closer to driver, heading into Woolomin

In addition, often there is a bend, uneven surface, rise or some other obstruction which also inhibits safe overtaking options (Figures 2, 3, 4).

Figure 2. Legal overtaking section near Chaffey Dam with broken road edges and damaged, uneven surface

Figure 3. One of many blind bends on legal overtaking sections of road, Nundle to Tamworth

Figure 4. An uneven road surface and a rise make overtaking on this section of road dangerous

Another consideration in "safe" overtaking times/distances, is that the increased number of trucks and heavy vehicles as outlined in Appendix G as a result of this project. This may mean that "safe" overtaking could only really occur where there are complete, unobstructed overtaking stretches of 200m or more. This removes another 7 overtaking opportunities, reducing the total proportion of safe overtaking areas to 22%. A point to note, is that when travelling on this road, on a 100km/hr section, I calculated that on average it takes 7 seconds for a standard light vehicle to overtake another light vehicle travelling at around 90km/hr. This would vary and probably increase for slower or longer vehicles. This means that the required distance for safe overtaking when travelling at 100km/hr, would be at least 200m.

Increased traffic impacts

Appendix G states that during the Construction phase of the project, at peak morning times, there is predicted to be 189 vehicles per hour on the Nundle Road which equates to 1 vehicle every 20 seconds. At the current rate of approximately 46 vehicles per hour, it is quite common to become trapped behind a slower vehicle without opportunity to overtake for several km, sometimes more. Given that there will be 4 times as many cars on the road, it is likely that overtaking will be further reduced, forcing commuters such as myself to be at greater risk of head-on collision from unsafe overtaking. Also important to consider, is the likelihood of encountering a car travelling in the opposite direction following overtaking, as overtaking for a standard car takes approximately 7 seconds and even longer for a heavy vehicle. All of the above will make limit overtaking, resulting in a backlog of vehicles, but make overtaking extremely unsafe. The impact on travel times is evident and the calculations support this; being caught behind a slow vehicle (e.g. 80km/hr compared to 100km/hr) could increase trip times by

10 minutes or more. This is likely to be a generous underestimate with all of the above taken into consideration.

Impacts due to heavy vehicles and roads and infrastructure works

The proposed route for the turbine blades and components includes a section of Nundle Road between Nundle and Lindsay's Gap Road as well as Oakenville Street, both of which are on my family's work commute and the main routes in and out of Nundle Village. Table 3.11 p. 35 calculates the number of trips to the site for each of the oversized vehicles. Whilst the individual average daily trips seems relatively small, when these are looked at as a cumulative total, for at least 35 weeks, there will be an average of 7 oversized trucks passing through Nundle daily. This is a major safety concern for other vehicles, but in particular for pedestrians such as school children, uninformed visitors to the area and residents such as ourselves.

Appendix G outlines some of the upgrades needed to be done to roads to accommodate oversized vehicles. Page 61 refers to the earthworks and other upgrades to the Lindsays Gap Road and Nundle Road intersection. This is likely to cause a major disruption to traffic on the main route into Nundle during the construction period and add further issues. The amount of proposed roadworks to accommodate this project around Nundle is going to significantly alter the atmosphere of our quiet little village for several years. The suggestions of roadworks particularly on the Barry Road section, in particular, Devil's Elbow, seem completely unrealistic given the terrain and gradient and massive potential for soil erosion. The level of land clearance required and removal of trees along roadsides, will also completely alter the character of this town and threaten not only my business but the tourism industry of the entire town.

Final comments on traffic and transport

As a regular user of the Nundle to Tamworth Road and most of the proposed transport routes in the area, I strongly object to this development given the existing safety concerns on this road; minimal overtaking opportunities and the poor condition of the road surface. I believe the increased traffic loads, the increased number of oversized vehicles and the proposed roadworks will have a cumulative and exponentially negative impact on safety of motorists and pedestrians. I also fear that this level of unsafety is a threat to human life with increased risk of fatal accidents from head-on collisions. If this project were to continue, I would suggest that not only the 50km Nundle-Tamworth stretch, but all the proposed transport routes would need major work and this cost would be a considerable one for relevant Government bodies. In addition, the land clearance and modifications to existing infrastructure in and around Nundle will irreversibly alter the nature of this town as a tourism location and disturb an otherwise quiet, serene location driving many long-term locals, including my family, out of the area.

References

https://roadsafety.transport.nsw.gov.au/statistics/interactivecrashstats Accessed 27/01/2021

https://roadsafety.transport.nsw.gov.au/speeding/index.html Accessed 29/01/2021

The Transport Planning Partnership, 2020. Appendix G Traffic and Transport Assessment. https://majorprojects.planningportal.nsw.gov.au/prweb/PRRestService/mp/01/getContent?AttachRef=SSD-9679%2120201118T031620.771%20GMT. Accessed 20/01/2021