

MARINE POLLUTION RESEARCH^{PTY LTD}

Marine, Estuarine and Freshwater Ecology, Sediment and Water Quality Dynamics
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17 January 2023

Proposed Jetty Modifications and Seawall Rebuild at 50 The Avenue Newport, Marine Ecology Impact Summary Statement: DA2022/1759.

I am writing in response to Northern Beaches Council (NBC) Natural Environment Referral Response - Riparian dated 7 December 2022 in relation to the above DA, which requested *inter alia* that the applicant provide a letter from a suitably qualified aquatic ecologist supporting that the proposal is acceptable in the context of the site and unlikely to have a significant impact on the aquatic environment.

Marine Pollution Research Pty Ltd (MPR) prepared a marine ecology assessment for the existing mooring pen at this address in April 2008, and I note that the present proposal shows the existing jetty, mooring pen and seawalls (both adjacent to slipway and along the shoreline) in the same locations as those I inspected in 2008.

I made a float-by inspection of the site over the 2022/23 Christmas break and noted that the present facility and intertidal shoreline were similar to that reported in my 2008 report (see **Figures 1 to 3** attached).

I note that the present proposal includes removal of a portion of the outer jetty to be replaced with a pontoon and ramp structure and that the proposal includes replacement of the shoreline seawall.

The aquatic ecology of the site is summarised as follows:

- There were no saltmarsh plants at or in the vicinity of the subject property and none are expected.

- The pair of *Avicennia marina* Grey mangroves in the high intertidal beach on the property to the north and immediately alongside the subject jetty are intact and the peg roots extend south under the jetty and into the retained intertidal area between the slipway. They would not have extended further south by virtue of the (still existent) concert seawall running east-west alongside the boatshed.
- The intertidal portions of the southern property dry stone and irregular retaining wall, the lower portion of the timber skid, isolated pieces of rock rubble within the intertidal and the wetted surfaces of the jetty support piles support an oyster (mainly Sydney Rock oyster) assemblage with some littorinid snails (*Bembicium sp*) in the high to mid intertidal.
- My 2008 field diving observations during the millennial drought noted that there was no macro-algae or seagrass present at the site, no other biota on the wetted sub-surface portions of the piles. and no *Caulerpa taxifolia* pest algae species in the vicinity, and there is no expectation that there would be any marine vegetation at or near the site, particularly given the *La Nina* frequent wet weather plus flood conditions over the last year.
- The subtidal seabed in 2008 comprised loose silty sediment in-shore which became more consolidated off-shore. The seabed in the vicinity of the proposed mooring pen did support a diversity of benthic animals as evidenced by the density burrows.

Management of Construction Related Impacts

If the demolition and seawall rebuild are undertaken solely from land, the works will need to be contained behind fixed Sediment and Erosion Fences inshore as close to the toe of the existing dry rock seawall as possible and designed to meet the Erosion and Sediment Control Plan requirements as set out in pages 2 and 3 of the NBC Referral.

If seawall rebuilding works are to include the use of floating plant and equipment, the risk of excessive turbidity and sediment mobilisation arising from use of floating plant in shallow intertidal waters will need to be managed as follows:

- There will be no stockpiling of demolition or construction materials on the seabed
- By virtue of the shallow depths over soft sediment marine habitats, no vessel is to be taken over the shallows unless there is sufficient depth to prevent vessel strike, propeller strike or scouring damage from propeller wash.

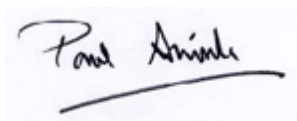
- To ensure minimum disturbance of seabed habitats during barge mobilisation, barge movement operations will need to be done during favourable tide and wind combinations, with the pushing vessel operated in such a manner as to minimise sediment disturbance and prevent strike or disturbance to seabed sediments. These manoeuvres should also be timed with the tides and low wave/wash periods to minimise seabed disturbance.
- Over and above these disturbance precautions, the escape of turbid plumes into the wider aquatic environment from seawall rebuilding works and from piling works can also be minimised by use of silt curtains deployed around the particular piling or as close inshore as possible from the seawall building activities.

Conclusion

In terms of the NBC Referral request, I conclude that the proposal is acceptable in the context of the site and unlikely to have a significant impact on the aquatic environment provided that suitable Erosion and Sediment Controls as set out above and in the NBC referral letter are implemented to prevent sediment and excessively turbid stormwater escape from the site into Pittwater during the piling and seawall demolition and rebuilding program

I trust that this is sufficient for Council's determination and please call or email me if you require further explanation or elaboration.

Yours Sincerely,

A handwritten signature in black ink, reading "Paul Anink", with a horizontal line underneath.

Paul Anink
Managing Director and Senior Scientist
Marine Pollution Research Pty Ltd



Figure 1 Existing facility April 2008 showing mangroves to north, boatshed, skid, rails and drystone seawall at site.



Figure 2 Existing facility April 2008 showing site intertidal and drystone seawall. Note also slipway retaining wall.



Figure 3 Present existing facility in late 2022 - note mangroves to north, same boatshed, sliprail and retaining wall structure for the slipway and skid and the same dry wall seawall fronting the property.