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REQUEST & SUMMARY OF ISSUES

FEBRUARY 2024

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# LOWER HUNTER HARD ROCK QUARRY STRATEGIC & CONSERVATION PLANNING



Hunter Community  
Environment Centre



*We acknowledge and pay respects to the Traditional Owners  
and Custodians of the Country of the Awabakal, Darkinjung,  
Wonnarua people and Gathang speaking people of Birrabay,  
Guringay and Warrimay Country.*

*Sovereignty was never ceded.*

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4. *Massive increase in heavy haulage risks community safety*
5. *Climate risks are absent*
6. *Demand is assumed to be... infinite?*

# ISSUE STATEMENT

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The combined impacts of five operational quarries (*Brandy Hill, Boral-Seaham, Martins Creek, Karuah East and Karuah*) and five new proposals (*Eagleton, Stone Ridge, Deep Creek, Hillview, and Karuah South*) in the Port Stephens, Mid-Coast and Dungog Local Government Areas present risks to community safety, rural amenity and the condition of the environment, including water ways, threatened and endangered species and habitat.

**Proactive, strategic planning to reduce and avoid the immediate and long-term negative impacts of current ad-hoc hard rock quarry development in the Lower Hunter Region is urgently required.**

- Greenfield proposals, such as Stone Ridge and Deep Creek and expansions of existing operations necessitating native vegetation clearing, present significant threats to the integrity of the region's high quality biodiversity, protected areas and threatened species. Current ad-hoc quarry developments drive biodiversity corridor fragmentation, add to the pollution burden in our catchments and intensify heavy haulage truck movements on deficient regional road networks.
- Current and potential future cumulative environmental and social impacts are not adequately addressed, principally because each quarry development is individually assessed in the absence of a regional strategic framework. The quarry industry can not establish a social licence to operate when the current assessment regime fails to account for the cumulative impacts, and likely deterioration of our region's social and environmental attributes caused by continued ad-hoc quarry development.
- The cumulative and combined impacts of operational and proposed quarry developments undermine key regional planning priorities set out in the Hunter Regional Plan 2041.
- Local Government initiatives which aim for sustainable, efficient, cost effective and equitable provision of services and infrastructure alongside the protection and enhancement of our environment, tourism and agricultural industries cannot be achieved without a Government led regional strategic framework for quarry development.
- Presently little transparency is afforded to communities by Government or consent authorities regarding the source and veracity of information and assumptions used to determine new quarry projects, particularly greenfield proposals. As the Hunter is one of four feeder regions to the Greater Sydney Region for hard rock quarry materials, communities need assurance that adverse environmental and social impacts from quarry operations are not being disproportionately experienced in our region.

# REQUEST TO NSW GOVERNMENT

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## Strategic & Conservation Planning for Quarrying in the Lower Hunter

The NSW Government funds and implements an *Independent Hard Rock Quarry Strategic and Conservation Plan for the Lower Hunter* to:

- Develop a *Lower Hunter Quarry Cumulative Impacts Mitigation Action Plan* to introduce standardised, scalable cumulative impact assessment and monitoring of social and environmental impacts including traffic, dust, noise, water discharges and vegetation loss with a view to reducing impacts on the community and environment.
- Quantify contemporary data on supply and demand for quarry products to guide ecologically sustainable, efficient and cost-effective provision of materials, and assess alternative sources of recycled housing and infrastructure materials, including gravel and aggregates from recycled coal-ash waste.

**The Plans should be considered urgent and made public.**

# Hard-rock Quarry approvals, expansions and proposals in the Port Stephens, MidCoast & Dungog LGAs

PROJECT	LOCATION/LGA	PROPONENT	ANNUAL PRODUCTION	STATUS
<b>Brandy Hill Expansion</b> SSD-5899	Clarencetown Rd, Seaham, Port Stephens	Hanson	1.5 million tonnes pa	Approved by IPC
<b>Martins Creek</b> SSD-6612 EPBC - 2016/7725	Station St, Martins Crk, Dungog Shire	Daracon	1.1million tonnes pa	Expansion refused. Currently being contested in LEC
<b>Karuah East</b> MP09_0175	MidCoast, Port Stephens	Karuah East Quarry Pty Ltd	1.5 million tonnes pa	Approved with Conditions
<b>Karuah Hard Rock Quarry</b>	MidCoast	Hunter Quarries Pty Ltd	500,000 tonnes pa	In Operation
<b>Seaham Quarry</b> SSD-59254474 EPBC- 2023/09575	Italia Rd, Seaham, Port Stephens	Boral	1 million tonnes pa	Prepare EIS for production increase +1million tonnes

**Table 1: Hard Rock Quarry Approvals**

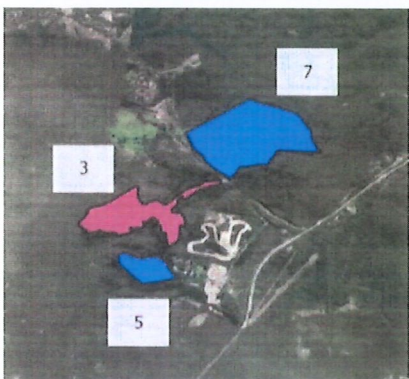
<b>PROJECT</b>	<b>LOCATION</b>	<b>PROPONENT</b>	<b>ANNUAL PRODUCTION</b>	<b>STATUS</b>
<b>Deep Creek</b> SSD-11591659 EPBC- 2020/8823	Limeburners Creek, Mid- Coast	Ironstone Developments Pty Ltd (IDPL)	500,000 tonnes pa	Approved by IPC, Jan 2024
<b>Eagleton Quarry</b> SSD-7332	Barleigh Ranch Way, Eagleton, Port Stephens	Eagleton Rock Syndicate Pty Ltd	600,000 tonnes pa	Response to Submissions pending
<b>Hillview</b> SSD-8239	Stroud/Maytoms Lane, Booral, Mid-Coast LGA	Coastwide Materials	1.5 million tonnes pa	Prepare EIS
<b>Stone Ridge</b> SSD -10432	Balickera, Port Stephens	Australian Resources Development Group	1.5 million tonnes pa	Response to Submissions pending
<b>Karuah South</b> SSD-8795	Karuah, MidCoast	Wedgerock Pty Ltd	600,000 tonnes pa	Response to Submissions pending

**Table 2: Hard Rock Quarry Greenfield Proposals**






0 2.5 5 km

11/07/2023



**Existing**

-  1 Karuah East Quarry
-  2 Karuah Quarry
-  3 Seaham (Boral)

**Proposed**

-  4 Deep Creek Quarry
-  5 Eagleton Quarry
-  6 Hillview Quarry
-  7 Stone Ridge Quarry
-  8 South Quarry



Brandy Hill and Martins Creek operations not shown\*



# JUSTIFICATION

## 1 OUR PLANNING & ENVIRONMENT LAWS ARE FAILING

The significant increase of the scale and intensity of quarry industry impacts presented by these ten projects is taking place at a time when key laws meant to protect species and wildlife have been found to be ineffectual.

The Commonwealth Environmental Protection Biodiversity Conservation Act requirements for new or expanding quarries are waved through under an existing bilateral agreement. This agreement pre-dates damning independent review of the function of the Biodiversity Conservation Act as well as the equally damning 2020 independent review of the EPBC Act.

*A key message of this review found "Australia's natural environment and iconic places are in an overall state of decline and are under increasing threat. The environment is not sufficiently resilient to withstand current, emerging or future threats, including climate change. The environmental trajectory is currently unsustainable. The EPBC Act does not clearly outline its intended outcomes, and the environment has suffered from 2 decades of failing to continuously improve the law and its implementation."*

Despite this, new and expanded quarries are being approved under both the inadequate BC Act and EPBC Act processes and regulations.

The standard of community consultation and environmental impact assessment conducted by proponents and the DPHI pertaining to quarry operations in the Lower Hunter has been poor, and reflects the pertinent failings of our current environment and planning laws.

Additional scrutiny and oversight on behalf of consent authorities, regulators and NSW Government to adequately assess and limit the cumulative impacts of a doubling of quarry operations in the region is urgent, until Commonwealth and NSW environmental and planning laws are fit-for-purpose.

## 2 HABITAT CONNECTIVITY & ECOLOGICAL VALUES MUST BE RETAINED

The Hunter's catchment is the largest in coastal NSW, encompassing an area of 21,500 square kilometres. It is vital to the region's agricultural production. The Myall Lakes and the Hunter Estuary are both listed under the Ramsar Convention on Wetlands and they comprise outstanding, internationally significant migratory bird habitats. Port Stephens contains listed nationally important wetland and the Port Stephens - Great Lakes Marine Park, the Seaham Swamp Reserve and the Grahamstown Dam domestic water supply and catchment.

The Port Stephens, MidCoast and Dungog Local Government Areas provide habitat for many threatened plants, fish and terrestrial animals, as well as threatened ecological communities and internationally migratory shorebirds. This includes areas of occupied and likely koala habitat. There is a public land network of state forests, such as Columbey, Wallaroo, Uffington, Medowie, Myall River, Wang Wauk and Bulahdelah and National Park reserves such as Hunter Wetlands, Worimi, Tomaree, Barrington Tops, Karuah, Myall Lakes and Werakata amongst others. High conservation value private land supports and connects these public lands.

These areas of native vegetation comprise a network of landscape scale Climate Corridors and climate refugia, which are predicted to support the survival of threatened species under climate change until 2070 by facilitating migration to new suitable areas of habitat.

Suitable habitat for almost 60 percent of threatened fauna species of the NSW North Coast and Tablelands are projected to decline in response to climate change, and some of the most important climate refugia in need of protection occurs in the southern MidCoast LGA and adjoining Port Stephens and Dungog Council areas.

The Stone Ridge, Eagleton and Seaham quarry cluster in the Port Stephens, and the Deep Creek quarry in the Mid-Coast impact this very area where three Climate Corridors (Dry, Moist and Coastal) overlap to create climate refugia.

ARDG's Stone Ridge proposal falls in State Forest, an area of climate refugia which presently hosts habitat for the threatened species including the Koala, Squirrel Glider and Brush-tailed Phascogale. The objection of 16 community and environment groups to the project was made public in July 2023 with an open letter to the the Federal Environment Minister.

Areas of high conservation value providing connectivity and containing climate refugia must be established as no-go zones for greenfield development and expansions, in line with Objective 6 of the Hunter Regional Plan 2041 to conserve heritage, landscapes, environmentally sensitive areas, waterways and drinking water catchments.

**Community members need assurance that threatened species habitat surrounding quarry operations will be protected in the long-term, and the NSW Government must ensure that quarry operations do not expand into areas nominated as offsets, areas of State Forest, biodiversity corridors or climate refugia.**



0 2.5 5 km



11/07/2023

Martins Creek operation not shown\*

## What is 'climate refugia?'

" — areas retaining suitable habitat despite regional climate change which are likely to be critical in preventing considerable loss of biodiversity."

"...the identification of climate refugia is considered a key priority in mitigating the effects of climate change and safeguarding the persistence of biodiversity"

### SOURCE

Beaumont, L. J., Baumgartner, J. B., Esperón-Rodríguez, M., & Nipperess, D. (2019). *Identifying climate refugia for key species in New South Wales - Final report from the BioNode of the NSW Adaptation Hub*, Macquarie University, Sydney, Australia.

In addition to the initial loss of native vegetation providing fauna habitat in a high-traffic area for threatened and endangered species, each of the 10 quarry proposals/expansions will see the degradation of habitat quality due to ongoing light, dust, noise and vibration effects.

The following are a selection of threatened and endangered fauna species identified by consultants during site surveys across the 10 projects as likely to experience direct or indirect impacts as a result of the quarry proposals/expansions.

### MAMMALS & MARSUPIALS

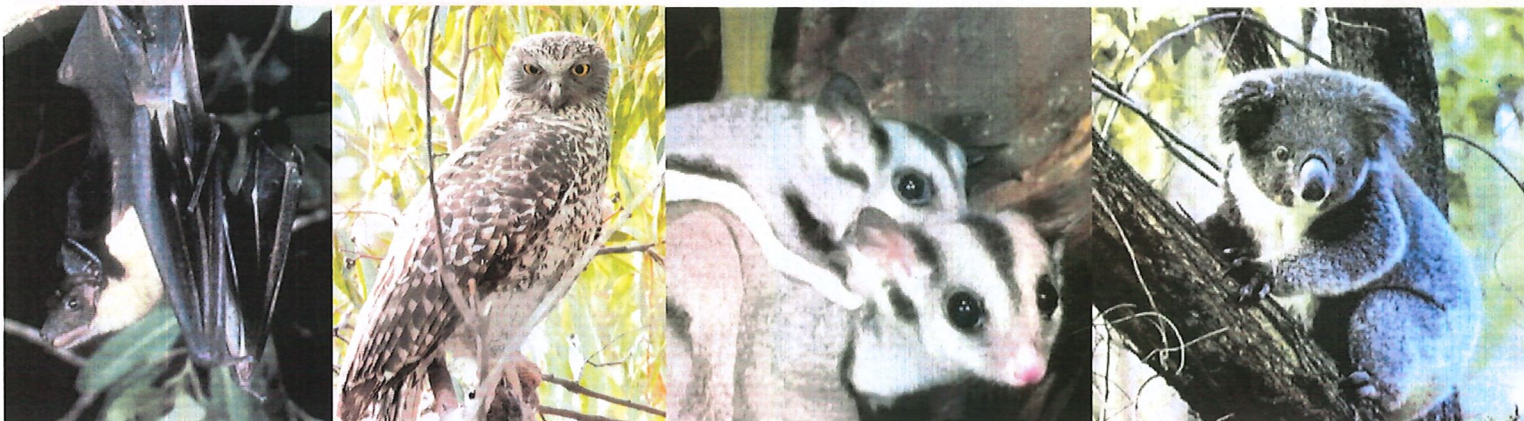
- Squirrel Glider
- Brush-tailed Phascogale
- Koala
- New Holland Mouse
- Spotted-tailed Quoll

### BIRDS

- Regent Honeyeater
- Square-tailed Kite
- Masked Owl
- Powerful Owl
- Glossy Black-Cockatoo
- Swift Parrot
- Little Lorikeet

### BATS

- Grey-headed Flying-fox
- Large-eared Pied Bat
- Eastern False Pipistrelle
- Little Bent-winged Bat
- East Coast Freetail Bat
- Southern Myotis
- Eastern Cave Bat
- Golden Tipped Bat
- Yellow-bellied Sheath-tail-bat
- Greater Broad-nosed Bat



### 3 END-OF-LIFE AND OPERATIONAL STANDARDS ARE LACKING

Provisions under the *Environmental Planning and Assessment Act 2021* require proponents to prepare plans detailing the rehabilitation, closure management and final landform considerations.

Whilst we support this requirement in-principle, it is evident that where quarry resource is known to be present outside of project approval boundary areas, that future applications for expansions are likely, as has been the case with Brandy Hill and Boral Seaham's operations.

The *Rehabilitation and Closure Management Plan For Eagleton Quarry* prepared by SLR Consulting Australia in 2016 states:

*"...The rock resource at the location of the Eagleton Quarry is extensive, and it is expected that it extends beyond the extent proposed for quarrying. If quarrying was not permitted to continue at the site, the area would generally be rehabilitated to a woodland environment consistent with the surrounding land-use. This Plan outlines the methodologies to be undertaken during rehabilitation and closure of the site and documents the closure assumptions to be used by Eagleton Quarry. This Rehabilitation and Closure Management Plan (RCMP) will be progressively reviewed and updated over the life of the operation."*

The *Stone Ridge Environmental Impact Statement* prepared by Umwelt in 2023 states:

*"As the target geological resource extends beyond the currently proposed quarry footprint, the opportunity to extend the life and size of the quarry in the future is also a likely longer term land use opportunity and the proposed rehabilitation of the site is designed to avoid unnecessarily constraining this opportunity."*

Some quarries have gained approval to extend into areas that they had originally set aside and conserved as biodiversity offset areas. The original conservation investments made have been lost by approved modifications resulting in expanding footprints.

No assurance is provided to local communities that areas of high-quality native vegetation and connectivity surrounding quarry operations will be protected from progressive loss and degradation.

**In line with the directives in the Hunter Regional Plan 2041, Local Government initiatives and the NSW Koala Strategy, effective planning must ensure the protection of threatened species, habitats and regional catchments. Connecting corridors of functional, resilient natural vegetation and environmentally sensitive areas should not be compromised by quarry developments.**

## 4 MASSIVE INCREASE IN HEAVY VEHICLE HAULAGE RISKS COMMUNITY SAFETY

The massive increase in heavy haulage vehicle movements associated with quarry proposals and expansions are a key concern for community members in affected LGAs who are concerned about road safety, as well as for local threatened species populations exposed to vehicle strike.

In 2020, the NSW Government DPIE estimated 3500 koalas were killed by vehicles on NSW roads between 1980 and 2018, and that Port Stephens was among four LGA's with the highest number of koalas killed on roads during Spring season.

The cumulative impacts of the ten new or expanding quarries in the Lower Hunter are estimated to generate up to 5000 truck movements per day on the rural roads leading to the Pacific Highway between Raymond Terrace and Karuah, in an area supporting core habitat for the Koala.

Each quarry proponent assert their project's traffic contributions are compliant with cumulative impact criteria, even though traffic and haulage impacts are consistently identified by community members, and in planning and assessment documents, as the most immediately impactful of the adverse consequences of quarry development.

Further, cumulative traffic impact assessments supplied to attain project approval, frequently do not include all of the known current and future developments and associated traffic. For example the Traffic Impact Assessments (TIA) prepared for:

- the Brandy Hill Expansion (IPCN approval 2020) noted the proposed extension of Daracon's Martins Creek Quarry and the Wallalong Investigation Area residential proposal, but falls short of assessing the cumulative traffic impacts of these proposals. Potential future traffic increases associated with residential expansion in the area, such as the Kings Hill Residential Development proposal should be assessed for likely cumulative traffic impacts.
- the Eagleton Quarry Project addresses cumulative impacts of existing traffic but fails to account for and downplays the projected traffic associated with the adjoining Eagleton Motor Complex.
- the Deep Creek Quarry Project failed to account for the cumulative traffic impacts from the proposed Hillview Quarry, which will use the same road route doubling the likelihood of traffic congestion and safety issues at the Bucketts Way intersection.



**Community members remain unconvinced that project-by-project cumulative impact assessments are accounting for actual traffic impacts.**

**Assurance is needed that quarry proponents will undertake necessary revisions over the life of the projects' to account for episodic and long-term traffic increases in an efficient, coordinated and transparent manner.**

Despite the fact that the community clearly articulated safety concerns resulting from the increase of heavy haulage vehicles using the Bucketts Way, and MidCoast and Port Stephens Councils public acknowledgements of the need for intersection upgrades at Bucketts Way and Medowie Road to cater for (other) regional development, the Independent Planning Commission's (IPCN) Statement of Reasons for Decision (2024) to approve Deep Creek Quarry included only the following traffic conditions -

- provide additional measures to mitigate the impact of heavy vehicle movements on the performance of The Bucketts Way and Pacific Highway intersection, including during peak holiday periods;
- ensure truck drivers adhere strictly to a code of conduct to minimise noise, pollution and queueing, including by not arriving early to the site;


At the time of the IPCN assessment, the community were not privy to the most recent traffic assessment reports resulting from the proposed Italia Road and Pacific Highway Intersection Upgrade, now released and before Port Stephens Council for consideration.

The report prepared by GHD for Boral Resources, Eagleton Syndicate and ARDG, clearly indicates a number of road safety issues to do with the increase of heavy vehicle movements on the highway, the two major at-grade intersections being Bucketts Way and Medowie Road, and the Tarean Road interchange at Karuah.

The report advises the risk rating to road safety from cumulative and increased numbers of haulage trucks - just from the Italia Road quarries - was high.

Further, the report 'assumed' that over the next decade, the Pacific Highway may experience 20% growth to through traffic volumes.

Communities have long-running concerns that the road networks being utilized and proposed for heavy haulage traffic are deficient, and in many instances fail to meet Austroads standards for heavy vehicles, for example Butterwick Road, Woodville.



**To protect community road safety, an over-arching, standardised and strategic approach to assessing and reducing cumulative quarry traffic impacts is necessary.**

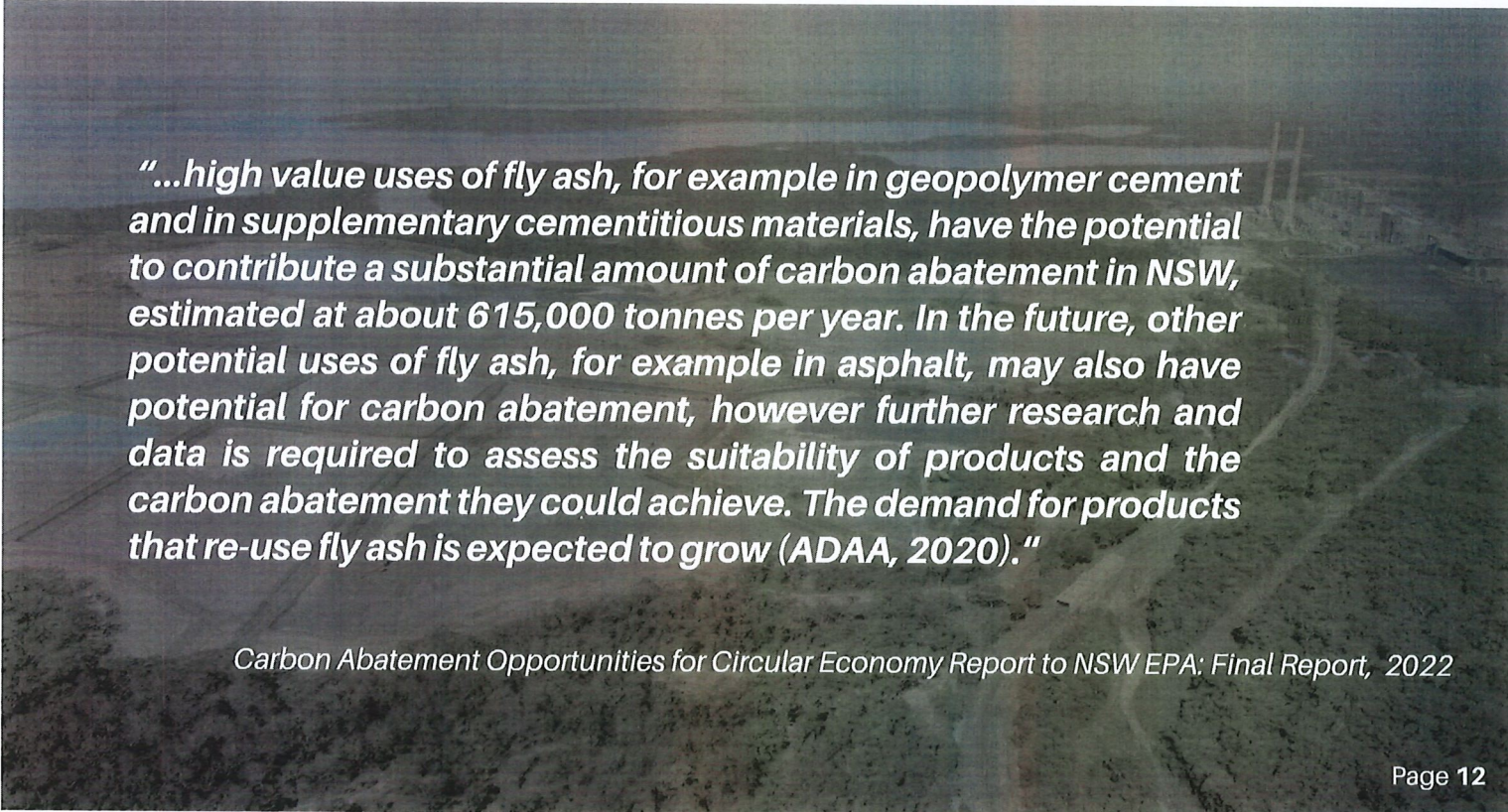
## 5 CLIMATE RISKS ARE ABSENT

All new quarry and expansion applications before the NSW Government should be assessed and approved to align with the NSW Climate Change Policy Framework, including the Net Zero Plan and the Climate Change (Net Zero Future) Act 2023, which legislatively commits NSW to achieving net zero emissions by 2050.

At present, new and expanding quarry proposal applications are out-of-step with these targets, with the lifespan of the projects being an average of 30 years, until 2054 and beyond depending on approval timeframes.

To our knowledge, no information or assessment of climate polluting emissions emitted by the heavy haulage fleet, is required as part of the planning and approval process.

The NSW Government must play a major role in incentivising the development and use of lowered-emissions, recycled materials to meet housing and infrastructure material demand such as the recycling of coal-ash waste for the manufacture of lightweight aggregates with a range of applications.



***“...high value uses of fly ash, for example in geopolymers cement and in supplementary cementitious materials, have the potential to contribute a substantial amount of carbon abatement in NSW, estimated at about 615,000 tonnes per year. In the future, other potential uses of fly ash, for example in asphalt, may also have potential for carbon abatement, however further research and data is required to assess the suitability of products and the carbon abatement they could achieve. The demand for products that re-use fly ash is expected to grow (ADAA, 2020).”***

*Carbon Abatement Opportunities for Circular Economy Report to NSW EPA: Final Report, 2022*

## 6 DEMAND IS ASSUMED TO BE... INFINITE

### Hunter Regional Plan 2041

OBJECTIVE 1: Diversify the Hunter's mining, energy and industrial capacity

The Hunter will transition towards a circular economy by focusing on seven key principles:

1. Sustainable management of all resources
2. Valuing resource productivity
3. Design out waste and pollution
4. Maintain the value of products and materials
5. Innovate new solutions for resource efficiency
6. Create new circular economy jobs
7. Foster behaviour change through education and engagement

Whilst we acknowledge that a substantial increase in the volume of raw resources needed for construction of housing and infrastructure exists and will persist, we can point to limited publicly available information on projected demand for quarry materials from the Lower Hunter.

The report *Supply and Demand Profile of Geological Construction Materials for the Greater Sydney Region*, commissioned by the then DPIE, and published in 2019 found that *"there are sufficient regional hard rock reserves to meet Greater Sydney Region's future needs to 2036 and beyond, even under higher demand scenarios."*

Infrastructure Australia's *Infrastructure Market Capacity 2022 Report* states:

*"Data on quarry production (and therefore demand) is published by Victoria and Queensland only. As it does not indicate total or spare quarry capacity, Infrastructure Australia augments this knowledge gap with qualitative feedback from industry. As such, it can be gleaned that Sydney and Brisbane (pending an understanding of Brisbane Olympic requirements) has sufficient capacity to meet upcoming quarry demand, while Melbourne and Adelaide may face capacity challenges in 5 years and 10+ years, respectively."*

The Report notes the imperative for governments to steer industry towards a sustainable supply and demand equilibrium, and that the opportunity to use replacement materials in road construction will see to an uplift in demand of these materials.

It also states, that based on current technology and standards, around 27% of conventional materials (ie: materials that do not originate from or contain recycled constituents) used for road projects could be replaced with a range of recycled materials. This would equate to approximately 52 million tonnes of recycled materials.

Through the GIPA process community groups have accessed information regarding the extent of lobbying from the Cement and Concrete Association to the DPHI and the pressure the DPHI is under to meet their recommendations and demands.



It is critically important that the NSW Government seizes the opportunities for ecologically sustainable quarry development in the Lower Hunter, including the diversification of market supply for quarry products to ensure the protection of local communities, environments, threatened species and to reduce the climate impacts of this industry sector.

# SOURCES

Independent statutory review of the NSW Biodiversity Conservation Act 2016

Identifying climate refugia for key species in New South Wales - Final report from the BioNode of the NSW Adaptation Hub, Macquarie University, Sydney, Australia. Beaumont, L. J., Baumgartner, J. B., Esperón-Rodríguez, M, & Nipperess, D. (2019).

'BARRINGTON TO HAWKESBURY CLIMATE CORRIDORS: Connecting regional climate change refugia for native species' persistence in a warming world', HCEC, 2022

Rehabilitation and Closure Management Plan for Eagleton Quarry prepared by SLR Consulting Australia

Wildlife vehicle strike and contributing factors, DPIE, 2020

Stone Ridge Environmental Impact Statement prepared by Umwelt in 2023

Traffic Impact Assessments (TIA) prepared for:  
Brandy Hill Expansion Project, amended 2016  
Eagleton Quarry Project, 2016  
Deep Creek Quarry Project, 2021

Independent Planning Commissions Statement of Reasons for Decision to approve the Deep Creek Quarry, January 2024

[http://datracker.portstephens.nsw.gov.au/Application/ApplicationDetails/016-2023-00000477-001/ Italia Rd and Pacific Hwy Intersection Upgrade July 2023](http://datracker.portstephens.nsw.gov.au/Application/ApplicationDetails/016-2023-00000477-001/ItaliaRdandPacificHwyIntersectionUpgradeJuly2023) GHD for Boral Resources Ltd.

NSW Climate Change Policy Framework

Carbon Abatement Opportunities for Circular Economy Report to NSW EPA: Final Report produced in 2022

Supply and Demand Profile of Geological Construction Materials for the Greater Sydney Region

Infrastructure Market Capacity 2022 Report

Hunter Regional Plan 2041

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