

Gerroa Environmental Protection Society
PO Box 71 Jamberoo
07/10/20

Re Dunmore Lakes Mod 2 Project: Please consider this additional information to our earlier submission.

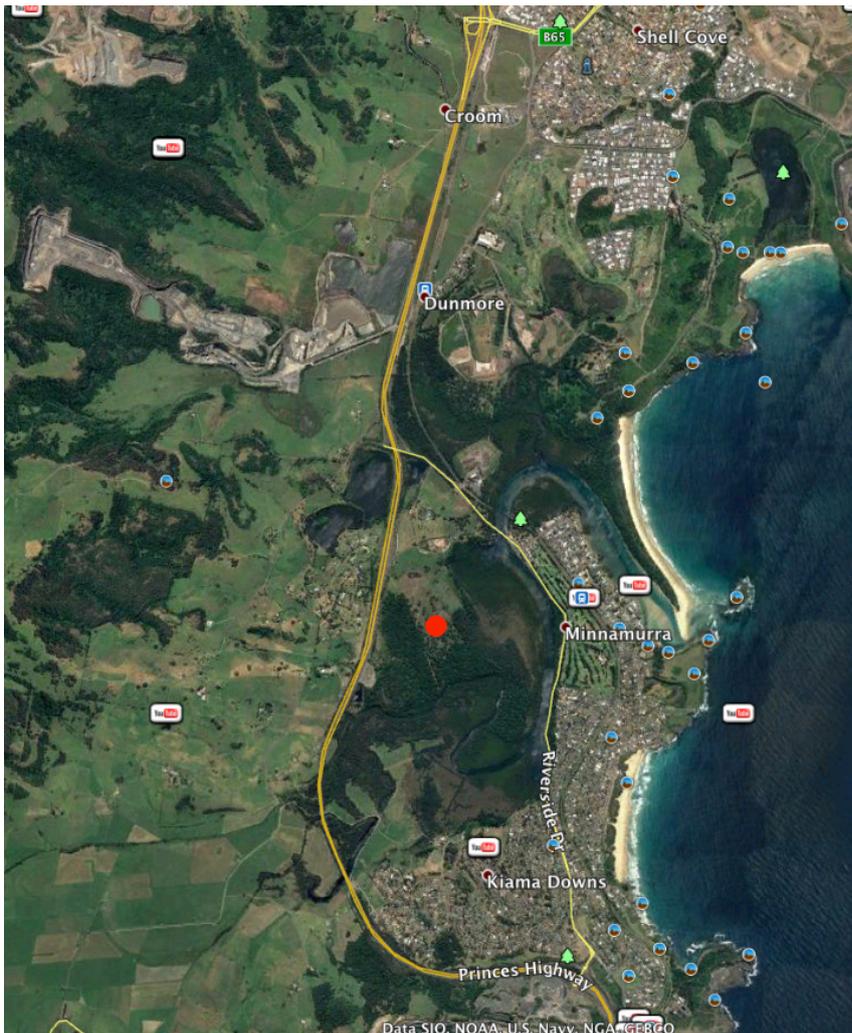
The values of the vegetation where this modification is proposed needs to be fully understood in this determination. Dredge pond 5B should not be approved.

1. Impacts on the unit of vegetation adjoining the Minnamurra River.

The proposed 5B dredge pond is to be located in a highly sensitive ecosystem.

The Minnamurra unit of vegetation is a virtual island, disconnected from the hinterland. It consists of two fragments that are barely connected by a narrow corridor along the river near the Minnamurra Bridge.

The vegetation in this unit has been historically impacted by agriculture, sand mining, urban development, golf courses and two waste depots.



Minnamurra unit of vegetation.
This map illustrates the fragmentation and disconnection of vegetation that characterises this unit.
The proposed dredge pond is indicated in red.

Despite the levels of clearing and industrialisation, this vegetation retains a number of scientifically important ecological communities. Due to the interface between extensive saline and freshwater wetlands and dryer sand forests, it forms a complex ecosystem consisting of a rare assemblage of groundwater dependent swamp oak wetlands, saline mangrove and saltmarsh wetlands and bangalay sand-forest and littoral rainforest vegetation. Most of these vegetation types are identified as endangered ecological communities (EECs).

Mining impacts may include groundwater balance changes, reduction of habitat due to removal of trees with hollows and opening up of adjoining vegetation exposing rainforest to moisture loss.

The sustainability of the entire vegetation unit as a habitat is under question as there has been no consideration of how fauna utilises different vegetation communities or their reliance on the small area of hollow bearing bangalay trees found at the proposed dredge pond site.

The approach in the vegetation assessment has been to consider vegetation types separately. Many of these vegetation communities have been misnamed and there has been no consideration of the impact of the removal of hollow bearing trees may have on this entire vegetation unit as a habitat.

The mangrove, swamp oak and rainforest trees do not readily drop limbs and consequently don't form hollows, no matter how old they are. These communities dominate the area and offer little protection or breeding places for most fauna species. The only vegetation community that provides nesting hollows is the small area of eucalypt forest.

In the fragment of vegetation west of the Minnamurra bridge the only remaining eucalypts are some scattered trees on the only hill and the bangalay sand forest remnants in the vicinity of the proposed dredge pond.

So, the proposed removal of many large hollow bearing bangalay trees for the dredge pond will have a disproportionate impact on wildlife sustainability. Repopulation opportunities won't be possible due to the disconnection of the vegetation from the hinterland forests or nearby vegetation fragments.

2. Impacts on coastal wetlands.

Studies by Thomas Oliver, Kerrylee Rogers and Neil Saintilan¹ have shown the mangrove vegetation in the Minnamurra River is migrating westward due to sea level rise and this migration is impacting on endangered salt marsh communities directly east the proposed dredge pond.

¹ *An integrated approach to assess the vulnerability of mangrove and saltmarsh to sea-level rise at Minnamurra NSW*, Thomas Oliver

Predicting the response of coastal wetlands of south eastern Australia to sea-level rise, Kerrylee Rogers and Neil Saintilan

Planning for wetland migration is essential to protect these communities, but the proposal to locate the quarry dredge pond immediately to the west of this endangered ecological community will make this impossible.

Part of the proposed dredge pond adjoins the Coastal Wetlands and Littoral Rainforests Area buffer identified in the Coastal Management State Environmental Planning Policy.

Mining in this area wouldn't meet the policy objectives: *to protect coastal wetlands and littoral rainforests in their natural state, including their biological diversity and ecosystem integrity, and to improve the resilience of coastal wetlands and littoral rainforests to the impacts of climate change, including opportunities for migration.*

3. Impacts on Aboriginal heritage.

The proposed 5B dredge pond either adjoins or overlaps the site of the 1818 Minnamurra massacre, identified by University of Newcastle Historian Professor Lyndall Ryan. This massacre was acknowledged by Kiama Council in 2018, who installed a plaque in recognition of the event near the Minnamurra River.

Attached is a diagram showing the relationship of the proposed dredge pond to the approximate area where the massacre took place. It identifies the proposed sand quarry in yellow and a rectangle identifying the approximate area of the massacre site by Professor Ryan.

The archaeological report for the sand quarry provides evidence of significant aboriginal occupation in the vicinity of the proposed dredge pond so it appears this area was heavily utilised by Aboriginal people in the past.

There is enough information² about the circumstances of this Massacre and role it played in the dispossession of Wadi Wadi clan lands to consider the site as a historical frontier war site. For these reasons the place of the massacre should be considered a sensitive historical site of value to both non-Aboriginal and Aboriginal people and as part of a shared history.

The interference with this site could pose reputational damage for the company and the State government. It's historical and heritage importance hasn't been considered in the assessment process and it needs to be fully investigated before any approval is granted.

I request that the Commission take this information into consideration in its determination.

Howard Jones (secretary Gerroa Environmental Protection Society)

² *A History of Aboriginal Illawarra, Volume 2: Colonisation, Mike Donaldson, Les Bursill, Mary Jacobs (Page 13)*



**Colonial Frontier Massacres in Eastern Australia
1788-1872**

**21ST CENTURY
HUMANITIES**

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Site Name	Minnamurra River, south coast
Aboriginal Place Name	
Aboriginal Nation Or Clan	
Community Consulted	not yet
Colony	NSW
Present State/Territory	NSW
Police District	
Coordinates (imprecise to approx. 250m)	-34.633, 150.639.0
Latitude	-34.633
Longitude	150.639
Well Known Date	1-Oct-1818
Date Start	1818-10-01
Date End	1818-10-01
Attack Time	
Aboriginal People Killed	6
Aboriginal People Killed Notes	more than 6
Colonists Killed	0
Colonists Killed Notes	
Attacker Category	
Attacker Details	L1 Weston, owner of a property at Dapto, Cornelius O'Brien, overseer of William Brownes property at Yallah and seven labourers and convict workers armed with muskets, cutlasses, and bayonets attached to long sticks.
Motive	allegedly to recover two muskets which had been lent to a group of Aboriginal people living at the Minnamurra River, north (?) of Kiama.
Weapons Used	muskets, cutlasses, and bayonets attached to long sticks
Notes	
Narrative	Fired muskets at Aboriginal people at river campsites.
Sources	Depositions to the Sydney Bench, 24 October 1818; Report by Joseph Wild, district constable at Hawarna, Elder 2003.25-6.
Corroboration Rating	---

