

New Plymouth District Council Extraordinary Meeting, 26 Feb 2020

Thermal Drying Facility Replacement Project and Urgent Maintenance

Deputation by Catherine Cheung, Climate Justice Taranaki

1. Thank you David Langford for sending me some of the important background documents.
2. I am very glad that the community call to act on our climate emergency, or urgency, has been heard. I see in the officer's report a desire "*to investigate alternative, more environmentally sustainable options that could reduce the council's impact on climate change.*" This is very promising. Crucially, energy used by public sector agencies make up a substantial seven percent of NZ's total energy use¹. The NZ Energy Efficiency and Conservation Strategy 2017-2022 highlighted the leadership role of local and central governments, by directly reducing energy use and emissions, such as using renewable energy to heat schools and hospitals, and process wastes.
3. This deputation is to state my preference out of the three options tabled today and elaborate on some of the alternative options that could be considered.
4. I support Option 1 which is to approve \$4.30 million to undertake urgent maintenance of the thermal drying facility (TDF) this year and a further overhaul in 2020/21, and to defer its replacement.
5. Adding to that, I would like the final decision today to specify that the replacement is by '***an environmentally sustainable, low emissions alternative that does not rely on fossil fuel***' and the deferral to be '***before the end of life of the would-be repaired TDF and no longer than ten years***'.
6. I'll explain the second part of my suggestion first. Given the risk that the actual extension of the operating life could be less than 10 years (para.50) and there is the added pressure from population growth (para.52), it is prudent to not specify a 10 year deferral, but refer that time to 'before the end of life' point.
7. As to the first part of my suggestion, the currently planned replacement of the existing TDF is by yet another gas-hungry TDF, actually a bigger and probably hungrier drum dryer which is less energy efficient than a belt or paddle dryer. In the 2016 WWTP Biosolids Master Plan and the 2017 Feasibility Study, a range of options other than gas-fired TDFs were looked at, including composting, vermi-composting, solar thermal, wood-fired thermal, and various hybrid options. Some of these options should be reconsidered, in view of the need to act in earnest on our climate emergency or urgency, and to incorporate any technological or market changes.
8. I understand that the solar thermal drying option was assessed as not being able to dry the sludge effectively to a grade A product. Is this grade A standard requirement absolutely needed? Perhaps there are other uses for the biosolids that do not necessarily require a grade A product, yet are equally environmentally sound? For example, Thames Coromandel District produces a grade Aa compost in its own facility using sludge mixed with green waste, for use on parks and reserves. Would NPDC consider making a similar product?

9. On the moisture content of the wastewater, how about putting in place rules and incentives to divert the district's greywater and stormwater away from the sewage line? Would that not reduce the moisture of the wastewater and the energy demand at the WWTP, potentially enabling the solar dryer to work effectively? For new developments, a district plan change could put this in effect. For existing homes, council should consider offering subsidies or loans such as through rates payment. Diverting, capturing and using rainwater and greywater will also help alleviate our water shortage, build community resilience in extreme climate and reduce cost of water treatment. Stormwater can also be substantially reduced by replacing impervious surfaces with greenery and permeable surfaces, and by restoring or creating wetlands.

(Postscript: Following this deputation, Council's Infrastructural Manager David Langford explained that the diversion of water away would not affect/improve the drying process, because the moisture content of the sludge prior to drying depends on the 'clarifier' at the WWTP. <https://www.austrowatertech.com/services/clarifiers-wastewater-treatment/>)

10. I would also like council to explore the option of anaerobic digestion that produces bioenergy and fertiliser from wastewater and industrial food processing wastes (e.g. abattoir wastes, chicken wastes and carcasses, wastes fat and grease).
11. The Remediation NZ vermicomposting site at Uruti which takes such industrial food wastes, greenwastes and petroleum drilling wastes, has been problematic for years, breaching resource consents and causing environmental harm². It's taken the Taranaki Regional Council over a year to assess its discharge consent renewal applications, and it's still ongoing. If council's plan is to utilise this site to process the kerbside collected food wastes as well, I'd be very concerned.
12. The current situation of trucking our kerbside food wastes to Hampton Downs 300 km away is truly regretful. Just think about the amount of diesel being burnt and the greenhouse gases being emitted everyday! Would council consider supporting local community composting initiatives similar to those in Nelson³, Wellington⁴ and elsewhere? These initiatives collect and process local household food scraps and green wastes into affordable compost for the local communities. Such operations offer wonderful environmental and social benefits, at little financial cost on councils.
13. The waste to resource agenda is hugely complex but important. I urge council to explore alternative options for our WWTP and other wastes now. Commit now to investigative reviews, feasibility studies, full life-cycle assessments and costing, rather than wait till we are in another urgent situation, like the current break-down of the WWTP which leaves us with little or no option for the better. Rather than burning fossil fuels and struggling with the waste problems, I believe we could find solutions and opportunities by minimising wastes, and turning what's left into useful resources instead.

¹ <https://www.mbie.govt.nz/assets/346278aab2/nzeecs-2017-2022.pdf>

² <https://climatejusticetaranaki.files.wordpress.com/2019/02/cjt-submission-on-remediation-nz-uruti-applications-11feb2019-final.pdf>

³ <https://www.stuff.co.nz/nelson-mail/news/101480558/nelson-community-compost-scheme-aims-to-avoid-waste>

⁴ <https://www.stuff.co.nz/environment/climate-news/118544309/three-new-community-composting-hubs-to-be-created-in-wellington>