We wish to lodge our ***objection*** to the Gunlake Quarries Continuation Project_Modification 2_increased trucks proposal (SSD-12469087-Mod-2) currently on exhibition with the Department, for the following reasons.

TRAFFIC IMPACT

The Traffic Impact Assessment (TIA), (Appendix A of the application), was compiled by EMM primarily to assess road safety and intersection capacity on the Primary Haulage route. Among five (5) key points, the TIA found that:

'Ambrose Road is in good condition and able to accommodate an additional 100 daily vehicle movements in each direction, i.e. no road upgrades are required to support the proposed increase in truck movements'.

Ambrose Road represents approx. 3.4kms of the approx. 7.8kms Primary Haulage route, with Brayton Road accounting for the remaining approx. 4.4kms. There is no mention of the current condition of Brayton Road, which has been in various states of disrepair for most of the life of Gunlake Quarries' operations.

Since approval of Gunlake's initial application MP07/0074 in 2009, the Primary Haulage Route has been **upgraded** on two occasions, firstly during construction of Ambrose Road in 2011 and Brayton and Ambrose Roads again in 2018. The latter upgrade was completed around the end of July 2018 however the roads required resurfacing/resealing and patching a number of times up until then. Approx 15 months after completion of the upgrade, more resealing works were carried out during October/November 2019. Further to all these repairs, more rehabilitation works were carried out on the Primary Haulage route in October 2021. No repairs, other than multiple fillings of potholes, which fail almost as soon as they are filled, have been carried out since. As of 25 March 2025, it appears that some rehabilitation works may be scheduled for the Brayton Road section in the future, as a 4.5m x 5m Engineer's boundary marking has appeared on our road frontage. We believe this is only the start and there will be more to come along the entire length of this section of the Primary Haulage route.

There have been numerous reports and assessments carried out for Gunlake Quarries' extensions and modifications by consulting firms who repeatedly state that the condition of the Primary Haulage Route is both up to standards and can withstand volumes of traffic between 1,000 and 3,000 vehicles per day. Additionally, these consultants have also advised that sections of the pavement have a lifespan of 20 years. Clearly, due to the need for repairs and resurfacing within months of each other, this is **not** the case! In our opinion, it is obvious that the Primary Haulage Route **cannot** sustain the amount of traffic associated with Gunlake Quarries operations at present yet alone any further increases in truck movements. We also do not believe that utilising small rigid trucks in lieu of larger load trucks will have any significant effect on, or reduction to, the continual need for repairs, rehabilitation or resurfacing of the road. Curiously, in recent days, road rehabilitation works have been carried out on the Gunlake Quarries' private internal road. This is obviously of greater concern to Gunlake's than the damage caused to a public road.

A trip down Brayton Road on Google Maps circa February/April 2024, ***less than 2 ½ years*** after the last rehabilitation works in October 2021, will give an indication of how much the road's pavement has deteriorated in that period of time. This is particularly noticeable on the outbound road surface. Road signs at various points along the Primary Haulage route, warning of ***rough surface, traffic hazard, drive with caution, drive slowly*** and ***roadworks ahead,*** etc, are never taken down and remain in situ to this day.

At this point, we would like to bring the Department's attention to information included in the Traffic Impact Assessment for Gunlake Quarries Continuation Project of 2021, which has been repeated as current supporting documents for Modification 2's TIA. For example:

Plate 3.2 (pge 11) – *'Brayton Road looking east from Station Street)'*, same as plate 3.2 in 2021.
Plate 3.3 (pge 12) – *'Ambrose Road (looking west on Ambrose Road)'* – same as plate 3.3 in 2021.
Plate 3.4 (pge 13) – *'Hume Highway (looking north-east towards Red Hills Road)'* – same as plate 3.5 in 2021.

Open source enquiries into the document properties of the photos included in the Continuation Project TIA (Appendix F) indicate they were originally created on 16 September 2021. Comparisons between the two lots of photos of surrounding meteorological events, such as sky and clouds, as well as same crops in the paddock and no further growth in the trees along Ambrose Road, indicate they are clearly the same. Plate 3.5, although it appears not to have been previously used in 2021, is a photo of the Secondary Haulage route which carries local traffic in both directions, and only outbound quarry trucks.

There are no photos whatsoever of the Brayton Road section of the Primary Haulage route included in the TIA, as they would undoubtedly validate our analysis of the current state of the road. In our opinion, the use of information that is over 3 ½ years old shows a lack of integrity and the photographic evidence produced is no longer correct in its entirety.

We are also of the opinion that the omission of any assessment concerning the state of the Brayton Road section of the Primary Haulage route fails to reveal the true condition of the road, i.e. there are no reports on Brayton Road included in this TIA to substantiate the claim that the haulage route will be able to withstand a further 200 truck movements per day. Photos #1 and #2 below are examples of multiple, similarly damaged surfaces along the Brayton Rd section of the Primary Haulage route.

Photo #1 – Damage to Brayton Road section of Primary Haulage Route_2Apr25

Photo #2 – Damage to Brayton Road section of Primary Haulage route_2Apr25

ROAD SAFETY

According to the Trans Traffic Survey*, Turning Movement Survey,* (Appendix A – Traffic Survey data), conducted at the intersection of Brayton and Ambrose Roads on Wednesday 27/11/2024, the traffic peak hour was between 4:45am and 5:45am. During this time, 29 heavy vehicles plus 29 light vehicles travelled the Primary Haulage route **inbound** towards Gunlake Quarries, a total of 58 vehicles. As previously mentioned, this stretch of the Primary Haulage route is approx. 4.4kms in length. The speed limit on the Primary Haulage route is 80kph. Using the formula *Distance=Speed*Time*, it would take a **minimum** of 3.3mins for each vehicle to travel the 4.4kms at a constant speed of 80kph.

Gunlake Quarries' Truck Driver Code of Conduct stipulates that no tailgating is permitted and a 300m gap is to be maintained between trucks on the haulage routes. Similarly, the stopping distance for an (unloaded) car travelling at 80kph is, say, 100m. If the 58 vehicles were all travelling on the road during the one-hour period, it would require at least 29 x 300m gaps (8,700m) and 29 x 100m (2,900m) gaps to comply with road safety standards. In real terms, this is impossible on a 4.4kms (4,400m) stretch of road.

At the same time, between 4:45am and 5:45am, 27 heavy vehicles plus 2 light vehicles travelled along the Primary Haulage route **outbound** from Gunlake Quarries to the Brayton and Ambrose Roads intersection. Gunlake advises that they have the capacity to load 40 trucks an hour, i.e. one load every 90 seconds. The time to load and dispatch each truck is explored in the mock case study below.

MOCK CASE STUDY

Gunlake Quarries' traffic peak period is 4:45am to 5:45am (i.e. one hour). Gunlake Quarries can load 40 trucks per hour or 90 seconds per truck. Ed, Jack and Vince are truck drivers for Gunlake. If Ed is driving truck #1 and arrives, loaded, at the Brayton and Ambrose Roads intersection at 4:45am, the subsequent 26 trucks would need 26 x 90 seconds, i.e. 2,340 seconds or 39 mins, to be loaded. Additionally, each truck would also require time on site to safely move into position for loading and then be weighed off at the weighbridge. Given there is only 21 minutes remaining in the hour, that leaves an average of 48 seconds per truck to be dispatched from site. With this in mind, Jack, driving truck #2, would arrive no sooner than 4:45am + 90 secs + 48 secs, (138 secs) or around 4:47:18 am. This timeframe does not include travel on the quarry's internal road to the Brayton Road intersection which has an imposed speed limit of 60kph.

If each successive truck took 138 seconds to be dispatched from site, then in order for Vince, driving truck #27, to arrive at the Brayton and Ambrose Roads intersection at 5:45am, he would need to leave the Gunlake Quarries intersection on Brayton Road no later than 5:41:45am which only allows 3.3mins to complete the 4.4kms trip.

In the mock case study above, the following questions need to be answered in order to establish that 40 loads per hour can be actually achieved and safely dispatched.

1. *At what time did each of the trucks #1 to #27 leave the quarry site?*
2. *What is the length of the quarry's internal road and how much extra time is needed to reach the Brayton Road intersection travelling at 60kph?*
3. *At what time did each of the trucks arrive at the Brayton and Ambrose Roads intersection?*
4. *Did all the drivers adhere to the 80kph speed limit?*
5. *Did all the drivers maintain an anti-tailgating gap of 300m?*

In this Modification 2 application, Gunlake now advises they have the capacity to load **50 trucks per hour**. Although this will reduce the loading time to 72 seconds per truck, it will increase the number of trucks travelling on the haulage routes by 25% per hour. Therefore, this increase has the potential to significantly reduce road safety.

GREENHOUSE GAS EMISSIONS

'Australia currently mandates the Euro V noxious emissions standards for newly approved heavy vehicle models first manufactured from 1 January 2010, and for all heavy vehicles manufactured from 1 January 2011. This Early Assessment Regulation Impact Statement (draft RIS) evaluates whether the Australian Government should mandate more stringent standards to reduce noxious emissions from heavy road vehicles.' *(Australian Government, Department of Infrastructure, Transport, Regional Development and Communications - Heavy Vehicle Emission Standards for Cleaner Air, Draft Regulation Impact Statement – October 2020_Executive summary – para 1).*

*'*There is a strong case for mandatory standards to reduce noxious emissions from road vehicles. Air pollution from road vehicles is a negative externality, and so the problem will not be addressed by the operation of market forces alone. Government action to strengthen noxious emissions standards is recognised as a very effective measure to reduce urban air pollution, and such standards have managed to deliver improvements in urban air quality despite growth in vehicle use. Without further government intervention in this area the health impacts and number of premature deaths resulting from traffic-related pollution caused by noxious emissions from heavy vehicles are expected to increase over the next decade.' *(Australian Government, Department of Infrastructure, Transport, Regional Development and Communications - Heavy Vehicle Emission Standards for Cleaner Air, Draft Regulation Impact Statement – October 2020_Conclusion_para 4).*

Our observations are that the smaller trucks currently hauling for Gunlake Quarries could be 15 years or older, thereby will not have the same carbon emissions standards required of them. Why, then, would Gunlake Quarries encourage the use of smaller, older trucks, when they, being in the transport industry themselves, ought to be aware of the Australian Government's mandate to reduce carbon emissions? Additionally, it would be helpful if an explanation in layman's terms could be given as to how an extra 200 truck movements, or a 27% increase in trucks, will only produce a 7% increase in Greenhouse Gas Emissions.

We have recently noticed an increase in 'black dust' deposits on our outdoor furniture, window sills, and a significantly dirtier water filter (see photo #3 below), which we believe is emanating from diesel engine exhaust. We regularly change our filters as we depend solely on rainwater for drinking and other household purposes. Based on our recent observations of increased dust deposits, we have a genuine concern for what is landing on our catchment areas, but more importantly, what we are breathing in as well.

Photo #3_Dirty water filter_circa Feb25

NOISE IMPACT ASSESSMENT

As previously mentioned, Gunlake Quarries conducted a traffic survey on 27 November 2024. The result from this survey identified the traffic peak period was 4:45 to 5:45am. However, prior to that peak period, truck movements commenced as early as ***3:00am***, which is during the ***'Night period',*** i.e. from 10pm to 7am.

On the day of the traffic survey there were ***85 night time inbound trucks***, which consisted of 1 truck between 1:45am and 1:30am, 1 truck between 22:15pm and 22:30pm, leaving ***83 trucks between the four hours of 3:00am and 7:00am.*** This equates to an average of ***21 trucks per hour.*** Notably, there was also a peak in numbers of ***14 trucks in 15mins*** between 5:15am and 5:30am, or **1 truck every minute on this occasion!** As these numbers are only inbound trucks, there were also 70 outbound trucks recorded during the four hours 3:00am to 7:00am, which totals ***153 truck movements*** or an average of **38 truck movements per hour***,* or 1 truck every **96 seconds!**

Interestingly, on the same day, only **174 trucks** were recorded during the 15-hour daytime period, 7:00am to 22:00pm. This equates to only ***11 trucks per hour*** compared to **21 during the night**. Once again, as these are only inbound numbers, there were **157 outbound trucks** recorded during the 15 hours between 7:00am and 22:00pm, which totals **331 truck movements** or an average of **22 truck movements per hour.** This equates to ***16 truck movements per hour less*** than at night!

The Noise Impact Assessment (NIA) relies on only one (1) monitoring location along the Primary Haulage route at a residence identified as 97 Corriedale Drive, Marulan. This residence backs on to the Brayton Road section of the Primary Haulage route and its nearest façade is estimated to be approximately 55m from Brayton Road. A one-hour attended noise survey was conducted **1m** from the façade of this residence which is considered to be the most affected residence on Brayton Road. The date and time of day that this attended noise survey was conducted has not been disclosed in the TIA, however a long-term noise logger was used to monitor the ambient noise levels between **29 November 2024 and 13 December 2024,** but does not state where the monitor was located.

As we are nearby residents located on the Brayton Road Primary Haulage route, we were able to observe 97 Corriedale Drive being built on a weekly basis, sometimes more. Our observations lead us to believe that the home was still under construction during the noise monitoring dates provided, specifically undergoing some internal fit-out. Internal fit-outs routinely involve, but are not limited to, the use of hand tools such as hammers, power tools such as nail guns, power saws, angle grinders, electric/battery drills, small and large machinery, such as air compressors, industrial vacuum cleaners, to name but a few, not to mention even music being played and raised voices to communicate above the noise of the tools. There is every possibility some or all of these items were in use at some point during the noise monitoring dates and would distort the ambient noise levels at the location. This scenario could **not** be considered the normal ambient levels at the residence.

Additionally, as previously mentioned about the state of disrepair of the Brayton Road section of the Primary Haulage route, the road surface at the noise monitoring location is particularly damaged. There are large sections of broken and corrugated bitumen as trucks brake on the approach to the Ambrose Road intersection, (see photo #4 taken in February 2023), which has not been repaired and has since worsened. There are several deep potholes, and an area outside **#348 Brayton Road,** located nearby, that has been dug up and re-surfaced on a number of occasions however deteriorates rapidly, even during resurfacing. (See photos #5 and #6 taken in February 2023).

Photo #4 – Brayton Road approach to Ambrose Road intersection_ Feb2023.

Photo #5_Outside #348 Brayton Road_taken in February 2023

Photo #6_Outside #348 Brayton Road_taken in February 2023

The road surface in its current state would absolutely produce higher than normal results for the ambient level without Gunlake trucks. The only time Gunlake Quarries does not transport product is on Sundays and Public Holidays. Our observations are that vehicles towing box trailers, specifically those with metal crates or cages attached, are undeniably noisy as they drive over every section of damaged and broken road surface, pothole and 'hump' of bitumen from filled potholes repositioned to the road's shoulders. There is a high volume of these vehicles on weekends when local residents make use of the Council tip, as well as 'weekend warriors' who arrive and depart laden with dirt bikes, quad bikes, horse floats or the occasional caravans.

The Noise Impact Assessment states that the proposed modification complies with the relevant Road Noise Policy criteria and, as 97 Corriedale Drive has been identified in the TIA as the most affected residence, other residences on Brayton Road would experience the same or lesser noise levels from quarry trucks. Taking into account the state of the road's surface, and our lack of confidence in it ever being in 'good condition', we find that the very low ***'PREDICTED'*** noise levels of 475 inbound and 475 outbound trucks is ***HIGHLY IMPROBABLE!***

The modification application also states that there was no need to carry out a Noise Impact Assessment on the Secondary Haulage route as there is already an approved 38 outbound trucks limit. This is not quite true! There is consent to a maximum of 38 trucks on any one working day however, the approval is for **25 trucks** per working day averaged over each quarter. The application for **38 trucks per day** is an increase of **50%** and approx. **11,000 trucks p.a.,** which we believe would definitely warrant a Noise Impact Assessment. There are approx. 68 residences along the Marulan township section of the Secondary Haulage route which will be impacted by the increase in truck movements, with around one-third having been constructed since the Gunlake Quarries Continuation Project of 2021 was lodged. This includes a block of six (6) new houses built on the corner of Brayton Road and Station Street which do not appear in Plate 3.2. This is a considerable change in the population of Brayton Road and the omission of around 20 new homes renders the information depicted in Plate 3.2 incorrect.

SOCIAL IMPACT ASSESSMENT

Table 6.2 – Assessment of potential impacts of the application states *'The proposed modification to the maximum allowed daily laden truck movements would not significantly change the social impacts of the Quarry operations.'* We absolutely **disagree** on this assumption.

Marulan, as a town and rural location, has grown substantively due to the exodus of many *'city-dwellers'* looking for both more reasonably priced homes and a better lifestyle. The impact of the quarrying industry surrounding Marulan is considerable and Gunlake Quarries' operations are no exception. In this submission we have noted the noise impacts on the most affected parts of the community however the social impact aspects of the trucks are extensive. Noise, by definition, is a sound that can be **unwanted, annoying, unpleasant or loud.** Gunlake Quarries could not possibly deny that almost 1,000 truck movements at various times of the day or night, in close proximity to homes, would not be noisy, nor that they have the ability to cause interference with the enjoyment a home owner has a right to expect.

Although the perception of noise is subjective, and the type of noise, time of day etc can alter the way noise is managed, dealing with sudden or unexpected noises can be problematic. This is definitely the case with the daytime noise of the trucks and unquestionably the case at night. Some of the social impacts noise from heavy vehicle pass-bys can have on a residence might be:

1. Being interrupted when holding a conversation outdoors;
2. Being interrupted when holding a conversation indoors with a window open;
3. Having to raise the volume when watching TV;

4. Being an intrusion on the enjoyment of outdoor pastimes such as reading, gardening, listening to music, dining or entertaining guests, etc; and
5. Sleep being frequently and habitually disturbed.

We believe this could be the case for most, if not all, residents along both the Primary and Secondary haulage routes, even those considered to be within the acceptable Road Noise Policy criteria. There is anecdotal evidence from residents in the Betley Park Estate that the noise from the trucks has been heard during the night-time, which obviously causes sleep disturbance. Betley Park is a relatively new estate, particularly those 53 lots in Corriedale Drive, Leicester Road, Southdown Road and Suffolk Street, with most of the houses having been constructed since the Continuation Project of 2021. These lots are located directly in line with the Ambrose and Brayton Roads intersection and were disregarded in assessments for the Continuation Project. This estate has been developed on open fields with no established trees or shrubbery to provide any buffer from the noise of the inbound and outbound trucks. Realty photos of properties currently on sale are below which indicate how exposed these lots are at present. (See photos #7 and #8). It will take decades of growth before these residences could be adequately shielded from Ambrose Road traffic noise and the deceleration, braking and acceleration of trucks when entering and leaving the intersection.

Photo #7_Corriedale Drive, Marulan.

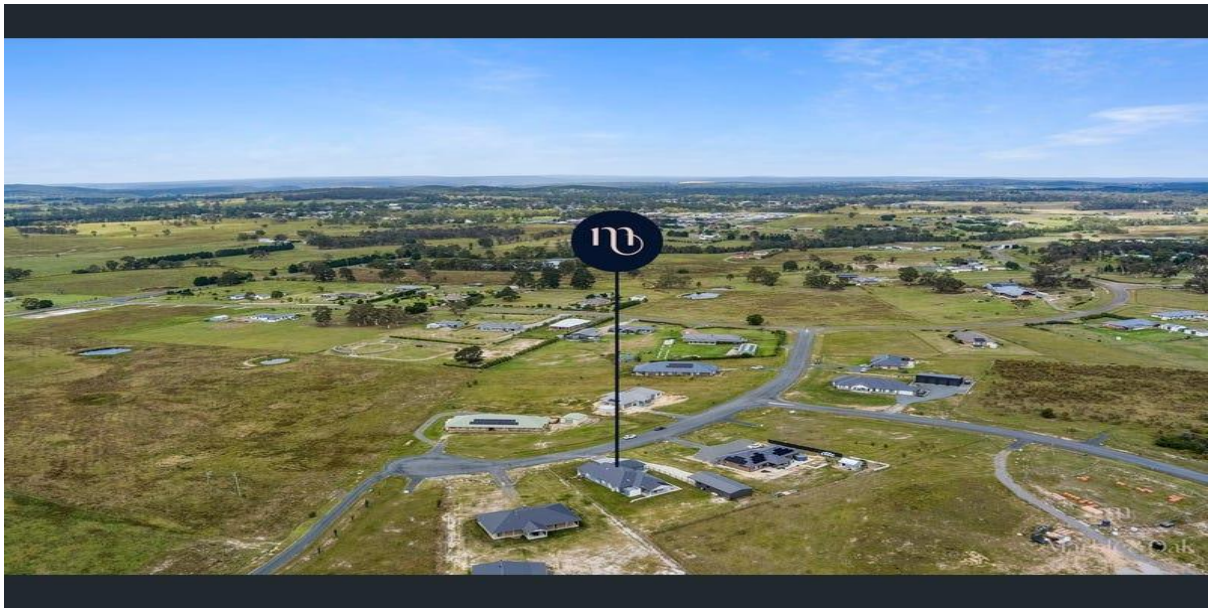

Photo #8_23 Leicester Road

Temperature inversions can alter how noise travels. Low cloud, fog, mist, dew, frost, even smoke or dust hanging in the air, can make distant sounds more audible.

'The temperature of the atmosphere affects its density, which affects the speed at which sound travels through it. When an inversion occurs there is a temperature gradient of cooler air close to the ground and warmer air above. This causes sound waves passing through to be bent (refracted) back down towards the ground. A location (such as a house) at distance from a noise source (such as a factory) receives noise that travels in a straight line from the source when there is no inversion. When an inversion occurs, the same location receives both the noise that travels in a straight line from the source and the noise that is refracted by the inversion back down towards the ground. This can result in noise levels at a house being noticeably greater under inversion conditions compared to what they would be if no inversion was present. Inversions are strongest and more common at night, which is also the time when most people are trying to sleep and are therefore most sensitive to noise.'
(Excerpt from the *Validation of Inversion Strength Estimation Method-NSW EPA-2014*)

Marulan is located in the Southern Highlands of NSW and is prone to the weather conditions associated with temperature inversions such as those listed above. It is therefore reasonable to expect that residents further afield will be affected by sleep disturbance. The demographic of Betley Park will fluctuate as with any residential estate but is most likely to be a combination of couples, families with pre-school, school age and young adult children, people of working age, retirees and into the future, more elderly persons. As the estate grows, many more people will be impacted as will their health and wellbeing be adversely affected.

ENGAGEMENT

Gunlake Quarries has failed to inform the wider community of their intentions to increase their truck movements. An increase in 100 inbound and 100 outbound trucks (200 truck movements) is a substantial increase that will have considerable impacts on the community as has been covered in this submission. The number of persons listed by Gunlake Quarries as being involved in discussions about Modification 2 are an extremely small representation of the Marulan community, particularly the five (5) members of the Gunlake Quarry Community Consultative Committee (CCC) present at the 6 December 2024 meeting. The statement – '*The proposed modification for an increase in truck movements was well received*' is offensive, as **these people should not and do not speak for the whole community.**

It is highly appropriate for Gunlake to engage with Goulburn Mulwaree Council Executives and Councillors in relation to the proposed modification, and plans for a staged upgrade is long overdue - *'GMC explained their road maintenance programme and discussed plans for staged the (sic) upgrade of the Primary Transport Route with the assistance of Federal Government Grants and the use of Gunlake Section 7.11 contributions*.' This vague statement does not inform the community as to what level the Primary Transport route is going to be upgraded, and contains no timeframe as to when it will take place. These are important issues that could have been communicated to the community by Gunlake at an Information Day which would also give the community the opportunity to express their concerns, if any, or even voice their support. A targeted letter drop informing the community of the pending modification would also have been an appropriate means of communication however that was not forthcoming. Perhaps the reason for attempting to **keep the modification under wraps** was because Gunlake expected more objections to their proposal than support.

Gunlake's silence on the matter with the wider Marulan community shows a lack of transparency. Their reliance on the DPHI and Council to eventually convey their proposal only to interested parties

is a failure in community relations. This is a particularly unprofessional stance taken by Gunlake Quarries considering they employ a Community and Stakeholder Liaision Officer, Geoff Kettle, who also happens to be a former Mayor of Goulburn Mulwaree Council. Mr Kettle ought to be aware of the public's right to open, honest and fair communication from businesses.

JUSTIFICATION

Gunlake Quarries state that the justification for the proposed modification is for several reasons:

- Slow change in legislation to allow wider use of larger load sized trucks, **not anticipated**;
- Increased demand from regional business and projects (including renewables) needing delivery by smaller rigid trucks due to site access restrictions, **not anticipated**;
- Demand for renewables, **not anticipated**;
- Daily variation in demand for concrete, **not anticipated**;
- Trucking contractors increasing number of rigid trucks in their fleet, **not anticipated**;
- Demand from areas serviced by trucks using the Secondary Haulage route, **not anticipated.**

Within the application it states that, in addition to existing operations the Gunlake Group owns, there are other sites in the planning and development stages. Obviously, it is good business to look forward when making plans for the future however, projects can often move slowly, more rapidly or even cancelled altogether. That is the nature of business and unfortunately, sometimes you have to roll with the punches. What that does **not** mean is, although businesses need to make changes at times, it should not fall on communities to have to change with them.

Since the Continuation Project of 2021 application, Gunlake admits they did not anticipate the number of changes that would arise to their business plans. In business, there are peaks and troughs so, irrespective of the approval to transport 4.2 Mtpa, it is only be the smaller trucks that will transport one-third less product. The realisation that 4.2Mtpa may not be achievable under current load limits, may be disappointing to Gunlake but is a downturn should be able to withstand, particularly if it only for the short-term.

As previously mentioned, the Gunlake Group states there are other sites in the planning and development stages, however they do not say whether these sites require transportation northbound or southbound. Gunlake also forsees a demand from renewables projects but do not state where, and how close, these projects are located. There appears to be a number of reasons for the modification but no specific projects to justify the need for an additional 100 trucks.

If Gunlake is successful in their bid for 475 trucks, just how many loads will actually be transported using smaller rigid trucks? Perhaps Modification 2 is all a **furphy** and the real reason behind requiring more trucks is to expand their extractive industry or develop another site in the vicinity of the existing Gunlake Quarries site.

From our own observations of the smaller rigid trucks that Gunlake already uses, they tend to be louder, older, noisier and therefore emit more carbon emissions than more modern trucks. These trucks may carry smaller loads but will still cause damage to the haulage road's surface and contribute adversely to air quality, as well as to traffic, noise and social impacts.