

## 1. What it is about the proposal that concerns you

The proposed Brandy Hill Quarry Extension and associated Appendix 8- traffic impact assessment does not adequately assess the traffic risks caused by a significant increase heavy traffic created by the proposed expansion. With reference to a 2016 publication by *Department of Infrastructure and Regional Development; Bureau of Infrastructure, Transport and Regional Economics (BITRE)* **Heavy truck safety: crash analysis and trends** : Heavy trucks are disproportionately involved in casualty crashes: approximately 16 per cent of road crash fatalities involve these vehicles. As there is proposed to be an increase in heavy vehicles due to the expansion, this creates concerns for me as follows:

- 1) The proposed expansion does not outline considerations with respect to the increased risk caused by the increased frequency & exposure to the heavy traffic hazard along Brandy Hill Drive. The proposed increased frequency of heavy traffic generated by the quarry with no associated improvements or changes to the local roads and infrastructure will create a higher probability of traffic incidents, specifically in the following areas:

The intersection of Brandy Hill Drive and Clarence Town road which is a high speed (100km/hr) cross street will see an increase in the probability of accident, as exposure to the hazard of Heavy Vehicle interaction is increased at an intersection that is one that already presents a high risk.

The increased heavy traffic will increase the rate of degradation of Brandy Hill Drive, a road that has limited safe shoulders present currently. The lag in time it takes to repair road damage such as potholes, road surface breakup etc., will lead to an increase in unsafe road conditions being present and an associated increase in consequent avoidance behaviours by light vehicle drivers particularly during extended periods of wet weather. There is a current active example of this; when travelling North on Brandy Hill Drive from the Seaham Road intersection approximately 150 metres from the intersection, road damage covering virtually the whole lane is causing light vehicles to veer onto the oncoming lane, as there is no safe outer road shoulder for drivers to go around the road damage.

As outlined in the *Department of Infrastructure and Regional Development; Bureau of Infrastructure, Transport and Regional Economics (BITRE)* article referenced, Heavy trucks are disproportionately involved in casualty crashes, 16 per cent of road crash fatalities involve these vehicles. More trucks on Brandy Hill Drive will therefore statistically increase the percentage likelihood of an accident and also near-miss incidents.

- 2) The proposed expansion does not outline considerations with respect to the impact an increase in heavy traffic volumes on Brandy Hill Drive / Seaham Road will have on the dynamics of local traffic flows, in particular significantly increased 'bunching' of heavy traffic on those roads. The dynamic flow conditions of local traffic flows through Brandy Hill Drive and onto Seaham Road will be adversely impacted, creating higher probability of traffic incidents due to either one or a combination of the following:

The increase in heavy vehicle traffic will increase 'bunching', a well-known traffic flow phenomenon, of heavy vehicles on Brandy Hill Drive. This increase in bunching will noticeably adversely affect the local resident's road traffic amenity, on both Brandy Hill Drive and Seaham Road and also for feeder roads onto Brandy Hill Drive.

The increased frequency of slower, bunched heavy vehicles will increase the impatience of light vehicle drivers, leading to an increase in unsafe behaviours by light vehicle drivers.

- 3) The proposed expansion and consequent 24 / 7 increase in heavy traffic volumes on Brandy Hill Drive / Seaham Road are inconsistent with the current usage and zoning in the area of rural residential.

## **2. Why those issue(s) matter to you (or your family, your business, your relatives etc)**

The over-riding concern from the two aspects outlined above originates from the impact the proposed expansion will have on local traffic flows, and the much-increased likelihood of traffic accidents. There are 4 light vehicle drivers in my family who all frequently use Brandy Hill Drive, Clarence Town Road and Seaham Road. There has been 3 historical circumstances in our family where, only through luck, interactions with heavy vehicles on Brandy Hill Drive didn't result in serious incidents, these particularly due to the road having limited availability of safe shoulders.

## **3. What you want changed, added, restricted etc. in the expansion proposal (EIS) to lessen or mitigate those concerns, and why they would be improvements over what is proposed.**

### Safety and amenity-

Brandy Hill Drive and Clarence Town Road intersection requires widening to provide two lanes for each direction, thus allowing traffic to safely pass turning vehicles. It also requires a speed reduction to be implemented along the Clarence Town Road section.

The intersection of Brand Hill Drive and Seaham Road requires lengthening and widening of the turning lane when heading North on Seaham Road and turning left onto Brandy Hill Drive. This is to allow safe turning of traffic right onto Brandy Hill Drive, as there is currently a blind spot created by the turning traffic regards traffic that is continuing along Seaham Road.

The intersection of Seaham Road and Hinton Road requires widening to safely separate traffic heading South and turning traffic into Hinton Road from the traffic continuing through South on Seaham Road to Raymond Terrace.

All bus stops along Brandy Hill require wide of-lane off road stopping areas for buses to be fully off the lane and provide safe access.

There should be crossing islands installed along Brandy Hill Drive to provide safe crossing locations, including at bus stop locations.

The road surface and construction on Brandy Hill Drive requires upgrading to better resist heavy traffic damage.

It is currently impossible to know which quarry to contact regards observed unsafe Heavy Truck driving, as it is not known which truck came from where. There needs to be highly visible identification provided as to which truck has come from which quarry so that fully enforceable driver behaviour follow-up can be made.

Expansion consistent with current usage and zoning in the area of rural residential-

The flow of Heavy vehicles needs to be restricted to be more compatible with the local residents and the lifestyle afforded by rural residential zone. The quarry operation should be restricted to no more than 6 days per week operation, with hours of 6am to 6pm to reasonably meet local resident's expectations.