

SUBMISSION: Stone Ridge Quarry Project, SSD-10432

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The Hunter Community Environment Centre (HCEC) was established in 2004 in recognition of the value of our unique landscape and bioregion. Together with over 2,000 supporters and affiliate organizations, we work with our community to protect biological diversity and special places, and enhance the quality of life in our region.

We appreciate the opportunity to be able to lodge an Objection to this SSD-10432 proposal and wish to acknowledge the extension to the submission deadline granted, due to technical difficulties experienced by NSW Planning Portal users when attempting to lodge submissions in preceding weeks.

The Hunter Community Environment Centre (HCEC) strongly object to this proposal from Proponent, the Australian Resources Development Group (ARDG) on the grounds of its irreparable, ongoing and we believe under-estimated impacts to biodiversity including:

- Permanent loss of 79 hectares and ongoing disturbance of native vegetation totalling and area of 139 hectares of State Forest, comprising 4 Endangered Ecological Communities affording habitat to Threatened, Endangered and Critically Endangered flora and fauna species to which the project poses significant impacts
- The Projects proposed location within area of State Forest tenure supporting habitat connectivity including
 - Fauna Corridors for North-East NSW mapped under the Bioregional Assessment Program¹
 - Three overlapping NSW Climate Corridors,² in an area supporting overlapping climate refugia for 10 threatened species.³
- The Projects proximity to a number of ecologically important sites significant to both flora, fauna and human populations; Grahamstown Dam and Williams River catchments and the Hunter Estuary wetlands RAMSAR site, home to migratory shorebird and water bird species
- Cumulative adverse water quality, biodiversity, noise and social and community impacts presented by Stone Ridge, taken together with seven other new or expanding quarry proposals the Port Stephens and Mid-Coast LGA's

¹ https://data.gov.au/data/dataset/c8b21575-8003-41ba-bb7e-378c2eb3486d

² Identifying climate refugia for key species in New South Wales - Final report from the BioNode of the NSW

Adaptation Hub, Macquarie University, Sydney, Australia by Beaumont, L. J., Baumgartner, J. B., Esperón-Rodríguez, M, & Nipperess, D.

³ BARRINGTON TO HAWKESBURY CLIMATE CORRIDORS: Connecting regional climate change refugia for native species' persistence in a warming world, December 3 2022, page 15



Erosion of key climate and biodiversity corridors in the Barrington to Hawskbury region

In December of 2022, the *Barrington to Hawkesbury Climate Corridors Alliance* (B2H) published a report⁴ which identified areas of overlapping suitable habitats for threatened fauna species under all four climate change warming scenarios to 2070, Drawing on research and spatial datasets including Moist, Dry and Coastal Climate Corridors Coastal Habitat for North-east NSW, published in the 2019 paper *Identifying climate refugia for key species in New South Wales*⁵.

The report revealed that Port Stephens LGA hosts the following Climate Corridors:

- Coastal Corridors⁶ include parts of Wallingat Karuah connecting to the Karuah Hunter
- **Moist Corridors**⁷ include parts of Great Lakes Barrington, Barrington Myall with westward to the Barrington corridor
- Dry Corridors⁸ include Karuah-Port Stephens linking to the Pokolbin Karuah to the west.

This confluence of overlapping corridors is expressed in the map below, (*Map E: Overlapping climate refugia for 10 Threatened fauna species in 2070, HCEC*) of overlapping areas of climate refugia for 10 threatened species until 2070, which highlight two key northern and southern areas of predominant future refugia, the northern comprising Barrington Tops National Park, and areas of Chichester and Masseys Creek State Forest, the MidCoast LGA areas of State Forest moving westerly to areas just north of Wallaroo and State Forest, overlapping directly Karuah National Park.

These climate refugia for multiple species under multiple climate scenarios provide clear priorities for biodiversity conservation and adaptation efforts, and region-wide refugia must be protected from current stresses such as habitat loss and degradation which erodes its capacity to accommodate viable populations.

The Executive Summary and Introduction of the 2019 paper authored by Beaumont et al. describes the key concept of 'climate refugia' and 'corridors' as follows:

"As was the case during historical periods of climate change, climate refugia — areas retaining suitable habitat despite regional climate change — are likely to be critical in preventing considerable loss of biodiversity. "

"…the survival of numerous species will require that some currently occupied regions remain suitable (Loarie et al. 2008), and/or that corridors or stepping-stones exist to enable species to track shifting climate zones. … Thus,

⁴BARRINGTON TO HAWKESBURY CLIMATE CORRIDORS: Connecting regional climate change refugia for native species' persistence in a warming world. December 3 2022

⁵ Identifying climate refugia for key species in New South Wales - Final report from the BioNode of the NSW Adaptation Hub, Macquarie University, Sydney, Australia by Beaumont, L. J., Baumgartner, J. B., Esperón-Rodríguez, M, & Nipperess, D., 2019, for the NSW Office of Environment and Heritage and funded by the NSW Adaptation Research Hub–Biodiversity Node

⁶ <u>https://datasets.seed.nsw.gov.au/dataset/climate-change-corridors-coastal-habitat-for-north-east-nsw</u>

⁷ <u>https://datasets.seed.nsw.gov.au/dataset/climate-change-corridors-moist-habitat-for-north-east-nsw</u>

⁸ <u>https://datasets.seed.nsw.gov.au/dataset/climate-change-corridors-dry-habitat-for-north-east-nswf5a7e</u>



167 Parry Street, Hamilton East 2303 <u>coordinator@hcec.org.au</u> hcec.org.au refugia represent areas that biodiversity can retreat to or persist in, and then expand from if, in the future, the surrounding landscape once again becomes favourable (Keppel et al. 2012)."

The area of Wallaroo State Forest proposed to be clear-felled to accommodate ARDG's Stone Ridge Quarry operation supports all three of Climate Corridors (map below) and abuts an area of key climate refugia, rendering it of incredibly high-value to those species most at risk of extinction from climate change, without any further habitat loss.



Successive NSW Government data has highlighted this area as crucial to the persistence of species fleeing the effects of modeled climatic changes.

The adverse impacts of eroded connectivity and refugia being forever lost which face threatened species set to seek refuge in or near Wallaroo State Forest in future years and decades is unfortunately, just the tip of the rapidly melting ice-berg and there would be far more immediate threats and impacts associated with the development of Stone Ridge we touch on below.





Map E: Overlapping climate refugia for 10 Threatened fauna species in 2070

Threatened, Endangered and Critically Endangered species and MNES

Three species which site surveys completed by consultants for ARDG identified as occurring within the Stone Ridge Quarry Projects Disturbance area include the Koala (Vulnerable, EPBC Act; Endangered, NSW BC Act), Squirrel Glider (Vulnerable, NSW BC Act) and Brush-tailed Phascogale (Vulnerable, NSW BC Act).



Surveys undertaken and published in the Biodiversity Development Assessment Report (BDAR), cites the presence of following habitat for the following threatened entities listed within the NSW Biodiversity Conservation Act 2016 (BC Act) and/or the Commonwealth Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act):

- Rusty Greenhood (Pterostylis chaetophora)
- Squirrel Glider (Petaurus norfolcensis)
- Brush-tailed Phascogale (Phascogale tapoatafa)
- Koala (Phascolarctos cinereus)

• River-flat Eucalypt Forest on Coastal Floodplains of the NSW North Coast, Sydney Basin and South East Corner bioregions endangered ecological community as listed under the BC Act

• Subtropical Coastal Floodplain Forest of the NSW North Coast bioregion endangered ecological community as listed under the BC Act

• Subtropical eucalypt floodplain forest and woodland of the New South Wales North Coast and South East Queensland bioregions endangered ecological community as listed under the EPBC Act

Whilst a spokesperson for ARDG confirmed recently in a statement to the Newcastle Herald,⁹ that the Koala habitat at risk from the project is mapped as marginal (as is stated in the EIS), we wish to note that Port Stephens Council,¹⁰ in its submission to the Department regarding neighboring Eagleton Quarry proposal notes (section 2. b) that the Koala habitat mapping referred to by consultants for the Eagleton Quarry assessment, mistakenly identifies the area as marginal habit. We wish to seek clarification on this potential error in the classification of Koala habitat, as it pertains to the Stone Ridge Quarry assessment.

No less than 10 other Matters of National Environmental Significance (MNES) are listed by the DCCEEW in the EIS, inclusive of 3 Migratory species due to the project's proximity to the Ramsar listed Hunter Estuary Wetlands.

In the EIS, the DCCEW notes potential significant impacts to these MNES inclusive of the Grey-headed flying-fox (Vulnerable EPBC Act and BC Act), New Holland Mouse (Vulnerable EPBC Act), South-eastern Glossy Black Cockatoo (Vulnerable EPBC Act and BC Act) and Coastal Swamp Sclerophyll Forest of New South Wales and South East Queensland (Endangered Ecological Community, BC Act).

We wish to raise the impact to the Micro-bat population of Balickera Tunnel, which feeds into the Grahamstown Dam drinking water catchment and abuts the Projects proposed entrance.

⁹ <u>https://www.newcastleherald.com.au/story/8284664/koala-wars-minister-urged-to-kill-hunter-quarry-project/</u> ¹⁰<u>https://majorprojects.planningportal.nsw.gov.au/prweb/PRRestService/mp/01/getContent?AttachRef=SSD-7332%21</u> <u>20200727T010942.184%20GMT</u>





Cumulative adverse water quality, biodiversity, noise and social and community impacts

The negative social impacts associated with Stone Ridge Quarry if approved will add to existing heavy haulage traffic, noise, vibration, light and dust pollution already experienced by community members in the vicinity, from the operation of Boral's Seaham Quarry, located within 2 kilometers and presently preparing an EIS in support of a requested life extension and production increase.

The EIS states that the "...closest residential receivers are located on Italia Road at Balickera, approximately 400– 1,100 m from the Disturbance Area." We contend this is very close, and that with the cumulative impacts associated with neighboring quarries and two motor race tracks, the Stone Ridge quarry project proposals have left community members feeling as if they're being taken for a ride.

A third quarry proposal within less than 10kms, <u>Eagleton Quarry from Eagleton Rock Syndicate Pty Ltd</u> is presently preparing an Amendment Report_after nine public agencies (including the NSW EPA, Heritage, OEH, RFS, Port Stephens Council, DPI and DPI Resources) sought additional information and clarification of the assessment provided by the consultant contained in the EIS ranging from ground and surface water impacts, heritage as well as cumulative social, fire safety and waste management.

We believe comparable issues, including deficits in key information pertaining to impacts and mitigation measures raised in the Eagleton Quarry project assessment will similarly arise in relation to Stone Ridge.





0 2.5 5 km

The Executive Summary of the Groundwater Assessment for the Project notes that in latter stages of the Project, it would be likely that "...ARDG would be required to obtain a Water Access License (WAL) for approximately 27 - 47 ML/year."

In relation to Eagleton Quarry, Hunter Water engaged external consultant Alluvium to assess water impacts in greater detail, which concluded that the Project did not meet the requirements of Neutral or Beneficial Effect (NorBE), applied to all development within water catchment areas including Stone Ridge.

Alluvium's assessment concluded that for Eagleton:

"Based on the water balance modelling included in the Water Assessment, it is our opinion that discharge of surface water (and entrained pollutants) would be necessary for periods throughout the proposed development lifecycle to prevent areas of the site being inundated for lengthy periods. Without an evaluation of the existing and future catchment/pollutant loads from the site it is not possible to assess the ability of the development to achieve the NorBE targets and confirm what the potential cumulative impacts on the Grahamstown Dam drinking water catchment would be."

The Stone Ridge Quarry Project Surface Water Assessment, factoring in the requirement to meet NorBE criteria states that:



167 Parry Street, Hamilton East 2303 <u>coordinator@hcec.org.au</u> hcec.org.au "Beca Hunter H20 has been engaged to undertake an options assessment of water treatment technologies to reduce pollutant concentrations in controlled discharges to levels where a NorBE on water quality could still be achieved despite the increase in Project site water discharge volumes relative to pre-development runoff volumes." and has deferred this key element of the project required to satisfy legal criteria until latter phases of the project proposal application."

It also states that the "WMS will occupy a maximum of approximately 75 ha, approximately 52 ha of which is in the Grahamstown Dam catchment and approximately 23 ha in the Williams River catchment".

It is unclear whether this system will occupy the same or an additional footprint as that described in the Stone Ridge Quarry EIS, to which we pose the question of precisely how many hectares of this high-value State Forest and Endangered species habitat the ARDG would go on to clear or disturb, to service a demand to which alternative supply sources do exist, and are accessible to us here in the Hunter and across NSW.

HCEC have consistently raised the alternative use of coal-ash waste products to at least partially meet aggregate demand in the region, which would alleviate the loss of habitat reducing the need for expanded or greenfield sites, whilst underpinning strong regional economic and employment potential.¹¹

Whilst the EIS lists a series of road, public infrastructure and housing projects in the region which will call for aggregates, and states that the estimated resource from an expanded Seaham and operational Eagleton Quarry, will not be able to meet this demand, ARDG has not provided a sufficiently detailed or fulsome assessment containing substantiated figures to illustrate the argument of "supply-side pressures", used to justify the project.

We do not question the fact of the demand for aggregate material. We do object to greenfield quarries in areas of State Forest, affording refugia and safe passage to threatened species most at risk of extinction.

¹¹ <u>https://www.hcec.org.au/cleanupcoalash/coalash-recycling</u>