

Submission Type: OBJECTION

Executive Summary

As a local resident situated within 5 kilometres of the proposed extraction footprint and an active, everyday user of the primary transport network, I write to formally lodge my strongest objection to the **Bluestone Hardrock Quarry Project (SSD-76210271 / EPBC 2026/10452)**.

While I acknowledge the region's demand for construction materials, the massive scale of this 30-million-tonne, 30-year operation introduces unacceptable and unmitigated risks to public health, local heritage, road safety, agricultural viability, and community wellbeing. The Environmental Impact Statement (EIS) relies on incomplete data, optimistic modelling, and deceptive liability-shifting frameworks that fail to satisfy statutory assessment standards. I urge the Department and the Independent Planning Commission (IPC) to refuse this application based on the comprehensive grounds detailed below.

Section 1: Catastrophic Infrastructure Threats, Structural Fatigue, and Local Heritage Risk

A. Structural Threat to the 135-Year-Old Heritage-Listed Elderslie Bridge (LEP Item #114)

The proposed routing of heavy, laden haulage vehicles directly across the **heritage-listed Elderslie Bridge** is an act of engineering negligence. Built in 1891 over the Hunter River, this irreplaceable piece of infrastructure is a rare surviving example of a McDonald timber-and-wrought-iron lattice truss bridge. It was never engineered to withstand the relentless pounding of up to 220 heavy B-double and truck-and-dog movements per day. The constant micro-vibrations, maximum-mass axle loads, and severe kinetic braking forces generated by 50-tonne configurations will rapidly accelerate structural fatigue in the aging timber trusses and iron connections, risking irreversible failure of a listed heritage asset.

B. Failure of Long-Term Asset Planning and the 10-Year Bridge Horizon

The applicant's Integrated Transport Assessment (ITA) admits that its structural analysis only details the suitability of the Elderslie Bridge for the **first 10 years** of operations. The proponent fails to provide any clear plan, funding, or structural alternatives for the remaining **20 years** of the project's lifespan. Seeking a 30-year operational approval while leaving a 20-year gap in transport architecture renders the entire lifecycle impact modelling invalid. The community should not bear the risk of an unassessed, forced route diversion in Year 11, nor should taxpayers be left to fund a multi-million-dollar structural bridge replacement to support a private corporate asset.

C. The Page 73 Contradiction: Unassessed Risks to the 124-Year-Old Beckers Bridge

While the proponent publicly states that heavy haulage is strictly restricted to a southern route, **page 73 of the EIS** explicitly references the use of **Beckers Bridge on Glendonbrook Road**. This inclusion reveals that the project will inevitably bleed onto the fragile rural road network to the north and east. Built in 1902, Beckers Bridge is a 124-year-old heritage-listed item of State significance (LEP Item #112) consisting of a fragile De Burgh timber truss design with a highly restrictive single-lane width of **only 4.6 metres**. Forcing 50-tonne heavy vehicle configurations across this narrow bottleneck creates an extreme head-on collision hazard for local motorists and risks the structural collapse of a registered heritage asset.

D. Community Isolation and Unassessed Diversion Risks via Secondary Roads

If the single-lane Elderslie Bridge or sections of the primary route require emergency repairs, resurfacing, or closure due to the rapid structural damage caused by 50-tonne quarry vehicles, the local community will face immediate isolation. This crossing is the primary northern transport gateway for the Elderslie and Glendon Brook communities. A bridge closure would force school buses, daily commuters, and critical emergency services (including Rural Fire Service units and ambulances) into lengthy, multi-kilometre detours. The quarry fleet would inevitably bleed onto surrounding narrow, rural council roads such as **Glendon Brook Road, Roughit Lane, or local unsealed rural connectors**. These secondary assets feature tight blind bends, residential driveways, and completely unrated low-mass water crossings that are completely incapable of handling heavy industrial vehicles.

Section 2: Major Transport Assessment Flaws, Critical Omissions, and Road Safety Hazards

A. Methodological Failures and Omissions in the ITA Traffic Data

The traffic data provided within the ITA downplays the project's real-world impact through several critical, non-compliant omissions:

- **Omission of Return Movements:** The ITA primarily details and models eastbound heavy vehicle movements. A quarry does not operate on a one-way network; for every loaded truck traveling eastbound, an unladen truck must return westbound via the exact same rural roads. By failing to present a balanced, bidirectional traffic flow model, the applicant has artificially halved the apparent scale of the traffic impact on paper.
- **Failure to Model Peak AM and PM Windows:** The assessment relies on smoothed-out daily averages to claim minimal disruption, completely failing to provide a transparent, hourly breakdown of peak AM and PM commuter windows

when local workers, parents executing school runs, and school buses heavily populate the network.

- **Critical Safety Data Omissions (Greta Interchange & Maitland Street):** The data utilized in the ITA completely fails to account for the catastrophic, multi-fatal heavy vehicle crash that occurred at the **Greta / Hunter Expressway interchange**—the exact interchange designated as a core component of this quarry's primary haulage route. Furthermore, the ITA provides absolutely zero historical accident or near-miss data for the intersection of the **New England Highway and the end of Maitland Street** during the mandatory analysis period.

B. High-Risk Property Access and Conflict with Domestic Driveways

The applicant has evaluated the haulage route as an isolated industrial highway, completely ignoring the fact that it is a domestic residential interface lined with active private driveways along Springvale, Stanhope, and Elderslie Roads. Local residents must regularly slow down to execute sharp turns into their properties, often while towing trailers or agricultural equipment. Because these narrow rural roads lack dedicated right-hand turn lanes or widened shoulders, a turning resident forces trailing traffic to halt. A fully-laden 50-tonne quarry truck requires a massive braking distance; forcing these industrial vehicles to constantly react to residents turning into their own driveways on blind bends introduces an extreme risk of high-speed rear-end collisions.

C. Inappropriate Shifting of Traffic Liability (Page 90 Failure)

On **page 90 of the EIS**, the proponent explicitly declares that "*obscured entry and access driveways are the responsibility of the asset holder.*" This statement represents an unacceptable attempt to shift the legal liability, financial costs, and daily safety risks of quarry-induced traffic hazards directly onto the local council and private landowners. The land flanking the designated haulage route—encompassing road verges and table drains—is strictly under public council ownership. The proposal fails to offer concrete engineering solutions, road widening, or localized safety upgrades to manage the hazards created by 220 daily heavy vehicle movements. The applicant cannot pass or outsource their mandatory mitigation duties to the surrounding community.

D. Absence of Safety Infrastructure for Vulnerable Road Users

The current rural road network features blind crests, tight curves, and narrow lanes with unsealed or non-existent shoulders. It is fundamentally unequipped to handle 220 heavy truck movements a day alongside vulnerable road users:

- **School Bus Operations:** Because there are **no designated, line-marked bus stops or recessed bus turnouts** along these roads, school buses are forced to come to a complete stop directly within the active traffic flow to drop off and pick

up children, creating an extreme hazard for children waiting or crossing on unsealed, narrow roadsides.

- **Cyclists and Pedestrians:** With no dedicated bicycle lanes or paved shoulders, cyclists are forced to ride directly in the vehicle wheel tracks, exposing them to intense aerodynamic wind shear and blinding dust plumes with zero lateral escape room.
- **Vehicle Breakdowns:** Due to the absolute lack of breakdown bays or clear zones, any stranded vehicle—whether a resident experiencing a flat tyre or a slow-moving agricultural tractor—will instantly block an entire lane of traffic, causing immediate gridlock and blocking emergency services.

E. Lack of Overtaking Infrastructure and Risk of Impulsive Driver Behaviour

There are absolutely **no designated overtaking lanes or wide slow-vehicle turnouts** across the entire local network leading to the highway. In real-world quarry operations, haulage trucks frequently travel in close succession or convoys. Prolonged delays behind slow-moving heavy vehicles on short local commutes inevitably induce severe driver frustration, triggering high-risk, impulsive decision-making. Commuters will inevitably attempt illegal and highly dangerous overtaking manoeuvres across double white lines or with highly restricted line-of-sight, directly causing a severe risk of high-impact head-on collisions.

F. High-Risk Vehicle Manoeuvring at 'The Camp on Hunter' Bottleneck

The proximity of **The Camp on Hunter** tourist campground directly next to the northern approach of the Elderslie Bridge introduces a significant, unaddressed traffic conflict. This facility regularly generates slow-moving, wide vehicle combinations, including 4WDs towing heavy off-road caravans and RVs. The single-lane bridge relies on a visual 'give-way' courtesy system. Under heavy traffic conditions, if a quarry truck and a vehicle towing a large caravan meet on the bridge deck, one will be forced to reverse off the structure. It is structurally impossible, mechanically dangerous, and a severe safety violation to expect a 50-tonne articulated B-double or a novice driver towing a caravan to execute a long-distance reversing manoeuvre on a narrow, elevated heritage bridge with no shoulders.

G. Blind Approach Hazards: Dense Fog Cover and Visibility Failures

The low-lying valley topography surrounding the Hunter River crossing experiences frequent, dense radiation fog during autumn and winter mornings, dropping horizontal visibility to less than 50 metres. Because the bridge requires drivers to visually confirm whether another vehicle has committed to the single lane, heavy fog makes safe operation physically impossible. Heavy quarry trucks will blindly commit to the single lane, leading to high-risk stand-offs or pile-up collisions on the damp approach spans.

H. Deficient Long-Term Modelling regarding Future Residential Traffic Growth

The surrounding areas within the Singleton and Cessnock LGAs are explicitly designated for rural-residential expansion, with multiple housing estates already approved or zoned for imminent development. These new homes will introduce hundreds of additional domestic vehicles and school transport runs onto the network over the coming decades. The ITA completely omits this projected population growth from its capacity modelling, meaning the safety risks at property access points, single-lane pinch-points, and school bus routes will worsen dramatically over the 30-year life of the quarry beyond what the EIS admits.

I. Unenforceable Haulage Limits and Secondary Road Vulnerability

While the proponent's EIS identifies a primary haulage route restricted to Springvale Road, Stanhope Road, Elderslie Road, the New England Highway, and the Hunter Expressway, there is a distinct lack of long-term accountability. Under standard NSW planning law, heavy vehicles delivering to local destinations are legally exempt from primary haul route mandates. This creates an unmonitored loophole where truck drivers can bypass the designated route and use secondary residential roads under the guise of 'local distribution', creating unmitigated dust, noise, and safety hazards for rural neighbourhoods.

J. Total Omission of Critical Operational Support Traffic and Intersecting Safety Risks

- **Extreme Low-Visibility Hazards During Early Morning Shift Changes:**
Concentrating 40 to 70 light vehicle movements between **5:30 AM and 6:30 AM** creates a high-density traffic spike during the absolute coldest, highest-risk hour for local microclimatic weather. As detailed in the microclimate analysis, this exact window is characterized by heavy, low-lying **radiation fog cover** along the Hunter River valley. Forcing dozens of rushing quarry workers to navigate the narrow, winding approaches of the single-lane **Elderslie Bridge** and **Beckers Bridge** in near-zero horizontal visibility—while trying to visually identify oncoming vehicles over blind crests—is a recipe for catastrophic, high-speed head-on collisions.
- **Severe Conflict with Evening Commuters, Cyclists, and Livestock Movements:** The evening peak window of **5:00 PM to 6:00 PM** directly coincides with the highest volume of local family commuters returning home, regional school buses completing late drop-offs, and local farmers executing necessary livestock crossings in the **RU1 Primary Production zone**. Introducing up to 70 additional vehicle movements into this tight, 60-minute window will trigger severe queue propagation at the single-lane bridge bottlenecks, trap local residents trying to turn into private driveways, and create a high-friction

environment where frustrated drivers are prone to making dangerous, impulsive overtaking decisions.

- **The Inevitable Breakdown of 'Off-Peak' Delivery Schedules:** Relying on a rigid **9:00 AM to 3:00 PM** off-peak window for heavy operational deliveries and diesel supply tankers is an unrealistic, unenforceable operational model. Heavy transport logistics are continuously subjected to highway queues, loading dock hold-ups, and mechanical delays. When these unmodeled delays occur, heavy tankers and parts supply trucks will inevitably bleed directly into the highly sensitive afternoon school bus runs and residential property access windows, exposing school children and local road users to unmitigated heavy vehicle collision hazards.
- **Acoustic Trauma and Sleep Disruption from Night-Time Oversized Transport:** Moving oversized processing machinery during night-time hours to comply with regulatory tracking mandates shifts the physical burden of industrial operations directly onto sleeping households within the 5km radius. The immense structural noise, low-frequency gear grinding, and flashing safety beacons required for oversized escort loads moving through quiet, narrow rural lanes at 2:00 AM or 3:00 AM will cause severe **acoustic trauma and systemic sleep disruption**, completely destroying the rural peace and wellbeing of nearby residents.

Section 3: Economic Exploitation, Ratepayer Liability, and Local Government Work Health & Safety (WHS)

A. Inadequacy of the Unindexed \$900,000 Annual Contribution Shortfall

The proponent's proposed **\$900,000 annual infrastructure contribution** is financially structurally flawed. The proponent has failed to index this annual payment to the Consumer Price Index (CPI) or civil construction cost matrixes over the 30-year term. At a conservative 3% annual inflation rate, the real-world purchasing power of that \$900,000 will collapse to just **\$370,000 per year** by the final decade of the quarry. Local councils routinely spend upwards of **\$1 million per kilometre** to structurally reconstruct rural roads subjected to heavy vehicle subgrade failure. This unindexed fund guarantees a massive shortfall in road infrastructure funding, leaving local ratepayers heavily exposed to infrastructure deficits.

B. The Cross-Border Exploitation of Cessnock Ratepayers

While the physical quarry sits within the **Singleton Shire Council** boundary, the heavy haulage vehicles travel extensively over roads owned, managed, and financially maintained by **Cessnock City Council** to reach the New England Highway and Hunter Expressway via East Branxton. Because standard Section 7.11 developer contribution

frameworks funnel funds to the host consent authority (Singleton), Cessnock City Council receives no direct, legally guaranteed funding stream to mend its crumbling pavement assets. Cessnock City Council has already formally objected to this project precisely because its local ratepayers will be left bearing the massive long-term infrastructure maintenance deficit.

C. Extreme Workplace Health & Safety (WHS) Risks to Roadside Maintenance Workers

Local council workers are frequently deployed along Springvale, Stanhope, and Elderslie Roads to perform essential public maintenance, including roadside lawn mowing, tractor slashing, tree trimming, drainage clearing, and bitumen pothole patching. Because these rural roads feature narrow lanes and zero physical separation from the roadside verges, workers must operate directly adjacent to the active traffic stream. Forcing a council worker on a ride-on mower or a roadside patch-crew to stand just centimetres away from a 50-tonne B-double passing at the local 80km/h or 100km/h speed limit introduces an indefensible risk of catastrophic injury or fatality. Furthermore, the massive physical profile of truck-and-dog configurations generates intense aerodynamic wind shear and blinding dust plumes that completely blind roadside workers, destroying their situational awareness.

Section 4: Environmental Degradation, Flawed Science, and Public Health Risks

A. Silica Dust Drift and Rainwater Tank Contamination within 5km

Living within 5 kilometres of the extraction footprint places my household directly in the path of fine particulate drift. Hard rock extraction inherently generates crystalline silica dust. Fine (PM_{2.5}) silica particles can easily travel 5km under high-wind conditions, creating an unacceptable, long-term health hazard (silicosis) for my family and neighbours. Furthermore, like most rural households in the Elderslie and Glendon Brook areas, my property relies completely on rooftop rainwater harvesting for drinking water. Fine silica and aggregate dust settling on roofs will inevitably wash into household water supplies. The EIS fails to account for the cumulative health risks of residents drinking sedimented water over three decades.

B. Structural and Psychosocial Hazards of Blasting and Ground Vibration on Private Residences

Operating a hardrock quarry within a 5-kilometre radius of my residential property subjects my home to multi-decade, repetitive blast events that have not been safely accounted for in the EIS:

- **Accumulative Structural Damage from Ground Vibrations:** Hardrock extraction requires deep production blasting to fracture the bluestone

conglomerate. These explosive events send low-frequency seismic shockwaves directly through the shared bedrock strata. At a distance of less than 5km, these repetitive ground vibrations threaten to cause cosmetic and structural damage to my residence over time. The continuous flexing of building materials will inevitably lead to the cracking of internal plasterboard, brickwork mortar joints, concrete slabs, and the structural misalignment of doors and windows. The EIS downplays this risk by using averaged modelling, ignoring the accumulative structural fatigue inflicted on rural homes over a 30-year operational window.

- **Airblast Overpressure and Atmospheric Shockwaves:** Each blast event releases an atmospheric shockwave, known as airblast overpressure. This sudden pressure wave physically rattles windows, roof iron, and household fixtures, creating an intensely stressful living environment. The EIS contains no framework to baseline the structural condition of properties prior to commencement, leaving residents with no clear legal recourse or developer accountability when structural degradation occurs.
- **Severe Acoustic Trauma and Startle Responses:** The sudden, high-decibel boom of a quarry blast cannot be acoustically mitigated by standard residential building design. These unpredictable noise spikes trigger severe physiological startle responses, particularly for infants, elderly residents, and the high concentration of local shift workers (detailed on EIS page 84) who are attempting to sleep during daytime operational hours.

- **Terrifying Impacts on Domestic Animals and Livestock:** My property, situated in a primary RU1 agricultural zone, relies on the safety of livestock, horses, and domestic animals. The sudden, ground-shaking boom of quarry blasting will easily spook livestock, triggering blind stampedes into fences and boundaries. This introduces a major injury risk to animals and creates an incredibly hazardous environment for local landowners attempting to manage livestock during a blast window.

The proponent's blasting schedule treats my private home as an unoccupied zone that can absorb seismic energy without consequence.

C. Flawed Noise Methodology: Unvalidated USA Modelling (Page 25 Failure)

I raise a severe technical objection to the methodology utilized on **page 25 of the Noise Impact Assessment**. The proponent openly admits that actual, physical baseline noise testing was "*difficult*" to conduct, and they instead chose to substitute local field data with a theoretical, USA-based noise modelling computer program. Choosing to bypass local field testing violates the **NSW Noise Policy for Industry (NPfI)**, which strictly mandates long-term, physical background noise logging at the nearest sensitive residential receivers. An uncalibrated USA model operating on foreign environmental

variables cannot replicate the unique, ultra-quiet ambient acoustic profile of our valley, allowing the applicant to present an artificially lowered noise profile that masks the true, highly disruptive impact of low-frequency engine compression braking and bedrock blasting.

D. Direct Non-Compliance with SEARs Pages 6–7

The EIS, the Air Quality Impact Assessment, and the Greenhouse Gas reports completely fail to provide concrete, legally binding measures to eliminate or reduce the operational impacts of traffic noise, fugitive dust, and headlight glare along the heavy haulage corridor, directly violating the mandatory **Secretary's Environmental Assessment Requirements (SEARs)** detailed on pages 6–7 of the SEARs document. The EIS offers absolutely zero practical solutions for households lining the route, such as acoustic barriers, developer-funded residential double-glazing, or covered load mandates. Furthermore, the EIS completely omits the hazard of high-intensity heavy truck headlights sweeping across residential front windows on narrow, winding bends during early morning and late evening hours, proposing no screening or vegetation buffers.

E. Severe Psychosocial Impacts and Daytime Sleep Disruptions for Shift Workers (Page 84)

On **page 84 of the EIS**, the proponent explicitly acknowledges that a high concentration of residents living along and near the designated heavy haulage route are employed as shift workers—primarily in the Hunter Valley's vital mining, energy, agricultural, and emergency service sectors. Despite identifying this vulnerable demographic, the applicant fails to provide any specific acoustic mitigation or operational restrictions to protect their essential daytime sleep cycles. Subjecting shift workers to continuous low-frequency traffic noise during the day directly leads to severe cognitive fatigue, micro-sleeps, and dangerous health conditions, creating high-risk, unmitigated WHS issues when they return to high-risk industrial environments.

F. Destruction of Public Health and Outdoor Amenities at Branxton Pool, Miller Park, and Local Playing Fields

The heavy haulage route cuts directly past vital public community sporting facilities, including the public **Branxton Pool**, the active **Miller Park bowling greens**, and the adjacent **Branxton playing fields and sporting complex**. Forcing 50-tonne fully-laden trucks to constantly brake, idle, and heavily accelerate at the central Branxton traffic light intersections and Maitland Street corridors—directly adjacent to these open-air community sports facilities—creates an unacceptable public health hazard. The heavy acceleration of diesel engines from a stationary position releases concentrated plumes of carcinogens, nitrogen oxides (NO_x), and ultra-fine diesel particulate matter over open water and active sports fields where children, families, local swimming clubs, and

senior bowling groups gather. Furthermore, fugitive quarry dust and intense low-frequency noise will shatter the local acoustic and physical environment, ruining these spaces for the public.

Section 5: Land Use Incompatibility, Catchment Pollution, and Catastrophic Industrial Conflicts

A. Incompatibility with RU1 Primary Production Zoning and Livestock Crossings

The local valleys surrounding Springvale, Stanhope, and Elderslie Roads are historically designated, actively utilized, and legally prioritized for agricultural production under **RU1 Primary Production zoning**. Local property owners frequently need to move beef and dairy cattle between fragmented paddocks separated by public roads. Introducing 220 heavy truck movements per day makes these standard agricultural tasks highly dangerous. The intense engine compression braking, continuous brake-shudder, and massive physical presence of heavy quarry trucks will easily spook cattle, risking stampedes, broken fences, and severe injuries to local farmers. The applicant's proposal values private extractive industry profits over long-standing agricultural rights, directly undermining the economic viability of regional farming.

B. Deficiencies in EPBC Act Controlled Action Requirements (EPBC 2026/10452)

Because this proposal has been rightfully declared a **Controlled Action** under the federal EPBC Act, the applicant is legally required to rigorously evaluate impacts on listed threatened species. I object on the grounds that the proponent's responses to these statutory federal requirements are entirely inadequate:

- **Omissions Regarding the Endangered Spotted-tailed Quoll (*Dasyurus maculatus*):** The survey lacks deep, seasonal camera-trapping and den-seeking protocols during winter breeding and spring denning periods, completely downplaying how removing 63+ hectares of vegetation its natural habitat, and introducing 220 heavy vehicle movements per day onto rural haulage roads drastically increases the risk of road mortality for this apex marsupial carnivore.
- **Flawed Impact Minimization for the Endangered Koala (*Phascolarctos cinereus*):** The project directly destroys critical feed trees continuous with the Tangory Nature Reserve canopy. Dismissing the site as a mere 'transitory corridor' ignores the fact that corridors are vital for genetic dispersal, forcing endangered Koalas onto ground level where they are acutely vulnerable to vehicular strikes, and introduced predators.
- **Unacceptable Assumptions Regarding the Vulnerable Southern Myotis (*Myotis macropus*):** The proponent's claim that destroying an existing artificial on-site dam is 'unlikely' to reduce the population of the Southern Myotis (fishing

bat) violates basic microbat ecology. In a drought-prone climate, artificial dams function as essential, permanent ecological infrastructure providing stable foraging grounds.

- **Unacceptable Threats to the Endangered Large-eared Pied Bat (*Chalinolobus dwyeri*):** The **Tangory Nature Reserve**, sitting a mere **500 metres directly east of the quarry disturbance footprint**, contains verified sandstone cave formations that serve as essential roosting structures. The short-term out-of-season fauna surveys conducted by the proponent failed to monitor the cave systems across the peak summer maternity season (November through January) when nursing microbats are most vulnerable to acoustic shock from blasting, risking cave collapses from ground-vibration waves, and the removal of foraging vegetation is directly linked to the species becoming endangered.

- **Unacceptable Threats to the Vulnerable Brush-Tailed Phascogale (*Phascogale tapoatafa*):** The Brush-Tailed Phascogale was discovered within the quarry footprint however the removal of the foraging vegetation and industrial activity was dismissed as inconsequential.

C. Chronic Dust Particle Encrustation on Foliage and Severe Physiological Decline of Local Flora

The operation of an open-cut hardrock quarry just 500 metres west of the Tangory Nature Reserve introduces a continuous source of airborne bluestone particulates that will settle onto surrounding vegetation, resulting in severe botanical harm. High-volume quarrying and haulage operations generate fine dust particles that form a thick crust on leaf surfaces, physically blocking the stomata, disrupting gas exchange, and severely inhibiting transpiration. This dust drastically reduces the photosynthetic capacity of the protected **Lower Hunter spotted gum ironbark forest** and sensitive dry rainforest canopy, leading to chlorosis, stunted growth, and premature defoliation. Furthermore, when these heavy dust loads are washed off leaves during rain, they alter the pH and nutrient balance of the topsoil, creating an environment hostile to native understory species and favouring weed invasion.

D. Unvalidated Use of Off-Site Cessnock Airport Wind Data

The proponent admits that instead of collecting actual, on-site meteorological data, they relied on historical wind data sourced from **Cessnock Airport**. Cessnock Airport is located approximately 20–25 kilometres away on a flat, open valley plain. The proposed quarry site is situated in a completely different, highly complex terrain characterized by the ridges, dense canopy forests, and valley gullies flanking the Tangory Nature Reserve. The wind speeds, thermal inversions, and directional vectors recorded at a flat aviation airfield cannot replicate local wind funneling, ridge eddies, or the true direction of dust

plumes toward residential properties within the 5km radius, invalidating the entire predictive dust and respirable crystalline silica (RCS) dispersion model.

E. Speculative Water Balance Modelling, Drought Vulnerability, and Groundwater Threats

The EIS relies heavily on capturing local surface runoff via sediment basins and pit sumps to supply the massive volumes of water required daily for dust suppression, stone crushing, and wheel washing. During inevitable drought periods, these shallow surface basins will be the first assets to evaporate. Drawing down on the area's subsurface water table to sustain industrial processing risks lowering the water table for surrounding primary producers who rely in part on reliable groundwater bores to sustain livestock and crops during a drought. Furthermore, the proponent acknowledges that during prolonged dry spells, they will be forced to rely on importing water via external trucks, which will add massive, unmodeled heavy vehicle movements to our already struggling, narrow local roads, further accelerating the destruction of public infrastructure. Forcing a heavy industrial operation to buy up limited local water allocations or truck in water during a regional drought creates a highly volatile socioeconomic conflict. The quarry's immense corporate purchasing power will artificially drive up the cost of local water resources, pricing out family-run agricultural operations and local farmers who are desperately fighting to keep their livestock alive.

F. Risks Associated with an On-Site Septic System

Because the quarry site lacks connection to a reticulated municipal sewer network, the proponent will be required to install an independent, on-site septic system. Constructing an effluent disposal area within a highly disturbed industrial footprint—characterized by blasting vibrations and altered soil structures—introduces severe risks. If the septic system suffers mechanical failure, or if effluent is applied to soils saturated by heavy rainfall, untreated or partially treated sewage containing high levels of pathogens, nitrogen, and phosphorus will leach into the groundwater table or run directly into nearby tributaries of the **Hunter River**, posing a major biological health hazard to nearby rural residents.

The storage and daily refuelling of heavy earthmoving fleets introduce an ongoing risk of bulk diesel spillage, tank rupture, or catastrophic bund failure. In a high-impact industrial zone subjected to regular blasting vibrations, the structural integrity of fuel containment walls can easily suffer micro-fracturing over a 30-year lifecycle. Any unmitigated fuel leak will cause immediate, irreversible environmental damage. Hydrocarbons will leach directly into the local groundwater table and run off into the surrounding ephemeral gullies, poisoning the sensitive aquatic habitats of local tributaries and permanently contaminating the downstream agricultural water security of the **Hunter River**.

G. Elevated Regional Bushfire Risk and Community Safety Hazards

The quarry footprint shares an immediate, direct boundary with the high fuel loads of the Tangory Nature Reserve. The daily operation of heavy earthmoving equipment, rock crushers, mechanical processing, and heavy haulage vehicles introduces constant friction and electrical ignition risks. A single spark from an unmaintained exhaust system or mechanical blasting during hot, dry, and windy conditions could instantly ignite a fast-moving wildfire. If an operational ignition occurs on the quarry site, fire will instantly track up the topography into the reserve, creating an uncontrollable crown fire. The introduction of up to 220 heavy vehicle movements per day severely threatens community evacuation capacity, as massive B-double truck-and-dog combinations on narrow roads—particularly at the single-lane Elderslie Bridge pinch-point—will choke traffic corridors, trap fleeing residents, and physically block responding Rural Fire Service (RFS) tankers.

The project requires the on-site storage of tens of thousands of litres of bulk diesel fuel and combustible lubricants to sustain daily heavy machinery and crushing operations. Co-locating massive, high-volume combustible fuel cells directly adjacent to the high fuel loads of the **Tangory Nature Reserve** creates an extreme hazard profile. If an operational fire or a lightning strike occurs on-site, these bulk fuel storage areas risk catastrophic ignition, accelerating a standard localized containment fire into an uncontrollable, high-intensity chemical and canopy wildfire that will instantly overwhelm responding Rural Fire Service (RFS) units.

H. Unresolved Industrial Conflict and Catastrophic Risk: The Hunter Gas Pipeline

The approved **Hunter Gas Pipeline (MP06_0286)** corridor is currently approved to run directly through the centre of the quarry site. The proponent has failed to provide any formal, legally binding evidence or approved structural modifications demonstrating that the pipeline route can or will be successfully altered. Subjecting the surrounding geology to continuous, multi-decade blast vibrations and micro-fracturing in immediate proximity to a high-pressure gas asset introduces an unacceptable risk of pipe fatigue, stress corrosion cracking, or catastrophic structural failure. Co-locating an explosive blasting operation with a high-pressure fossil gas pipeline creates a concentrated ignition hazard, and the applicant's public assertions that pipeline relocation discussions are 'commercial in confidence' are entirely unacceptable for a State Significant Development assessment.

I. Permanent Degradation of Public Amenity and Community Usage of Tangory Nature Reserve

The severe, unmitigated impact the quarry will inflict on the public usage, educational value, and community enjoyment of the **Tangory Nature Reserve**. Nature reserves are gazetted to protect fragile ecosystems and provide the public with a peaceful, pristine

environment for low-impact nature-based recreation, scientific research, and bushwalking. Operating an open-cut hardrock quarry a mere 500 metres from the reserve's western boundary fundamentally destroys its core purpose

- **Acoustic Shattering of the Wilderness Experience:** Visitors, bushwalkers, and regional birdwatching groups utilize the Tangory Nature Reserve specifically for its pristine, low-ambient acoustic environment. The continuous, low-frequency rumble of rock crushing machinery, heavy earthmoving fleets, and sudden, high-decibel bedrock blasting will shatter this peace over a 30-year timeframe. This intense industrial noise profile transforms a tranquil public conservation asset into a hostile high-noise zone, ruining its recreational utility for the community.
- **Destruction of Visual Amenity and Ecotourism Potential:** The construction of a massive, scarified open-cut pit, heavy processing towers, and tall stockpiles right on the reserve's doorstep introduces a severe industrial blight onto a pristine natural landscape. The constant presence of dust plumes and flashing safety beacons will be highly visible from elevated walking tracks within the reserve, driving away local ecotourists, nature photographers, and families who seek out the area for its natural beauty.
- **Blinding Dust Accumulation on Public Walking Trails:** The heavy deposition of fine bluestone dust will not only coat the native forest canopy but will settle directly onto the reserve's public walking tracks, signage, and natural infrastructure. This dust tracking creates an unpleasant, physically irritating environment for bushwalkers, causing respiratory irritation and coating clothing and equipment in industrial grime, which directly discourages public access.
- **Irreversible Loss of Educational and Scientific Value:** The reserve serves as an active local outdoor classroom for schools, universities, and citizen-science groups studying threatened species like the **Large-eared Pied Bat** and **Glossy Black-Cockatoo**. Forcing these educational groups to navigate a boundary line dominated by industrial blasting vibrations, diesel fumes, and heavy haulage traffic introduces significant safety hazards and destroys the scientific integrity of the reserve as an unpolluted baseline environment.

The proponent's EIS treats the Tangory Nature Reserve as an empty, isolated landscape buffer, completely ignoring its value as a highly valued public asset. The Department has a duty to protect public lands and community recreation from private industrial encroachment.

Conclusion and Formal Request for Total Refusal

The proposed Bluestone Hardrock Quarry Project represents an irreconcilable land-use conflict that threatens to inflict permanent, systemic damage upon the infrastructure, environment, economy, and public health of the Singleton and Cessnock Shires over the next three decades. The applicant's Environmental Impact Statement fails to satisfy the minimum statutory benchmarks of rigorous, transparent, and evidence-based environmental planning. Throughout the document, the proponent has consistently chosen to downplay critical risks, utilize flawed and unvalidated modelling, omit catastrophic historical safety data, and actively attempt to shift operational liability onto local councils and private landowners.

The Department of Planning, Housing and Infrastructure and the Independent Planning Commission must reject this application based on the undeniable, unmitigated cumulative impacts across the nine core pillars established in this submission:

- **Irreversible Heritage and Infrastructure Destruction:** Forcing heavy, maximum-mass industrial fleets across the **135-year-old Elderslie Bridge (LEP #114)** and the **124-year-old Beckers Bridge (LEP #112)** risks catastrophic structural fatigue and the permanent, irreplaceable loss of State-significant late-19th-century engineering history.
- **Deficient and Deceptive Traffic Modelling:** The Integrated Transport Assessment relies on incomplete one-way data, omits critical AM and PM peak windows, ignores future residential growth, and shockingly excludes the multi-fatal heavy vehicle collision history at the **Greta / Hunter Expressway interchange** haulage merge point.
- **Severe Workplace and Vulnerable Road User Hazards:** The narrow rural network entirely lacks the basic infrastructure required to prevent fatal collisions, offering no recessed school bus bays to protect children, no safe passing shoulders for cyclists, no vehicle breakdown bays, and zero physical protections for Council maintenance workers operating on foot along the verges.
- **Unjust Economic Exploitation and Cost-Shifting:** The unindexed **\$900,000 annual contribution** model guarantees a massive, multi-million-dollar funding shortfall as inflation compounds over 30 years, actively shifting the financial burden of repairing severe quarry-induced pavement damage directly onto **Cessnock City Council ratepayers**.
- **Catastrophic Localized Industrial Clashes:** Operating an open-cut blasting mine directly over the approved high-pressure **Hunter Gas Pipeline corridor** introduces an extreme risk of structural pipe fatigue, explosion, and

uncontainable chemical wildfires within the high fuel loads of the adjacent **Tangory Nature Reserve**.

- **Water Security and Drought Exploitation:** The quarry's speculative water balance models collapse under real-world Hunter Valley drought cycles. Stripping the landscape of natural dam filtration and drawing down on sub-surface water tables directly threatens the vital groundwater bores relied upon by surrounding primary producers.
- **Severe Environmental and Biological Impacts:** Bypassing mandatory **SEARs guidelines** and executing brief, out-of-season ecological field surveys has resulted in a failure to protect the **Endangered Large-eared Pied Bat, Spotted-tailed Quoll, and Koala**, while chronic dust particle encrustation threatens the protected foliage of the reserve canopy.
- **Public Health and Amenity Degradation:** Substituting real-world Australian field testing with an uncalibrated **USA computer noise model** on page 25 completely masks the true acoustic trauma of blasting and low-frequency engine compression braking on surrounding households, shift workers, and domestic livestock within the 5km radius.

- **The Invalidation of Community Assets:** The continuous drift of carcinogens, diesel exhaust, and fine bluestone dust generated by queuing trucks at the traffic lights directly targets and contaminates vital, highly valued public facilities, including the **Branxton Pool, the Miller Park sporting complex, and local playing fields and bowling greens**.

A development cannot be deemed 'sustainable' or in the public interest if its primary operational framework relies on treating a living, growing community and a protected nature reserve as an isolated industrial sacrifice zone. The private commercial profits generated by this extractive operation do not outweigh the intergenerational costs to human life, public asset preservation, rural health, and regional environmental security.

I strongly request that the Department of Planning, Housing and Infrastructure and the Independent Planning Commission uphold the principles of the *Environmental Planning and Assessment Act 1979* and officially **refuse** this development application in its entirety.