BEFORE THE TARANAKI REGIONAL COUNCIL

IN THE MATTER	of an application by Remediation (NZ) Limited for resource consents under Part 5 of the Resource Management Act 1991
AND	
IN THE MATTER	applications to obtain replacement consents for Consent Numbers 5838-2.2 and 5839-2 as summarised below: Consent 5838-2.2 – to discharge of a) waste material to land for composting; and b) treated stormwater and leachate, from composting operations; onto and into land in circumstances where contaminants may enter water in Haehanga Stream catchment and directly into an unnamed tributary of the Haehanga Stream at Grid Reference (NZTM) 1731656E-5686190N, 1733127E-5684809N, 1732277E-568510N, 1732658E-5684545N and 1732056E-5684927N Consent 5839-2 – to discharge emissions into the air, namely odour and dust, from composting operations between (NZTM) 1731704E-5685796N, 1733127E-5684809N, 1732277E-5685101N, 1732451E-5684624N and 1732056E-5684927N

STATEMENT OF EVIDENCE OF KATHRYN LOUISE HOOPER DATED 09 MARCH 2020

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Introduction

1. My name is Kathryn Louise Hooper, and I have a Masters in Applied Science (Natural Resource Management) from Massey University and a Graduate Certificate in Environmental Management from Central Queensland University.

2. I am an Executive Director at Landpro Limited and have been a consulting Planner based in New Plymouth since 2001, before which I worked for Wellington and Taranaki Regional Councils. I have been a full member of the New Zealand Planning Institute since 2012. The majority of my work is here in Taranaki, though my business operates throughout New Zealand.

3. My experience in development projects includes:

    (a) Leading the feasibility, consultation, land access and consenting of numerous well sites, land farms and other hydrocarbon infrastructure and facilities throughout Taranaki since 2001;

    (b) Leading the application for a Private Plan Change (PC49) to rezone 12 ha of land from Rural to Residential in Waitara, currently in progress;

    (c) Preparing and reviewing applications for consent for farming activities in those areas of New Zealand where these are required, including preparation and review of OVERSEER® nutrient budgets and calculations for Dairy Effluent Storage to support these applications, development and review of Farm Environmental Management Plans (FEMPS), and assisting clients with the necessary compliance activities under these consents;

    (d) Providing high-level advisory services to corporate and financial institutions throughout New Zealand concerning what is broadly referred to as ‘Freshwater Reforms’, and;

    (e) A large number of smaller developments throughout Taranaki and New Zealand ranging from 2 to 20 allotments.

4. I have read the Code of Conduct for Expert Witnesses as contained in the Environment Court Practice Note 2014, and I agree to comply with it as if

this hearing was before the Environment Court. My qualifications as an expert are set out above. I confirm that the issues addressed in this brief of evidence are within my area of expertise. I have not omitted to consider material facts known to me that might alter or detract from the opinions expressed.

Background and Role

5. I have been providing planning advice to the applicant (Remediation (NZ) Ltd (**RNZ**)) since late 2017. I was engaged initially to prepare the Assessment of Cultural Effects dated July 2018, and after that, I prepared the revised application for consent and Assessment of Environmental Effects (**AEE**). I have visited the site and the broader area several times.

Scope of Evidence

6. The purpose of my evidence is to provide a planning assessment of the effects of the project on the environment and provide a statutory planning analysis of the activity.

7. I also respond to the Officer's Report from the Taranaki Regional Council (**TRC**) and the submissions.

8. My evidence will address the following:

   a) Summary of the Project;

   b) Resource Consents Required and Activity Status of the Project;

   c) Existing Environment;

   d) Permitted Baseline;

   e) Assessment of Environmental Effects (including Proposed Mitigation);

   f) Statutory Assessment and Assessment of the Relevant Planning Framework;

   g) Response to Submissions;

   h) Response to Officer’s Report; and

i) Proposed Conditions, '**Attachment A'**.

9. I have read the evidence prepared by the other witnesses presenting evidence on behalf of RNZ and have relied on such evidence in preparing this brief. I have also read the submissions lodged and the Officer's Report prepared by the TRC.

10. I note that throughout my evidence, I will refer to the consent application. The version of the application I refer to is dated 26 June 2020, which I compiled to address the matters raised due to various requests for further information that arose post notification.

11. I also note that I will refer to 'organic wastes' or 'organic materials' throughout my evidence and confirm that in this regard, I refer to the scientific definition '*relating to or derived from living matter'* as opposed to the process of production without the use of chemical fertilisers, pesticides, or other artificial chemicals.

Summary of Evidence

12. In my opinion, the activities on this site are appropriate because:

    i. they can occur in a manner that ensures the potential adverse effects of the activity are acceptable, and;

    ii. continuation will secure positive regional impacts of significance for Taranaki.

13. The activities have been extensively monitored for many years. The monitoring results show that there are no ongoing, persistent effects on the Haehanga or the Mimitangiatua. The applicant acknowledged the incidents that have occurred, and these have been instructive and RNZ will put steps in place to avoid re-occurrence.

14. When assessed against the Regional Freshwater Plan for Taranaki (**RFWP**) and the Regional Air Quality Plan for Taranaki (**RAQP**), I find the activities proposed are consistent with all relevant policies and objectives.

15. In my evidence, I make particular note of;

a) Te Mana o Te Wai, the concept introduced under the National Policy Statement for Freshwater Management (NPS-FM) and the regulations introduced under the National Environmental Standard for Freshwater Management (NES-FM).

b) The Waste Minimisation Strategy for Taranaki (2016[1]) and how the proposed activity aligns with this.

16. Against relevant higher-level documents, the proposal is appropriate, and consistent with the principles and purpose of the Resource Management Act (**RMA**), including wider concepts inherent in providing for local, sustainable activity.

Summary of the Project

17. RNZ seeks consent to renew their consents to discharge contaminants to air, land and water at their site in Uruti. Current consents are divided into two - one consent for the air discharge and one for the land and water discharges. While the applicant was comfortable with this framework, I note the Officers recommendation is for the grant of one combined consent, and this too is acceptable, and this approach also addresses some of the overlaps between the two consents.

18. Activities have been occurring in this location under current consents since 2010, before which it held similar consents since December 2001.

19. Consent 5839-2 allows for the discharge of odour and dust from composting operations to air. This consent has 20 conditions, and it is sought that these be generally retained. Further conditions are also volunteered.

20. Consent 5838-2.2 authorises the discharges of contaminants to land and water. The applicant seeks a number of changes to the activities, which, in my opinion, ultimately reduce the potential for adverse effects associated with the discharge when compared to the current consents, for reasons I discuss in detail later in my evidence.

[1] https://www.trc.govt.nz/council/plans-and-reports/strategy-policy-and-plans/waste-management-and-minimisation-strategy/

21. The vision for the site is to convert it to a composting facility receiving only organic materials, operating within a wider catchment that is managed for future generations. That is the framework within which the applications for consent renewal are made.

22. Accordingly, as part of this renewal two significant sources of material will be removed from the list of materials authorised under 5838-2.2;

    a) **Drilling cuttings and fluids** are no longer received at the site, with receipt of this material ceasing on 31 December 2020, a situation which will continue once the consent is renewed. I note that the current consent still authorises the discharge of this material; however in good faith, this has been ceased in advance of any new consent being issued.

    b) **Biosolids**, from municipal Wastewater Treatment Plants, will also no longer be authorised. It is noted that these have not been received on site for a number of years, however from a planning perspective, these materials have been provided for at the site.

23. The TRC has extensively monitored the site since 2011. It therefore, must be noted that virtually all the monitoring on site to date is from a site that has received drilling materials and, historically, biosolids. The results reflect this.

24. With the removal of these items from the consent, contaminants such as hydrocarbons, heavy metals and chlorides will no longer be received. While still present in Pad 3, they will no longer require day to day management onsite.

25. Further, with the removal of these materials from the consent, the potential effects of the activities associated with the application for consent renewal are therefore less than what has been consented for the last 20 years.

Resource Consents Required and Activity Status of the Project

26. The application by RNZ to the TRC is to renew the following two discharge permits:

    a) Consent 5838-2.2 - To discharge of a) waste material to land for composting; and b) treated stormwater and leachate, from composting

operations; onto and into land in circumstances where contaminants may enter water in the Haehanga Stream catchment and directly into an unnamed tributary of the Haehanga Stream at Grid Reference (NZTM) 1731656E-5686190N, 1733127E-5684809N, 1732277E-568510N, 1732658E-5684545N & 1732056E-5684927N.

b) Consent 5839-2 - To discharge emissions into the air, namely odour and dust, from composting operations between (NZTM) 1731704E-5685796N, 1733127E-5684809N, 1732277E-5685101N, 1732451E-5684624N and 1732056E-5684927N.

27. The original application was lodged in November 2017, in accordance with section 124 (1) (d) of the RMA. Accordingly, the applicant may continue to operate under the existing consents until a decision is made on these applications under section 124(3) of the RMA.

28. The activities are fully discretionary under rule 55 of the RAQP and rules 43 and 44 of the RFWP. These are 'catch-all' rules for discharges from activities not otherwise covered in the respective plans, or where the activity is listed in the plan, but conditions of that rule cannot be met.

Notification and Submissions

29. In total, 22 submissions were received during the notification period. Ten of these were in support, and 12 were opposed to the application.

30. The Processing Officer summarises the submissions in the Officer's Report, and I will not repeat this summary other than to note that the submissions in support generally reflect the need for such a facility within Taranaki, while those opposed related to localised potential effects. I respond to matters raised to submissions within my evidence where appropriate and specifically from paragraph 140 of this evidence.

Existing Environment

31. The site is located at 1460 Mokau Road, Uruti on land that is ,part of a larger 641.24 ha block which is in a mixture of bush, farmland and forestry. A small quarry is also consented on the site.

32. The existing consented activities are part of the existing environment and have been authorised since 2001. Consents were last renewed in May 2010.

33. The application site virtually contains the entire catchment of the small Haehanga Stream, which is characterised by steep hill country draining to the valley floor where the composting operations are located. As part of enhancing the wider catchment, the applicant is currently planting the steep hillsides in a combination of native and indigenous forestry, with the afforestation plan for the entire parcel attached to Mr Gibson's evidence.

34. The Haehanga enters the Mimitangiatua about 780 m downstream of the site office and about 100 m downstream of SH3/Mokau Road.

35. A key feature of the existing site is the drainage that has been put in place to ensure clean water running off the hills in rainfall events is diverted around the active site areas.

36. The wider catchment of the Mimitangiatua River is also characterised by steep hill country that drains to the larger Mimitangiatua valley. This area is often called the Uruti Valley, and the name of the catchment is the 'Mimi Catchment' in TRC records. The catchment is 133.4 km^2 in size[2]and drains to the Mimitangiatua Estuary. In the recent report on the estuary[1], the land use within the catchment is estimated at 56% native forest, 4% exotic forest, 7% dairy farming and 32% sheep and beef farming.

37. My personal observation of the wider Mimitangiatua catchment is that there are forestry/logging operations occurring and that there are very little riparian management and fencing for stock exclusion, particularly upstream of the confluence with the Haehanga Stream. The banks of the Mimitangiatua are highly erodible, and in my opinion and experience all of these factors will be adversely affecting overall water quality in the catchment.

[2] *Taranaki Regional Estuaries, Ecological Vulnerability Assessment.* Prepared by Robertson Environmental for the Taranaki Regional Council, July 2019.

Permitted Baseline

38. The permitted baseline applying at the site is discussed in relation to the potential effects of discharges to air, land and water.

Air Discharges – Permitted baseline

39. The RAQP allows for the discharge of odour and dust associated with a variety of activities (including on-farm solid & liquid waste disposal to land, cleanfills, small scale earthworks, and application fertiliser and soil conditioners) provided that the discharge does not result in offensive or objectionable odour or dust or noxious or dangerous levels of gases emissions at or beyond the property boundary. It is feasible that in the absence of the subject activities, farming activities involving some of these types of discharges would occur.

Discharges to Land - Permitted Baseline

40. Rule 29 in the RFWP allows for discharge of contaminants from industrial and trade premises onto or into land, subject to a number of standards/terms/conditions, which includes that only waste generated on the subject property shall be discharged. The application of this rule in relation to the existing site activities is discussed in section 87 of my evidence, however, despite that, it is relevant to the permitted baseline discussion that material generated on this site is able to be applied to land as a permitted activity. Rule 30 allows for the discharge of offal, farm rubbish, leachate from silage pits and feedlots and other on-farm waste material (excluding farm dairy effluent, piggery effluent, and poultry washwater) into and onto land as a permitted activity subject to standards/terms and conditions, and Rule 31 allows for the discharge of fertiliser. Again, in the absence of the subject activities, it is feasible that farming activities involving some of these types of discharges would occur.

41. While applying the permitted baseline is always at the TRC's discretion, I consider a significant permitted baseline associated with the activities that can be taken into account.

42. For completeness I note that;

a) the discharge of surplus drill water and production water from hydrocarbon exploration to surface water;

b) the discharge of drilling muds, cuttings and wastes onto and into land, and;

c) The discharge of farm dairy effluent, piggery effluent and poultry washwater to land;

are provided for as controlled activities which may be non-notified without written approval under the RFWP.

43. Activities with a controlled status also send a strong signal as to the acceptability under the RFWP.

Assessment of Environmental Effects

Effects on Water Quality

44. The applicant engaged Mr Hayden Easton to respond to concerns raised by Ngāti Mutunga's expert relating to surface water quality, Ms Kate McArthur.

45. As you have heard from Mr Easton, the concerns raised by Ms McArthur related to the integrity of the ponds, compliance with the National Policy Statement for Freshwater Management 2020 (NPS-FM), and overall site management.

46. Mr Easton concludes in his evidence that;

a) The treatment ponds and wetland are holding water, and groundwater contamination from these sources is likely to be negligible.

b) Stormwater from the site is controlled and directed to the treatment devices.

c) Total Ammoniacal Nitrogen (TAN) monitoring results at some monitoring sites exceed the national bottom-line guidelines in the NPS-FM, which I discuss further below.

47. Mr Easton's conclusions relating to the pond integrity and the control of stormwater onsite are consistent with my own personal observations, and I am therefore satisfied that these are unlikely to be pathways for contaminants to enter waterways. Additionally, I note the proposed conditions relating to pond integrity which will provide further assurance.

Nitrogen

48. In his evidence, Mr Easton describes the adaptive management approach that he recommends to ensure that, over an appropriate transition period, the discharge from the site complies with the national bottom lines for TAN. This essentially details how compliance with proposed condition 19 in the Officer's Report will be complied with.

49. Adaptive management is entirely appropriate from a planning perspective, particularly in this situation where the applicant is facing new regulations which came into effect in September last year.

50. The site has been operating under existing consents that have no limit on TAN. Limits on un-ionised ammonia (Free N) are however, on the consent, and this limit of 0.025 g/m^3 has been complied with at all sites for at least the last 2 years, and at many sites for substantially longer (see item 5 of the data and graphics bundle). I also note that the previous NPS-FM (2014) had a bottom line of 2.2 g/m^3 for ammonia. The applicant acknowledges the NPS-FM 2020, and has committed to transition their site operations to achieve the bottom lines. The NPS-FM certainly did not anticipate 100% compliance the day it came into force, and a period of transition is reasonable and anticipated. June 2026 is in my opinion a reasonable timeframe.

51. As part of understanding potential nitrogen losses from the site, AECOM were originally engaged to prepare an OVERSEER® nutrient budget in 2018. As Mr Kay notes in his evidence, AECOM modelled the site as it existed in 2018, and found substantial N losses (855kgN/ha/year). As a result, they made recommendations to the applicant, and modelled what these changes would look like with their 'best case' scenario yielding 83kgN/ha/year. Subsequently Mr Colin Kay was engaged to model the changes made to the site, including the cut and carry of baleage and

increased irrigation areas and found these losses to be consistent with AECOM's best-case scenario.

52. Mr Kay also identifies that when we review the NH_3 and NH_4 monitoring that has occurred in ground and surface water at the site, in drawing any conclusions we must consider that the majority of the sampling record is for a period during which substantial levels of nitrogen leaching were occurring. Under a management system that has recently been implemented, and which is modelled to be leach 1/10th of this amount, it would be expected that N levels in ground and surface water will reduce.

53. The TRC Officers Report raises TRC concerns about OVERSEER® at paragraph 255. I will however note that the understanding that the OVERSEER® modelling has brought to the operation at RNZ's facility is significant and has resulted in significant investment into developing increased irrigation areas and management changes that target N reduction. These changes are recent, and will be gradual, and are therefore unlikely to be evident yet in recent monitoring.

54. With this understanding, Mr Kay concludes in his evidence that with the changes made at the site over the last 3 years, including the additional management controls (see paragraph 56 of his evidence), the application of wastewater to land at the site is appropriate and able to occur without significant N losses.

Other Contaminants

55. Mr Kay describes the 3-tier management framework which is in place to respond to sampling results at the site and provides a commentary on sampling results at this site in relation to consent limits as an appendix to his evidence. Results presented in the sampling commentary provided by Mr Kay (and illustrated on the graphs in Item 5 of the graphics and data bundle) show chloride levels in surface water comply with current consent limits, and levels in groundwater are within the green tier of the management system. Drilling waste is the main source of chloride, and with the cessation of receipt of this material chloride inputs will significantly

decrease. This is confirmed in the TRC Draft[3] Annual Monitoring report for the year to June 2020 (Draft Technical Report 2020-84, paragraph 2.2.3), which records that on all sampling occasions, at all sites during the 2019-2020 year, chloride was below the limit of 150g/m^3.

56. Mr Kay's evidence also confirms that levels of hydrocarbons in surface and groundwater comply with consent conditions, and this is also confirmed in the TRC Draft Annual Monitoring report for the year to June 2020 (Draft Technical Report 2020-84, paragraph 2.2.3), which notes that TPH and BTEX were sampled on 5 occasions at 9 monitoring sites during the 2019-2020 year. No results were recorded at levels above the laboratory detection limit.

57. While not specifically discussed by Mr Kay, I confirm that I have reviewed the TRC Draft Annual Monitoring report for the year to June 2020 (Draft Technical Report 2020-84), which, with the exception of a single result for $_cBOD^5$ which showed a level of 2.1g O_2/m^3 at site HHG0000150 (the limit is 2.0g O_2/m^3), does not raise any compliance issues with other contaminants defined in the existing consent for the site ($_cBOD^5$ and Free Ammonia).

58. In summary, drawing on the findings of Mr Easton and Mr Kay, I conclude that the site has already commenced a significant transition in terms of overall site management, understanding and performance. Cessation of receipt of drilling wastes and removal of the provision for biosolids disposal will eliminate the risk of hydrocarbon, heavy metal and chloride discharges. It will also remove many of the difficulties with site management and receipt of the material. The understanding of nitrogen losses and response to this will reduce the risk of Nitrogen losses compared to what is currently allowed under the existing consent.

59. This transition is able to continue, and the adaptive management strategy able to be formalised, under any new consent granted to achieve the national bottom lines required under the NPS-FM 2020 over an appropriate timeframe, and it is my opinion that the date of June 2026 identified in the Officer's Report is appropriate. I therefore find that the activity can occur in

[3] At the time of writing this evidence this report was in draft form. It may be finalised by the hearing.

a manner that will not result in significant adverse effects on surface or ground water.

60. I further note that the renewal of the consent is an opportunity to impose consent conditions that are in line with current national policy and direction.

Effects on Soil Quality

61. Mr Kay again focusses on the contaminants of concern in soil, being chloride and TPH, and confirms that;

    a) concerning chloride, results show a flat trend towards the lower end of the 3-tier management framework and that with the removal of drilling waste from the waste acceptance list he would expect to see a decline in soil chloride levels over time; and,

    b) in relation to TPH, sampling indicates that TPH levels in the irrigation fluid are not affecting the soil quality in the irrigation blocks.

62. Mr Kay also assesses the effects of application of compost as a soil conditioner to the irrigation areas and finds that this would be beneficial.

63. I have therefore reviewed the conditions of consent proposed by the TRC and am satisfied there is flexibility for this to occur, subject to the suggested amendments in Attachment A.

Summary

64. In summary I conclude that the effects of the proposed activities are able to occur in a manner that will not result in adverse effects on soil quality.

Effects on Air Quality

65. Mr Curtis and his team were re-engaged by the applicant in June 2020 after odour complaints about the facility began again. In the past, the site had received complaints linked to the disposal of a specific type of dairy-related waste, and since the receipt of this waste was stopped, had been operating with few complaints until mid last year.

66. Mr Curtis finds in his evidence that;

a) The facility is located well away from sensitive receptors. The nearest dwellings (identified as dwellings numbered 1, 2 and 3 on Item 1 in the bundle), situated between 1600m and 1900m from the main composting operation. This is identified as sufficient distance to ensure offensive or objectionable odours are unlikely in most meteorological conditions.

b) However, under katabatic conditions, it is possible that odours may be detected at SH3.

c) Mr Curtis has therefore reviewed the potential odour sources, identified those with the greatest odour generating potential, and identified controls and mitigation that should occur. While Mr Curtis has provided some comments on the draft Site Practices Management Plan which managed odour, I note that this is largely superseded by proposed condition 30 of the Officer's Report and providing a further version of this plan will provide little benefit to this hearing. These mitigation measures are detailed by Mr Curtis in his evidence, however briefly include;

   i. Desludging the leachate ponds and aerating these to increased dissolved oxygen concentrations.

   ii. Composting the material on the Organics Pad in windrows and regularly monitoring the temperature and moisture content to ensure optimal composting conditions.

   iii. Avoiding odour causing activities when winds are coming from the southeast and are less than 3m/s.

   iv. Continue to use the tanker for irrigating the northernmost irrigation areas.

   v. Using odour suppressant within the cold air drainage bunds to help dispersion of odours during katabatic flows, including that this be triggered by an automatic system that reacts to wind speed and direction.

67. In response to the concerns of submitters, Mr Curtis finds that;

a) With the proposed controls fully implemented, it is unlikely that the nearest dwellings would experience offensive or objectionable odours in the future.

b) It is extremely unlikely that there will be any BTEX emissions from the facility that would result in off-site concentrations above relevant guidelines.

c) Other toxic emissions are unlikely to be anywhere near toxic levels by the time they reached the boundary of this site. Pathogens within wastewater would be reliant on water droplets, which are unlikely to carry more than a few hundred meters and would not be able to reach any nearby dwelling.

d) Dust could be generated from the unsealed access road, but is unlikely to be a concern given the distances involved, and if it was to become a concern is easily mitigated.

68. In summary, Mr Curtis finds that with the mitigation measures proposed in the application, together with the additional measures he has identified, there is a very low potential for off-site odour effect.

69. The low number of odour complaints received between RNZ ceasing receipt of the dairy waste that was causing odour problems and June 2020 indicates that the site can operate with no odour issues. The additional measures proposed by Mr Curtis will further provide for this. I consider that the site is well located for such a facility from an odour perspective - it is located within a rural production environment, nearby dwellings are some distance away and are separated by significant topography. Given the large tract of land under the control of the applicant, the site is unlikely to be 'encroached upon' by lifestyle and urban development and become the subject of reverse sensitivity problems in the future. I therefore consider that discharge of odour can be avoided and mitigated so that the potential environmental effects are acceptable in this location.

Cultural Effects

70. I prepared the original Assessment of Cultural Effects (2018) provided as part of this application, and this identifies effects of the proposal from the perspective of Ngāti Mutunga.

71. The Haehanga Stream and the Mimitangiatua River hold high cultural and spiritual significance for Ngāti Mutunga, and this is clearly identified and detailed in the Ngāti Mutunga Iwi Environmental Management Plan. I anticipate we will hear more on the cultural and spiritual values of the Haehanga, Mimtangiatua and the wider area in submissions from Ngāti Mutunga, and therefore I will not pre-empt this.

72. I note that the Assessment of Cultural Effects (2018) concluded that;

    '*While recognising the role facilities such as the Uruti Composting Facility have in waste management and recycling, in exercising their role as kaitiaki, Ngāti Mutunga need to be assured that effects on the Haehanga Stream are remedied in the first instance (e.g. riparian planting to remedy the current state of stream banks and cease stock access), and avoided, monitored and mitigated into the future'*.

73. The applicant has engaged a number of experts since the Assessment of Cultural Effects (2018) was prepared, to directly respond to concerns raised by Ngāti Mutunga (and other submitters). The recommendations these experts have made are discussed elsewhere in my evidence and are discussed in detail by the experts involved in their evidence. Once implemented, these recommendations will improve and protect water quality and result in improved site management.

74. The expert recommendations can be enforced by way of consent conditions, which the applicant is agreeable to. In a planning and legislative context, this provides an extremely high level of assurance to Ngāti Mutunga, enabling high levels of monitoring and inspection to occur, and enforcement action to be taken if the conditions of consent are not met.

75. I am therefore able to conclude that, from a planning perspective, potential and actual cultural effects are able to be managed appropriately at this site

so that ultimately, the benefits associated with the facility are able to be realised with minimal effects on the environment.

Social and Economic Effects

76. Mr Fairgray's evidence confirms the importance of the facility to the Taranaki Economy, and his analysis shows that the facility has, and, subject to receiving consent, will continue to have positive effects on the local economy. He confirms that the site plays a material way in the functioning of the local economy.

77. I conclude that the economic effects of the proposal will be positive, and this is reflected in the submissions in support received from various parties.

Summary of effects assessment

78. Ultimately, I find that the potential and actual effects of the proposed activity as described will be less than those authorised under the current consents because;

    a) The receipt of biosolids and drilling wastes will cease;

    b) The irrigation areas have been significantly increased in size;

    c) Riparian management is well underway (fencing and planting);

    d) Site management is improved and documented via detailed management plans, and;

    e) The context within which the activities are occurring is changing with the open, steep hills in the wider catchment to be vegetated/forested.

79. I also find that there are positive economic and social effects, and positive effects for the wider catchment when considered in context, which must be weighed against the potential adverse effects, and which, under the planning framework, must be taken into account when considering this application.

80. This opinion is inconsistent with the view expressed by the Council Officer in paragraph 340 of the Officer's Report, where they focus solely on the

discharges. The activity as a whole cannot occur in the absence of the discharges. Therefore the grant of the consents for the discharges enable the activity to occur and the benefits to be realised. Without the consents to discharge, the site will be closed down. I therefore find this to be a somewhat arbitrary position.

Fate of 'Pad 3' Material containing drill wastes

81. The legacy of the material on 'Pad 3' is acknowledged by the applicant. It is raised by submitters and was subject of discussion at the pre-hearing meeting.

82. The fate of this material is detailed in section 2.3 of the application. To summarise however, this material will be managed appropriately by;

a) Ceasing the receipt of any more material.

b) Re-composting of the material that is on pad 3 by adding more green waste/bulking agent, and reforming the stockpiles.

c) Once the material has achieved B1 grade (confirmed via testing) it will be used onsite as a soil conditioner on the effluent irrigation areas, or for site bunds.

d) If unable to be used as soil conditioner or within site bunds it is simplest for me to repeat section 2.3.2.6.6 of the application for consent:

"TRC has requested information about the fate of this material if it was unable to be applied to land under Rule 29 of the regional Freshwater Plan (see section 4). Essentially, this material would continue being processed on the site by regular turning and management, and adding of more bulking agent if necessary, until such time as it meets the criteria for B1 Grade material (see Appendix G1). B1 Grade material complies with Rule 29 of the RFWP.

If this Grade B1 material was still unable to be sold offsite due to its drilling origins, and for some unforeseen reason was not able to be applied to the land onsite, the worst case scenario with this material

is that it is stockpiled securely (i.e. revegetated and stabilised) within this site, and applied to land as a soil treatment at the end of the site's life when the site ceases operation and is reinstated.

It may also be cost effective to continue to mix and compost this material so that it complies with the standards for A1 material (See Appendix G1 for these standards).

The applicant is still actively pursuing options for sale of this material. Options include roadside revegetation projects and quarry reinstatement. It is a valuable, highly fertile material and has many beneficial uses (including use within the site)".

83. The applicant is aware of the concerns around pad 3, they are aware of the current issues with this material in terms of its chemical composition, and are familiar with the practices required to compost the material to attenuate the contaminants.

84. The existing systems ensure that any discharges from the pad 3 material while it is being composted are captured and appropriately treated.

85. This material has many beneficial uses once the hydrocarbon levels within it are reduced. It is my opinion therefore that there are a number of options that are consistent with the provisions in the Regional Freshwater Plan which will ensure that this pad 3 material can be appropriately managed either on or offsite.

Rule 29 of the Regional Freshwater Plan

86. The application details how compliance with Rule 29 of the Regional Freshwater Plan is achieved, and this methodology was agreed between the applicant and the TRC on the basis, as detailed in paragraph 83 above and detailed in section 3 of the application.

87. The TRC has confirmed in their Officers Report that they consider B1 grade compost cannot be applied to land under Rule 29 of the Regional Freshwater Plan, and therefore have considered this as a discretionary activity through their assessment.

88. While it is my opinion that the material could be applied to land under rule 29 (See '**Attachment B'** for this discussion), the proposed framework put forward in the Officer's Report is agreeable to the applicant and provides certainty for this material in the future.

Statutory Assessment and Assessment of the Relevant Planning Framework

Regional Policy Statement for Taranaki

89. The relevant policies and objectives of the Regional Policy Statement (RPS) are discussed in section 8.2.1 of the application for consent. I will not repeat these here but will confirm that my findings that the activity can occur in a manner that is consistent with the RPS have not changed.

Taranaki Regional Freshwater Plan

90. The relevant policies and objectives of the Taranaki Regional Freshwater Plan (TRFP) are detailed in section 8.2.3 of the application for consent and again, I will not repeat these here. I will however confirm that at the time of writing the application and undertaking the Assessment of Environmental Effects (June 2020) that it was my opinion that the proposed activity could occur in a manner that is consistent with the relevant policies and objectives in the TRFP, and that opinion has not changed.

Regional Air Quality Plan for Taranaki

91. Policies 1.2 and 1.3 of the Regional Air Quality Plan for Taranaki (RAQP) address odour and smoke/dust/other particulate emissions and are detailed in section 8.2.4 of the application for consent. I confirm that when writing the application and undertaking the Assessment of Environmental Effects (June 2020), it was my opinion that the proposed activity could occur in a manner that is consistent with these relevant policies and objectives in the RAQP and that opinion has not changed. I wish to provide further discussion relating to the RAQP insofar as it addresses waste management processes (which this subject site is defined as in the RAQP), and General Policy 2.1 as these provisions are also relevant.

92. Under General Policy 2.1(g) in the RAQP, the TRC will '*recognise existing investment in physical and economic resources, associated with activities discharging to air'.* The investment that has been made in the Uruti facility is detailed by Mr Gibson in his evidence.

93. Policy 5.1 of the RAQP addresses the discharge to air from waste management processes and states;

'The discharge of contaminants to air from waste management processes, including the rate and concentrations of the discharge, will be managed to avoid, remedy or mitigate any significant off site adverse effects on the environment arising from the discharge'.

It is important to note that, reflecting the importance of waste management processes within the community, this policy is focussed on *significant* offsite adverse effects on the environment.

94. Policy 5.1 relates to objective 1 "*To maintain the existing high standard of ambient air quality in the Taranaki region and to improve air quality in those instances or areas where air quality is adversely affected, whilst allowing for communities to provide for their economic and social wellbeing*", objective 2 '*to safeguard the life-supporting capacity of air throughout the Taranaki region'* and objective 3 '*To avoid, remedy or mitigate the adverse effects of activities discharging contaminants to air in the Taranaki region, including adverse effects on the amenity and aesthetic qualities of air'* which are listed in section 3.3 of the RAQP.

95. Policy 5.2 sets out eight parameters for considering actual or potential effects that '*require particular consideration'* when considering applications for discharges to air from waste management processes, with 5.2 (h) requiring the TRC to specifically consider '*any positive effects of the discharge, including social and economic benefits of activities using air resources'*. Policy 5.2 relates to the RAQP objectives 1, 2 and 4 detailed above, and also objective 3 which is '*to provide for activities discharging to air'*.

96. In relation to 5.2 (h) I therefore note that Mr Fairgray has identified the economic benefits associated with the activity in his evidence. These are also considered positive effects.

97. Ten submitters have supported the application due to the economic benefits of being able to dispose of organic materials within Taranaki, and the added social benefit of keeping this material out of landfills.

98. I have also completed an analysis of the CO2 emissions associated with transporting material to alternative sites if this facility was unavailable, and confirm there are positive effects in this regard (see paragraph 129).

99. For completeness, I note that Policy 5.3 of the RAQP identified matters that will be included in any consideration of the effects of discharges to air from waste management processes.

National Policy Statement for Freshwater Management

100. The National Policy Statement for Freshwater Management 2020 (NPSFM) is an important provision. Because the application, and both the RPS and the RFWP pre-date the NPSFM, it is considered appropriate to undertake an assessment of the proposal against the objective and policies of the NPSFM. This I do below.

"Fundamental concept – Te Mana o te Wai

101. Section 1.3 of the NPSFM identifies that

> *(1) Te Mana o te Wai is a concept that refers to the fundamental importance of water and recognises that protecting the health of freshwater protects the health and well-being of the wider environment. It protects the mauri of the wai. Te Mana o te Wai is about restoring and preserving the balance between the water, the wider environment, and the community.*
>
> *(2) Te Mana o te Wai is relevant to all freshwater management and not just to the specific aspects of freshwater management referred to in this National Policy Statement.*

102. It identifies the following framework;

> *(3) Te Mana o te Wai encompasses 6 principles relating to the roles of tangata whenua and other New Zealanders in the management of freshwater, and these principles inform this National Policy Statement and its implementation.*

103. *(4) The 6 principles are:*

(a) Mana whakahaere: the power, authority, and obligations of tangata whenua to make decisions that maintain, protect, and sustain the health and well-being of, and their relationship with, freshwater

(b) Kaitiakitanga: the obligation of tangata whenua to preserve, restore, enhance, and sustainably use freshwater for the benefit of present and future generations

(c) Manaakitanga: the process by which tangata whenua show respect, generosity, and care for freshwater and for others

(d) Governance: the responsibility of those with authority for making decisions about freshwater to do so in a way that prioritises the health and well-being of freshwater now and into the future

(e) Stewardship: the obligation of all New Zealanders to manage freshwater in a way that ensures it sustains present and future generations

(f) Care and respect: the responsibility of all New Zealanders to care for freshwater in providing for the health of the nation."

Objective of the NPSFM

104. The NPSFM has the following Objective

"The objective of this National Policy Statement is to ensure that natural and physical resources are managed in a way that prioritises:

(a) first, the health and well-being of water bodies and freshwater ecosystems

(b) second, the health needs of people (such as drinking water)

(c) third, the ability of people and communities to provide for their social, economic, and cultural well-being, now and in the future"

105. There are 15 Policies, and I discuss each of these below in relation to the application at hand.

106. *Policy 1: Freshwater is managed in a way that gives effect to Te Mana o te Wai.*

Referring to paragraph 102 above, to understand whether freshwater is managed in accordance with Te mana o te Wai, and whether an overall balance 'between the water, the wider environment, and the community' is achieved, it is necessary to take into account the entire site and the role it plays within the community as well as whether the discharge itself is consistent with the purpose and principles of the RMA. Based on the applicants experts' evidence, I therefore find that the discharges are able to occur in a manner that is consistent with the RMA, in that effects on the receiving environment can be avoided or mitigated. Within the wider context, the importance of this facility for the Taranaki community is demonstrated, both in terms of reducing other environmental effects (transportation and greenhouse gas emissions), and the recovery of waste.

107. *Policy 2: Tangata whenua are actively involved in freshwater management (including decision making processes), and Māori freshwater values are identified and provided for.*

Maori values are identified and provided for in the application, as detailed in Assessment of Cultural Effects, and have shaped and informed the application that is before the TRC.

108. *Policy 3: Freshwater is managed in an integrated way that considers the effects of the use and development of land on a whole-of-catchment basis, including the effects on receiving environments.*

Under current, and previous consents, the focus has been on the discharges. This policy enables the wider activities within the entire parcel of land to be taken into account, rather than considering the discharges 'in isolation'. In this regard it is therefore significant that;

a) The land parcel which is subject to this application covers the entire Haehanga catchment, enabling the applicant control over all activities within the catchment.

b) Within the wider parcel, the applicant has initiated a plan to establish a combination of indigenous and forestry planting that

takes in all areas of the site that are not used for the composting or quarrying activities. This plan is provided by Mr Gibson in his evidence.

c) Riparian management plans (Fencing and planting) are in place and are being implemented.

109. *Policy 4: Freshwater is managed as part of New Zealand's integrated response to climate change.*

This policy enables fuller consideration of the alternatives to the subject site within a climate change perspective, and information has been provided detailing the additional emissions if waste from Taranaki was taken further afield.

110. *Policy 5: Freshwater is managed through a National Objectives Framework to ensure that the health and well-being of degraded water bodies and freshwater ecosystems is improved, and the health and well-being of all other water bodies and freshwater ecosystems is maintained and (if communities choose) improved.*

The Haehanga Stream is considered degraded, as is the Mimitanguatua River. The effects within the Haehanga are attributed to the removal of vegetation on the stream banks, and it is identified that restoration of the riparian zone will result in improvements. The wider plan for the land as discussed by Mr Gibson is likely to further improve overall water quality in the catchment. The direct discharges to the stream (through the wetland) and the discharges to land within the catchment have been demonstrated to be largely compliant with the limits imposed by consent conditions in recent years, though the applicant acknowledges the new bar set by the NPS-FM 2020 bottom lines, particularly for TAN. Consent conditions are proposed to allow for an adaptive management process so that improvements can continue towards achieving a transition to compliance with the NPS-FM 2020. In terms of the Mimitangiatua, this catchment is exposed to pressures associated with stock access, forestry/logging, and lack of riparian planting and management. The applicant's management of the Haehanga will ensure that the Haehanga catchment is not exacerbating concerns further downstream.

111. *Policy 6: There is no further loss of extent of natural inland wetlands, their values are protected, and their restoration is promoted.*

No wetlands will be lost or affected by the proposed activities, and it is noted that the environmental services wetlands provide are utilised with the man-made wetland on this site to treat wastewater flows.

112. *Policy 7: The loss of river extent and values is avoided to the extent practicable.*

The TRC requested an assessment of the activity against part 3.24, which is to give effect to Policy 7 on 20 November 2020, and this was responded to on 7 December 2020. A copy of the response is included as '**Attachment C'** for completeness. As this policy applies to physical changes in the river stem (which are not proposed), it is not considered relevant to this activity.

I note disagreement here between myself and the Council Officer, and note that application of these policies is in its very early days. The commissioners' findings on this matter will be helpful in interpreting Policy 7 into the future.

Regardless of the disagreement, there is a functional need for the activities and I agree with paragraphs 377 and 378 of the officers report in this regard.

113. Policy 8: The significant values of outstanding water bodies are protected.

Neither the Haehanga or Mimitangiatua are identified as outstanding water bodies.

114. *Policy 9: The habitats of indigenous freshwater species are protected.*

The proposed improvements within the wider Haehanga catchment, and the ongoing management of water quality via controls on discharges from the site will ensure that the habitats of freshwater species are protected.

115. *Policy 10: The habitat of trout and salmon is protected, insofar as this is consistent with Policy 9.*

See the discussion under Policy 9. Neither the Haehanga nor the Mimitangiatua is known trout fisheries.

116. *Policy 11: Freshwater is allocated and used efficiently, all existing over-allocation is phased out, and future over-allocation is avoided.*

The application does not involve water allocation.

117. *Policy 12: The national target (as set out in Appendix 3) for water quality improvement is achieved.*

The Haehanga is not subject to Appendix 3 of the NPSFM - it is not order 4 or greater (based on LAWA definition).

118. *Policy 13: The condition of water bodies and freshwater ecosystems is systematically monitored over time, and action is taken where freshwater is degraded and to reverse deteriorating trends.*

Monitoring of the Haehanga has occurred for many years and will continue under any new consent. The applicant has taken action in response to all identified concerns, the most relevant in this case being the wider management of the catchment, and the increased recent focus on restoration of the riparian zone.

119. *Policy 14: Information (including monitoring data) about the state of water bodies and freshwater ecosystems, and the challenges to their health and well-being, is regularly reported on and published.*

That is already in place with annual reports on the site prepared and published by the TRC.

120. *Policy 15: Communities are enabled to provide for their social, economic, and cultural wellbeing in a way that is consistent with this National Policy Statement.*

While this policy is targeted at a policy level (e.g. RPS and Freshwater Plan preparation), the public notification of this application, and the input that has been received on it, achieves this at an application level. It is noted that the application and proposed activity has been significantly modified to address the feedback/submissions received.

121. This proposal has been carefully considered against Te Mana o te Wai, the objective and all relevant policies listed above and in the context of the

detailed assessment of effects, I consider it is consistent with all the relevant provisions of the NPSFM.

Iwi Environmental Management Plan

Iwi Environmental Management Plan

122. The IEMP for Ngati Mutunga informed the Assessment of Cultural Effects, and this is summarised in section 6 of the assessment provided with the application. My opinion in this regard remains as detailed in the application.

Other Council strategies and Documents

Waste Minimisation Strategy

123. As discussed in section 8.2.2 of the application for consent, I conclude that the activities are consistent with the Waste Minimisation Strategy (WMS) for the Region.

124. Issue 6.1 of the WMS deals with reducing the volume of organic waste being disposed of within the Taranaki region and increase the quantity of solid waste being recycled and reused or recovered.

125. Objective 6.2 of the Taranaki Waste Minimisation Strategy (2016) is :

"To minimise organic waste disposed of, in order to protect the environment and public from harm and to provide economic, social, cultural and environmental benefits".

126. To achieve this, the three territorial authorities in Taranaki have various methods they will apply, many of which centre around diverting organic waste from landfill. This includes New Plymouth District Council (NPDC) kerbside food waste collection which was introduced in 2019. Currently the food waste collected is taken to Hampton Downs as there is no facility to receive the compostable food waste in Taranaki. The application at hand includes receipt of this food waste and would require far less transport.

127. I note that Ms Hope of the NPDC has submitted in support of this application for these reasons, and also notes that this is also consistent with the NPDC's Waste Management and Minimisation Plan.

128. It is worth considering the emissions of Carbon that would occur in the event that the subject site was closed. 1440 trucks per year visit 1460 Mokau Road. If these vehicles had to drive past 1460 Mokau Road and take the material to the Waikato Regional landfill at Hampton Downs, this is an additional 500km round trip measured from RNZ - or a total 720,000 additional km per year. The NZ Emissions look up tables[4] identify the CO_2 equivalent generation for an average, 20-tonne truck made after 2010, at 0.897 kg/CO_2 per km. Therefore based on an additional 720,000km, this would result in the equivalent of approximately 645 tonnes of CO^2 being emitted to the atmosphere each year associated with transportation of this material.

129. For the NP food waste alone, the NPDC identifies that 150 tonnes of food waste are diverted from landfill each month[5] - a total of 1800 tonnes per year. Based on an average of 14 tonnes payload per truck, this is approximately 125 trucks per year that are travelling to Hampton Downs instead of RNZ - the equivalent of approximately 56 tonnes of CO^2 per annum.

Part 2 RMA

Section 6

130. Section 6 of the RMA identifies matters of national importance and requires that all persons exercising functions and powers under the RMA, in relation to managing the use, development, and protection of natural and physical resources, recognise and provide for a number of matters of national importance. The wider section 6 matters are discussed in the application for consent.

131. I agree with Ngati Mutunga that the application for consent did not appropriately address section 6(e) of RMA, which requires that the relationship of Maori and their culture and traditions with their ancestral lands, water, sites, waahi tapu, and other taonga shall be recognised and provided for. By ensuring that the adverse effects on the receiving water

[4] https://www.mfe.govt.nz/sites/default/files/media/Climate%20Change/2019-emission-factors-summary.pdf
[5] https://www.newplymouthnz.com/Residents/Your-Property/Zero-Waste-Recycling-and-Rubbish

are avoided, remedied or mitigated, the proposal will protect the values associated with freshwater.

132. The discharge of material directly to the Haehanga Stream is, at face value, inconsistent with recognising and providing for cultural values associated with freshwater. However, when it is considered that the water is infact the end discharge from a large, engineered wetland system which treats the discharge on land before it enters the natural waterway, then it is in my opinion entirely consistent with appropriate management to avoid cultural effects.

133. The formal cessation of receipt of biosolids is beneficial against section 6(e), as is ceasing receipt of drilling materials.

134. When considering the wider Haehanga catchment, riparian planting and stock exclusion, and the afforestation activities that are both underway and proposed in the future contribute to enhancing the overall wellbeing of the Haehanga stream.

Section 7

135. Section 7 identifies that particular regard must be had to a number of other matters. Again, the wider matters are discussed in the original application, however specifically relating to cultural effects, section 7(a) identifies that particular regard shall be had to Kaitiakitanga, and section 7(aa) identifies that particular regard shall be had to the ethic of stewardship. The involvement of Ngati Mutunga at this site and consultation with them has resulted in changes to the proposed activities (including the cessation of receipt ofc drilling material) so that potential effects on cultural values can be avoided.

Section 5

136. To return to first planning principles, the purpose of the RMA is “to promote the sustainable management of natural and physical resources”.

137. This project will provide the benefit of local waste management to the Taranaki community, and the expert evidence provided by the applicant confirms that this can occur in an environmentally acceptable way.

138. I, therefore, conclude, that the proposed activity is entirely consistent with the purpose of the RMA, and is able to provide for sustainable management.

Response to Submissions

139. In total, 22 submissions were received. 10 of these were in support of the application, 12 were opposed.

140. Prior to responding to submissions, I note that the submissions were made on the application that was notified in early 2019 (Application dated August 2018). Requests for further information were made by the TRC in response to the submissions received, and this additional information is incorporated, assessed and summarised in the application documents dated June 2020. I therefore note that some of the matters raised are already addressed in the application dated June 2020, while some are addressed specifically via evidence.

Submissions in Support

141. The themes that have come through in the submissions in support are:

    a) The benefits of a local facility in terms of cost and transportation;

    b) The availability of the facility after hours in emergency situations;

    c) Diversion of material from landfill and the need for material not only to go to landfill but to also be transported outside of the region to these landfills if this facility was not available;

    d) Provision of a service not available elsewhere in Taranaki.

142. These submissions in support confirm that an organic waste processing facility within Taranaki is important to the region, and without the Uruti facility that is subject to this consent application, this waste would be trucked out of the region, likely to landfills.

Submissions in opposition

Ngati Mutunga and related submitters

143. A submission opposing the proposal was received from Ngati Mutunga, and a number of other submissions had similar concerns or referred to Ngati Mutunga submission. The matters raised are dealt with throughout the application and evidence, and I expect more specific concerns will be forthcoming in evidence.

Taranaki Energy Watch

144. Taranaki Energy Watch (**TEW**) has submitted against the application, raising concern about oil and gas material and its management at the site. The cessation of receipt of these materials largely addresses the concerns raised in this submission, and any concerns about the potential legacy from 'Pad 3' material have been addressed in paragraphs 82 to 86.

Climate Justice Taranaki

145. Climate Justice Taranaki (**CJT**) has submitted against the application, raising concern about oil and gas material and its management at the site. The request made in clause 4 of their submission is that all drilling waste receipt cease, and in this respect, the applicant has volunteered this. This addresses many of the concerns raised.

146. Unauthorised incidents are raised by CJT and these are acknowledged and discussed in section 4.9 of the application for consent. Commitments to riparian planting have been made and this is underway, and additionally a wider plan for planting the exposed hillsides in the wider catchment has been committed to by the applicant.

147. I note that CJT raise concerns about Landfarming activities in Taranaki and in paragraph 18 of their submission refer to this site as being a Landfarm. I have experience consenting and monitoring Landfarms in Taranaki and confirm that the RNZ site is not a Landfarm.

Urenui Districts Health Group

148. The Urenui Districts Health Group (UDHG) has raised concerns about the health effects of the activities, namely;

    a) Effects of odour emissions;

b) Inhalation of dust particles;

c) Effects of air discharges on residents with compromised immune systems;

d) Transfer of contaminants by gulls;

e) Effects on water quality in the Mimitangiatua and observed deterioration of this stream over time, and;

f) Inappropriate location of the site given the rainfall events in the valley.

149. The effects of the air discharges on human health are discussed by Mr Curtis in his evidence and he appropriately addresses the concerns that are raised.

150. The effects on the Mimitangiatua are raised, and as the downstream receiving environment are considered throughout the application and my evidence. Essentially anything that is done to protect the Haehanga, also protects the Mimitangiatua while acknowledging the wider catchment pressures the Mimitangiatua faces.

151. In terms of the location of the site in the Uruti Valley, I refer to Mr Gibson's evidence which notes that the site is managed to address the specific environment within it is located.

Mr Urs Signer

152. Mr Signer raises a number of concerns in his submission in relation to air and water quality. These have been addressed throughout the application, and the evidence presented.

Neighbouring Residents

153. Neighbouring residents raise concerns about odour, dust and effects on water quality which have been addressed in evidence presented.

Summary

154. In summary, I have reviewed the submissions received and find that the issues raised have been addressed either via site management changes

that respond to them (such as cessation of receipt of drilling wastes) or through the evidence provided to the commissioners by the applicants air and water quality experts.

Response to Officer's Report

155. Overall I agree with the Officer's Report that the activities for which consent is sought are consistent with Part 2 of the RMA when undertaken under the proposed conditions.

156. I have made comments throughout my evidence where more appropriate, and make the following specific comments in relation to some aspects of the report. Experts for the applicant have also made specific comments about the Officer's Report in their evidence and I will not repeat them here.

157. Paragraph 25 of the Officer's Repot refers to the poor performance of RNZ. That contradicts paragraph 151, which records only once year of poor performance (2013-2014). The need for improvement is however, noted.

158. For the commissioners' benefit, I note the photo at Figure 5 of the Officers Report was taken when the wetland was recently installed. It looks quite different now, with established vegetation (see Figure 11 of the consent application).

159. There is discussion at a number of points about the appropriateness of the three tier management system, as the thresholds within this are based on landfarm surrender criteria. I note the landfarm surrender criteria in question are only applied to the soil results, and this discussion does not relate to ground or surface water. This notwithstanding, the table in proposed condition 23 removes all ambiguity relating to contaminants in the soil and will largely supersede this discussion.

160. The TRC approved the 3-tier management plan in 2015, and this is the first time concerns about the appropriateness of the thresholds have been raised. The applicant is happy to discuss this with the TRC, however, notes that the surrender criteria were adopted as these 'set the bar' for the point at which the effects on the soil from these contaminants will be less than minor for landfarming activities (and at that point the consent is no longer required). It is questioned why the subject activities would be any different.

161. At paragraph 255, the Officers Report appears to dismiss the very low 'Whole Farm' N losses from the site, on the basis that they question the relevance of OVERSEER® in assessing environmental effects. I agree OVERSEER® is a model, is based on long term averages. However,, regardless of the modelling, it is known and understood that land that is forested and not grazed by animals and does not receive fertiliser effluent inputs does not leach significant amounts of N into the environment. This understanding is backed up by the OVERSEER® modelling. The applicant has control over a large area of land which will be managed on this basis (as discussed by Mr Gibson), and which, in my opinion, can be considered as an offset against the more intensive activities that occur on the flats. Indeed, most farms, particularly dairy farms, operate on this basis.

162. At paragraph 428, the Officer's Report raises concerns about the Pond Treatment System, and this is discussed in detail by Mr Easton in his evidence. In summary, the ponds do provide some treatment, and increase opportunities for treatment, and they also provide storage capacity. It is therefore considered important that these remain. I note the concern about permeability is addressed by proposed condition 9 and suggest that this addresses the concern raised by the TRC.

Proposed Conditions of consent

163. The TRC puts forward a proposed set of conditions in their Officer's Report, and I attach a mark-up of these to address the applicant's concerns as Attachment A. I briefly discuss the key elements of the conditions which are critical for the applicant below.

164. A mechanism to allow for the acceptance of other materials with approval is retained in this condition and is considered important to ensure that emergencies can be provided for (as described in section 2.5.4.23 of the application) and to ensure that materials that have not been considered at the time of application but which will be suitable are able to be received on site instead of being transported out of the region. This is provided for in proposed condition 4.

165. Condition 25 proposed by the TRC places a limit of 400kg Total Nitrogen discharge per year to the cut and carry areas. This is inconsistent with conditions of consent for other similar activities in the Taranaki Region (and

it is also noted that a similar permitted standard exists in the Waikato Region) which allow for 600kg to be applied. There does not appear to be any scientific basis or reasoning for this, particularly considered in the context of other conditions requiring the national bottom lines for TAN to be achieved by 2026. I consider that this should be increased to 600kg for consistency. The condition, and the supporting requirement for a management plan demonstrating how compliance with this condition will be achieved, will allow flexibility in application to land. If, as expected, the Nitrogen levels in the irrigation wastewater decrease with the changes made onsite, this will allow the applicant to place more compost as a soil conditioner (which in itself is subject to further conditions).

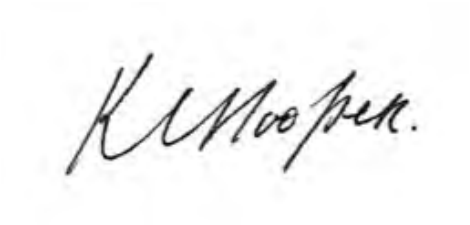
166. The marked-up conditions attached also reflect the opinions of RNZ's experts concerning air and water.

Conclusion

167. The expert evidence provided by Mr Curtis reinforces my conclusion that adjoining neighbours will not be adversely affected by the proposed activities.

168. The experts I have relied on in preparing my evidence have demonstrated that all potential and actual adverse effects can be appropriately avoided, remedied and mitigated and that there are positive effects associated with having such a facility in the region which benefit the wider community.

169. It is therefore my opinion that the consents for this activity should be granted, subject to the revised conditions attached as Attachment A to my evidence, which is consistent with the opinion of the TRC Officer.



Kathryn Hooper

09 March 2021

Attachment A Annotated Revised Conditions

Attachment B Discussion on Rule 29

Attachment C Response to request for further information (NPSFM) dated 7 December 2020.

Attachment A

ATTACHMENT A

RNZ Offered Conditions (Mark up of Conditions proposed in TRC Officers Report)

General condition

a) The consent holder must pay to the Taranaki Regional Council all the administration, monitoring and supervision costs of these consents, fixed in accordance with section 36 of the Resource Management Act 1991.

Deleted: shall

Special conditions

1. These consents authorise the discharge of:

   (a) stormwater and leachate from vermiculture operations, after treatment in the Wetland Treatment System, directly to an unnamed tributary of the Haehanga Stream;
   (b) stormwater and leachate from composting operations by irrigation to land;
   (c) solid organic material to land for composting;
   (d) material stored on Pad 3 as at the date of commencement of these consents ('stockpiled material') to land for use as a soil conditioner;
   (e) stormwater and leachate from stockpiled material to land via irrigation; and
   (f) contaminants to air associated with site operations.

2. The exercise of these consents must be undertaken in general accordance with the information provided in support of the application for these consents (prepared by Landpro Ltd, dated 26 June 2020). Where there is conflict between the application and consent conditions, the conditions prevail.

Deleted: shall

Acceptable wastes

3. Subject to condition 55 below, the raw materials accepted on site must be limited to solid compostable organic material, consisting of the following:

Deleted: shall

- Paunch grass;
- Animal manure from meat processing plant stock yards, and dairy farm oxidation pond solids;
- Green vegetative wastes;
- Mechanical pulping pulp and paper residue (excluding any pulping wastes that have been subject to chemical pulping or treated or mixed with any substance or material containing chlorine or chlorinated compounds);
- Vegetable waste solids (being processing by-products);
- Fish skeletal and muscle residue post filleting (free from offal); and
- Poultry industry waste (eggs, macerated chicks and chicken mortalities);
- Untreated sawdust;
- Molasses;

- Solid dairy industry waste (cheese, milk powder, casein);
- Sausage waste;
- Domestic household and commercial food scraps from the New Plymouth kerbside collection (bones, fruit, vegetables, meat, bread, dairy, cooked food, paper towels, cut flowers, coffee grounds, tea leaves/bags, eggshells and seafood shells);
- Palm kernel;
- Prolick;
- Food scraps from Powerco and Fonterra;
- Diatomaceous earth mix;
- Activated carbon;
- Ox tails;
- Organic waste from Brooklands Zoo;
- Sheep and lamb skins.

4. Subject to 5(d) below, solid organic compostable material not listed in condition 3 may be accepted on a 'one-off' or temporary basis with the prior approval of the Chief Executive, Taranaki Regional Council ('Chief Executive'). Approval may only be given after the consent holder has made a specific request for authorisation to accept material pursuant to this condition, and provided the Chief Executive with full details of the material including:

   (a) the type of material and its origin;
   (b) the volume;
   (c) the timing/duration of the discharge; and
   (d) any other information that the Chief Executive may reasonably request in order to determine the likely effects of the discharge including chemical analysis.

5. The following materials must not be allowed on site:

   (a) material produced as a result of a dissolved air flotation process;
   (b) biosolid waste;
   (c) any waste that may contain human faecal material or body fluids;
   (d) contaminated soil; or
   (e) any oil and gas related waste.

6. The consent holder must record the following information for all material accepted onto the site:

   (a) the date and time that the material arrives;
   (b) the type of material with reference to the list of authorised materials in condition 3;
   (c) the weight of each type material; and
   (d) the origin of the material.

   The information required by this condition must be provided to the Chief

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Executive, Taranaki Regional Council, within 24 hours of the material arriving on site.

Site operations

7. The site must be constructed and maintained to ensure that, at all times up to a 10 year annual recurrence interval rainfall event:

   (a) stormwater runoff is prevented from entering Pad 1, Pad 2, Pad 3, the Paunch Maturation Pond, and any other area used for vermiculture activities; and
   (b) all stormwater and/or leachate from Pad 1, Pad 2, Pad 3, the Paunch Maturation Pond, and any other area used for vermiculture activities must be discharged to land or directed through the Wetland Treatment System unless the material is covered.

   Note: For the purposes of this condition, the location and extent of Pads 1- 3, the Paunch Maturation Pond, and the worm beds are shown on Figure 1, attached as Appendix 1 of these consents.

8. Pad 1, Pad 3 and all worm bed areas must at all times be constructed, compacted and maintained, including by having a positive grade and low permeability, to ensure that runoff flows directly from them without ponding.

9. From a date no more than 60 days following the commencement of these consents the Truck Wash Pond, Irrigation Pond, Paunch Maturation Pond and any pond that may contain stormwater and/or leachate, must be lined with material that has a permeability not exceeding $1x10^{-9}$ ms^{-1} to prevent leakage through the bed or sidewalls.

10. From the commencement of these consents, at intervals not exceeding 24 months, the consent holder must engage a suitably qualified and experienced person to check the permeability of the ponds referred to in condition 9, and provide a report to the Chief Executive, Taranaki Regional Council, that demonstrates compliance with that condition.

11. Within 3 hours of raw waste material being received, it must be mixed with greenwaste on Pad 1 in the appropriate proportions for composting, and windrowed so that the composting process begins.

12. Under no circumstances must there be any direct discharge of waste material to the 'collection pond', or to the material stockpiled on Pad 3.

13. Within 90 days of these consents commencing the Duck Pond, the Collection Pond and other ponds associated with Pad 3 must be filled with inert solid material and remediated.

    Note: For the purposes of these consents, the 'Collection Pond', the Duck Pond and Pad 3 are shown on Figure 1, attached as Appendix 1 of these consents.

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Irrigation

14. From a date no later than 60 days after these consents commencing, the consent holder must measure and record the rate and volume of discharge from the Irrigation Pond at intervals not exceeding 1 minute to an accuracy of +5%.

15. The consent holder must provide the Chief Executive, Taranaki Regional Council, with a document from a suitably qualified and experienced person certifying that measuring and recording equipment required by condition 14 ('the equipment') has been:

    (a) installed and/or maintained in accordance with the manufacturer's specifications; and/or
    (b) tested and shown to be operating to an accuracy of ± 5%.

    The documentation must be provided:

    (i) within 30 days of the installation of any equipment;
    (ii) at other times when reasonable notice is given and the Chief Executive, Taranaki Regional Council has reasonable evidence that the equipment may not be functioning as required by these consents; and
    (iii) no less frequently than once every five years.

16. The consent holder must record the location and area over which wastewater is irrigated and provide the record to the Chief Executive, Taranaki Regional Council, at the end of each calendar month.

17. There must be no discharge to water as a result of irrigating wastewater to land. To achieve this, practices to ensure there is no discharge to water must include, but not necessarily be limited to, ensuring that:

    (a) no irrigation occurs closer than 10 metres to any surface water body;
    (b) the discharge does not result in surface ponding that lasts longer than 30 minutes;
    (c) no spray drift enters surface water;
    (d) the discharge does not occur at a rate at which it cannot be assimilated by the soil/pasture system; and
    (e) pasture cover within irrigation areas is maintained at all times.

18. Except within a mixing zone extending 30 metres downstream of the Wetland Treatment System discharge (monitoring location HHG000103), the discharges allowed by these consents must not give rise to any of the following effects in the Haehanga Stream or any of its tributaries:

    (a) a rise in carbonaceous biochemical oxygen demand of more than 2.00 gm^{-3};
    (b) a concentration of unionised ammonia greater than 0.025 gm^{-3};
    (c) total recoverable hydrocarbons greater than 15 g/m^3;
    (d) a concentration of chloride greater than 150 gm^{-3};
    (e) the production of any conspicuous oil or grease films, scums or foams, or

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floatable or suspended materials;
(f) any conspicuous change in the colour or visual clarity;
(g) any emission of objectionable odour;
(h) the rendering of fresh water unsuitable for consumption by farm animals; and
(i) any significant adverse effects on aquatic life.

19. After 1 June 2026 the discharges allowed by these consents must not give rise to a concentration of:

(a) ammonia exceeding 0.4 mg/L (annual maximum) or 0.24 mg/L (annual median); or
(b) nitrate nitrogen exceeding 3.5 mg/L (annual 95th percentile) or 2.4 mg/L (annual median);

in the Haehanga Stream or any of its tributaries.

Pond Systems

20. The Irrigation Pond and the Paunch Maturation Pond must include storage facilities that can contain a volume of wastewater adequate to manage the volume of stormwater and leachate produced, and achieve compliance with the conditions of these consents.

21. From a date no later than 60 days after commencement of these consents, the discharges to land and water must be managed and operated in accordance with a Pond System Management Plan (the 'PSMP') that has been approved by the Chief Executive, Taranaki Regional Council, acting in a certification capacity. The PSMP must detail management practices undertaken to ensure compliance with the conditions of these consents and maximise treatment capabilities of the two systems. It must address, but not necessarily be limited to, the following matters:

(a) how the build-up of sediment and/or sludge will be managed within the treatment systems, how the level of build-up will be monitored including factors that will trigger active management, and the frequency of undertaking the identified measures or procedures;
(b) how overloading of each system will be prevented;
(c) how available storage in the Pond Treatment System will be managed;
(d) how plant die-off within the Wetland Treatment System will be managed, and the frequency and/or timing of undertaking the identified measures or procedures; and
(e) how the effectiveness of the Wetland Treatment System in removing Nitrogen is to be demonstrated annually.

22. The discharge from the Wetland Treatment System must meet the following standards (at monitoring site IND003008):

(a) the suspended solids concentration must not exceed 100 g/m^3; and
(b) the pH must be between 6.0 and 9.0.

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Soil quality

23. The discharges must be managed to ensure that no constituent in the soil in any irrigation area exceeds the maximum value shown in the following table:

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Constituent	Maximum value (mg/kg unless otherwise stated)
Arsenic [1]	17
Barium – Barite [2]	10,000
Extractable Barium [2]	250
Cadmium [1]	0.8
Chromium [3]	600
Copper [3]	100
Lead [1]	160
Nickel [3]	60
Mercury	1
Zinc [3]	300
Sodium	460
Conductivity	290 mS/m
Chloride	700
Sodium adsorption ratio	8 (ratio)
TPH C7-C9	120
TPH C10-C14	58
TPH C15-C36	4000
Naphthalene	7.2
Pyrene	160
Benzo (a) pyrene	0.027
Benzene	1.1
Toluene	68
Ethylbenzene	53
Xylenes	48
[1]SCS – Rural Residential MfE 2011b; [2] Alberta Environment 2009; [3] NZWWA 2003, lowest of protection of human health and ecological receptors. (Biosolids to land)	

Groundwater quality

24. The consent holder must maintain all groundwater monitoring wells on site.

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25. The Total Nitrogen discharged to any hectare of land must not exceed:

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(a) 600 kilograms in any 12-month period for 'cut and carry areas'; or

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(b) 200 kilograms in any 12-month period for any other land (including grazed pasture).

26. From a date no later than 90 days after these consents commence, irrigation of effluent

must be managed in accordance with a Nitrogen Management Plan (the 'NMP') that has been approved by the Chief Executive, Taranaki Regional Council, acting in a certification capacity. The NMP must detail how effluent irrigation will be managed to ensure compliance with condition 25 above.

Riparian planting

27. The consent holder must undertake (and maintain) fencing and riparian planting for the entire stream length of the streams on the property, in accordance with the Riparian Management Plan for the property (RMP 90383). The additional fencing and/or riparian planting required, must be carried out in accordance with the following programme:

Length of stream bank to be fenced and/or planted (m) (in addition to that existing on 1 March 2021)	Completion date
At least 1000	1 August 2021
At least 2000	1 August 2022
All remaining	1 August 2023

Dust

28. The discharges authorised by these consents must not give rise to suspended or deposited dust at or beyond the boundary of the site that is offensive or objectionable. For the purpose of this condition, discharges in excess of the following limits are deemed to be offensive or objectionable:

    (a) dust deposition rate 0.13 g/m^2/day; and/or
    (b) Total suspended particulate concentrations 100 µg/m^3 as a rolling 24 hour average

    Note: For the purposes of this condition, the consent holder's site is defined as Sec 34 Pt Sec 4 Blk II Upper Waitara SD.

Odour

29. The discharges authorised by these consents must not give rise to an odour at or beyond the boundary of the site that is offensive or objectionable.

    Note: For the purposes of this condition:
    - The consent holder's site is defined as Sec 34 Pt Sec 4 Blk II Upper Waitara SD; and
    - Assessment under this condition will be in accordance with the Good Practice Guide for Assessing and Managing Odour, Ministry for the environment (2016)

30. Within 90 days of the commencement of these consents, the site must be operated in accordance with an 'Odour Management Plan' (the 'OMP') that has been approved the

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Chief Executive, Taranaki Regional Council, acting in a certification capacity. The OMP must be prepared by a suitably qualified and experienced person and must detail the practices undertaken to ensure that odour is avoided as far as practical and there is no offensive or objectionable odour beyond the site boundary. It must address, but not necessarily be limited to, the following matters:

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(a) identification of all activities on site which have the potential to generate odour (e.g. turning compost piles, removing sludge from ponds);
(b) the conditions and/or time of day when activities identified under (a) above should be undertaken (e.g. during favourable weather conditions and the identification of those conditions) and/or measures that must be implemented to avoid odours arising (e.g. containment measures);
(c) measures undertaken to minimise odours during receiving and storing material, and throughout the composting and vermiculture processes (e.g. method(s) used to cover material once received, how anaerobic conditions are maintained);
(d) measures undertaken to minimise odours arising in the Wetland Treatment System, and identification of the time of year and/or frequency when undertaken;
(e) measures undertaken to minimise odours arising in the Irrigation Pond and associated treatment measures and identification of the time of year and/or frequency when undertaken; and
(f) an assessment of alternate treatments or methods available that could further minimise odour, and the reasons that they have not been adopted.

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Certification by the Chief Executive, Taranaki Regional Council may include, at the consent holder's cost, a peer review by a suitably qualified and experienced person.

31. The consent holder must review and update the OMP required by condition 30 and provide it to the Chief Executive, Taranaki Regional Council for recertification before 31 December 2023 and at 2-yearly intervals thereafter. Recertification may include peer review by a suitably qualified and experienced person.

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32. The consent holder must maintain a monitoring device that continuously records wind speed and direction in the area of the composting activity. The data must be provided telemetrically to the Taranaki Regional Council. If this method is not at first technically feasible, the data must be provided to the Taranaki Regional Council at a frequency and a form advised by the Chief Executive, Taranaki Regional Council until such a time it is technically feasible to telemetric the data.

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Discharge of existing stockpiled waste

33. The discharge of stockpiled material to land for use as a 'soil conditioner' must not occur within 10 metres of any surface water.

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34. The discharge of stockpiled waste to land must only occur after:

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(a) the consent holder has provided the Chief Executive, Taranaki Regional Council

with the following information:
the volume of material to be discharged;

(i) a map or aerial image identifying the specific area where the discharge is to occur;
(ii) a calculation of the Nitrogen loading of the discharge proposal;
(iii) test results from a representative sample of the waste to be discharged showing that it meets the standards shown in the table below;
(iv) details of the sampling procedure showing that the test sample is representative of the wastes; and

(b) the Chief Executive, Taranaki Regional Council, having assessed the information provided advises that the discharge may occur.

Constituent	Maximum value (mg/kg unless otherwise stated)
Arsenic [1]	17
Barium – Barite [2]	10,000
Extractable Barium [2]	250
Cadmium [1]	0.8
Chromium [3]	600
Copper [3]	100
Lead [1]	160
Nickel [3]	60
Mercury	1
Zinc [3]	300
Sodium	460
Conductivity	290 mS/m
Chloride	700
Sodium adsorption ratio	8 (ratio)
TPH C7-C9	120
TPH C10-C14	58
TPH C15-C36	4000
Naphthalene	7.2
Pyrene	160
Benzo (a) pyrene	0.027
Benzene	1.1
Toluene	68
Ethylbenzene	53
Xylenes	48
Pathogen E-coli Campylobacter Samonella Human adenovirus Helminth ova	 Less than 100 MPN/g Less than 1/25g Less than <2 MPN/g Less than 1 PFU/0.25g Less than 1 PFU/0.25g
[1]SCS – Rural Residential MfE 2011b; [2] Alberta Environment 2009; [3] NZWWA 2003, lowest of protection of human health and ecological	

receptors. (Biosolids to land)

Monitoring Plan

35. Within 90 days of the commencement date of these consents, the consent holder must ensure a Monitoring Plan is prepared. The purpose of the Monitoring Plan is to identify the techniques, methodologies and procedures that will be employed to acquire data in relation to, and to monitor compliance with the conditions of these consents, and the effects of the discharges authorised by these consents. The plan must include at least the following:

    (a) provision for site inspections to be undertaken at least once every week;
    (b) installation of an in-situ water quality monitoring sonde to measure real-time water quality of the Haehanga Stream;
    (c) camera surveillance of the site with images transmitted to the Council in real time;
    (d) requirements for sampling and testing to ensure compliance with the conditions of these consents;
    (e) groundwater sampling and testing to determine the risk that groundwater quality may present for surface water; and
    (f) annual reports that record the information that has been collected in accordance with the consent conditions and compliance with those conditions.

    Note: The Taranaki Regional Council assumes responsibility for the preparation and implementation of the Monitoring Plan for annual compliance purposes, however RNZ representatives must also be involved in preparation of this document.

Contingency Plan

36. The consent holder must develop and regularly update a 'Contingency Plan' that details measures and procedures that will be undertaken to prevent and remedy any environmental effects from a spillage or any discharge of contaminants not authorised by these consents. The plan and any amended versions must be provided to the Chief Executive, Taranaki Regional Council.

Site reinstatement

37. Within 3 months of the commencement date of these consents, the consent holder must engage a suitably qualified and experienced person, approved by the Chief Executive, Taranaki Regional Council, to prepare a Site Exit Plan (SEP) which details how the site is going to be reinstated at the end of its life. A bond is required under condition 38, in relation to performance of the SEP.

    The SEP must address, but is not necessarily limited to, the following matters:

    (a) how the site will be reinstated so that no raw materials listed or approved under conditions 3 or 4 of these consents remain on site after the consent expires;
    (b) how the site will be reinstated so that no partially decomposed material remains

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on site after the consents expire;
(c) how all stockpiled waste will be removed and appropriately disposed of;
(d) how any remaining leachate or sludge, resulting from the operation, will be either removed from the site, buried, treated or otherwise to avoid any adverse effects on groundwater or surface water;
(e) how irrigated soils and groundwater will be remediated;
(f) timeframes for undertaking the activities identified in association with (a) to (e) above;
(g) estimates of costs of reinstating the site; and
(h) a recommended initial bond quantum. Note: this recommendation is not final, and is subject to the process set out at condition 38 (d)(i) – (iii) below.

The first time the SEP is drafted it must be submitted for approval to the Chief Executive, Taranaki Regional Council, acting in a certification capacity.
The SEP must be reviewed by a suitably qualified and experienced person approved by the Chief Executive, Taranaki Regional Council, and submitted to the Chief Executive, Taranaki Regional Council for re-approval at 5-yearly intervals. The consent holder must implement the approved SEP upon expiry of these consents.

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Bond

38. Within 6 months of the commencement date of these consents, the consent holder must enter into an enforceable written agreement (bond agreement) to provide and maintain in favour of the Taranaki Regional Council, a cash bond or bank bond pursuant to sections 108(2)(b) and 108A of the Resource Management Act, on terms and conditions satisfactory to the Taranaki Regional Council in all respects.

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The following terms apply in respect of the bond:

(a) the bond quantum must be sufficient to ensure compliance with condition 37 above in the event of any default by the consent holder;
(b) any bank bond must be in a form used by a bank registered to conduct business in New Zealand and approved by the Taranaki Regional Council;
(c) the bond agreement must include the terms and conditions on which the bond will be established, maintained, changed, transferred or surrendered. In the event of the Taranaki Regional Council not agreeing with the consent holder on the terms of the bond agreement, then the dispute must be resolved through an agreed disputes resolution process or referred to arbitration;
(d) the initial bond quantum must be determined as follows:
    (i) Upon preparing the SEP, and in accordance with condition 37(g) and (h) above, a suitably qualified and experienced person (approved by the Chief Executive of the Taranaki Regional Council) who has been engaged by the consent holder must make a recommendation as to the initial bond quantum;
    (ii) The Taranaki Regional Council will then engage a suitably qualified and experienced person to peer review the bond quantum recommended under condition 37(h); and

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(iii) In the event of the consent holder and the Taranaki Regional Council not reaching an agreement on the initial bond quantum, it must be assessed by an independent bond assessor appointed by the Taranaki Regional Council, and the decision of that person will be final and binding.

(e) the bond quantum may be reviewed and reassessed every two years from the date the initial bond quantum is lodged until a date two years after the date on which these consents have been given effect to. The purpose of the adjustment is to reflect changes in the risk profile of the activity at the site. After that, the bond quantum may be reviewed and reassessed by the consent holder and the Taranaki Regional Council at five yearly intervals for the duration of these consents. The method of review must follow the same procedure set out in condition 38(d) above.

(f) the bond terms and quantum may also be varied or cancelled or renewed at any other time by agreement between the consent holder and the Taranaki Regional Council using the methodology described in condition 38(d);if at any time the amount of the bond is varied under conditions 38(e) or 38(f), then the consent holder must, within five (5) working days of the replacement bond agreement being executed, put in place a new bond for the varied amount or the additional amount required in excess of the existing bond;

(g) if the consent is transferred to another party or person, the bond lodged by the transferor must be retained by the Taranaki Regional Council until a replacement bond is entered into by the transferee to ensure compliance with conditions of the consents unless condition 37 has already been complied with;

(h) at all times the consent holder must comply with the terms of the bond or varied bond;

(i) the consent holder must reimburse the Taranaki Regional Council for all reasonable costs incurred in developing the bond agreement and any subsequent reviews or reassessments;

(j) for the avoidance of doubt, the bond agreement may provide for the bond to be held after the expiry of these consents if the SEP is not given effect to and condition 37 not complied with.

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Review

39. In accordance with section 128 and section 129 of the Resource Management Act 1991, the Taranaki Regional Council may serve notice of its intention to review, amend, delete or add to the conditions of this resource consent by giving notice of review during the month of June each year, for any of the following purposes:

(a) ensuring that the conditions are adequate to deal with any adverse effects on the environment arising from the exercise of this resource consent, which were either not foreseen at the time the application was considered or which it was not appropriate to deal with at the time; or

(b) setting of specific groundwater quality standards if testing indicates that it is reasonably required to avoid adverse effects on surface water.

Attachment B

Rule 29 - Discussion on B1 Compost compliance with Rule 29

1. To determine whether B1 grade compost can be applied to land under Rule 29, it needs to be decided if;

    a) B1 compost is a contaminant under the RMA, and if it is;

2. Whether it is generated within the subject site to which it is applied.

3. It is my opinion that B1 compost is not a contaminant because it has a similar composition to soil and meets specific guidelines that are identified as acceptable for land application in various publications (See table 15 of the consent application). I also have concerns that if compost that complies with the guidelines identified is considered a contaminant, this has implications for the use of other compost and compost products throughout the region.

4. If the material is, however considered a contaminant, the crucial question therefore becomes whether the composted 'waste' in the form that is applied to the land is generated on the site.

5. All industrial waste is a product of an industrial process comprising multiple raw materials. These raw materials may in some cases be generated within the site, but in many other cases, they are brought on to the site in a raw state and processed into something else. It would make no sense to say waste only meets the rule if all its raw component parts are sourced from within the site.

6. Like all industrial/trade processes, the composted material is made up of externally sourced raw inputs (whether hydrocarbons or other waste) which all undergo a process of physio-chemical change within the site through composting, which produces an altered output which is compost. The fact that the raw inputs are in their own right waste is irrelevant. The waste is therefore in a meaningful sense "generated" by the composting process which occurs on site.

7. For completeness I note that under section 2 of the RMA, **'industrial or trade premises'** means;

a) *any premises used for any industrial or trade purposes; or*

b) *any premises used for the storage, transfer, treatment, or disposal of waste materials or for other waste-management purposes, or used for composting organic materials; or*

c) *any other premises from which a contaminant is discharged in connection with any industrial or trade process;—*

d) *but does not include any production land.*

8. Additionally, **'Industrial or trade process'** *'includes every part of a process from the receipt of raw material to the dispatch or use in another process or disposal of any product or waste material, and any intervening storage of the raw material, partly processed matter, or product'*.

9. The receipt of raw product and discharge of this directly to the land without the intervening step of composting would not comply with Rule 29.

10. If B1 compost is deemed a contaminant, the receipt of B1 compost from another site and discharge of it onto land at the subject site also will not comply with Rule 29, as the waste would not have been generated at 1460 Mokau Road.

11. However because the raw products are combined and processed into something new within the site, the waste that is being applied to the land is generated on the site and is, therefore, able to be considered under Rule 29.

Attachment C

LANDPRO
Make the most of your land

Taranaki Regional Council
Private Bag 713
STRATFORD

7 December 2020

Attention: Colin McLellan

Dear Colin

RE: Remediation NZ – Renewal of consents - Request for further information under s92 of the RMA

Thank you for your letter dated 20 November 2020 requesting further information in relation to renewal of consents 5838-3.0 and 5839-3.0 for the Remediation New Zealand Vermiculture and Composting Facility in the Uruti Valley.

The Taranaki Regional Council (Council) has requested further information in relation to the National Policy Statement for Freshwater (NPSFM) that came into effect on 3 September 2020. Specifically it has been identified by Council that Policy 3.24 is of particular relevance to Remediation (NZ) Limited's application for consent 5838-3.0.

The legal advice given to Remediation (NZ) Limited is that policy 3.24 does not apply to this application, as this policy applies to physical changes in the river stem (which are not proposed).

Further reasons for this view are:

i) That this is consistent with ministry for the environment advice;
ii) The requirement for Policy 3.24 implements Policy 7 of the NPS;
iii) It is insensible to treat discharges to land as causing a "loss" of values;
iv) It is unreasonable to read the NPS as developing an avoidance policy for all renewals and there is no evidence form the framework that that was intended.

A reliance on policy 3.24 fails to appreciate the NPS is seeking a generational incremental change and not an overnight revolution.

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57 Vivian Street,
New Plymouth 8235
PO Box 8235, NZ
info@landpro.co.nz
landpro.co.nz

Despite this view, we set out a response below in the event that the policy is applied by Council, while recognising that RNZ does not accept that it does.

Policy 3.24 requires that:

"The loss of river extent and values is avoided, unless the Council is satisfied:

(a) that there is a functional need for the activity in that location; and

(b) the effects of the activity are managed by applying the effects management hierarchy."

The effects management hierarchy referred to requires that (in order);

(a) adverse effects are avoided where practicable; and

(b) where adverse effects cannot be avoided, they are minimised where practicable; and

(c) where adverse effects cannot be minimised, they are remedied where practicable; and

(d) where more than minor residual adverse effects cannot be avoided, minimised, or remedied, aquatic offsetting is provided where possible; and

(e) if aquatic offsetting of more than minor residual adverse effects is not possible, aquatic compensation is provided; and

(f) if aquatic compensation is not appropriate, the activity itself is avoided

In relation to 3.24 it is firstly noted that there will be no loss of river extent as a result of the activity. The following assessment therefore considers the potential loss of values.

Functional Need

In relation to 3.24 (a), the functional need for the activity has been demonstrated. A facility which can receive waste of this nature means recoverable material is kept out of landfills, and nutrients are reclaimed and reused in the form of compost. The facility is necessary within the Taranaki Region so that transport costs are avoided. There is no other facility of this nature in the region, and the importance of the facility in achieving the Waste Management and Minimisation Strategy for Taranaki is detailed in section 8.2.2 of the application for consent (June 2020).

It is also noted that this is a consent renewal process and the activity has been operating on this site under existing consents for some time, and the cost of re-establishing the necessary infrastructure to undertake this activity is significant .

Accordingly, it is considered that the functional need for the activity has been well demonstrated.

Effects Management Hierarchy

The potential effects on the Haehanga Stream include a potential loss of stream values, and this has been identified by Tangata Whenua. In terms of the wider social, community, ecological and economic values of the Haehanga Stream, it is necessary to consider the state of the stream as it currently exists, as it existed prior to the activity and as it will be once riparian planting and fencing is complete. The Haehanga Stream has been degraded over time by the clearance of indigenous vegetation and subsequent grazing and farming practices. The completion of the riparian fencing and planting along the banks of the Haehanga Stream that will occur as part of the subject application will help to restore the balance between water, the environment and the community. It will also assist in mitigation and minimisation of effects, given the activity involves the discharge of material to land.

The effects of the activity are managed by applying the effects management hierarchy identified above. Measures to avoid, mitigate and remedy effects are detailed in full throughout the AEE for the activity, however these are briefly summarised below for completeness and the slightly different terminology of 'minimised' versus 'mitigated' is considered:

1. Avoidance:

- Effects of the discharges to land and water on the Haehanga are avoided in the first instance by ensuring discharges occur first to land or the wetland system, and no overland flow enters the Haehanga from irrigation areas;
- Any actual or potential effects associated with the discharge of drilling materials are avoided by cessation of receipt of this material from 31 December 2020, meaning this will no longer by present in irrigation fluids, and by composting and management of the remaining compost material that contains drilling related material in-situ.

2. Minimisation;

- Effects are then minimised through management practices, including those to ensure that discharge thresholds that could result in adverse effects are in place (i.e. the 3-tier management system) for contaminants of concern;
- The extension of the irrigation area and changes to the pond system to reduce the contaminant load are key measures that have been put in place to ensure actual and potential effects are minimised;
- Irrigation is informed by weather data, and detailed local knowledge of the specific weather systems in the valley and how these interact with the pond system, and the system is managed to ensure adequate storage at all times;
- Irrigation occurs in appropriate locations and at appropriate rates to ensure nutrient losses are minimised and do not have adverse effects on the Haehanga Stream;

- The farm is managed to minimise nutrient losses overall (for example cut and carry of pasture to remove nitrogen);

3. Remediation;

- Riparian planting and fencing (stock exclusion) will improve the water quality of the stream and improve the overall stream values compared to what is there now, and what has been the situation for many years (including prior to the activity for which consent is sought). It is noted that once riparian fencing and planting is complete, the Haehanga will be better protected in this regard than the Mimitangiatua downstream;
- Management plans and procedures are in place to ensure a process of continual improvement, where any incidents are responded to appropriately in the first instance, and then investigated and steps put in place to ensure that the incident does not occur again;
- Extensive monitoring is in place to ensure the effects of the activity are understood.

By avoiding, minimising and remedying the effects of this activity, there are no residual effects that are more than minor. Therefore the remaining hierarchy of management (offset, compensation, and cessation/avoidance) are not necessary. The ability of current management practices to achieve avoidance, minimisation and remedy is evidenced in the water quality monitoring that has been carried out to date by the TRC under existing consents which demonstrates that the effects on water quality are acceptable, and that on occasions when contaminants have been found in the Haehanga Stream, this is directly attributable to an incident which has been able to be identified and remedied by management.

Te Mana O Te Wai

While not specifically requested in the TRC's s92 letter, it is considered prudent to make an assessment of the proposed activities in relation to Te Mana o Te Wai.

Policy 1 of the NPS-FM states that freshwater is to be managed in a way that gives effect to Te Mana o Te Wai. Te Mana o Te Wai refers to the fundamental importance of water and recognises that protecting the health of water protects the health and wellbeing of the wider environment. It is about preserving the balance between water, the wider environment and the community.

Te Mana O Te Wai is a holistic concept that ensures a water body will sustain the full range of environmental, social, cultural and economic values held by iwi and the community. The concept is expressed in Te Reo Māori, but applies to freshwater management for and on behalf of the whole community.

As discussed above, the Haehanga Stream has been degraded over time by the clearance of indigenous vegetation and subsequent grazing and farming practices. The completion of the riparian fencing and planting along the banks of the Haehanga Stream that will occur as part of the subject application will help to restore the balance between water, the environment and the community. Part of this balance is the service that this site provides to the community in the form of recycling organic waste and preventing it being transported to landfills out of the district. This must be balanced with

cultural and ecological effects and the steps identified above will ensure that actual and potential effects are avoided, minimised and remedied appropriately. Overall the AEE provides the necessary information to enable confirmation that the activity is consistent with the principle of Te Mana o Te Wai.

Please feel welcome to contact me if you require any further information or clarification, or if you would like to meet to discuss.

Yours sincerely

Kathryn Hooper
MNZPI, CNMA