

BEFORE THE TASMAN DISTRICT COUNCIL

Under the Resource Management Act 1991

In the matter of of an application by **THE NELSON REGIONAL SEWERAGE BUSINESS UNIT** for resource consents to continue applying biosolids to land on Moturoa/Rabbit Island.



SUMMARY OF EVIDENCE OF HAROLD NATHAN CLARKE

2 AUGUST 2022

Duncan Cotterill

Solicitor acting: Katherine Forward/Derek McLachlan
PO Box 5, Christchurch 8140

Phone +64 3 3792430

Fax +64 3 3797097

katherine.forward@duncancotterill.com

derek.mclachlan@duncancotterill.com

Introduction

- 1 My full name is Harold Nathan Clark. My credentials and experience have been outlined in full within my Statement of Evidence. Given that Evidence is taken as-read, I do not wish to re-iterate my entire evidence, rather outline some key issues of importance to NRSBU.
- 2 A key aspect of my role with NRSBU is to ensure that the regionally significant wastewater assets and facilities deliver the required wastewater treatment and disposal services for the community in a way that remedies or mitigates potential adverse effects on the environmental, including cultural impacts, and to deliver these outcomes in a cost-effective manner.
- 3 It is also my responsibility to ensure that the NRSBU has a clear view to the future and takes steps to ensure that any wastewater solution, specifically the application of biosolids in this case, is appropriately tested and socialised, and that the NRSBU has the funding in place to implement and maintain the assets required.

Outline of Key Issues raised in Evidence

- 4 It is essential for NRSBU to have a method for the beneficial reuse of biosolids, and the Moturoa/Rabbit Island BAF facility currently provides this solution. The BAF and biosolids operation is an integral component of the wider NRSS network, and there are significant efficiencies gained from being able to pump directly from the WWTP to the BAF.
- 5 The application of biosolids to forestry at Moturoa/ Rabbit Island has been operating successfully since 1996. The operation contributes significant positive effects. Research studies have confirmed that application of biosolids increases tree growth rates by approximately 30%, and the beneficial reuse of biosolids avoids the forestry manager (PF Olsen) needing to apply synthetic nitrogen fertiliser, thus enhancing the economic return of the forest, a benefit to TDC rate payers.
- 6 A 2021 (accounting) valuation identifies the Bell Island WWTP and regional pumping system at \$105m – this includes all NRSBU assets (including those at Moturoa/Rabbit Island) and not just those at the Bell Island WWTP. In my opinion true replacement costs are significantly higher. The cost to dispose of Bell Island WWTP generated biosolids (if this were possible) to landfill would be around \$1.4 million per year, which significantly exceeds the cost to operate and maintain the BAF.
- 7 Renewal of the biosolids activity (provided this application is granted), does not stop or prevent NRSBU from further investigating and developing additional or alternate reuse options. The current proposal provides certainty that further investment can be made in to the BAF facility and provides flexibility to research and implement new technologies as they become available. My evidence outlines several projects that NRSBU will pursue over the duration of this consent, including feasibility studies associated with installing a solar

dewatering system on Bell Island to test and develop alternative disposal option giving some flexibility to biosolids disposal in the future.

- 8 I have been advised by NRSBU's project team that the MTRR condition is considered industry best practice. I am informed that this condition is an excellent way of ensuring that NRSBU as Consent Holder is required to regularly turn its mind to new technology advances that may present an alternate Best Practicable Option (BPO) – both process and disposal method.
- 9 The biosolids operation is nimble with respect to climate change and sea level rise. Facilities are temporary and moveable and ongoing monitoring, including the MTTR condition, will ensure that the NRSBU can proactively address climate change pressures well in advance of this becoming a problem for application. In particular, volunteered condition 24 (buffer of 50m inland from the Mean High Water Springs) provides that biosolids application will adapt to future sea level rise.
- 10 Residential growth in the contributing Tasman District does not drive growth at the WWTP, and in turn the production of biosolids. Over recent years domestic growth has been significantly outweighed by a reduction in industrial wastewater load. There is sufficient land available at Moturoa/ Rabbit Island to accommodate future demand over the life of this consent.
- 11 I acknowledge that there is some disparity with Iwi submitters on the appropriate duration of the consent. The previous consent was granted for 25 years. This consent term resulted from the application methods and technology being new/ untested and the environmental effects at the Moturoa/ Rabbit Island location being unknown. In my opinion, the monitoring database collected over the last 26 years, together with the technical evidence in support of this application, and the robust suite of conditions, including the MTRR condition, provide confidence that consent can be granted for the 35-year term sought.
- 12 The NRSBU is in the process of developing a 50-year plan for the NRSBU wastewater facilities. The 50-year plan will focus on developing key strategies which will form the direction, and disposal methods that NRSBU elects to adopt over that period. The 50-year plan would supplement the MTRR conditions and provide mandate for the two Council's to invest and pursue those community lead expectations – resulting in steps towards more culturally acceptable discharges of wastewater, and bi-products of the wastewater process (biosolids) into the future.

.....

Harold Nathan Clarke

2 August 2022