Submission to the NSW Department of Planning, Housing and Infrastructure

State Significant Development SSD-76210271

Bluestone Hardrock Quarry – Planning Assessment and Submission to the NSW Department of Planning, Housing and Infrastructure

Submitted by *(name hidden for privacy reasons)*, Resident – Elderslie Road, NSW

Executive Summary

This submission has been prepared following a detailed review of the Environmental Impact Statement (EIS) and the accompanying specialist technical reports prepared in support of State Significant Development Application SSD-76210271 for the proposed Bluestone Hardrock Quarry.

As a resident of the Hunter Region, I acknowledge the importance of securing a reliable supply of construction materials to support housing, infrastructure and economic development across New South Wales. I recognise that hard rock quarries are an essential component of regional infrastructure and that, where appropriately located and responsibly managed, they provide significant public benefit.

Accordingly, this submission is **not an objection to quarrying as an industry**, nor is it an objection to the extraction of the identified hard rock resource in principle. The geological investigations and resource assessment demonstrate that the site contains a significant construction material resource capable of supporting regional infrastructure projects.

Rather, this submission questions whether the Environmental Impact Statement has adequately demonstrated that the proposed haulage strategy, and in particular the long-term use of Elderslie Road as the primary heavy vehicle haulage corridor, represents the most appropriate planning outcome.

After reviewing the EIS and its supporting studies, I consider that the proposal successfully demonstrates many engineering and technical aspects of the project, including the quality of the resource, the proposed extraction methodology, biodiversity investigations, hydrogeological assessment and other specialist disciplines. However, the EIS does **not** adequately demonstrate that the proposal represents the most appropriate planning outcome when broader community impacts are considered collectively.

The central concern of this submission can be summarised as follows:

> *The EIS demonstrates that Elderslie Road has the engineering capacity to accommodate additional heavy vehicles; however, it does not demonstrate that Elderslie Road is the most appropriate long-term industrial haulage corridor for a development of this scale and duration.*

This distinction is important.

Traffic capacity modelling considers whether intersections continue to function, whether traffic delays remain acceptable and whether pavements can physically accommodate additional vehicles.

Planning requires a broader assessment.

The Department must also consider whether the proposed haulage route appropriately balances environmental, social and economic outcomes, minimises impacts on existing communities, protects vulnerable road users, preserves residential amenity and serves the public interest over the life of the project.

The current EIS does not adequately address these broader planning considerations.

In particular, I am concerned that:

- the suitability of Elderslie Road has been assessed primarily from an engineering perspective rather than as a residential and community road;
- the interaction between heavy vehicles and vulnerable road users (including pedestrians, cyclists, school children and school buses) has not been comprehensively assessed;
- cumulative impacts arising from traffic, noise, dust, vibration, visual change and altered community character have been considered largely in isolation rather than as the combined experience of residents over a proposed operational life of up to 30 years;
- the proposed mitigation measures focus predominantly on regulatory compliance rather than preserving residential amenity and quality of life; and
- insufficient consideration has been given to whether alternative haulage arrangements or additional infrastructure could further reduce impacts on the Elderslie community.

Importantly, this submission is **not based solely on personal concerns**. It is based on a review of the planning documentation and the extent to which the proposal satisfies the broader objectives of the planning system.

The planning process is intended to ensure that environmental and social impacts are first **avoided** where reasonably practicable, then **minimised**, then **mitigated**, with compensation considered only where residual impacts remain.

In relation to the proposed haulage route, I am not persuaded that this hierarchy has been fully demonstrated.

The EIS contains considerable discussion regarding mitigation measures, but comparatively limited analysis demonstrating that the selected haulage route represents the option that best avoids or minimises impacts on existing residents.

For these reasons, I respectfully request that the Department of Planning:

1. undertake further scrutiny of the proposed use of Elderslie Road as the principal haulage route;
2. require the proponent to provide additional justification demonstrating why this route represents the most appropriate planning outcome;
3. require further assessment of pedestrian safety, cyclist safety, community severance and cumulative residential amenity impacts; and
4. if the project is ultimately approved, impose substantially stronger conditions requiring the proponent to fund road safety improvements, residential amenity measures and long-term community benefit initiatives for those directly affected by quarry haulage.

This submission provides detailed reasons supporting these requests and identifies a range of planning, transport, environmental and community considerations that require further examination before the proposal can be properly determined.

Matters Requiring Further Clarification by the Proponent

1. Where in the EIS is the comparative assessment of haulage route alternatives?
2. Where is community severance assessed?
3. Where are children assessed separately as vulnerable road users?
4. Where is the cumulative effect of noise + dust + traffic + vibration assessed together?
5. Where is the justification that Elderslie Road is the preferred planning outcome rather than merely an acceptable engineering outcome?

Key Findings

Finding	**Assessment**
Need for the resource	Supported
Geological investigations	Supported
Biodiversity investigations	Generally supported
Hydrogeological investigations	Generally supported
Overall EIS quality	Generally comprehensive
Selection of Elderslie Road	Not satisfactorily demonstrated
Assessment of pedestrians and cyclists	Not satisfactorily demonstrated
Community severance	Not adequately assessed
Residential Amenity	Partially demonstrated
Cumulative impacts	Not satisfactorily demonstrated
Proposed mitigation	Required strengthening
Adaptive management	Not adequately addressed

This submission does not conclude that the proposed quarry should not proceed. Rather, it concludes that the Environmental Impact Statement has not yet demonstrated that the proposed haulage strategy represents the planning outcome that best avoids or minimises impacts on the Elderslie community.

Planning Assessment Framework

This submission has been prepared having regard to the Environmental Impact Statement (EIS), the accompanying specialist technical reports, and the matters that the consent authority is required to consider in determining a State Significant Development application under the *Environmental Planning and Assessment Act 1979*.

It is recognised that the assessment of a State Significant Development proposal extends beyond determining whether a development complies with individual engineering standards or technical criteria. Rather, the Department of Planning is required to consider the proposal as a whole, balancing its economic, environmental and social consequences and determining whether the development represents an appropriate planning outcome and is in the public interest.

The EIS demonstrates that extensive technical investigations have been undertaken to assess matters including biodiversity, geology, groundwater, traffic, air quality, noise, heritage, social impacts and visual amenity. These investigations represent a substantial body of technical work and, in many cases, provide a sound understanding of the existing environment. The geological investigations and resource feasibility assessment also demonstrate that the site contains a significant hard rock resource capable of supplying important construction materials to the Hunter Region and broader New South Wales.

However, the existence of a valuable resource and compliance with individual technical standards do not, of themselves, establish that the proposed development is the most appropriate planning outcome.

The purpose of the planning assessment is not simply to determine whether the proposal can technically operate. It is to determine whether the development, as proposed, appropriately balances community, environmental and economic interests over its entire operational life.

For this reason, the principal focus of this submission is not the quality of the individual specialist reports. In many respects those reports appear technically competent and have been prepared by appropriately qualified specialists. Rather, this submission considers whether the EIS, when read as a whole, demonstrates that the proposal has appropriately avoided, minimised and addressed its impacts on the surrounding community. This distinction is fundamental.

Throughout the EIS there is a recurring emphasis on demonstrating compliance with engineering standards, modelling criteria and technical guidelines. While these matters are important, compliance with individual technical criteria should not be interpreted as demonstrating that the proposal represents the best or most appropriate planning outcome.

Similarly, demonstrating compliance with environmental noise criteria does not necessarily demonstrate that repeated heavy vehicle movements from early morning each weekday are compatible with the reasonable expectations of residents living along the haulage route. Likewise, demonstrating compliance with air quality criteria does not fully address the practical consequences of increased dust deposition, diesel emissions and ongoing maintenance burdens experienced by households immediately adjoining the road network.

Accordingly, this submission has been prepared using a planning assessment framework based on four fundamental questions.

Have impacts been avoided where reasonably practicable?

Good planning seeks to avoid adverse impacts before relying on mitigation measures. Where alternative design options, infrastructure solutions or haulage arrangements could reasonably reduce impacts on the community, those options should be carefully examined before concluding that mitigation alone is sufficient.

Have unavoidable impacts been minimised?

Where impacts cannot reasonably be avoided, the proponent should demonstrate that all practical measures have been incorporated into the project design to minimise those impacts. This includes consideration of route selection, operational practices, infrastructure improvements and project design refinements.

Are the proposed mitigation measures proportionate to the residual impacts?

Mitigation measures should address not only regulatory compliance but also the practical experience of residents who will live with the proposal throughout its operational life. Measures that satisfy technical criteria may not necessarily preserve residential amenity or community wellbeing.

Where significant residual impacts remain, have appropriate community benefits or compensation measures been identified?

Where a proposal delivers a broader public benefit but imposes disproportionate impacts on a relatively small number of residents, consideration should be given to appropriate measures that recognise and offset those impacts. This is particularly relevant where impacts extend over many decades and affect the daily enjoyment, safety and amenity of neighbouring communities.

This assessment framework is consistent with the principles of the *Environmental Planning and Assessment Act 1979*, which require consideration of the likely environmental, social and economic impacts of a development, whether the development is in the public interest, and the suitability of the site for the proposed development. It is also consistent with the Secretary's Environmental Assessment Requirements (SEARs), which required the EIS to assess transport impacts, social impacts and cumulative impacts associated with the proposal.

The principal issue identified is not whether the proposed quarry contains a viable resource, nor whether individual technical assessments generally comply with accepted methodologies. Rather, the principal issue is whether the EIS has demonstrated that the selected haulage strategy (and specifically the long-term use of Elderslie Road) represents the most appropriate planning outcome after all reasonable opportunities to avoid and minimise impacts have been considered.

It is on this issue that I respectfully submit the current EIS does not yet provide sufficient justification.

Assessment of the Environmental Impact Statement (EIS)

The EIS prepared in support of SSD-76210271 is a comprehensive document supported by an extensive suite of specialist technical investigations. Collectively, these reports address a broad range of environmental, engineering, social and planning matters including biodiversity, water resources, hydrogeology, geology, transport, air quality, noise, heritage, bushfire, visual impacts, social impacts, rehabilitation and economic benefits.

The preparation of these assessments represents a significant investment in technical investigation and provides a detailed understanding of the physical characteristics of the site and the potential environmental impacts associated with the proposed quarry.

Having reviewed the EIS and supporting appendices, I acknowledge that several aspects of the proposal have been comprehensively investigated and are generally supported by detailed technical evidence.

In particular, the Resource Feasibility Assessment provides a robust assessment of the geological resource and demonstrates that the site contains a substantial volume of high-quality hard rock capable of supplying construction aggregates, concrete aggregates, road base and other products required for regional infrastructure projects. The assessment estimates that approximately 50 million tonnes of suitable material are available and concludes that the resource is technically feasible for extraction, subject to financial considerations.

Similarly, the biodiversity, hydrogeological, geotechnical and water resource investigations appear to have been undertaken using accepted methodologies and provide a comprehensive understanding of the environmental characteristics of the site. While these reports identify environmental impacts requiring management, they generally demonstrate that the site itself has been thoroughly investigated.

The EIS also appropriately identifies the strategic importance of securing ongoing supplies of construction materials to support housing, transport infrastructure and economic growth throughout the Hunter Region and New South Wales. I acknowledge that extractive industries play an important role in supporting these objectives and that planning decisions must appropriately balance the need for essential infrastructure with the protection of environmental and community values.

For these reasons, this submission should not be interpreted as suggesting that the proposal lacks technical merit or that quarrying should not occur in principle.

Rather, the concerns raised in this submission arise from the way in which the individual technical assessments have been integrated to justify the overall planning outcome.

There is an important distinction between demonstrating that individual environmental impacts can be managed and demonstrating that the proposal, when considered as a whole,

represents the most appropriate outcome for this particular location. This distinction becomes particularly relevant when considering the proposed transport strategy.

Many of the specialist reports appropriately assess impacts within their own area of expertise. The transport assessment considers traffic capacity and road performance. The air quality assessment considers predicted pollutant concentrations. The noise assessment considers compliance with applicable acoustic criteria. The Social Impact Assessment considers aspects of community wellbeing. Each report reaches conclusions within the boundaries of its respective discipline.

However, planning decisions are not made on the basis of individual reports in isolation.

The role of the EIS is to integrate these specialist investigations into a coherent assessment of whether the development is appropriate having regard to its environmental, economic and social consequences. It is within this broader integration that the EIS is less convincing.

For example, a resident living on Elderslie Road will not experience traffic impacts independently from noise impacts, nor noise independently from dust, nor dust independently from changes in visual character or perceptions of safety. These impacts occur simultaneously and accumulate over time.

Although the EIS contains a section addressing cumulative impacts, that assessment is relatively high level and largely summarises the conclusions of the individual technical reports rather than critically examining the combined effect of increased heavy vehicle traffic, noise, vibration, dust deposition, visual change and altered community character on residents over several decades.

It is this issue that forms the basis of the concerns outlined in the remainder of this submission.

The primary question is therefore not whether the specialist reports are technically competent, but whether the EIS has demonstrated that the proposal represents the most appropriate planning outcome after considering all reasonable opportunities to avoid or minimise impacts on the surrounding community. The answer to that question has not yet been satisfactorily demonstrated.

The remainder of this submission therefore focuses on the principal issue that underpins many of the identified impacts: the selection of Elderslie Road as the primary haulage route for the proposed quarry.

Assessment of the Proposed Haulage Route

The EIS identifies Elderslie Road as a key component of the proposed haulage route connecting the quarry to the New England Highway and the Hunter Expressway. The proposed transport route would also utilise Springvale Road and Stanhope Road, with processed quarry products being transported by truck and dog combinations for an operational period of up to 30 years. Peak production would generate an average of

approximately 110 laden truck movements per weekday, with peak dispatch rates of up to 30 laden trucks per hour.

The selection of the haulage route is one of the most significant planning decisions associated with the proposal because, unlike many impacts that are largely confined to the quarry site itself, haulage impacts extend across the surrounding community and will directly affect residents, road users and public infrastructure throughout the life of the project.

Having reviewed the Integrated Transport Assessment and the broader EIS, I am not persuaded that the proponent has demonstrated that Elderslie Road represents the most appropriate haulage route when assessed against the broader objectives of the planning system.

Importantly, this conclusion is not based on whether Elderslie Road is physically capable of accommodating heavy vehicles, but rather based on whether the EIS demonstrates that the route appropriately balances operational efficiency with community safety, residential amenity and long-term community wellbeing.

Capacity should not be confused with suitability

A recurring conclusion throughout the Integrated Transport Assessment is that the surrounding road network possesses sufficient capacity to accommodate the additional quarry traffic and that intersections will continue to operate at acceptable Levels of Service. The assessment also concludes that the road network is capable of accommodating the proposed heavy vehicle volumes subject to recommended improvements and ongoing maintenance.

These conclusions address an important engineering question: Can the road network physically accommodate the proposed traffic? However, they do not answer the broader planning question: ***Is Elderslie Road the most appropriate location for sustained industrial haulage over the next three decades?***

These are fundamentally different questions.

A road may satisfy engineering performance criteria while still being an inappropriate industrial haulage corridor because of its surrounding land uses, community function, vulnerable road users or long-term impacts on residential amenity.

The EIS places considerable emphasis on demonstrating engineering capacity but provides comparatively limited justification for why Elderslie Road represents the preferred planning outcome after considering all reasonable alternatives.

The existing function of Elderslie Road has been underestimated

The Transport Assessment largely considers Elderslie Road as part of the regional road network. In practice, Elderslie Road performs many additional functions. It is a residential road serving rural and rural-residential properties. It provides access to homes, farms and local businesses. It is used daily by: residents entering and leaving private driveways; school buses; pedestrians; recreational cyclists; children riding bicycles; agricultural machinery;

visitors and delivery vehicles; and members of the community accessing neighbouring properties.

Unlike a purpose-built freight corridor or industrial access road, Elderslie Road performs an important social and community function.

The EIS acknowledges the rural/residential nature of the locality and recognises the value that residents place on the area's rural character and lifestyle.

However, the Transport Assessment gives comparatively little consideration to how increased heavy vehicle traffic may alter the way the road functions for the community over time.

Community function is a legitimate planning consideration

Roads are not simply transport corridors. They are also public spaces that support community interaction, recreation and everyday movement. Increasing industrial traffic can fundamentally change how people use those spaces.Parents may become less willing to allow children to ride bicycles. Residents may be discouraged from walking along the road. Cyclists may avoid the route. Access to roadside mailboxes may become more difficult. Residents may experience increased delays exiting private driveways due to frequent heavy vehicle movements.

Community severance is a recognised transport planning concept describing the reduction in people's ability or willingness to move around their community because of increased traffic volumes, speeds or perceived danger. These behavioural changes are collectively referred to in transport planning literature as **community severance**, where increased traffic progressively reduces the accessibility, safety and social function of a road for the surrounding community.

While the Social Impact Assessment discusses community wellbeing and rural lifestyle values, the EIS does not appear to comprehensively assess whether the proposed haulage task may result in this form of community severance or how such impacts might be avoided or minimised.

The duration of the impact is significant

The assessment of route suitability should also consider how the surrounding community may evolve over the operational life of the quarry.

While the Transport Assessment appropriately assesses existing traffic conditions, I was unable to identify detailed consideration of how future residential growth, changing travel patterns or increased pedestrian and cyclist activity may influence the long-term suitability of Elderslie Road as an industrial haulage corridor.

Given that the proposal extends over several decades, I respectfully submit that route selection should be robust not only for current conditions but also for the community that is reasonably expected to exist during the life of the development.

Demonstration of route selection is limited

The EIS provides a detailed assessment of the selected haulage route. However, there is comparatively little discussion explaining why this route was preferred over any reasonable alternatives or whether other options were investigated to reduce impacts on residential areas.

The EIS does not identify where a comparative multi-criteria assessment has been undertaken to demonstrate that Elderslie Road was selected as the preferred haulage route after evaluating all reasonably available alternatives against engineering, environmental, social, residential amenity and public interest considerations.

Good planning practice generally seeks to avoid impacts before relying on mitigation.

Where a proposal introduces long-term impacts to an established residential community, it is reasonable to expect a transparent explanation of:

- the route selection process;
- the alternatives considered;
- the reasons alternatives were discounted; and
- why the selected route represents the option with the least overall impact.

The EIS does not provide sufficient information to demonstrate that this process has been undertaken in a manner that enables the Department of Planning or the community to understand why Elderslie Road is the preferred outcome.

Conclusion

The Integrated Transport Assessment provides a detailed analysis of traffic operations and demonstrates that the surrounding road network is generally capable of accommodating the proposed quarry traffic from an engineering perspective.

However, demonstrating that a road can physically carry additional heavy vehicles is not, in itself, sufficient to demonstrate that it is the most appropriate long-term industrial haulage corridor.

The EIS has not adequately demonstrated that the selection of Elderslie Road represents the planning outcome that best avoids or minimises impacts on existing residents before reliance is placed on operational mitigation measures.

For this reason, I consider that additional justification should be required before the suitability of Elderslie Road as the principal haulage route can be accepted.

Pedestrian Safety, Active Transport and Community Accessibility

One of the principal concerns arising from the proposed haulage route is the limited assessment of how increased heavy vehicle traffic will affect pedestrians, cyclists and other vulnerable road users using Elderslie Road.

While the Integrated Transport Assessment provides a comprehensive analysis of vehicle movements, traffic volumes, intersection performance and road capacity, there is comparatively little assessment of the interaction between frequent heavy vehicle movements and the day-to-day activities of people who live along the haulage route.

This distinction is important.

Roads serve multiple functions.

They are not simply corridors for moving vehicles efficiently between destinations. They also provide access to homes, support active transport, enable social interaction and contribute to the overall liveability of rural and residential communities.

T EIS appears to place significant emphasis on maintaining acceptable traffic performance but gives comparatively limited consideration to preserving these broader community functions.

Existing pedestrian infrastructure is limited

Large sections of Elderslie Road have no continuous pedestrian pathway. In many locations pedestrians are required to walk on the road shoulder or immediately adjacent to the traffic lane. Roadside drainage, narrow shoulders and rural road geometry further limit the separation available between pedestrians and passing vehicles.

Unlike suburban streets designed with kerbside footpaths and dedicated pedestrian infrastructure, Elderslie Road functions as a rural community road where motorists, pedestrians, cyclists and agricultural vehicles frequently share the same road environment.

This existing condition increases the importance of carefully considering any substantial increase in heavy vehicle traffic.

Although the Transport Assessment discusses road geometry and traffic operations, it provides relatively little assessment of whether the existing pedestrian environment remains appropriate once regular quarry haulage is introduced.

Active transport has not been adequately assessed

The Secretary's Environmental Assessment Requirements required consideration of walking, cycling and other transport modes as part of the transport assessment.

While these matters are acknowledged, there is limited discussion regarding how increased heavy vehicle traffic may influence the willingness of residents to walk or cycle along Elderslie Road or how those activities may change over the operational life of the quarry.

This is particularly relevant within rural communities where walking and cycling often occur for recreation rather than as part of formal commuter networks. The planning issue is therefore not simply whether cycling remains legally possible.The issue is whether people will continue to feel comfortable using the road in the same way once industrial haulage

becomes a regular feature of the surrounding environment. The EIS does not appear to address this behavioural change.

Children require particular consideration

Based on my observations as a resident of the area, I can confirm children regularly ride bicycles along Elderslie Road and use the surrounding road network for recreation and to visit neighbouring properties. This local knowledge represents an important aspect of the existing environment.

While collision risk between heavy vehicles and cyclists may be relatively low, the consequences of such an event would be severe. Heavy vehicles have:

- substantially longer stopping distances;
- larger blind spots;
- wider turning paths;
- greater vehicle mass; and
- significantly higher crash severity than passenger vehicles.

These characteristics make children particularly vulnerable because they are less predictable in their movements, have reduced hazard perception compared with adults and may misjudge the speed or stopping capability of approaching trucks.

I was unable to identify any detailed assessment within the EIS specifically considering how children using Elderslie Road would be affected by the proposed increase in heavy vehicle traffic or whether any dedicated mitigation measures are proposed for this vulnerable group.

School bus interactions

The Transport Assessment acknowledges the presence of school bus services along the haulage route. However, the assessment gives comparatively limited consideration to the practical interaction between heavy vehicles and children boarding or alighting from buses.

In rural areas, school bus stops frequently comprise informal roadside locations without dedicated waiting areas, pedestrian refuges or protected crossings. Children may be required to stand adjacent to the carriageway or cross the road before or after boarding. The introduction of regular truck and dog combinations throughout the day has the potential to increase both actual and perceived safety risks in these locations.

Given the long operational life of the proposal, I consider that these interactions warrant more detailed assessment.

Existing crash history should not be the sole measure of future safety

The Integrated Transport Assessment appropriately considers historical crash data as part of its assessment of the existing road network.

However, historical crash performance should not be interpreted as demonstrating that future safety risks will remain unchanged following the introduction of sustained heavy vehicle haulage over several decades.

The proposal will introduce a different traffic environment characterised by more frequent truck and dog combinations operating along a road that also serves residential properties, school buses, cyclists and pedestrians.

Accordingly, while historical crash records provide useful baseline information, they should be considered alongside future changes in traffic composition, vulnerable road user activity and the long-term function of Elderslie Road as a shared community space.

Community accessibility

Road accessibility should not be assessed solely in terms of vehicle movement. Accessibility also includes the ability of residents to comfortably:

- walk along the road;
- ride bicycles;
- access roadside mailboxes;
- enter and exit private driveways;
- interact with neighbours; and
- enjoy the surrounding rural environment.

These everyday activities contribute to the character and social function of the community. While each individual interaction may appear minor, collectively they influence how residents experience their neighbourhood over time. The EIS gives limited consideration to whether increased industrial traffic may gradually reduce these forms of community accessibility.

Perceived safety is also a planning consideration

Planning decisions should recognise that community behaviour is influenced not only by measured crash statistics but also by perceptions of safety. Even if heavy vehicle operations comply with road design standards, parents may become less willing to allow children to ride bicycles. Residents may choose to drive rather than walk short distances. Cyclists may avoid Elderslie Road altogether. These changes represent a reduction in community accessibility and liveability even if no increase in recorded crashes occurs.

These behavioural changes have not been adequately assessed.

Assessment

Having reviewed the EIS, I do not consider that the impacts on pedestrians, cyclists and vulnerable road users have been assessed with the same level of detail as vehicle traffic performance.

The assessment successfully demonstrates that the road network is capable of accommodating the proposed traffic from an engineering perspective. However, it does not

satisfactorily demonstrate that the existing pedestrian environment, active transport opportunities and broader community accessibility will be maintained throughout the operational life of the quarry. Accordingly, I respectfully submit that further assessment should be undertaken to evaluate:

1. existing pedestrian and cyclist activity along Elderslie Road;
2. the use of the road by children and other vulnerable users;
3. school bus interactions;
4. opportunities to improve pedestrian and cycling infrastructure;
5. the potential for community severance; and
6. whether additional infrastructure should be provided before heavy vehicle haulage commences.

Residential Amenity – Noise, Dust, Air Quality and Quality of Life

One of the fundamental objectives of the planning system is to ensure that new development is compatible with surrounding land uses and does not result in unreasonable impacts on the amenity of existing communities.

For residents living along Elderslie Road, the most significant impacts of the proposed quarry are unlikely to arise from quarry operations within the extraction area itself. Rather, they will arise from the continual movement of heavy vehicles along the proposed haulage route over an operational period of up to 30 years. These impacts include: Increased traffic noise; Diesel emissions; Dust generation; Vibration; Visual intrusion associated with frequent heavy vehicle movements; Reduced enjoyment of outdoor areas; and the gradual erosion of the rural character that currently defines the locality.

While each of these matters is addressed separately within the EIS, residents will experience them collectively as part of their everyday living environment.

This cumulative effect has not been adequately reflected in the overall assessment of residential amenity.

Compliance should not be confused with compatibility

The specialist assessments generally conclude that predicted impacts comply with the applicable environmental assessment criteria. While this is an important part of the assessment process, compliance with numerical standards should not automatically be interpreted as demonstrating that the proposal is compatible with the surrounding residential environment. Environmental criteria are designed to establish minimum acceptable thresholds. They are not intended to define what constitutes a desirable or high-quality residential living environment.

For example:

- a development may comply with predicted noise criteria while still introducing a noticeable and persistent change to the character of a neighbourhood;

- dust levels may comply with modelling criteria while still increasing cleaning requirements for nearby residents;
- traffic may operate within acceptable engineering limits while fundamentally changing how a road is experienced by those who live alongside it.

Planning decisions should therefore consider not only whether technical criteria are achieved, but also whether the proposal is compatible with the existing and future character of the locality.

Noise impacts extend beyond measured decibels

The Noise Impact Assessment concludes that operational noise can generally be managed through the proposed mitigation measures and compliance framework. However, from the perspective of residents living along the haulage route, the most noticeable source of disturbance is likely to be the continual movement of heavy vehicles rather than activities occurring within the quarry itself. Truck movements commencing from approximately **6:30 am on weekdays**, continuing throughout the day, represent a substantial change to the existing acoustic environment.

Unlike occasional rural traffic, heavy vehicles generate a distinctive combination of:

- engine acceleration;
- exhaust noise;
- gear changes;
- trailer rattle;
- braking noise; and
- vibration associated with heavy axle loads.

Although individual events may comply with relevant assessment criteria, the repeated occurrence of these events over many years is likely to alter the character of the surrounding environment and reduce the enjoyment of residential properties.

This qualitative change is difficult to capture through predictive modelling alone.

Dust affects more than air quality

The Air Quality Impact Assessment predicts that dust concentrations will generally comply with applicable assessment criteria when the proposed operational controls are implemented.

I do not dispute the modelling undertaken by the consultants. However, compliance with ambient air quality criteria does not necessarily reflect the practical impacts experienced by residents living immediately adjacent to the haulage route. Dust generated by repeated heavy vehicle movements has the potential to accumulate on: Homes; Verandahs; Outdoor entertaining areas; Vehicles; Fences; Windows; Swimming pools; Rainwater tanks; Gardens; and Solar panels.

While each individual dust deposition event may be relatively minor, the cumulative effect over many years can result in increased cleaning, maintenance costs and reduced enjoyment of private property.

The EIS gives comparatively limited consideration to these practical residential impacts.

Diesel emissions and perceived air quality

Heavy vehicle traffic also introduces increased diesel exhaust emissions along the haulage corridor.

Although predicted pollutant concentrations may comply with relevant standards, residents are likely to experience a noticeable increase in the frequency of diesel odours associated with passing trucks. This is particularly relevant where residents spend significant time outdoors or rely upon natural ventilation during warmer months. The assessment primarily considers compliance with pollutant concentration criteria.It gives less consideration to how increased diesel traffic may influence residents' perceptions of air quality and their willingness to use outdoor spaces.

Residential amenity is experienced every day

One of the defining characteristics of residential amenity is that it is experienced continuously rather than occasionally. Residents do not experience:

- traffic on Monday;
- noise on Tuesday;
- dust on Wednesday.

They experience all of these impacts together. Every day. Over the life of the development!

For this reason, residential amenity should be assessed from the perspective of those who will live with the proposal rather than solely from the perspective of regulatory compliance. The EIS generally assesses each environmental factor independently.

Greater consideration should have been given to the combined effect of these ongoing changes on the everyday experience of residents.

Amenity includes more than the inside of a house

Residential amenity extends beyond the interior of a dwelling. It includes the ability to comfortably enjoy: Gardens; Verandahs; Outdoor entertaining areas; Children's play areas; Swimming pools; Walking around one's property; Opening windows to enjoy natural ventilation; and the quiet rural character that attracted many residents to the locality.

The introduction of frequent heavy vehicle movements has the potential to reduce the enjoyment of these aspects of residential life even where individual environmental criteria continue to be achieved.

These are legitimate planning considerations.

The duration of the impact increases its significance

The proposal seeks approval for operations over approximately **30 years**, with the Resource Feasibility Assessment identifying a resource capable of supporting quarry operations for up to **50 years**. The long operational life distinguishes this proposal from many other developments. Impacts that might be considered acceptable over a relatively short period become considerably more significant when experienced over several decades. Planning decisions should therefore consider not only the magnitude of an impact but also its duration.

Assessment

I acknowledge that the specialist noise and air quality assessments have been prepared using recognised methodologies and that the modelling predicts general compliance with applicable assessment criteria. However, the EIS does not satisfactorily demonstrate that the proposal is compatible with maintaining the existing residential amenity of properties located along the proposed haulage route.

The assessment successfully demonstrates regulatory compliance. It does not satisfactorily demonstrate residential compatibility. That distinction is central to the planning assessment.

Accordingly, I respectfully submit that the Department of Planning should give further consideration to:

1. the practical impacts of repeated heavy vehicle movements on residential amenity;
2. the cumulative effect of traffic noise, dust, diesel emissions and vibration over the operational life of the quarry;
3. the long-term maintenance burden imposed on affected households; and
4. whether additional measures should be required to preserve the reasonable enjoyment of residential properties located along Elderslie Road.

Examples of Residential Amenity Impacts Not Fully Reflected in Technical Compliance Assessments

Technical Assessment	**Resident Experience**
Noise complies	Window kept closed in Summer
Dust complies	More frequent cleaning of homes
Dust complies	Solar panels lose efficiency until cleaned
Dust complies	Pools require additional cleaning
Traffic acceptable	Harder to reverse from driveways
Traffic acceptable	Reduced willingness to cycle or walk
Air quality acceptable	More diesel odour outdoors

Visual impact minor	Constant reminder of industrial activity
Vibration acceptable	Perception of continual heavy traffic

Cumulative Impacts and Long-Term Community Consequences

One of the most important responsibilities of the consent authority is to consider the cumulative effects of a proposed development. This is particularly important for developments where individual impacts may each be considered acceptable in isolation, but where the combined effect of those impacts has the potential to materially alter the character, amenity and liveability of the surrounding community.

The EIS acknowledges the requirement to consider cumulative impacts and includes a chapter summarising the interaction of the various technical assessments. However, the cumulative impact assessment does not fully evaluate the lived experience of residents who will be exposed to the combined effects of the proposal over an operational life of up to 30 years. Instead, the assessment largely consolidates the conclusions reached within the individual specialist reports. While this provides a useful summary of the technical investigations, it does not necessarily demonstrate that the cumulative impacts on the community have been fully understood .

Residents experience all impacts simultaneously

The individual specialist reports examine:

- traffic;
- noise;
- air quality;
- visual impacts;
- vibration;
- social impacts;
- water;
- biodiversity; and
- other environmental considerations.

This approach is entirely appropriate for technical assessment. However, residents do not experience these impacts separately. They experience them together.

For a resident living adjacent to the proposed haulage route, a typical weekday may involve:

- regular heavy vehicle movements;
- traffic noise;
- diesel exhaust;
- dust deposition;
- vibration from passing trucks;
- increased difficulty entering or exiting their driveway;
- reduced willingness to walk or cycle along the road; and

- the ongoing visual presence of industrial haulage traffic.

These experiences occur concurrently. The cumulative effect is therefore greater than the sum of the individual technical assessments.

Small changes accumulate over time

An important characteristic of cumulative impacts is that they are often created by numerous relatively small changes. Individually, each change may appear minor. Collectively, they alter how a place functions.

Examples include:

- children no longer riding bicycles along the road;
- residents choosing to drive short distances instead of walking;
- outdoor entertaining becoming less enjoyable;
- windows remaining closed more frequently;
- more regular cleaning of homes, vehicles and outdoor areas;
- increased caution when reversing from driveways;
- greater awareness of passing heavy vehicles throughout the day.

No single change may justify refusal of a development. However, together they represent a measurable reduction in residential amenity and community wellbeing. These gradual behavioural changes are not sufficiently explored within the cumulative impact assessment.

The duration of exposure is a significant planning consideration

Many cumulative impact assessments focus primarily on the interaction between different environmental factors. Equal consideration should also be given to the duration over which those impacts will occur.

This proposal seeks approval for quarry operations over approximately **30 years**, with investigations identifying a resource that may support extraction for considerably longer. This means that a child commencing primary school when quarry operations begin may be an adult before haulage activities cease. Families may experience these impacts for an entire generation.

The long-term nature of the proposal increases the importance of ensuring that impacts have genuinely been avoided or minimised before reliance is placed upon operational mitigation.

The cumulative social impact has been understated

The Social Impact Assessment appropriately discusses community values, rural character, lifestyle and community wellbeing. However, when considered alongside the Transport Assessment, Noise Assessment and Air Quality Assessment, there appears to be limited integration of how these technical impacts influence those social values over time.

For example, increased heavy vehicle traffic may influence:

- how children move around the community;
- the willingness of residents to participate in outdoor recreation;
- perceptions of safety;
- neighbourly interaction;
- enjoyment of rural living;
- the attractiveness of the locality for future residents.

These are legitimate social planning considerations and they deserve greater emphasis within the cumulative assessment.

Consistency with the Social Impact Assessment Framework

The Social Impact Assessment appropriately identifies the importance of understanding how impacts are distributed across different parts of the community, recognising vulnerable groups and considering cumulative social consequences over time.

However, when those principles are applied to the proposed haulage route, the assessment appears to give comparatively limited consideration to how the combined effects of increased heavy vehicle traffic, reduced perceptions of safety, diminished active transport opportunities and changes to residential amenity may disproportionately affect residents living along Elderslie Road.

In particular, I was unable to identify a detailed assessment of how these impacts may affect children, pedestrians, cyclists or residents whose properties directly front the proposed haulage route over the operational life of the quarry.

While the Social Impact Assessment establishes an appropriate assessment framework, I respectfully submit that its application to the haulage corridor would benefit from further analysis.

Community character changes gradually

The character of a community is rarely altered by one significant event. More commonly, it changes through the accumulation of many relatively small changes. In this case those changes include:

- the increased frequency of industrial traffic;
- changes to the acoustic environment;
- ongoing dust and diesel emissions;
- visual reminders of industrial activity;
- altered travel behaviour;
- reduced opportunities for active transport; and
- changing perceptions of safety.

Over time these factors have the potential to alter how residents experience Elderslie Road and the surrounding locality. While these changes may be difficult to quantify through modelling, they remain relevant planning considerations.

The public interest extends beyond compliance

The EIS concludes that individual environmental impacts can generally be managed through the proposed mitigation measures. I acknowledge that many of the technical reports support this conclusion. However, planning decisions are required to consider not only technical compliance but also the broader public interest. The public interest includes maintaining safe, liveable and cohesive communities while supporting necessary economic development.

Where significant regional benefits are achieved through a proposal, it is appropriate that the residual impacts imposed upon directly affected communities are fully recognised and, where necessary, addressed through stronger avoidance, minimisation, mitigation and community benefit measures.

While the benefits of the proposal are regional in nature, many of the impacts are concentrated within the Elderslie community and, in particular, among residents living adjacent to the proposed haulage route. This creates an imbalance between those who receive the primary benefits of the development and those who experience its most significant day-to-day impacts. In such circumstances, it is reasonable to expect that the planning assessment gives particular attention to whether those impacts have first been avoided or minimised and, where unavoidable, whether additional measures are required to recognise and offset the disproportionate burden placed on directly affected residents.

Assessment

Having considered the EIS as a whole, I do not consider that the cumulative impacts of the proposal have been fully assessed from the perspective of residents living along the proposed haulage route. The EIS demonstrates that many individual impacts are capable of being managed within recognised technical criteria. However, it does not satisfactorily demonstrate that the combined effects of traffic, noise, dust, vibration, visual change, altered travel behaviour and reduced residential amenity will remain acceptable over the operational life of the project.

Accordingly, I respectfully submit that the Department of Planning should undertake further consideration of the cumulative impacts associated with the proposed haulage route before determining whether the project represents an appropriate planning outcome.

Recommended Conditions of Consent and Community Benefit Measures

Should the Department pf Planning ultimately determine that the proposed quarry is in the public interest and grant development consent, I respectfully submit that substantially stronger conditions should be imposed to reduce the impacts experienced by residents living along the proposed haulage route.

Many of the proposed mitigation measures contained within the EIS focus on achieving compliance with environmental standards through operational management, monitoring and

reporting. However, comparatively little emphasis is placed on preserving the amenity of the surrounding community or recognising that a relatively small number of residents will experience the majority of the proposal's day-to-day impacts over several decades.

Where a development delivers significant regional economic benefits but concentrates many of its impacts on a local community, it is reasonable to expect that conditions of consent extend beyond regulatory compliance and include measures that directly improve the safety, wellbeing and amenity of those most affected.

The following measures are therefore recommended for consideration should the proposal be approved.

1. Road Safety and Active Transport

The proposed haulage route should be upgraded to better accommodate the interaction between heavy vehicles and vulnerable road users.

Recommended conditions include:

1. Construction of a continuous shared pedestrian and cycle pathway through the residential sections of Elderslie Road where practical.
2. Widening and sealing of road shoulders suitable for cyclists.
3. Safety improvements at school bus stopping locations, including sealed waiting areas and improved sight distances where required.
4. Installation of additional signage identifying pedestrian, cyclist and school bus activity.
5. A review of speed limits through residential sections of Elderslie Road following commencement of quarry operations.
6. Independent Road Safety Audits every five years, with implementation of recommendations where justified.
7. A Heavy Vehicle Driver Code of Conduct addressing speed, engine braking, driver behaviour and interactions with pedestrians and cyclists.
8. GPS monitoring of heavy vehicles with mandatory reporting of speeding complaints.

2. Residential Amenity

The long-term nature of the proposal justifies conditions specifically directed toward preserving residential amenity.

Recommended conditions include:

1. Installation of acoustic glazing (double glazing) for eligible residences directly affected by haulage traffic.
2. Roof and ceiling insulation upgrades where acoustic assessments demonstrate benefit.

3. Air-conditioning installation to enable windows to remain closed during periods of increased noise or dust.
4. Landscaping and vegetative screening along affected road frontages where practical (or reimbursement of those residents that have installed screening since being made aware of the quarry haulage route).
5. Independent pre-construction building condition surveys.
6. Repeat building condition surveys every five years throughout quarry operations.
7. Independent structural inspections where vibration complaints are substantiated.

3. Dust and Property Maintenance

While operational dust suppression should remain the responsibility of the quarry operator, additional measures should recognise the practical impacts experienced by adjoining residents.

Recommended conditions include:

1. Professional external house washing every two years for eligible residences located along the haulage route.
2. Annual professional window cleaning.
3. Professional solar panel cleaning annually where dust accumulation reduces system efficiency.
4. Professional swimming pool cleaning and water balancing twice each year for properties with pools.
5. Additional road sweeping where dust accumulation is identified.
6. Independent roadside dust deposition monitoring at representative residential locations.
7. Public reporting of dust monitoring results.

4. Community Monitoring and Transparency

Maintaining community confidence requires transparent environmental monitoring throughout the life of the project.

Recommended conditions include:

- Independent environmental monitoring undertaken by suitably qualified consultants rather than solely by the quarry operator.
- Publication of monitoring results on a publicly accessible website.
- Quarterly community liaison meetings.
- Annual independent review of compliance with all haulage-related consent conditions.
- A publicly available complaints register identifying complaints received, investigation outcomes and corrective actions.
- Annual reporting to Singleton Council and the Department regarding haulage performance and community feedback.

5. Community Benefit Fund

Given the regional economic benefits associated with the proposal and the concentration of impacts within the Elderslie community, consideration should be given to establishing a dedicated Community Benefit Fund.

The purpose of the fund would be to provide ongoing investment in projects that improve safety, amenity and community wellbeing throughout the operational life of the quarry.

Potential projects could include:

1. pedestrian infrastructure;
2. cycling infrastructure;
3. local road safety improvements;
4. community facilities;
5. playground upgrades;
6. roadside tree planting;
7. environmental rehabilitation projects;
8. school road safety initiatives; and
9. grants supporting local community organisations.

Such a fund would recognise that while the benefits of the quarry are shared across the broader region, many of its impacts will be experienced by a comparatively small number of residents living adjacent to the haulage corridor.

6. Adaptive Management and Periodic Review of Haulage Operations

The proposal seeks approval for an operational period extending over several decades. During this time, surrounding land use, traffic patterns and community expectations may change significantly. Accordingly, conditions of consent should require periodic review of the haulage strategy rather than assuming that conditions existing today will remain appropriate for the entire operational life of the quarry.

Reviews should include consideration of:

1. changes in residential development;
2. changes in traffic volumes;
3. road safety performance;
4. pedestrian and cyclist activity;
5. complaints data;
6. environmental monitoring;
7. opportunities for additional mitigation measures; and
8. whether alternative haulage arrangements have become feasible.

This adaptive management approach would ensure that consent conditions continue to reflect the changing needs of the surrounding community.

7. Independent Community Impact Review

I would propose a condition requiring:

> **An independent review of the social, transport and residential amenity impacts of the development every five years.**

Not just environmental compliance.

An actual review asking:

- Are residents still able to safely use the road?
- Has community severance increased?
- Are the mitigation measures working?
- Are new mitigation measures required?
- Has the community changed since approval?

Why is this important? Because **30 years is a very long time**. The Elderslie of 2055 will almost certainly not be the Elderslie of today.

A consent granted today should not assume that today's mitigation will remain appropriate for the next three decades. An adaptive review mechanism gives the Department of Planning an evidence-based way to respond to changing conditions and ensures that community protection evolves alongside the project rather than remaining fixed at the assumptions made in the original EIS.

Assessment

The EIS proposes a range of operational mitigation measures designed primarily to achieve compliance with environmental and engineering standards. While these measures are important, I do not consider they adequately recognise the long-term impacts that the proposal may have on the residents who live along the haulage route, nor do they provide sufficient mechanisms to adapt to changing community conditions over the proposed operational life of the quarry.

Should the Department of Planning approve the proposal, I respectfully submit that conditions of consent should extend beyond regulatory compliance and include practical measures that preserve residential amenity, improve community safety and recognise the disproportionate burden placed upon the Elderslie Road community throughout the life of the development.

Importantly, given the proposed operational life of up to 30 years, conditions of consent should not assume that the mitigation measures considered appropriate today will necessarily remain appropriate throughout the life of the project. Community demographics, traffic volumes, land use patterns and expectations regarding safety and amenity are likely to evolve over time.

For this reason, I consider that an adaptive management approach should be adopted through periodic independent reviews of the social, transport and residential amenity impacts of the development. Such reviews would enable the consent authority to assess whether the

approved mitigation measures continue to achieve their intended outcomes and whether additional measures are required to respond to changing circumstances.

This approach would better balance the long-term public benefits of the project with the ongoing protection of the residents who will experience its most direct and enduring impacts.

Conclusion

Having reviewed the EIS and its supporting technical reports, I acknowledge that the proponent has undertaken a substantial body of technical investigation to support the proposed Bluestone Hardrock Quarry.

The documentation demonstrates that the site contains a significant hard rock resource capable of supplying important construction materials to the Hunter Region and New South Wales, and I recognise the broader economic and strategic value of securing an ongoing supply of these resources. The EIS also contains comprehensive investigations across a range of environmental disciplines, many of which appear to have been prepared using recognised methodologies by appropriately qualified specialists.

Accordingly, this submission should not be interpreted as opposition to quarrying as an industry or to the extraction of the identified resource in principle.

Rather, the concerns raised throughout this submission relate to whether the EIS has demonstrated that the proposal, as currently configured, represents the most appropriate planning outcome after all reasonable opportunities to avoid or minimise impacts on the surrounding community have been fully considered.

The EIS successfully demonstrates many aspects of the proposal from an engineering and technical perspective. However, it **does not satisfactorily demonstrate** that the proposed haulage strategy, and in particular the long-term use of Elderslie Road as the principal heavy vehicle haulage corridor, represents the planning outcome that best balances operational efficiency with community safety, residential amenity and the long-term wellbeing of the Elderslie community.

Throughout this submission I have identified several recurring themes that warrant further consideration by the Department of Planning before the proposal is determined.

These include:

- the distinction between engineering capacity and planning suitability;
- the limited assessment of pedestrians, cyclists, school children and other vulnerable road users;
- the residential and community function of Elderslie Road beyond its role as part of the road network;
- the cumulative impacts of traffic, noise, dust, vibration and changes to community character over a proposed operational life of up to 30 years;
- the absence of a clear demonstration that the selected haulage route represents the option that best avoids or minimises impacts on existing residents; and

- the comparatively limited emphasis placed on long-term community protection and residential amenity within the proposed mitigation framework.

These matters are not isolated concerns.

Collectively, they raise a broader planning question as to whether the EIS has fully demonstrated that the proposal, in its current form, is the most appropriate outcome having regard to the objectives of the planning system and the public interest.

For this reason, I respectfully request that the Department of Planning give further consideration to the adequacy of the proposed haulage strategy before determining the application.

Specifically, I request that the Department:

- require the proponent to provide additional justification demonstrating why Elderslie Road represents the most appropriate haulage route after consideration of all reasonably available alternatives;
- undertake further assessment of pedestrian safety, active transport, community accessibility and the long-term effects of community severance;
- give greater weight to the cumulative impacts experienced by residents living along the proposed haulage corridor rather than considering individual environmental impacts in isolation;
- require stronger conditions directed towards preserving residential amenity and protecting vulnerable road users; and
- if the proposal is approved, require adaptive management through periodic independent reviews of transport, social and residential amenity impacts together with meaningful community benefit initiatives for those most directly affected.

The planning system appropriately recognises that developments delivering regional economic benefits may still impose significant impacts on individual communities. Where this occurs, it is important that those impacts are first avoided wherever reasonably practicable, then minimised through project design, and only thereafter managed through mitigation and ongoing monitoring.

The EIS does not yet demonstrated that this planning hierarchy has been fully applied to the selection of Elderslie Road as the preferred haulage corridor.

Accordingly, I respectfully submit that additional justification and further assessment should be required before the suitability of Elderslie Road is accepted as part of this proposal.

Should the Department of Planning ultimately determine that the quarry is in the public interest and approve the development, I respectfully request that the recommended conditions outlined in this submission be incorporated into any development consent to ensure that the residents who will experience the greatest long-term impacts receive meaningful protection, ongoing monitoring and appropriate community benefit throughout the life of the project.

Appendix A – Summary of Requested Conditions of Consent

This submission does not simply identify concerns with the proposed development. It also seeks to provide practical recommendations that, should the Department of Planning determine to approve the proposal, would materially reduce the impacts experienced by the Elderslie community.

The following table summarises the key conditions that I respectfully request the Department of Planning consider imposing as part of any development consent.

Topic	Requested Condition	Purpose
Haulage Route	Require the proponent to further justify the selection of Elderslie Road having regard to alternative routes and the principles of impact avoidance and minimisation.	Ensure the preferred route has been appropriately justified.
Road Safety	Independent Road Safety Audit prior to commencement and every five years thereafter.	Ongoing review of changing road conditions and community safety.
Pedestrian Infrastructure	Construction of a continuous shared pedestrian and cycle pathway through residential sections of Elderslie Road where practical.	Improve pedestrian and cyclist safety.
Cyclist Safety	Sealed road shoulders and additional cyclist warning signage.	Reduce conflict between cyclists and heavy vehicles.
School Bus Safety	Upgrade school bus stopping locations and undertake a school bus safety assessment.	Protect children using school bus services.
Speed Management	Review speed limits along residential sections of Elderslie Road following commencement of quarry operations.	Improve safety for all road users.
Heavy Vehicle Behaviour	Heavy Vehicle Driver Code of Conduct incorporating GPS monitoring, speed compliance, engine braking restrictions and complaint investigation procedures.	Improve driver behaviour and community confidence.

Noise	Independent operational noise monitoring at representative residences and publication of results.	Verify ongoing compliance and transparency.
Dust	Independent dust deposition monitoring at representative residences with publicly available reporting.	Monitor actual impacts experienced by residents.
Property Protection	Pre-construction building condition surveys, with repeat surveys every five years and after any substantiated vibration complaint.	Protect residents and provide an objective record of property condition.
Residential Amenity	Offer double glazing, roof insulation and air-conditioning to eligible residences significantly affected by haulage traffic.	Preserve residential amenity over the life of the project.
Property Maintenance	Annual window cleaning, annual solar panel cleaning, biennial house washing and twice-yearly professional pool cleaning for eligible properties.	Address the ongoing maintenance burden associated with increased heavy vehicle traffic.
Road Maintenance	Increased road sweeping and shoulder maintenance where dust accumulation occurs.	Reduce roadside dust and improve road cleanliness.
Community Engagement	Quarterly Community Liaison Group meetings and annual reporting to the Department	Maintain ongoing communication with the community.
Community Benefit Fund	Establish a Community Benefit Fund for local safety, environmental and community projects throughout the life of the quarry.	Recognise that the local community bears a disproportionate share of the impacts.
Adaptive Management	Independent five-yearly review of transport, social and residential amenity impacts with the ability for the Department to require additional mitigation if warranted.	Ensure mitigation remains effective as community conditions change over time.

The recommended conditions outlined above are intended to complement, rather than replace, the environmental management measures proposed by the proponent.

Should the Department of Planning conclude that the proposed quarry is in the public interest, these conditions would provide a more balanced approach by recognising that, while the benefits of the project will be shared across the Hunter Region and New South Wales, many of the day-to-day impacts will be experienced by a relatively small number of residents living along the proposed haulage route.

Incorporating these measures into any development consent would better align the proposal with the principles of impact avoidance, impact minimisation, adaptive management and the protection of residential amenity that underpin good planning practice.