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Tēnā koe Richard

Re: Request for advice under section 56 of the Exclusive Economic Zone and Continental Shelf (Environmental Effects) Act 2012 regarding the Coastal Resources Limited Application - EEZ100015

Thank you for your request for information received by Council on 16 November 2018. Council notes your request to receive the information by **12pm on 26 November 2018**. Your request for information and Council's response is set out below.

The background to your request you have provided:

"On 5 June 2018, Coastal Resources Limited (CRL) lodged an application for marine dumping consent with the Environmental Protection Authority (EPA) for the dumping of dredged material in the Northern Disposal Area, located in the EEZ, approximately 25 kilometres east of Great Barrier Island (the application).

A copy of the application can be found on the EPA website – <https://www.epa.govt.nz/public-consultations/open-consultations/coastal-resources-limited/application/>

Thank you for providing the DMC with information on the 27 September 2018 in relation to Waikato Regional Council's planning processes and relevant planning instruments in relation to CRL's application. The DMC is now seeking additional advice and information from the Waikato Regional Council under section 56 of the Exclusive Economic Zone and Continental Shelf (Environmental Effects) Act 2012 (the EEZ Act) to help it understand the nature and effect of other marine management regimes that may be involved in managing the effects of CRL's application and to assist them in obtaining the best available information. The DMC would like the following questions to be answered by Waikato Regional Council:

- 1. Although the responsibility of Waikato Regional Council stops at the 12 nautical mile limit. Does Waikato Regional Council have any concerns that the proposed dumping activities could impact on any areas covered by the jurisdiction of Waikato Regional Council?*
- 2. Does Waikato Regional Council have any comments on the likely demand for the disposal of dredged material from the Waikato Region?*

Question 1: Does Waikato Regional Council have any concerns that the proposed dumping activities could impact on any areas covered by the jurisdiction of Waikato Regional Council?

Council's response:

In response to this question the following documents were reviewed:

- The application by Coastal Resources Ltd – Marine Consent to Dump Application and Supporting Impact Assessment.
- Flaim's 2012 PhD thesis (Sediment Dispersion at the New Auckland Marine Disposal Ground, Northeast New Zealand).
- The Technical review by DHI (Technical review and analysis of oceanographic information presented in Coastal Resource Limited's marine dumping consent application – EZ100015).
- The Beca Report (Northern Disposal Area - Physical Oceanography Assessment, Dredged Material Disposal Options and International Deep Water Disposal Sites).
- Bioreserches (2018) report (Northern Disposal Area – Assessment of source material, ecological and sediment quality effects assessment of disposal).
- The joint statement of experts in ecology / monitoring.
- The joint statement of experts in the field of marine mammals.

WRC has concerns that if vessels were forced to dispose of their contents prematurely, close to or within the Waikato Region this could cause significant and in some cases irreversible damage to the marine environment. The Colville Channel has strong currents and is a hazardous area for shipping but also contains complex marine habitats e.g. sponge gardens and other deep reef communities. Conditions around disposal need to ensure that the premature discard of dredge material can be prevented as much as possible. In the CRL application it states "*In the event that, for any reason, emergency or otherwise, material is disposed outside of the NDA, CRL will notify the EPA and the Auckland Harbourmaster within 24 hours. Such notification must include the quantity dumped, the exact location and the date and time the dumping occurred. Such notification must also include an explanation of the reasons for the dumping*". We request if material was disposed outside of the NDA, WRC should also be informed so that assessment of potential effects in the Waikato CMA could be considered.

The 12 nautical mile limit of the Waikato Region is approximately 8.2 km from the outer perimeter of the Northern Disposal Area (NDA) and 23.4 km from Cuvier Island. These distances provide WRC with an additional 'buffer' from possible environmental effects outside of the NDA boundary on the CMA. As a result WRC's concerns are generally low. There is still some uncertainty over the fate of plume material and dispersion because i) a limited number of situations were observed or modelled by Flaim (2012), a point acknowledged in this study, so this did not reflect the range of environmental conditions present at the NDA e.g. difference in seasonal stratification, currents, waves or their interactions ii) assuming all material will settle out in 1-2hrs is not conservative given the above; and iii) the consent represents a 5-fold increase in the permitted disposal material. If disposed of in similar sized vessels there must be an increase in the frequency of dumping¹, which increases the likelihood of plume events overlapping and interacting. This increases the potential for cumulative and multiplicative effects which have not been fully considered, or indeed could realistically be considered by modelling approaches alone. These points have all been discussed in previous reviews of the proposal e.g. the technical review by DHI. However, while there may be some uncertainty over whether effects will occur immediately outside of NDA, given

¹ Moving from 50,000m³ to 250,000m³ per annum, it is proposed the number of disposal trips could increase from approximately 130 to 560 per year. If trips were possible year round this moves from a frequency of 2.5 trips per week to 11 per week. If the weather events result in a shorter window for operation this could increase the intensity of deposition events, hence the possibility for interactions between plumes.

the evidence provided and the distance of the Waikato Region from the NDA, the concerns of WRC are still low.

The risks of invasive organisms within dredge material was discussed in the Bioresarches (2018) report and by Simon West and Daniel Kluza during the joint statement of experts in ecology / monitoring. Invasive species were considered a negligible risk. While this is probably true, WRC makes two points for consideration: i) Bioresarches (2018) suggest that the window shell (*Theora lubrica*) is “well established in north eastern New Zealand”, suggesting a degree of ubiquity. This may be true for ports or more developed areas (e.g. Waitemata Harbour and Rangitoto Channel), but there are many part of the Waikato where this species is not found. If this species does not occur at the NDA², there is still a responsibility to prevent its arrival and limit its dispersal based on the proposed activities. ii) There has been no consideration of the invasive Australian whelk *Atritia burchardi* (formerly call *Nassarius (Plicarcularia) burchardi*). This species arrived in 2009 and is now common in muddy-sandy sediments in Waitemata and Whangarei Harbours³ but was not recorded in the Bioresarches surveys. This species has been recorded on the intertidal down to 100m depth in its native Australia⁴. Given the NDA is 130-140m, that this species is highly motile and feeds by scavenging on dead or moribund benthic organisms, its persistence at the NDA is potentially more conceivable than the other invasive species listed. If the consent is granted, a statistically robust monitoring framework at the NDA would help alleviate concerns of WRC in terms of the ability to detect environmental impacts outside of the NDA and modify procedures accordingly.

Question 2: Does Waikato Regional Council have any comments on the likely demand for the disposal of dredged material from the Waikato Region?

Council's response:

The Waikato Regional Council has no comments on the likely demand for the disposal of dredged material and recommends that CRL undertake its own inquiries in relation to this matter.

Nāku, nā



Dr Mike Scarsbrook
Manager – Science, Science & Strategy Directorate

CC: Tracey May (Director, Science & Strategy Directorate); Michael Townsend (Team Leader – Coastal Science); Mark Foreman (Team Leader – Land & Coast Policy)

² , which monitoring data in the Bioresarches (2018) reports suggests is the case.

³ Townsend, BA Marshall & BL Greenfield (2010): First records of the Australian dog whelk, *Nassarius (Plicarcularia) burchardi* (Dunker in Philippi, 1849) (Mollusca: Gastropoda) from New Zealand, *New Zealand Journal of Marine and Freshwater Research*, 44:4, 343-348.

⁴ W.O. Cernohorsky (1981) Revision of the Australian and New Zealand tertiary and recent species of the family nassariidae (mollusca: gastropoda), *Records of the Auckland Institute and Museum*, 18: 137-192.