

NORTHLAND REGIONAL COUNCIL

<p>Report and Decision of the Hearing Commissioners Meeting held at Ramada Resort, Taipa on 24 June – 26 June 2019 commencing at 9.00 am.</p>
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Independent Hearing Commissioners Dr Rob Liewering (Chair) and Mr Antoine Coffin were appointed by the Northland Regional Council to hear and determine Far North District Council's application for resource consents associated with the operation of the East Coast Wastewater Treatment Plant located at Taipa. The application, made in accordance with the Resource Management Act 1991, was lodged with the Northland Regional Council on 28 May 2008 and referenced as Application No. APP.004007.01.03.

Representations and Appearances

Applicant:

Ms J. Baguley, Counsel, Atlas Legal Limited (in attendance on Day 1 only)

Dr J. MacKay, Senior Ecologist, Wildland Consultants Limited (in attendance on Day 1 only)

Mr T. Hegarty, Associate Planner, Jacobs New Zealand Limited

Dr R. Macdonald, Principal Wastewater Engineer, Jacobs New Zealand Limited

Mr B. Somers, Assets Manager 3 Waters, Far North District Council (in attendance Day 1 and 2)

Submitters:

Mr R. Oxborough

Mr A. Kurmann, represented by **Mr W. Parsonson**

The Ven. L. Popata, represented by **Ms T. Allen**

Ms J. Rickett, represented by **Mr P. Morris**

Te Rūnanga-a-iwi O Ngāti Kahu, represented by **Ms A. Herbert-Graves**

Mrs C. Holloway

Mr V. Holloway, including **Mr J. Bassett (Parapara Marae)**

Mr P. Tauhara, including **Mr P. Beatty** and **Mr W. Popata**

Mrs K. Tauhara

Mr W. Tauhara

Mr I. Burke (did not appear but tabled written evidence)

Te Reo Māori Interpreter:

Mr I. Kingi-Waiaua

Northland Regional Council:

Mr B. Tait, Policy Planner

Ms A. Sluys, Hearing Administrator

BACKGROUND AND PROCEDURAL MATTERS

1. This is the report and decision of independent Hearings Commissioners Dr Rob Lieffering (Chair) and Mr Antoine Coffin. We were appointed by the Northland Regional Council (**the NRC**) to hear and decide the application lodged by the Far North District Council (**the Applicant**) for three discharge permits associated with the operation of the East Coast Wastewater Treatment Plant¹ (**the WWTP**).
2. The WWTP services the communities of Mangonui, Coopers Beach, Cable Bay, and Taipa. The discharges from the WWTP are authorised by resource consent 4007 which ‘expired’ on 30 November 2008. The Applicant applied for new consents for the same activities on 28 May 2008, meaning that it has been able to continue to exercise consent 4007 pursuant to section 124 of the Resource Management Act 1991 (**RMA**) while the application for new consents is processed and a decision made.
3. The hearing commenced at 9 am on Monday 24 June 2019. Evidence was heard over three days and the hearing was adjourned at 10:30 am on Wednesday 26 June 2019. The hearing was held at the Ramada Resort, Taipa.
4. Prior to the hearing, a report was produced pursuant to section 42A of the RMA (**the Staff Report**) by the NRC’s Reporting Officer, Mr Tait, a Policy Planner employed by the NRC.
5. The Staff Report provided an analysis of the matters we must consider under the RMA in making our decision. The Staff Report also included a recommendation that the application should be granted, subject to a suite of recommended consent conditions (we discuss these in greater detail later in this decision).
6. Prior to the hearing we issued a Minute² addressing procedural matters and made directions to ensure a smooth hearing process.
7. The Staff Report and the Applicant’s evidence was pre-circulated to the parties prior to the hearing in accordance with section 103B of the RMA. No expert evidence was prepared by any of the submitters. The application documentation, submissions, Staff Report, and pre-circulated evidence was pre-read by us and we directed that it be ‘taken as read’ during the hearing³.

1 The WWTP is sometimes also referred to as the East Coast Bays Wastewater Treatment Plant (as stated in the application) or the Taipa Wastewater Treatment Plant. In its Right of Reply the Applicant advised that it should be referred to as the East Coast Wastewater Treatment Plant and we have used this term throughout this decision.

2 Minute #1 dated 3 May 2019.

3 As provided for by section 41C(1)(b) of the RMA.

8. We undertook a site visit on Monday 24 June 2019. We were accompanied by Mr Greg Timperley who works for Broadspectrum, the company contracted by the Applicant to operate and maintain the WWTP. Mr Timperley had no involvement in the hearing process. We visited the treatment plant area, the wetlands, and the various streams downstream of the wetland including the confluence of the discharge drain and the unnamed tributary of Te Wai o Te Parapara (the Parapara Stream)⁴.
9. On Wednesday 26 June 2019 we visited the lower parts of Te Wai o Te Parapara, including downstream of its confluence with Te Wai o Te Aurere (the Aurere River), this area being referred to as Te Wai o Te Awapoko (the Awapoko River/Estuary). We were driven there by Ms Sluys, the NRC's Hearings Administrator.
10. During the hearing Mr Holloway, a submitter, called Mr Bassett to present evidence in support of his submission. Mr Bassett represented the Parapara Marae and advised us the Marae had lodged a submission, however according to the NRC it has no record of any such submission being lodged. We allowed Mr Bassett to present his evidence after having satisfied ourselves that it was within the scope of Mr Holloway's original submission (it was Mr Holloway who asked Mr Bassett to speak in support of his submission).
11. On the first day of the hearing we asked Mr Tait questions regarding his Staff Report. In his report he stated that a Hearing Committee had been set up in 2010 to make a decision on this application and that a hearing had been set down for 3 June 2011 but '*...the hearing did not reconvene*'. In answers to questions Mr Tait confirmed that no hearing had taken place and that the word '*reconvene*' should in fact be '*convene*'. In answers to further questions Mr Tait confirmed, after checking with other NRC staff, that the delegations to the previous Hearing Committee had been extinguished. He confirmed this in writing in his supplementary statement provided to us after the adjournment of the hearing.
12. We issued Minute #2 on 27 June 2019 which requested further information from Mr Kurmann (a submitter) and also outlined the other information we requested of Mr Tait and the Applicant during the hearing. Minute #2 also set out timeframes for the provision of the further information, Mr Tait's supplementary statement (including revised recommended conditions), and the Applicant's Right of Reply.
13. We received the further information from Mr Kurmann on 3 July 2019, however it did not fully answer some of the questions we had posed. Mr Kurmann provided an additional response on 9 July 2019.

4 Throughout this decision we have endeavoured to use both the Māori and English words the first time we use a word. For example – Te Wai o Te Parapara (the Parapara Stream). After the first use of a word we use either the Māori or English words interchangeably.

14. We received Mr Tait's supplementary statement on 4 July 2019, however we sought clarification on a number of matters from him and received that information on 8 July 2019.
15. We received the Applicant's Right of Reply on 15 July 2019. However, the Right of Reply did not address all the agreed matters discussed on the last day of the hearing and we therefore issued Minute #3 on 17 July 2019 requesting the outstanding matters. We received a response from the Applicant to Minute #3 on 22 July 2019, however we then needed to seek further clarification on some points in that response – we received answers to our further questions on 29 July 2019.
16. On 30 July 2019 we received final comments from Mr Tait regarding a number of questions we asked of him regarding the Applicant's final response and conditions.
17. Having satisfied ourselves we had sufficient information to make a decision we formally closed the hearing on 5 August 2019.
18. We would like to thank Ms Sluys for the excellent assistance she provided throughout the hearing process and we thank Mr Kingi-Waiaua for his Te Reo Māori interpretation services.
19. We would also like to acknowledge the submitters who spoke to their submissions, many of whom attended for the duration of the hearing and needed to take time off work to do so, and had travelled some distance to Taipa. There was also attendance from iwi/hapū representatives and bereaved family members of one of the submitters, which confirmed to us the Māori community concern regarding the applications before us.

THE APPLICATION

20. The nature of the activities was described in the application documents, the Staff Report, and the Applicant's evidence and we do not repeat that information here.
21. Three resource consents have been applied for as follows:
 - To discharge treated municipal wastewater to an unnamed tributary of the Parapara Stream, at or about location co-ordinates 1640435E 6126160N;
 - To discharge contaminants to land from the base of a wastewater treatment system, at or about location co-ordinates 1641450E 6126950N and 1640435E 6126160N; and
 - To discharge contaminants to air (primarily odour) from a wastewater treatment system, at or about location co-ordinates 1641450E 6126950N and 1640435E 6126160N.
22. The application sought a 25-year duration with an expiry date of 2033. During the course of the hearing the Applicant proposed a reduced term of consent of eight years – we discuss this in greater detail later in this decision.

REGIONAL PLAN RULES AFFECTED

23. The proposed activities are classified as follows under the operative Regional Water and Soil Plan for Northland (**RWSP**) and Regional Air Quality Plan for Northland (**RAQP**):

Consent Type	Activity	Classification
Discharge Permit	<ul style="list-style-type: none"> ▪ To discharge treated municipal wastewater to an unnamed tributary of the Parapara Stream, at or about location co-ordinates 1640435E 6126160N 	<ul style="list-style-type: none"> ▪ Classified by Rule 15.3.2 of the RWSP as a Discretionary Activity.
Discharge Permit	<ul style="list-style-type: none"> ▪ To discharge contaminants to land from the base of a wastewater treatment system, at or about location co-ordinates 1641450E 6126950N and 1640435E 6126160N. 	<ul style="list-style-type: none"> ▪ Classified by Rule 15.3.1 of the RWSP as a Discretionary Activity.
Discharge Permit	<ul style="list-style-type: none"> ▪ To discharge contaminants to air (primarily odour) from a wastewater treatment system, at or about location co-ordinates 1641450E 6126950N and 1640435E 6126160N. 	<ul style="list-style-type: none"> ▪ Classified by Rule 9.3.2 of the RAQP as a Discretionary Activity.

24. There was agreement between Mr Tait and Mr Hegarty (a planner engaged by the Applicant) regarding the relevant rules and overall status of the activities.
25. Mr Hegarty considered the rules of the Proposed Regional Plan (**PRP**) were also relevant. However, in answers to questions he confirmed they were not relevant given only the rules operative at the time the application was lodged (in this case in 2008) are relevant, and the status of the activity is 'locked in' from that time.

SITE DESCRIPTION

26. The site of the treatment plant, wetlands, and surrounding area, including the downstream watercourses, are described in detail in the application documents, the Staff Report, and the Applicant's evidence. We do not repeat that material here, however the following are key points:
- (i) The WWTP is divided into two separate geographical areas. The treatment ponds are located within the Taipa River catchment with treated wastewater pumped over an adjacent ridgeline to a series of constructed wetlands (**the wetland**)⁵ located in the adjacent Parapara Stream catchment;

⁵ There are four constructed wetlands which operate in series (i.e. wastewater flows from one to the next). For the purposes of this decision we refer to all four wetlands singularly as 'the wetland'.

- (ii) None of the properties located in the Parapara Stream catchment are connected to the WWTP and they all rely on on-site wastewater systems;
- (iii) The treatment ponds are located well away from residential houses, with regenerated bush, horticultural crops, and Ryders Creek (a tributary of the Taipa River) being adjacent to the ponds;
- (iv) The area around the wetland is in pasture and used for stock grazing;
- (v) The watercourses downstream of the wetland to the Parapara Road bridge are highly modified but have been fenced to prevent direct stock access;
- (vi) The wetland discharges to a constructed drain (**the drain**) that is ~900 m in length. The drain discharges to an unnamed tributary of the Parapara Stream, which flows in a westerly direction towards Parapara Road.
- (vii) Downstream of the Parapara Road bridge the stream discharges into the Parapara Stream, which flows in a northerly direction through farmland to its confluence with the Aurere River. Downstream of this confluence the watercourse is called the Awapoko River or Awapoko Estuary or Aurere Estuary (all three names are used interchangeably); and
- (viii) The Awapoko River discharges into Doubtless Bay with its river mouth separating Aurere Beach (to the east) and Tokerau Beach (to the northwest).

NOTIFICATION AND SUBMISSIONS

- 27. The application was publicly notified on 8 July 2010.
- 28. The Staff Report stated that 54 submissions were received and a table was appended to the Staff Report which summarised the submissions received. We note the table includes details on 55 submissions (one more than stated in the body of the Staff Report).
- 29. One submission in support, one partially in support, and one neutral were received. The table appended to the Staff Report identified nine submissions being opposed to the application. The table identified the remaining submissions as either 'not stated' in terms of whether they oppose or support the application, and in some cases the cell of the table was blank. However, from reading these submissions it would appear they were all opposed to the application.
- 30. We were provided with, and have read copies of, all the submissions received and consider these were accurately summarised in the Staff Report. We adopt that summary for the purpose of our decision as provided for by section 113(3)(b) of the RMA. We discuss the key objections later in our report as many of them relate to the matters which were in contention and had very similar themes.

OBSERVATIONS

31. We have included this section because there were elements of this hearing which were, in our view, unusual. We would not normally include such a section but we consider it appropriate in this case.
32. It became apparent early on in the hearing that the Applicant's case had been prepared very recently (i.e. not long before the commencement of the hearing). Mr Hegarty and Dr Macdonald (a wastewater engineer), both of whom are employed by Jacobs New Zealand Limited (a consultancy firm), had only recently been engaged (May 2019) and Dr MacKay (an ecologist) had not visited the site prior to preparing his evidence (although he did visit the site on 24 June 2019). Whilst there is nothing wrong with an Applicant engaging experts 'late in the piece', what is unusual in this case is that Dr Macdonald relied on reports prepared by AECOM (a separate consultancy firm) – her evidence included copies of tables from these reports (we list the AECOM reports below in paragraph 38 of this decision). Those AECOM reports are important documents and we are unsure why the authors of those reports were not asked to present evidence in this case. The AECOM reports were also referred to in Mr Somers's evidence but none of the AECOM reports were provided to us – we had to ask for them to be provided. We consider these reports should have been included in the Applicant's pre-circulated material.
33. Ms Baguley, by her own admission, had also only very recently been engaged as legal counsel to represent the Applicant at the hearing. Her legal submissions were, in our view, very brief considering the nature of the activities for which consent has been applied and given the level of opposition as evidenced by the submissions. Her legal submissions focussed mainly on section 107 of the RMA and her concluding statement was that (our emphasis) "...*consent should be granted subject to conditions. The appropriate conditions are outlined in the Council's evidence*". In answers to questions Ms Baguley confirmed she was referring to the conditions outlined in Mr Tait's Staff Report (i.e. that 'the Council' meant the NRC). We found it odd that Ms Baguley preferred only the conditions of Mr Tait, the NRC's reporting officer, rather than the conditions of the Applicant's own experts, namely Mr Hegarty and Dr Macdonald. In answers to further questions on this, Ms Baguley changed her position and advised us she considered that Mr Tait's conditions, subject to the changes/additions recommended by Mr Hegarty and Dr Macdonald, were the appropriate conditions upon which consent should be granted.

34. We note that Mr Somers was the only employee of the Applicant who appeared in front of us (other Far North District Council staff were present at the hearing, however only as observers). Mr Somers did not attend the last day of the hearing, meaning that Mr Hegarty and Dr Macdonald, being independent experts, were the only people left sitting at the Applicant's table on the final day. We were very surprised that Mr Somers was not in attendance and he did not advise us at any time that he would be unable to attend on the final day of the hearing. We expressed our surprise and disappointment that Mr Somers was not there, especially as we had some additional questions of him on the final day of the hearing. More importantly in our view, Mr Somers's absence appeared to us, and probably also to the parties present on the final day, to suggest that this hearing was not of great importance to the Applicant. We hope that is not the case, however it is certainly a view that could be drawn by any observer of these proceedings.
35. Lastly, we record here that the Applicant's Right of Reply did not contain all the information that we spent quite some time going over on the final day of the hearing. Importantly, the final set of conditions included with the Right of Reply did not include a number of the conditions put forward by Dr Macdonald and Mr Hegarty at the hearing, nor did the Right of Reply provide any explanation why these conditions were now not being proposed. This necessitated the issue of Minute #3 requesting the outstanding matters and in its reply to that minute the Applicant stated that Dr Macdonald and Mr Hegarty had '*...revised their opinions based on the new evidence at the hearing and discussions with Mr Tait...*'. We sought clarification from the Applicant as to what the '*new evidence*' was that had resulted in Dr Macdonald's and Mr Hegarty's change of opinion and were advised that this was: 1) information about the rate of discharge applied for; 2) the aerial photographs provided by Mr Kurmann; and 3) modifications and additional footprint needed for electrocoagulation and power supply. These three matters seem unrelated to the change in position of the two experts in respect of their recommended conditions, in particular to the matter of the timeframes to upgrade the WWTP. We note that on the final day of the hearing we spent quite some time confirming the timeframes included in Dr Macdonald's evidence so that we fully understood them – these timeframes were essentially discarded in the Applicant's final set of volunteered conditions with no explanation given as to the reasons.
36. While it is entirely up to an Applicant how it wants to run its case, we record here that, given the application was lodged over 11 years ago and there had been a large amount of work recently undertaken on assessing alternative options for upgrading the WWTP and finding alternative disposal options, we were expecting the case to be better organised than it was, especially given the Applicant is a territorial authority.

ASSESSMENT

37. In assessing the application, we have considered the application documentation, the Staff Report, all submissions received, and the evidence provided during the hearing process.
38. In addition to the statements of evidence and supplementary statements of evidence presented at the hearing, we requested copies of the following documents:
- (a) Taipa WWTP Upgrade Issues and Options Discussion Report – For use at Taipa WWTP Working Group Hui #1, prepared by AECOM New Zealand Limited dated 5 April 2018 (**the first AECOM report**);
 - (b) Taipa WWTP Upgrade Issues and Options – Land Disposal Site Selection Analysis Report, prepared by AECOM New Zealand Limited dated 5 April 2018 (**the second AECOM report**); and
 - (c) Taipa WWTP Upgrade Issues and Options Report – For use at Taipa WWTP Working Group Hui #2, prepared by AECOM New Zealand Limited dated 25 May 2018 (**the final AECOM report**).
39. We record that the findings we have made and the decision we have arrived at are based on all the evidence before us and our consideration of that material within the context of the statutory framework.

Statutory Considerations

40. Section 104(1) of the RMA states that, when considering an application for resource consent and any submissions received, we must have regard to:
- (a) *any actual and potential effects on the environment of allowing the activity; and*
 - (ab) *any measure proposed or agreed to by the applicant for the purpose of ensuring positive effects on the environment to offset or compensate for any adverse effects on the environment that will or may result from allowing the activity; and*
 - (b) *any relevant provisions of—*
 - (i) *a national environmental standard;*
 - (ii) *other regulations;*
 - (iii) *a national policy statement;*
 - (iv) *a New Zealand coastal policy statement;*
 - (v) *a regional policy statement or proposed regional policy statement;*
 - (vi) *a plan or proposed plan; and*

(c) *any other matter the consent authority considers relevant and reasonably necessary to determine the application.*

41. In terms of section 104(1)(b), we were advised that the relevant statutory planning documents for this application are:
- The Regional Policy Statement for Northland (**RPS**);
 - The RWSP;
 - The RAQP;
 - The PRP; and
 - The National Policy Statement for Freshwater Management 2014, amended February 2017 (**Freshwater NPS**)
42. Ms Allen, who prepared a Cultural Impact Assessment (**CIA**) on the application, also considered the New Zealand Coastal Policy Statement (**NZCPS**) and the Regional Coastal Plan for Northland (**RCP**) to be relevant. We discuss the applicability of the NZCPS and the RCP later in this decision.
43. Section 104(2) of the RMA states that, when forming an opinion for the purposes of section 104(1)(a), we *may* disregard an adverse effect of the activity on the environment if a national environmental standard or the plan permits an activity with that effect. This is referred to as the application of the 'permitted baseline'. Neither Mr Tait nor Mr Hegarty addressed the question of whether this section had any relevance to this application and, as such, we assume it does not.
44. Section 104(2A) states that, when considering an application affected by section 124 of the RMA (which is the case here), we must have regard to the value of the investment of the existing consent holder. Neither Mr Tait nor Mr Hegarty addressed section 104(2A), however we asked questions of Mr Somers regarding the value of investment the Applicant had made in respect of the WWTP. He was unable to provide an answer to the question but the Right of Reply confirms the WWTP had a value of \$2.187 million. We have had regard to this value of investment in making our decision.
45. Section 104(3)(a)(ii) states that we must not have regard to the effect on any person who has given written approval to the application. No written approvals were provided so this section is not relevant to our considerations.
46. Section 104B of the RMA applies in this case as we are dealing with discretionary activities. This section states that we may grant or refuse the application sought and if granted we may impose conditions under section 108 of the Act.

47. Section 105 of the RMA states that, when considering section 15 RMA matters (discharges), we must, in addition to section 104(1), have regard to-
- (a) *The nature of the discharge and the sensitivity of the receiving environment to adverse effects; and*
 - (b) *The applicant's reason for the proposed choice; and*
 - (c) *Any possible alternative methods of discharge, including discharge to any other receiving environment.*
48. Section 107(1) of the RMA states that we are prevented from granting consent allowing any discharge into a receiving environment which would, after reasonable mixing, give rise to all or any of the following effects, unless the exceptions specified in section 107(2) apply⁶ -
- (c) *The production of any conspicuous oil or grease films, scums or foams, or floatable or suspended material:*
 - (d) *Any conspicuous change in the colour or visual clarity:*
 - (e) *Any emission of objectionable odour:*
 - (f) *The rendering of fresh water unsuitable for consumption by farm animals:*
 - (g) *Any significant adverse effects on aquatic life.*
49. Our assessment of the application considers each of these sections of the RMA below.

SECTION 104(1)(a) – ACTUAL AND POTENTIAL EFFECTS ON THE ENVIRONMENT

50. The project will result in various actual and potential effects on the environment. The more significant of these effects formed the basis of most of the submissions received by the NRC and the evidence presented to us. There were, however, some effects in respect of which we received evidence which were not in contention. We briefly cover those in the following paragraphs before addressing the matters that were the focus of the hearing (i.e. the matters in contention) under separate effects headings.

6 The exceptions being:
(a) that exceptional circumstances justify the granting of the permit; or
(b) that the discharge is of a temporary nature; or
(c) that the discharge is associated with necessary maintenance work—and that it is consistent with the purpose of this Act to do so.

Amenity Values

51. We accept that any adverse effects on amenity values, including odour effects, will be minor. Mr Tait advised the NRC had not received any odour complaints regarding the operation of the WWTP (including the wetland) but that an odour complaint had been received regarding parts of the reticulation system. Any discharges associated with the reticulation system are not relevant to our considerations.

Seepage and Groundwater Quality

52. We accept that any adverse effects associated with seepage of wastewater beneath the unlined components of the WWTP and the wetland are likely to be minor. While the rate of seepage has not been quantified, we heard evidence from Mr Tait and the Applicant (via Dr Macdonald and Mr Hegarty) that the rate of seepage is likely to be low because these components are clay lined and would have a sludge layer which would likely impede seepage. Dr Macdonald, however, advised that the subsurface directional aerators had caused 'significant scouring' of the liner in Basin 1 (Pond 1) which was observed when the basin was recently drained (understood to be in 2018).
53. In answers to questions Dr Macdonald confirmed that protecting the clay liner was important to minimise seepage, including during desludging of the ponds and she confirmed that a condition to protect the liner during desludging would be a good idea. However, no such condition was included in the Applicant's final set of volunteered conditions. Mr Tait did not recommend such a condition and, accordingly, we therefore assume that such a condition is not necessary to impose in this case.
54. Mr Hegarty recommended conditions which would require the Applicant to install groundwater monitoring bores around the wetland to determine whether the seepage is adversely affecting downgradient groundwater quality. In answers to questions Mr Hegarty agreed that the conditions should also include the ability for the conditions of consent to be reviewed should the monitoring show that seepage is causing adverse effects on downgradient groundwater quality. He also agreed that monitoring groundwater quality around the treatment ponds (not just around the wetland as he initially proposed) should be required. Mr Tait did not consider these conditions as being necessary and we note that the Applicant's final set of volunteered conditions do not contain Mr Hegarty's recommended (and revised) groundwater condition(s). Accordingly, we therefore assume that such a condition is not necessary to impose in this case.

Positive Effects

55. We heard evidence from Mr Tait and Mr Hegarty regarding the positive effects that the WWTP provides. In particular, the WWTP was constructed to replace on-site wastewater systems (mainly septic tanks) which were not performing well due to the poorly draining soils of the area – this situation had the potential to create a significant public health risk. Providing a reticulated wastewater system and treating the wastewater at a central location (the WWTP) provides the communities of Mangonui, Cable Bay, Coopers Beach, and Taipa with a sanitary system to deal with their wastewater. This, in turn, enables these communities to provide for their social and economic wellbeing, and for their health and safety. We agree that the WWTP provides a significant positive effect for the communities of Mangonui, Cable Bay, Coopers Beach, and Taipa.
56. We also note that some of the submitters, including some who were opposed to the application, acknowledged that the WWTP provided a benefit to those who are connected to it, and that centralised management of wastewater is preferred to the alternative of on-site septic systems. However, a common theme in the opposing submitters was that while there were positive effects for the communities of Mangonui, Cable Bay, Coopers Beach, and Taipa, the WWTP did not provide any positive effects for those within the Parapara Stream catchment, within which the treated wastewater is discharged.

Matters in Contention

57. We have focused our assessment on the following potential and actual environmental effects which formed the basis of much of the evidence presented during the hearing and which we consider to be the ‘matters in contention’:
- Receiving environment effects;
 - Upgrading of the WWTP;
 - Wastewater disposal options;
 - Effects on sites of significance and waahi tapu; and
 - Effects on cultural values and relationships.
58. We consider each of these separately below.

Receiving Environment Effects

59. Dr MacKay described the receiving environment between the discharge from the wetland to just downstream of the Parapara Road bridge. He did not describe the receiving environment downstream of this point, however Mr Hegarty identified the flow path the wastewater would follow downstream of the bridge to the point where it would discharge into Doubtless Bay at Aurere Beach.
60. Dr MacKay described the drain downstream of the wetland as a soft bottomed, steep banked watercourse with dense patches of water pepper (an exotic macrophyte), and around 1 m wide – it is fenced on both sides to exclude stock. In July 2014 the drain supported an abundant population of inanga and common bully, with one large longfin eel also having been caught. In February 2015 no fish, apart from a longfin eel, were found in the drain. The macroinvertebrate community index (**MCI**) score indicated poor water quality or 'probable severe pollution'.
61. The unnamed tributary of the Parapara Stream into which the drain from the wetland flows has similar characteristics as the drain but is wider (1-2 m width) – the unnamed tributary is fenced on both sides to prevent stock access. Upstream of the drain confluence the unnamed tributary has very little, if any, flow during summer months. Dr MacKay stated that common bully, inanga, and gambusia have been found and eels are also likely to be present. The MCI downstream of the confluence was indicative of fair water quality or 'probable moderate pollution'. The compliance point for the current consent is located within the unnamed tributary of the Parapara Stream a short distance downstream of its confluence with the drain.
62. The unnamed tributary of the Parapara Stream at the Parapara Road bridge has similar characteristics to further upstream but is wider still (1-3 m). Despite this site having the lowest MCI score of all three sites where MCIs were assessed, it supported an abundant population of inanga and common bully, and eels were also likely to be present. In February 2015 gambusia and koi carp were also found. Dr MacKay stated this stream is also likely to act as a migratory pathway for other species such as banded kokopu.
63. Dr MacKay concluded that, overall, the ecological values of the receiving streams, relative to other streams in the Far North district, were 'low'. However, he noted that during winter months the wastewater will be diluted by the combined flows of other drains and streams. During these periods the watercourses provide habitat for at least two species of fish of conservation concern – inanga and longfin eel are classified as 'At Risk-Declining'. During the summer months the wastewater discharge accounts for most, if not all, the flow within the drain but inanga and longfin eel appear to persist within the receiving waters during these periods.

64. Dr MacKay stated that total ammoniacal nitrogen⁷ (**TAN**) within the treated wastewater had the greatest potential to cause adverse effects within the receiving environment because unionised ammonia (NH₃) is very toxic to fish. He noted that, in summer low flow conditions, concentrations of TAN within the drain can be as high as the concentration within the treated wastewater that is discharged from the wetland (up to 20 mg/L). Concentrations of TAN at the compliance point can also be high during these periods (up to 13 mg/L) but he stated this is expected given little dilution or mixing occurs during these dry periods of the year.
65. Dr MacKay stated that during winter months TAN concentrations are lower at the compliance point due to dilution from the contributing catchments. Minor peaks of 1-2 mg/L TAN have been found during these wetter periods at the compliance point but he stated these were below concentrations at which lethal or sub-lethal effects would be expected. He based this conclusion on the results of work undertaken in 1997 on acute ammonia toxicity of seven New Zealand fish species (Richardson, 1997). In answers to questions Dr MacKay did not know whether the results in the Richardson paper were based on TAN or unionised ammonia. The Applicant's Right of Reply included a statement from Dr MacKay which confirmed the Richardson work was based on unionised ammonia, not TAN.
66. Dr MacKay stated there are other sources of TAN within the wider Parapara Stream catchment, including possibly from septic tanks within the settlement of Parapara. Despite this, he acknowledged that the discharge from the WWTP '*...is a significant source of ammonia...*'.
67. Dr MacKay only made reference to the Richardson (1997) paper in respect of determining the potential effects of TAN within the receiving environment. In answers to questions, Dr MacKay advised it was an oversight on his part to not have presented an assessment of the recently developed Attribute States and National Bottom Line concentrations for TAN contained in the Freshwater NPS. In its Right of Reply the Applicant included this assessment from Dr MacKay.
68. In his Staff Report Mr Tait presented a large amount of information on the potential effects of the discharge from the WWTP on downstream water quality. This included trend analyses of various determinands at the different sampling sites and also outputs of a dilution modelling exercise he undertook for the various contributing catchments.
69. Mr Tait advised us that TAN is the main contaminant of interest in the discharge in relation to aquatic ecosystem effects.

⁷ There was some confusion and inconsistencies within the evidence of Dr MacKay and Mr Tait regarding the use of the term 'ammonia'. Dr Lieffering clarified at the beginning of the hearing that consistency in the use of the term is needed to avoid potential confusion. Nitrogen can be in various forms, including unionised ammonia (NH₃), also known as 'free ammonia', and ionised ammonium (NH₄⁺). Further, analytical results can be expressed as the total compound concentration or expressed 'as nitrogen' (N). It was agreed that the term 'total ammoniacal nitrogen' (or TAN) would be used, this being the sum of ammonia and ammonium expressed as N – that is [NH₃ + NH₄⁺] - N.

70. His conclusion was that it is '*virtually certain*' that TAN concentrations in the discharge have increased over time but '*very likely*' that five-day biochemical oxygen demand (**BOD₅**) concentrations have decreased over time. Further, he stated it is '*virtually certain*' that TAN concentrations at the compliance point have increased over time – the median TAN concentration at the compliance site is 2.91 mg/L with the 95thile being 18.3 mg/L (based on 2001-2019 monitoring data).
71. The modelling that Mr Tait undertook also confirmed that the discharge has had a '*marked effect*' on TAN concentrations at the compliance point. He compared the results to the Attribute States and National Bottom Line contained in the Freshwater NPS (he noted that these have no legal effect until they are expressed as objectives in a regional plan). Mr Tait also back-calculated the required TAN concentration within the discharge to enable the National Bottom Lines to be achieved at the existing compliance point – these calculations suggest the annual median TAN in the discharge should not exceed 11.4 mg/L and the annual maximum should not exceed 13.7 mg/L. He observed the annual median concentration in the discharge (9.0 mg/L) met the median concentration he had calculated but the maximum concentration in the discharge (34 mg/L) has been more than double his calculated concentration.
72. Based on his analyses and calculations, Mr Tait considered the WWTP should be upgraded to reduce TAN concentrations and that any consent granted should ensure the quality of the discharge does not compromise the National Bottom Lines for TAN at the compliance point.
73. Mr Tait included a set of recommended conditions in his Staff Report which specified both a discharge standard for TAN that would need to be met as well as receiving standards for, amongst other things, TAN at the existing compliance point. In answers to questions Mr Tait agreed there was no need for both a discharge and receiving standard and, given the variability in water quality that may occur within the receiving environment (including the upstream comparison site), he favoured having just a discharge standard in this case. He did, however, still consider that the section 107 RMA matters be included as receiving water standards at the current compliance site.
74. At the end of the formal part of the hearing Mr Tait advised us that he now favoured setting total nitrogen (**TN**) discharge limits rather than TAN limits. However, in his supplementary statement he stated he had reconsidered this recommendation and reverted back to his original recommendation of TAN limits.

75. In addition, in his supplementary statement he changed his position regarding the requirement to upgrade the WWTP to reduce TAN concentrations. At the hearing he recommended that conditions should be imposed to require such an upgrade irrespective of whether a land disposal option was found to be feasible. However, in his supplementary statement he stated ‘*The [WWTP upgrade] options analysis would only be required if the Far North District Council decides not to obtain land for disposing treated wastewater*’. That is, it was his opinion the WWTP should only be required to be upgraded to reduce TAN concentrations should the Applicant determine that land disposal is not a practicable option. We discuss Mr Tait’s recommended timeframes for upgrading the WWTP in the next section of this decision.
76. While Mr Tait’s evidence focussed primarily on effects on aquatic ecosystems, he considered there was insufficient information on the effects of the discharge from the WWTP on human health in respect of contact recreation and food gathering. He considered that a quantitative microbiological risk assessment⁸ (QMRA) should be undertaken and, if that assessment shows unacceptable risks to contact recreation and/or food gathering, then the WWTP should be upgraded to include a dedicated pathogen disinfection system to reduce the risks to an acceptable level. He stated he did not consider the use of indicator bacteria such as *Escherichia coli* (*E. coli*) or total faecal coliforms to be appropriate to use to determine the risks of the discharges from the WWTP on human health. We discuss Mr Tait’s recommendations in respect of the timeframes to undertake the QMRA and any upgrades to the WWTP in the next section of our decision.
77. We asked Mr Tait whether a disinfection system should still be installed (should the QMRA find this necessary) even if land disposal is shown to be a practicable option. He advised that, in his view, it is unlikely that a discharge to land option will be found to be practicable (given the work that has been undertaken to date by the Applicant). He considered that disinfection should be required in either case (should the QMRA find this necessary, noting that it could well be that the treated wastewater may need to be disinfected before being discharged to land).
78. Mr Hegarty concurred with Mr Tait’s recommendation that a QMRA should be undertaken as it would ‘*...assist the FNDC in the management of the WWTP, help identify what (if any) upgrading is required and provide the community with some certainty in regard to the effect of the WWTP discharge on the catchment*’.

8 Mr Tait used both the terms ‘quantitative microbial risk assessment’ and ‘quantitative microbiological risk assessment’ and we understand they both have the same meaning. We note that Mr Hegarty refers to this type of assessment as a ‘QMA’, however we have used ‘QMRA’ in this decision as we understand that is the more accepted abbreviation.

79. While Mr Hegarty supported Mr Tait's recommendation that a QMRA be undertaken, Dr Macdonald held a different view. She considered the existing treatment process could '*...theoretically provide up to a 3 log reduction in pathogens...*'. Dr Macdonald concluded that '*...there is no justification for additional disinfection, beyond that provide [sic] by the ponds and wetland*'. In answers to questions Dr Macdonald agreed that monitoring of actual pathogens, for example viruses, through the treatment process would be needed to confirm that a 3-log reduction is actually achieved and also that a QMRA should only be required if the Applicant proposes to discharge treated wastewater directly to water in the longer term – that is, if the work on alternative disposal options shows that continuing to discharge to water is the best practicable option (**BPO**).
80. Mr Morris, a submitter, stated that dead and decomposing koi carp had been found within the unnamed tributary at the Parapara Road bridge in the summer of 2011. He stated that investigations undertaken by the NRC confirmed it was not as a result of any discharges from the dairy farm effluent ponds upstream of the bridge⁹. The only other major input into this stream being from the WWTP.
81. Mr Morris also advised that during summer months there are large algal loads within the wetland and that these get discharged to the drain. He stated that the receiving waters can be discoloured by these algae all the way downstream to the Parapara Road bridge.
82. A number of submitters¹⁰ advised us water quality within the lower parts of the catchment, including the Awapoko Estuary and Aurere Beach has deteriorated over the past 20 years to such a degree that they consider it unsafe to gather shellfish or fish from these areas. These areas were historically used for collection of such food. Further, some submitters consider the water too polluted to even walk through.
83. Mr Parsonson, for Mr Kurmann, stated that algal blooms within the coastal waters near the mouth of the Aurere River can be attributable to the WWTP discharge. While these algae are not the same species discharged from the WWTP (as the algae within the WWTP discharge cannot survive in saline water), Mr Kurmann considered they proliferate in the coastal waters due to the soluble nutrients being discharged into these waters via the river and that the source of these soluble nutrients is very likely to be the WWTP discharge.

9 We heard evidence that confirmed the farm is no longer a dairy farm and no dairy shed effluent discharges from the two ponds adjacent to the unnamed tributary.

10 Mr Holloway, Mrs Holloway, and Mr Bassett

Findings – Receiving Environment Effects

84. We find that TAN concentrations in the WWTP pose the most significant risk to the aquatic ecosystem within the receiving streams. All the experts agreed that the WWTP needs to be upgraded to reduce TAN concentrations if the wastewater is to be discharged directly to water in the longer term. At the hearing the Applicant was proposing such upgrades irrespective of its long-term disposal choice, however Mr Tait considers reduction of TAN concentrations in the discharge only needs to occur in the event that the Applicant decides against land disposal. In its Right of Reply the Applicant stated its experts had ‘reviewed their opinions’ and now agreed with Mr Tait’s approach, albeit with different timeframes. We discuss the upgrade to the WWTP, including the timeframes for any such upgrade, in the next section of this decision. We find that, provided the WWTP is upgraded to reduce TAN concentrations to the levels recommended by Mr Tait, the existing aquatic ecosystem values within the receiving environment will be appropriately protected.
85. We agree with Mr Tait and Mr Hegarty that a QMRA should be undertaken. If the QMRA determines that the WWTP discharge is resulting in unacceptable risks for contact recreation and/or food gathering within the receiving environment(s), then we find that the WWTP needs to be upgraded to include a disinfection system that is able to reduce pathogens to concentrations that ensure acceptable risks. We find installation of a disinfection system (if it is found to be necessary) should be installed irrespective of whether the Applicant is able to find an alternative land disposal option. We make this finding because the current health risks associated with the discharge are unknown and the discharge could occur for at least the next eight years, and possibly longer if the Applicant is unable to find an alternative disposal option. Further, we agree with Mr Tait that even if a land disposal option were able to be found, the installation of a disinfection system (if it is shown to be needed) would not be ‘wasted money’.
86. We discuss the timeframes to undertake the QMRA and any required upgrades to the WWTP resulting from that assessment in the next section of this decision.

WWTP Upgrades

87. As discussed in the previous section of this decision, all the experts agreed that the WWTP needed to be upgraded to reduce concentrations of TAN if the wastewater is to be discharged to water in the longer term and also that upgrades may be necessary following completion of the QMRA. However, there were differences in opinion as to how the WWTP should be upgraded to improve its treatment of TAN and the timeframe for such upgrades.

88. Mr Somers outlined the work the Applicant had done on assessing various WWTP upgrade options, these being included in the first and final AECOM reports (refer paragraph 38 of this decision). A long-list of 13 upgrade options was reduced down to a short-list of six upgrade options – all these options were compared to the current WWTP set-up, being referred to as the ‘business as usual’ option. We note that five of the six upgrade options included ultra-violet (UV) light disinfection and the sixth option involved membrane filtration – all six of these options should result in very low concentrations of pathogens¹¹.
89. Mr Somers explained that the Applicant and AECOM staff met with ‘marae representatives’ in April 2018 for an optioneering workshop. He stated the Applicant was presented with a ‘Mission Statement’ that outlined the minimum quality the treated wastewater needs to meet before it should be allowed to be discharged to land. Mr Somers stated the costs to achieve these standards were approximately \$20 million which would result in a \$772 annual rates increase per property within the area of benefit, meaning a total wastewater rate for those properties of \$1,550 per year.
90. Mr Somers stated that while the Applicant is ‘...*happy to continue to investigate discharge to land it needs to be recognised that the parameters in the Mission Statement are too restrictive to allow for a) a meaningful consultation with iwi and b) success in finding land and implementation of discharge to land.*’ Further, he stated that the Applicant also needed to consult with the wider East Coast community in respect of the affordability implications of any upgrade to the WWTP.
91. The six short-listed upgrade options included in the final AECOM report included a sequencing batch reactor (**SBR**) and also an algae bioreactor pond upgrade with electrocoagulation (**EC**), both with UV disinfection. The latter option was one of two options suggested by Mr Kurmann (a submitter) who has undertaken trials on the use of EC treatment for various wastewater streams (the other EC treatment option was included in the first AECOM report but was not included in the short-list of upgrade options in the final AECOM report).
92. Dr Macdonald presented evidence regarding upgrading of the WWTP. She reviewed the AECOM reports and noted that, while the final AECOM report did not provide a preferred option for the upgrade of the WWTP, it was clear to her that the SBR option had the most favourable multicriteria assessment and the lowest capital cost.
93. Dr Macdonald explained how the existing WWTP could be modified and operated as an SBR system. Her recommendations were different to the AECOM SBR in that her solution utilised the existing ponds whereas the AECOM SBR involved a tank-based SBR.

¹¹ We note that the effectiveness of UV systems depends on several factors, including applied UV dose and transmissivity (clarity) of the wastewater.

94. Dr Macdonald did not consider a UV disinfection system was needed (for the reasons discussed in the previous section of this decision). She stated that removing the UV disinfection system would '*...reduce the capital cost and operating costs by approximately \$800,000*'. The final AECOM report identified the UV disinfection system as costing \$150,000.
95. Dr Macdonald stated that the discharge quality from her recommended SBR system would be such that the treated wastewater could continue to be discharged to water but it would also be of a standard that could be discharged to land, however she stated that site specific assessments would be needed for any land disposal option – for example to ensure N leaching rates are acceptable.
96. Dr Macdonald stated that, while she considers a SBR to be the preferred upgrade option, she has not undertaken enough work to confirm this is the case and Mr Somers advised that the Applicant had not allocated any budget for the SBR. Dr Macdonald recommended that a six-month timeframe (from the granting of consent) be imposed for the Applicant to identify its preferred WWTP upgrade option. She then recommended a three-year period be specified to require the Applicant to have implemented the upgrades and to have proven the specified discharge standards have been met – this being based on at least 12 months of monitoring of the discharge from the WWTP. Her recommended timeframe would effectively have meant that the WWTP would have been upgraded within two years of the date of the consent being issued. More importantly, Dr Macdonald confirmed to us that the upgrades to the WWTP would occur irrespective of whether the Applicant decided to commit to a land disposal option.
97. As discussed earlier in this decision, in its Right of Reply the Applicant essentially discarded Dr Macdonald's recommended conditions regarding timeframes to upgrade to the WWTP in respect of TAN concentrations, in particular her recommendation that the upgrades would occur irrespective of whether land disposal was shown to be viable. The conditions included with the Right of Reply proposed to only upgrade the WWTP in respect of TAN concentrations in the event that it decided not to commit to a land disposal option. If that eventuated the Applicant would upgrade the WWTP within two and a half years (six months to undertake an upgrade options analysis and then two years to implement it) of its decision not to commit to land disposal.
98. On the final day of the hearing Mr Tait recommended conditions which would require the Applicant to upgrade the WWTP within three years of the consent being issued and that the TAN limit he initially recommended be replaced with a TN limit (as discussed earlier in this decision). However, in his supplementary statement he reverted back to his original position that a TAN limit, not TN, should be imposed but now considered that the WWTP only needed to be upgraded in the event that the Applicant did not commit to a land disposal option.

99. Mr Tait’s final set of recommended conditions would require the Applicant to provide a report and make a decision on land disposal within one year of the date of commencement of the consent. If it decided not to discharge to land then it would need to upgrade the WWTP to improve its quality in terms of TAN concentrations, with that upgrade needing to be completed within two years of the decision not to discharge to land. Mr Tait confirmed that, under this scenario, the existing discharge from the WWTP directly to water with no improvements in terms of TAN concentrations would continue for up to three years.
100. Should the WWTP be required to be upgraded Mr Tait recommended that the WWTP should be upgraded to meet the following discharge standards, all being based on the results of 26 fortnightly samples collected in a calendar year:

Determinand	Annual Median	Annual Exceedances
TAN	Annual median ≤ 10 mg/L ¹²	No more than four samples > 15 mg/L per year ¹³
BOD ₅	Annual median ≤ 20 mg/L	No more than four samples > 30 mg/L per year
TSS	Annual median ≤ 20 mg/L	No more than four samples > 40 mg/L per year

101. Mr Tait’s conditions also recommended that a QMRA be undertaken and the results of that may mean that further upgrades to the WWTP may be necessary in respect of disinfection of the wastewater before it is discharged (discussed in the previous section of this decision). Mr Tait considered the QMRA should be undertaken within one year of the consent being issued with any required upgrades to the WWTP to reduce pathogen concentrations within 12 months of the QMRA having been completed.
102. In its Right of Reply the Applicant considered that the upgrade to the WWTP, should it be needed as a result of the QMRA, should be completed within 18 months and not 12 months as recommended by Mr Tait. Mr Tait reviewed the Applicant’s final set of conditions and agreed with this amended timeframe.
103. Mr Kurmann presented evidence (delivered by Mr Parsonson) regarding EC units and considered that such a unit could be installed at the WWTP. Mr Kurmann also appended the Mission Statement (referred to above) which included a set of standards that need to be met for a discharge to land. The specified standards in the Mission Statement are as follows:

2 The discharge shall not cause the soil quality in the unnamed designated area, to fall below the following standards:

¹² Mr Tait’s conditions used units of g/m³, which is the same as mg/L. We have used mg/L throughout this decision for the sake of consistency.

¹³ Mr Tait also referred to this as being the 92nd percentile.

- a) *The natural pH of the soil shall be within the range 6.0 to 6.5*
- b) *The median concentration of the faecal coliform bacteria in the water shall not exceed 100 per 100 millilitres, and the 80percentile concentration shall not exceed 350 per 100 millilitres, based on not fewer than 5 samples taken over any 30day period.*
- c) *The dissolved oxygen concentration shall not be reduced below 90% of saturation.*
- d) *The concentration of total N in the discharged treated water shall not exceed the following:*

at pH 6.5; 20°C; 1.0 mg/l total Nitrogen
- e) *The concentration of total P in the discharged treated water shall not exceed 0.25 ppm*

104. We noted that the preamble to the Mission Statement limits stated (our emphasis) '*The discharge shall not cause the soil quality...*' so we requested information from Mr Kurmann regarding how the limits were derived.
105. In terms of clause a), which states (our emphasis) '*The natural pH of the soil shall be within the range 6.0 to 6.5*', Mr Kurmann's advice to us was (our emphasis) '*To discharge waste water with an acid or alkaline pH could cause a risk to the receiving environment. We could extend the pH from 6.5 (slightly acid) to 7.5 (slightly alkaline) without risk to the marine life*'. This would suggest to us that this pH range is intended to apply to a treated wastewater that would be discharged to water (and possibly only a marine environment) rather than a soil pH range as written.
106. In terms of clause b) Mr Kurmann stated '*We are aware that the existing recreational level is in the range of 500 faecal coliforms and we may accept that level*'. Again, this seems to suggest that the limit may actually be a receiving water standard rather than a discharge to land wastewater quality standard. We also note that Mr Kurmann appears to now be suggesting a higher faecal coliform limit than was included in the Mission Statement.
107. In terms of clause c) Mr Kurmann stated '*We should specify the above sentence; It should say not be reduced below 90% of the dissolved oxygen concentration of the oxygen content in the waterway above the wastewater discharge point. Some fish species are requiring a minimum of 90% oxygen below saturation at a certain pH (slightly alkaline) and a high water temperature (above 25 degrees Celsius)*'. This confirms the specified limit is a receiving water standard and not a discharge to land wastewater quality standard.

108. In terms of clause d) Mr Kurmann stated '*That is a typing error which I did not pick up. (It should say 10.0 mg/l total Nitrogen, with the reservation that the total Ammoniacal-N will be below 5.0 mg/l. We need to make sure that the nitrification in the wastewater plant will be functioning satisfactory [sic]*'. This response does not provide information on how the limit was derived and/or whether this is a discharge standard or receiving water standard (as the other clauses appear to be). We note that Mr Kurmann's correction results in a significantly higher TN concentration than what is in the Mission Statement.
109. In terms of clause e) Mr Kurmann stated '*The international level for total P content in a waterway (river; creek) is 0.05ppm. The P load from the discharge of the wastewater is below 0.25ppm plus the dilution factor between River water flow to the wastewater discharge flow, we can expect the required level of 0.05ppm in the river*'. This confirms the specified limit is a receiving water standard and not a discharge to land wastewater quality standard.
110. It is clear from Mr Kurmann's responses that the limits were, in fact, applicable to situations where the treated wastewater would be discharged to '*water*', not soil (land) despite the fact the preamble to the limits in the Mission Statement clearly state they are intended to apply to a discharge to land. This appears to be the way that the Mission Statement has been put forward to the Applicant because, as noted in paragraphs 89 and 90 (above), Mr Somers advised us that the Applicant considered these limits to be too restrictive to allow success in finding land and implementation of discharge to land.
111. We note that Mr Kurmann's written submission contains a recommended set of standards that differ from those presented in the Mission Statement. Given that the Mission Statement is a more recent document we have assumed that the standards in Mr Kurmann's 2010 submission have been reconsidered and replaced by those in the Mission Statement.
112. We requested further information from Mr Kurmann regarding the EC treatment technology. His response was:

Answers: The actual figure for some of the determinands from the wastewater of the Taipa plants [sic] are;

Total faecal coliforms = <500CFU/100ml

Nitrate = <5mgNO₃-/100ml

Ammonium = < 40mgNH₄/100ml

Phosphate = < 0.20mg/100ml

113. Mr Kurmann noted that, in respect of the above levels of treatment '*...we are not taking [sic] about Total Nitrogen or Ammoniacial-N [sic]. The results would need to be converted to Ammoniacial-N [sic] to [sic] for comparison. I am aware that the parameter Ammoniacial [sic] Nitrogen does not comply with our mission statement, but I am convinced that a change of the operation of the existing Taipa wastewater treatment plant could achieve the required results*'. We note that the concentrations stated above are, unusually, in units of '*mg/100ml*¹⁴, meaning the equivalent mg/L concentration would be 100 times lower than the stated values.
114. What became evident during this hearing was that many of the submitters were deferring to, and relying on, Mr Kurmann's expertise in the field of wastewater treatment, including his recommended discharge standards.
115. Mr Morris stated that the Applicant is treating the East Coast WWTP as a 'poor cousin' compared to the Kerikeri wastewater scheme. He stated that the Applicant has allocated large amounts of money (\$53.9 million budgeted over and above the \$28 million already spent) to upgrade the Kerikeri WWTP compared to just \$672,000 which the Applicant has included in its Long Term Plan 2018-28 for the East Coast WWTP.

Findings – WWTP Upgrades

116. In the previous section of this decision we found that the WWTP needs to be upgraded to reduce TAN concentrations and we find that Mr Tait's recommended discharge standards are appropriate if a discharge to water is to continue in the long-term.
117. We agree with both the Applicant and Mr Tait that the upgrade of the WWTP to reduce TAN only needs to be completed if the Applicant decides not to discharge to land. We find that these upgrades need to be made no later than 1 September 2023, this being three years from the date that the Applicant is required to decide whether land disposal is the BPO (we discuss this in the next section).
118. As outlined in the previous section of this decision, we find that the Applicant must undertake a QMRA and if that assessment identifies that the wastewater needs to be disinfected to reduce risks to acceptable levels then the WWTP must be upgraded accordingly. We agree with the Applicant's timeframe relating to the QMRA and any consequential upgrades to the WWTP to provide disinfection and we note that Mr Tait agreed with the proposed timeframe which is six months longer than what he had recommended.
119. We are satisfied that the discharges from the upgraded WWTP (including disinfection if that is shown to be needed) will result in effects within the receiving waterways that are, at worst, minor and acceptable.

¹⁴ We note that total faecal coliforms are presented in CFU/100 mL which is the usual units used to express bacteria concentrations.

120. There was disagreement between the applicant and Mr Kurmann, and therefore also the other submitters who are relying on his expertise, as to the most appropriate technology that should be used to upgrade the WWTP. Mr Kurmann has put forward EC as his preferred/recommended treatment option, whereas Dr Macdonald considers SBR to be the most appropriate treatment technology.
121. As discussed at the hearing, as decision makers we must be careful to not 'go up the pipe' too far in terms of specifying the type of treatment methodology that must be used. What we need to do is to determine what the appropriate standards to be met are, be they discharge standards or receiving environment standards. That is, any conditions we impose must be effects based and it is up to a consent holder as to how it proposes to achieve any specified standards. However, we do need to be provided with sufficient evidence to be satisfied that a consent holder is able to achieve any specified standards.
122. In this case the Applicant has undertaken an assessment of possible upgrade options for the WWTP but has not yet settled on any particular technology or preferred option. Whilst Dr Macdonald considers an SBR to be appropriate in this case, it is clear that further work (including costings) is required before the Applicant settles on this as its preferred upgrade option. Mr Kurmann's preferred EC technology is included in the Applicant's list of potential upgrade options under consideration. As discussed in the previous paragraph, it is not up to us to determine or specify which technology should be employed. However, we consider we have been provided with sufficient evidence to show there are technologies available to enable the Applicant to achieve the required discharge standards.
123. We find the discharge standards specified in the Mission Statement, and Mr Kurmann's explanation of these limits, to be confusing. In the Mission Statement they are implied to be discharge limits pertaining to a discharge to land and that appears to be how they were put forward to the Applicant at various meetings (as evidenced by Mr Somers's evidence). Mr Kurmann's explanation of their basis clearly confirms they are intended to be a mix of discharge limits for a discharge directly to water and receiving water standards. Further, we note that Mr Kurmann's responses to us included corrections and amendments to the Mission Statement limits, suggesting these limits may need further work. We therefore prefer the discharge standards recommended by Mr Tait.

Wastewater Disposal Options

124. The application lodged in 2008 included a summary of an investigation of the potential for land disposal of the treated wastewater. The methods of disposal investigated were overland flow, rapid infiltration, slow rate irrigation (spray and drip irrigation), and deep bore disposal. The application found that land disposal within the 'area of interest' is not feasible due to the lack of suitable land. The application concluded that the continued discharge to the unnamed tributary of the Parapara Stream was the BPO.
125. A large number of the submissions received on the application expressed opposition to the continued discharge of treated wastewater to water. In response, the Applicant requested the application be placed 'on hold' to allow it to undertake further investigations on alternative disposal options. Mr Tait advised that this work identified that irrigation of the wastewater on the Kerifresh citrus orchard which borders the WWTP was possible and the Applicant prepared an application to authorise this discharge. However, the orchard owner was reluctant to commit to irrigating the orchard and the application did not proceed any further.
126. Mr Somers outlined the consultation and additional work the Applicant undertook following the close of submissions. This work culminated in the preparation of the three AECOM reports (refer paragraph 38) which included an assessment not only of WWTP upgrade options but also land disposal options. Mr Somers advised that a number of workshops were held with stakeholders, including iwi, however he stated that *'The Marae representatives' preference was to utilise a very high standard of treatment before discharge to land occurred, i.e. MBR followed by land disposal* – the high standard of treatment being reflected in the Mission Statement (a copy of which was attached to Mr Somers's evidence). He stated that little progress was made at the final workshop (May 2018) because *'...the Mission Statement's parameters were detrimental to making progress'*.
127. Mr Somers concluded that while there had been minimal progress in determining a viable solution since the May 2018 workshop, the Applicant was *'...happy to continue to investigate discharge to land it needs to be recognised that the parameters of the Mission Statement are too restrictive to allow for a) meaningful consultation with iwi and b) success in finding land and implementation of discharge to land'*.
128. Mr Hegarty's evidence included numerous references to the current application being for an 'interim' set of consents while further investigations/studies regarding the feasibility of land disposal are undertaken.

129. Dr Macdonald provided a summary of the AECOM reports in terms of the work undertaken to identify land disposal options. She confirmed the AECOM work was restricted to assessing whether there were suitable sites where the wastewater could be irrigated. She considered the work that AECOM had undertaken to be 'robust' and it had identified two possible sites that required further investigation in respect of the soils and hydrogeology. She stated that matters such as N loading and hydraulic loading rates would need to be assessed before confirming whether either of the sites was suitable to use. Further, she stated the Applicant would then need to either purchase the land or reach an agreement with the landowners to use the land for wastewater disposal. Dr Macdonald advised us that the studies and negotiations could take 'several years' to complete.
130. In her evidence Dr Macdonald proposed a three-year period from the granting of the consent be provided for the Applicant to identify its preferred option for the disposal of treated wastewater. Further, she considered that preferred option should then be implemented within eight years of the consent being granted. In answers to questions Dr Macdonald confirmed that a continued discharge directly to water may be determined to be the preferred option after the three-year identification period. If that were the case then her suggested condition requiring the preferred discharge option to be implemented within eight years would not make sense. The Applicant made it clear that, should a continued discharge to water be the preferred option, then a new application for replacement consents would be lodged.
131. The final AECOM report includes cost estimates associated with the two preferred land disposal sites. The cost estimates for the two sites were \$8.42 million and \$7.87 million.
132. Mr Somers advised us that the Applicant would need to, in addition to undertaking the additional studies at the two identified land disposal sites, also consult with the East Coast community in respect of the affordability of any alternative disposal option. He confirmed the Applicant had not provided any money in its budgets for acquiring land for land disposal in this area. In answers to questions, Mr Somers stated he was optimistic that a land disposal option would be found to be feasible, however noted that the Applicant's financial constraints are likely to dictate the final decision on what the longer-term disposal option would be.
133. In his Staff Report Mr Tait stated '*I understand that the Far North District Council has investigated land disposal options but have not decided to obtain land. On the face of it, the costs of securing land will potentially be cost prohibitive and that suitable land may not exist in the proximity of the WWTP. That is, discharging treated wastewater from the WWTP to land is unlikely to be economically or practicably viable*'. It was for this reason that Mr Tait initially recommended a 25-year duration be granted to continue the discharge of treated wastewater to water (subject to the WWTP being upgraded).

134. Mr Tait also stated that the Mangonui County Council (being a predecessor of the Applicant) had tried but was unable to find and secure land to discharge the wastewater. He noted that in the decade since the current application had been lodged the Applicant has not been successful in securing an alternative land disposal option. He agreed with the statements made in the 2008 application that a continued discharge to water was the BPO.
135. In answers to questions Mr Tait advised that, in his view and based on the history of the WWTP and the work done by the Applicant to date (including the AECOM reports), it is very unlikely that a land disposal option will be found to be a practicable option, especially when affordability of such an option are taken into consideration. While he did not disagree that further work on land disposal should continue, he felt that 'history will repeat' and that a continued discharge to water will be found to be the BPO after all.
136. In his supplementary statement Mr Tait recommended that the Applicant be required to make a commitment, one way or another, regarding land disposal within one year of the date of commencement of the consent. In the event that it decided to discharge the treated wastewater to land after that one year period, he recommended that a further three years be provided to the Applicant to implement the land disposal system.
137. In its Right of Reply the Applicant included an amended set of conditions which would require it to provide a report to the NRC within one year which would analyse options for disposing the treated wastewater, including identification of the costs and benefits of the various options – this report would effectively be a BPO assessment. If land disposal was found to be the BPO then the Applicant's conditions would 'require' it to consult with the local community and have this option put in front of its councillors through the Annual Plan (AP) or Long Term Plan (LTP) process – if the land disposal option was then 'approved' by the Far North District Council the Applicant would implement and commission the land disposal system within five years of the Council's approval.
138. Many of the submissions received on this application identified the direct discharge of treated wastewater to water as being inappropriate and abhorrent, including from a cultural perspective. Many submitters want the Applicant to continue to investigate land disposal options and some wish to be involved in, or at least kept updated on, the investigations of land disposal alternatives.

Findings – Wastewater Disposal Options

139. We find that the Applicant has undertaken a significant amount of investigation into alternative disposal options. This includes both the work outlined in the original 2008 application as well as the more recent AECOM reports. The more recent work has identified two sites where irrigation of the treated wastewater could possibly occur, however more work is needed in respect of the soil and hydrogeology conditions in and around these sites. In addition, should these sites be shown to be technically suitable for such irrigation, the Applicant will then need to either purchase the land or enter into an agreement with the landowner to use the land. We agree that this additional work will take some time to complete and we find that time should be provided to the Applicant accordingly.
140. We agree that a one-year period should be provided for the Applicant to finalise its BPO assessment and to submit this to the NRC (i.e. the BPO report, including recommendation as to the BPO needs to be provided by 1 September 2020). In the event that a continued discharge to water is found to be the BPO then we find the WWTP needs to be upgraded to achieve the discharge standards recommended by Mr Tait (discussed in the previous section of this decision).
141. If land disposal is found to be the BPO, then we consider the Applicant needs to be given a 10-month period from the completion of the BPO report to decide whether it is committing to such a disposal option – that is, the Applicant would need to advise the NRC whether it is committing to land disposal by 1 July 2021. This period of time is in acknowledgement that the Applicant is a territorial authority and, as such, has a duty to consult with its local community and to gain approval for funding for new capital works such as a land disposal system from its elected members. The timeframe we have imposed allows for this process and we do not consider that this process needs to be codified in conditions as suggested by the Applicant.
142. There was a difference of opinion between the Applicant and Mr Tait regarding the appropriate length of time that should be provided to commission the land disposal system should the Applicant confirm it is committing to this disposal option. Mr Tait considered three years to be sufficient whereas the Applicant requested five years. We acknowledge that sufficient time needs to be provided for the Applicant to construct and commission the system, but also time to secure any required resource consents. Accordingly, we have determined the land disposal system needs to be up and running no later than 1 September 2025 if it being committed to.

143. In the previous section of our decision we found that while standards specified in the Mission Statement are stated as being applicable for a discharge to land, they are, in fact, discharge to water limits. We are concerned that some of the submitters have been putting forward these standards as 'bottom lines' for a discharge to land when they are not intended for such a discharge. We agree with Dr Macdonald that the soil conditions and hydrogeology of any land disposal site will dictate the level of treatment the wastewater must receive before being irrigated.

Sites of Significance and Waahi tapu

144. The 2008 application identified two sites scheduled in the Far North District Plan (MS05 – 41 – Karipori Marae and Recreational Reserve and MS-42-Taipa-Putangarau-Waahi tapu) as well as an historic pa on topographical maps. These sites were considered briefly and dismissed as part of the alternative land disposal options in the application.
145. Mr Hegarty made a single reference to sites of significance advising '*I am aware that the estuary of the Awapoko River is culturally significant, with the northern side of the estuary identified as a waahi tapu by the District Plan. It is my understanding that the estuary is an important fisheries resource, both for shellfish and fish.*
146. In his Staff Report, Mr Tait provided a brief assessment of any effects on sites of significance in response to policy matters within the PRP and stated '*While I understand that the Parapara Stream and the Awapoko River to which it flows are ancestral waters draining ancestral land, it is not obvious to me if they are a Site of Significance to Tangata Whenua.*' and '*...the thrust of the policy direction is that a "resource consent for an activity may generally only be granted if the adverse effects from the activity on the values of Places of Significance to Tangata Whenua in the coastal marine area and water bodies are avoided, remedied or mitigated so they are not more than minor.*
147. Mr Tait concluded by focusing on the effects of the discharge on the relationship of Ngāti Kahu and their culture and traditions with their ancestral waters. In this context Mr Tait acknowledged the discharge of wastewater as being abhorrent under Māori custom, however, he concluded the effects would be the same whether or not there was a discernible effect on water quality from the discharge.
148. We asked for further information from the Applicant on the presence of any scheduled sites of significance and any relevant information on these sites (i.e. the type, nature, and spatial extent). This information was provided in the Right of Reply and identified two sites, both of which were not directly affected by the location of the WWTP and associated infrastructure.

149. We heard from many submitters, in particular those of Ngāti Kahu, that the waterways were of great importance to them, and that discrete sites of significance were located along the length of waterways and others associated with wider traditions of the hapū and iwi.
150. Mr Oxborough, of Ngāti Kahu and formerly the Environmental Officer for Te Ahua Marae, tabled an A4 print out of the New Zealand Archaeological Associations (NZAA) recorded archaeological sites and a separate map showing waahi tapu sites. The NZAA print out showed the general location of recorded archaeological sites, each site location represented by a star, however site numbers and site type were not provided. The size of each star at the scale of the map provided represents an area of approximately 400 m x 400m, so, at best, was an indicative location of each site. The map did not show site types, site spatial extents, or any other associated information that could be used for assessment purposes. The map did not show any recorded archaeological sites near the wetlands, the discharge point, or much of the downstream waterway until the lower reaches of Te Wai o Parapara near its confluence with the Awapoko River. The area around the WWTP had a recorded archaeological site.
151. Mr Oxborough's map of waahi tapu sites showed the location of significant sites with red dots representing significant sites, yellow dots representing marae, and red polygons representing the spatial extent of significant sites. There were no annotations accompanying the map such as site names or site types. Only one site appeared to be located near the WWTP, this being a large area adjacent to Ryders Creek.
152. Ms Allen prepared and tabled a CIA which provided context and background for the origins of Matakairiri and Ngāti Kahu, and identified more than 15 iconic landmarks and ancestors associated with them. There was no map in the CIA that showed the location of these landmarks, however we were provided a copy of 'Map 17 – Te Rohe o Te Paatu ki Kauhanga, Pikaahu, Matakairiri, Ngāti Tara me Ngāti Te Rurunga hapū'. Many of the names mentioned in the CIA are annotated on that map. Whilst the map scale is greater than 1:250,000 and sites are not identified with specific positions, the sites mentioned in the CIA appeared to be located some distance from the application site.
153. Mr Tauhara provided an inventory of taonga (artefacts) that had been recovered in the area. These included some of New Zealand's earliest examples of stone tool wood carving and objects associated with settlement (housing), construction, transport (waka), and fishing. Three Google Earth Maps were also provided, showing the location and name of pā, maunga (landmarks), and takutaimoana (coastal sites). Of relevance to this proposal were the following places located downstream of the discharge:
- Haitureroa (at the mouth of the Awapoko River);
 - Waitapu (located to the east of the mouth of Awapoko River);
 - Awapoko River; and

- Puketū Pā (located on an island some 500 m from the mouth of Awapoko).
154. Mr Bassett, of Ngāti Tara and Parapara Marae, provided a written submission confirming that there were *'many sites of cultural significance along Te Wai o Parapara'*.
155. Mrs Holloway set out a list of sites of significance in her written statement, namely:
- Parapara River;
 - Whakautu River;
 - Pakiritu;
 - Awapoko River;
 - Aurere;
 - Waitapu;
 - Tokarau; and
 - Puketū.

Findings – Sites of Significance and Waahi Tapu

156. We find the information provided by the Applicant regarding sites of significance to Māori is lacking. It would have been beneficial for the Applicant to have identified, located, and articulated the nature, spatial extent, significance, and values associated with sites of significance to Māori. This would have informed both the consideration of alternative discharge locations as well as the proposal in front of us. Instead, we have had to rely on the evidence of submitters in respect of such sites. The evidence provided by submitters was indicative and helpful in understanding the importance of the waterways in the area, however, it was clear that the information sources for sites of significance were not designed for the planning purposes at this scale.
157. We find that an assessment by the Applicant of effects on water quality (from a cultural perspective) and an assessment of effects on sites of significance including water bodies (Te Wai o Parapara, Aurere, and Awapoko) as two discrete assessments would have helped us in making our decision.
158. We find that that the discharge is resulting in adverse cultural effects on the Parapara Stream and further downstream to the Awapoko River due to the presence of human waste within it. The scale and nature of those effects has been difficult to quantify in cultural terms because 'sites' sit in a cultural context of landscape and tradition. We are unclear whether proximity, distance, and/or dilution has a significant bearing on the 'effects' in cultural terms. Submitters before us expressed their concern and opposition as a matter of principle, but without any expert opinion, we are left to make a judgement on the significance of such effects.

159. The physical footprint of the WWTP, ponds, and wetlands are not proposed to be changed materially, and we find that any specific sites of significance known to tangata whenua directly affected by these assets would have been disclosed in either the tangata whenua submissions or the cultural impact assessment.
160. It is clear that the receiving waterways are important to Ngāti Kahu as a source of sustenance, a source of identity, and a medium for healing. Accordingly, the applications need to be considered in the context of their effects on the relationship of Ngāti Kahu people and their traditions with the ancestral waters of Te Wai o Parapara, Aurere, and Awapoko.

Cultural Values and Associations

161. The application contained a very limited and brief description of the cultural values and associations of tangata whenua within the WWTP site and the areas affected by the application. These included quotes of Part II of the RMA, a list of who was consulted, and the following concluding statement:

'When considering the effects of the proposed activity the NRC is also required to consider the cultural, economic, and social benefits of a safe and secure wastewater system to the local communities. These benefits need to be balanced against the potential adverse effects of the activity on the community and the resource. It is concluded that the benefits of a safe and secure wastewater system outweigh any adverse effects, which are unlikely to be more than minor'.

162. The NRC requested further information from the Applicant on aspects of customary and traditional practices such as bathing, food and shellfish gathering. The response provided by the Applicant concluded that *the 'treatment plant poses an acceptable risk in terms of contact recreation with regards to median results for E.coli'*, and the upstream portion of the Parapara Stream *'does not comply with MfE guidelines for shellfish growing waters in terms of faecal coliforms'*.
163. The Applicant did not employ a cultural expert or have a dedicated staff member with expertise in cultural matters appear before us. Rather, the Applicant relied on the evidence of Mr Somers who had been the project manager for the WWTP and Mr Hegarty. Mr Hegarty recommended an engagement process as the appropriate method for addressing cultural concerns.

164. Mr Somers provided a chronology of the engagement process and the circumstances surrounding the breakdown in progress towards an agreed upgrade to the WWTP and alternative discharge options. He acknowledged that Ngāti Kahu had concerns regarding the East Coast wastewater scheme and treatment option and that these concerns have existed since at least 1988. Mr Somers outlined the various meetings that had been held with tangata whenua and that by August 2018 the relationship had broken down with no agreement on a way forward. A range of technical reports had been commissioned and prepared (the AECOM reports) to facilitate discussions.
165. Much of the efforts of the Applicant and tangata whenua had focussed on identifying upgrades to the WWTP to improve the discharge quality and finding a suitable alternative site for wastewater to be discharged.
166. Mr Oxborough stated that, while quite some time had passed since he lodged his submission, he was still passionate about making sure the issues raised in that submission were not lost or forgotten. He emphasised the connection of Ngāti Whata and Matakairiri to the areas of the WWTP discharge, and that the Applicant's discharge is into the Parapara catchment despite the fact that none of the people within that catchment were connected to the WWTP. He discussed his observations of children getting sick from swimming in the river, that the water colour had changed and that it could stink. He accepted that there was a need for community infrastructure such as the WWTP but wanted the discharge quality to be significantly improved to meet community expectations.
167. Mr Oxborough also shared his observations of the Awapoko (River) as being a place where he had swum, and Aurere where he had collected kina (sea urchin), kutai (mussels), and tuatua (shellfish). Mr Oxborough wanted to see Māori indicators used to align the mauri of water with scientific parameters. He recommended that improvements should be made at the WWTP and that his preference was for a discharge to land.
168. Ms Allen, who appeared on behalf of Ven. Popata, tabled a CIA that had been prepared by herself and Ven. Popata in June 2019. This CIA was not commissioned or funded by the Applicant. Ms Allen described the frustration of tangata whenua with the engagement due to a turnover of staff, lack of cultural understanding, and the breakdown in engagement. She highlighted the concerns of whānau regarding the quality of water in the waterway as evidenced by families choosing not to enter the water and being unwilling to collect food from the waterways for fear of contamination. She shared the view that waterways are their life force and the representatives were trying to uphold the kaitiaki responsibilities for future generations. Ms Allen stated that by having pollutants in the waterways they lose their way of life.

169. The CIA provided by Ms Allen outlined the origins of the iwi and the hapū of the area, including identification of a number of important landmarks and water features. The CIA described the general and underlying cultural values held by Matakairiri; these being Mana, Tapu, Tikanga Māori, Whanaungatanga, Kaitiaki and Kaitiakitanga, Rangatira and Rangatiratanga, and Ahi Kaa. Each of these values were explained and examples of their application or expression were given. We heard no evidence that disagreed with these values. The following summary was provided in the CIA:

'In summary we can say that the Maori world view and values of Matakairiri are firmly rooted in the spiritual aspects of this world, where mankind and all other creations, both physical and spiritual, are imbued with a life force (mauri), mana and tapu by the gods.

From the spiritual world proceeds the material and physical world of Te Ao Marama (The World of Light), and the spiritual (which is the higher order) interpenetrates Te Ao Marama. In the physical world, the genealogical relationships between people are of the highest importance.

Basic concepts of mana, tapu, whanaungatanga, rangatiratanga, kaitiakitanga and ahi kaa must be clearly understood by FNDC and all agencies involved in the project as underlying all Matakairiri thinking and practice. It must also be appreciated that behind these concepts Matakairiri have their own wealth of traditions and tikanga (laws) which explain and give substance to each concept.'

170. Mrs Holloway focussed her submission on her observations over the years at the settling ponds, wastewater discharge point and Aurere (Awapoko River). Of particular note was her observations of the poor condition of fish and shellfish. Mrs Holloway also commented on the offense caused by the mixing of bodily wastes with waterways. She requested a proactive approach that improved the operations of the scheme.
171. Mr Bassett presented a submission in support of Mr Holloway. Mr Bassett is the chairperson of Parapara Marae. He provided historical and traditional background information on the wider area, including the names of an extensive number of waterways, settlements, food gathering areas, and waahi tapu (sacred places). Mr Bassett discussed his observations of the Parapara Stream and the reduction of the quantity and quality of seafood in the stream and at the coast. He shared his view that the waterway that receives the discharge from the wetland was a drain constructed on a farm. He confirmed for us that the traditional name of the valley was 'Te Moho', and that Parapara Stream was 'Te Wai o Parapara'. Mr Bassett shared with us some of the traditional stories that gave rise to names of places, including Parapara. His version of the name, confirmed by other submitters, was the association of the slime (or Parapara) of the tuna (eel) that would be seen on the banks of the stream, an indicator of the eels crossing over land to other waterbodies.

172. The Tauhara family chose to present their individual submissions as a group, taking turns to speak. They covered the breadth of the dawn of time when the world was being formed by the primal parents Ranginui and Papatūānuku, the relationship between Tangaroa and Maru, the battle between two rival mountains and the formation of the waterways and landscapes, the arrival of waka to Aotearoa, the multitudes that settled the land and the importance of water as a source of life.
173. Mr Tauhara completed the family presentation with a plea to his relations at the hearing that they work together and they were all descendants of Ngāti Rurunga.
174. In his Staff Report Mr Tait accepted the submission of Mr Oxborough as being a representative view of tangata whenua concerns. At the hearing he stated that Māori cultural matters were not his area of expertise. Mr Tait recommended a number of conditions that would require tangata whenua engagement in the process to develop and review upgrades to the WWTP and possible alternatives disposal options.
175. In its Right of Reply the Applicant stated that the establishment of a 'Tangata Whenua Working Party' was its preference, and that this working party would be used to ensure a collaborative approach is taken to assessing alternative discharge options. No other matters raised by tangata whenua submissions including the CIA were directly responded to.
176. In summary, the key issues of a cultural nature for this application are as follows:
- The Parapara Stream and Awapoko are a source of identity of Ngāti Kahu hapū. The discharge of treated wastewater, including human waste, to these waterbodies is culturally offensive and strongly opposed by Ngāti Kahu people;
 - The waterways have been traditionally used for harvesting food. The discharge of treated wastewater, including human waste, to these waterbodies is problematic for tangata whenua as they are unable to harvest and eat the kaimoana due to the presence of treated human waste;
 - The discharge of treated wastewater may be having an adverse effect on the health of kaimoana (seafood), which then impacts on the ability put kai on the table and carry out obligations of manaakitanga;
 - The discharge of treated wastewater may be having an adverse effect or contributing to health effects on whānau bathing in the lower reaches of the Parapara Stream, Awapoko River, and Aurere Beach;
 - The discharge of wastewater within the Parapara catchment has been derived from another catchment, thereby causing a sense of grievance that the treated waste of an activity is transferred to another community that do not share the benefit of a connection to wastewater;

- The potential effects of the proposal on sites and places of significance to Ngāti Kahu iwi and hapū (discussed in the previous section of this decision);
- Ngāti Kahu wish to be engaged at a hapū level, that is, have hapū representatives engaging with Applicant. Ngāti Kahu prefer not to be a small part of a larger community group; and
- Ngāti Kahu wish for engagement to be meaningful and collaborative.

Findings – Cultural Values and Associations

177. We find that Ngāti Kahu iwi and interdependent hapū groups have close and longstanding relationships with the ancestral landscape of Taipa, Parapara, and Aurere, including the mountains, hills, wetlands, plains, rivers, streams, estuaries, and coastline.
178. Mana, Tapu, Tikanga Māori, Whanaungatanga, Kaitiaki and Kaitiakitanga, Rangatira and Rangatiratanga, and Ahi Kaa are the underlying and core values of the tangata whenua. These values influence and guide all their associations with each other, the wider community and the environs in which they live.
179. Hapu of Ngāti Kahu iwi, including (in no particular order); Ngāti Tara, Ngāti Whata, Matakairiri, and Ngāti Rurunga have a relationship with the application site and the environment affected by the discharge of treated wastewater.
180. We find that the discharge of wastewater is having an adverse effect on cultural values and relationships with water, however, the effects on contact recreation and seafood downstream are uncertain.
181. The key cultural effects that need to be addressed by the application have been set out in our summary above.
182. We find that addressing these effects by way of conditions will only go part of the way. It will also require engagement, strategy and investment by the Applicant.

Overall Summary of Environmental Effects

183. We are required to assess the potential and actual environmental effects of the discharges which are the subject of this application on an evidential basis. We have considered the expert evidence and the experience and observations of submitters, within the context of the relationship and values of tangata whenua and the local community, and the statutory framework.

184. We find that providing a reticulated wastewater collection, treatment, and disposal system provides those communities that are serviced by the system, being Mangonui, Coopers Beach, Cable Bay, and Taipa, with significant positive effects. The system, including the WWTP, enables these communities to provide for their social and economic wellbeing and for their health and safety.
185. We find the adverse effects associated with the discharge of contaminants (primarily odour) to air to be minor and acceptable.
186. We find that the adverse effects associated with the discharge of treated wastewater via seepage from unlined components of the WWTP and the wetland are likely to be minor, however these effects have not been confirmed by way of monitoring of groundwater quality around these components.
187. We find that the discharge of treated wastewater directly to water is having significant adverse effects both in terms of aquatic ecosystem effects as well as cultural values and relationships. There is insufficient information available to determine whether the discharge is having an adverse effect on downstream waters for contact recreation or food gathering.
188. We find that the WWTP needs to be upgraded to reduce TAN concentrations if a discharge to water is to continue in the longer-term.
189. We find that a QMRA needs to be undertaken to quantify the risks of the discharge on contact recreation and food gathering. Should the QMRA determine that the risks are unacceptable then we find the WWTP should be upgraded to reduce such risks to acceptable levels.
190. We agree the Applicant's timeframes for the upgrade to the WWTP and undertaking the QMRA and any consequential upgrades to the WWTP to include a disinfection system if that is shown to be needed.
191. These proposed upgrades to the WWTP will address the adverse aquatic ecosystem effects and human health risks. Addressing these effects will also contribute to a reduction in the magnitude of effects on cultural values, however these effects will not be fully addressed as the discharge will continue to be directly to water which is culturally offensive. However, we have restricted the duration of these consents and, as such, they are (as the Applicant put it) 'interim' consents to enable the Applicant additional time to continue to investigate land disposal options for the treated wastewater.
192. We find that the preferred option is to discharge the treated wastewater to land, however additional work is needed to determine whether this is the BPO or not. Further, if it is found to be the BPO the Applicant has a duty to consult with its local community and gain approval from its elected members before committing to such an option.

SECTION 104(1)(ab) - ENVIRONMENTAL OFFSETS AND COMPENSATION

193. Section 104(1)(ab) of the RMA requires us to have regard to any measure proposed or agreed to by the Applicant for the purpose of ensuring positive effects on the environment to offset or compensate for any adverse effects on the environment that will or may result from allowing the activity.
194. The Applicant is not proposing any offsetting or compensation for any adverse effects.

SECTION 104(1)(b) OF THE RMA - RELEVANT PLANNING PROVISIONS

195. We are required to have regard to the relevant objectives and policies of the RPS, RWSP, RAQP, and the PRP.
196. An analysis of the relevant planning provisions was provided by Messrs Tait and Hegarty. In his Staff Report Mr Tait advised we had to consider what weighting should be given to the provisions of the PRP versus the operative plans (the RWSP and RAQP), however he did not provide us with any guidance on the appropriate weightings. We asked him for his recommendation on this as his primary role at the NRC is a Policy Planner involved with development of the PRP and would therefore know which of the provisions of the PRP were subject to appeal and which were not. His supplementary statement provided information on the relevant provisions of the PRP which were subject to appeals and those that did not have any appeals. Those provisions within the PRP without appeals should be afforded more weight than any equivalent (or similar) provisions in the operative plan.
197. We have had regard to all of the relevant provisions outlined in evidence and briefly discuss the key provisions in the following sections, which are separated into key themes rather than into the different statutory planning documents. It should be noted that we do not necessarily discuss all the relevant provisions but that does not mean we have not had regard to those not specifically discussed (that includes the RAQP provisions as odour discharges were not in contention).

Water Quality and Discharges

198. The RWSP seek the maintenance or enhancement of water quality so that it is suitable for certain specified purposes. For lakes, rivers, and streams the purposes in Objective 7.4.1 include aquatic ecosystems, contact recreation, and cultural purposes.
199. Policy 7.5.3 of the RWSP directs us to have regard to various matters including the existing water quality and uses of the water body, community aspirations for the future use of the water body, opportunities to enhance water quality, and relevant water quality standards. We have had regard to all these matters in making our decision on this application.

200. The relevant water quality provisions of the PRP (Objective F.1.2 and Policies D.4.1 and H.3.1) are all subject to appeals so more weighting needs to be given to the RWSP provisions.
201. Further, Objective A1 of the Freshwater NPS is relevant and it seeks the safeguarding of life-supporting capacity, ecosystem processes and indigenous species of freshwater. Objective A1 also seeks to safeguard the health of people and communities as affected by contact with fresh water. We have had regard to this objective in making our decision.
202. In terms of discharges, Objective 8.6.1 of the RWSP aims to ensure effective treatment of existing discharges in ways that avoid, remedy, or minimise adverse effects on the environment and cultural values. Objective 8.6.2 of the RWSP seeks the reduction in quantities of contaminants entering water bodies. We consider the granting of this application to achieve these objectives.
203. Policy 8.7.2 of the RWSP is a key provision for existing discharges of sewage to water. This policy directs that these discharges should, by 2004 or by way of an upgrading programme (by way of conditions of consent) be to land or, if they are to continue to water they must not, after reasonable mixing, result in a discernible adverse change in the physicochemical and/or microbiological water quality of the receiving water and be shown to be the BPO.
204. We note that Policy D.4.3 of the PRP covers the same issue as Policy 8.7.2 of the RWSP and this new policy is not subject to any appeals according to Mr Tait's supplementary statement, meaning that we must give significantly more weight to Policy D.4.3 of the PRP.
205. Policy D.4.3 of the PRP states that an application for resource consent to discharge municipal wastewater to water will generally not be granted unless the storage, treatment, and discharge is undertaken in accordance with recognised industry good management practice, and a discharge to land has been considered and found not to be economically or practicably viable.
206. In this case the Applicant has undertaken significant work on whether land disposal is economically and/or practicably viable, however that work has yet to be completed to a stage where a definitive decision can be made. The Applicant has repeatedly stated that the current application is 'interim' to provide it time to complete its assessment and also to consult with the East Coast communities in terms of the affordability of land disposal.
207. Therefore, while granting of this application is not entirely consistent with Policy D.4.3, we consider the interim nature of the consent to be the best approach to ensure the Applicant progresses its assessments to a point where it has all the information to make a definitive decision on whether land disposal is economically and/or practicably viable. To that end the granting of this application is consistent with Policy D.4.3 of the PRP.

208. Both the RWSP and the PRP include provisions relating to what constitutes the appropriate zone of reasonable mixing for direct discharges to water, these being Policies 7.5.5 and D.4.4, respectively. According to Mr Tait Policy D.4.4 of the PRP is not subject to any appeals so we must give it significantly more weight. In his Staff Report Mr Tait provides an assessment of how the existing compliance point fits in with these policies. In his view the compliance point is reasonable given the nature and volume of the discharge. We agree.

Relationship of Māori and their Culture with Natural and Physical Resources

209. Objective 3.12 of the RPS promotes a tangata whenua kaitiaki role being recognised and provided for in decision-making over natural and physical resources. Policy 8.1.1 of the RPS requires district councils to provide opportunities for tangata whenua to participate in the review, development, implementation, and monitoring of plans and resource consent processes. Policy 8.1.2 of the RPS essentially is a copy of sections 6(e), 7(a), and 8 of the RMA. Policy 8.1.3 of the RPS directs that opportunities for the use and incorporation of Mātauranga Māori should be provided into decision-making, management, implementation, and monitoring. Policy 8.1.4 of the RPS promotes the view that relevant Māori concepts, values and practices will be clarified through consultation with tangata whenua to develop common understandings of their meaning and to develop methodologies for their implementation.
210. The thrust of Objective 3.12 of the RPS and the policies mentioned above is to ensure tangata whenua are participating in the decision-making, management, implementation and monitoring, and that they do so by providing their world view. This sits comfortably within the scope of the recommendations made in the CIA provided by Ms Allen which include the establishment of a collaborative group and a range of activities that would support mutual understanding and building capacity.
211. Whilst we acknowledge the deep concerns of the many Ngāti Kahu submitters regarding the Applicant's commitment to collaborating with tangata whenua, we are of the view that a new working party and some short and medium term milestones in respect of upgrades to the WWTP and to assess alternative discharge options will be beneficial.
212. The PRP provides a more comprehensive set of objectives and policies than its predecessor (the RWSP) that articulate the requirements for analysis and assessment of effects on a range of matters relevant to tangata whenua. Mr Hegarty sets these out in Appendix B of his evidence and Mr Tait also provides commentary in his reply that identifies other relevant provisions of the PRP not identified by Mr Hegarty. As mentioned earlier, the PRP is subject to a number of appeals and these apply to some of the provisions related to the relationship of Māori with their natural and physical resources, namely Policy D.1.4 which deals with managing effects of activities on the values of places of significance to tangata whenua, and Policy D.1.5 which deals with the criteria by which places of significance to tangata whenua are defined.

213. Objective F.1.8 of the PRP is not subject to any appeals but is very generic, stating that the tangata whenua's kaitiaki role is recognised and provided for in decision-making over natural and physical resources. This objective has no obvious or specific policies that support its implementation.
214. Objectives D.1.1 and D.1.1 of the PRP are not subject to appeal. These two provisions set out information and assessment requirements for resource consents relating to a range of relevant matters to tangata whenua. The application for resource consent was lodged in 2008, quite some time before the PRP was developed and notified, however the Applicant has provided evidence which addresses many of these matters. We have already mentioned the limitations of the assessment of effects on sites of significance to Māori. We have also acknowledged the preparation of a CIA (not commissioned by the Applicant) that was received at the hearing.

Other Statutory Documents

215. The CIA prepared by Ms Allen, who presented on behalf the Ven. Popata, stated that the most relevant policy statement in respect of tangata whenua issues is the NZCPS and she also considered the RCP as being relevant. In answers to questions Ms Allen stated that these were relevant because the discharge of treated wastewater ends up in the coastal environment.
216. Neither Mr Tait nor Mr Hegarty, both being planning experts, considered the NZCPS or the RCP to be relevant in this case. We agree. While the treated wastewater does ultimately find its way into the coastal marine area and coastal waters, the point of discharge is well inland and we heard no evidence to suggest the discharge location was within the 'coastal environment'¹⁵ to which the NZCPS applies.

SECTION 104(1)(c) - OTHER RELEVANT MATTERS

217. Section 104(1)(c) requires us to have regard to any other matters that are relevant and reasonably necessary to determine the application.
218. We heard no evidence from Mr Tait or Mr Hegarty that any other statutory or non-statutory documents were relevant for our considerations.
219. As discussed in earlier sections of this decision, a CIA was prepared by Ms Allen. While the CIA was presented as evidence during the hearing, it can be considered another relevant matter under section 104(1)(c) of the RMA.

¹⁵ The 'coastal environment' under the NZCPS differs from the 'coastal marine area' (CMA) definition of the RMA. The coastal environment is to be mapped by regional councils and can extend landward of the CMA boundary (in some cases quite some distance).

SECTION 105 of the RMA

220. Section 105 of the RMA applies to this application because three discharge permits have been applied for that contravene section 15 of the RMA. Section 105 requires us to have regard to the nature of the discharge, the sensitivity of the receiving environment to adverse effects, the Applicant's reasons for the proposed choice, and any possible alternative methods of discharge, including discharge into another receiving environment.
221. These matters formed the basis of most of the evidence presented at the hearing and we discuss all these matters in detail in earlier sections of this decision. We are satisfied that we have had regard to all the matters outlined in section 105 of the RMA in making our decision on this application.

SECTION 107 of the RMA

222. Section 107 of the RMA applies to this application because one of the discharge permits applied for is for a discharge of contaminants directly to water and another of the discharge permits is for the discharge of contaminants to land in a manner that they may enter water.

223. Section 107(1) states that we cannot grant such a discharge permit:

if, after reasonable mixing, the contaminant or water discharged (either by itself or in combination with the same, similar, or other contaminants or water), is likely to give rise to all or any of the following effects in the receiving waters:

- (c) the production of any conspicuous oil or grease films, scums or foams, or floatable or suspended materials:*
- (d) any conspicuous change in the colour or visual clarity:*
- (e) any emission of objectionable odour:*
- (f) the rendering of fresh water unsuitable for consumption by farm animals:*
- (g) any significant adverse effects on aquatic life.*

224. Mr Tait considered that the discharge is likely to be having significant adverse effect on aquatic life beyond the zone of reasonable mixing (i.e. downstream of the current compliance point). However, section 107(2) provides for certain exceptions whereby a consent authority may grant a consent which results in any of the effects listed in clauses (c) to (g) of section 107(1) (listed in the previous paragraph). Section 107(2) states:

- (2) A consent authority may grant a discharge permit or a coastal permit to do something that would otherwise contravene section 15 or section 15A that may allow any of the effects described in subsection (1) if it is satisfied—*
 - (a) that exceptional circumstances justify the granting of the permit; or*

- (b) *that the discharge is of a temporary nature; or*
- (c) *that the discharge is associated with necessary maintenance work—*
and that it is consistent with the purpose of this Act to do so.

225. Mr Tait suggested that a case could be made that exceptional circumstances exist in this case because if consent were not granted then the Applicant could not provide wastewater services to those connected to the WWTP – he said that was not a realistic or desired outcome. Mr Tait considered that consent could be granted, as provided for by section 107(2)(a) with conditions that require the Applicant to reduce TAN concentrations so as to meet the requirements of section 107(1)(g). That approach is consistent with section 107(3), which states:

- (3) *In addition to any other conditions imposed under this Act, a discharge permit or coastal permit may include conditions requiring the holder of the permit to undertake such works in such stages throughout the term of the permit as will ensure that upon the expiry of the permit the holder can meet the requirements of subsection (1) and of any relevant regional rules.*

226. Mr Hegarty also stated that the discharge would not meet section 107(1)(g) but that the proposed improvements (upgrades to the WWTP) would result in this clause being met. He also considered that the exceptional circumstances provided for in section 107(2)(a) apply in this case and he cited the Environment Court's decision on *Paokahu Trust v Gisborne District Council* [A162/2003 NZEnvC 354] as supporting this position. In particular, Mr Hegarty quoted the following from the Court's decision '*Exceptional circumstances connotes something out of the ordinary. The consequences of a coastal permit to discharge being refused, would mean that the City would be unable to legally use its sewerage and wastewater system. The likely social, economic and health related affects [sic] have already been referred to. Notwithstanding the tardiness of the Council to address the problem that has been extant for many years, we are compelled to grant consent...*'¹⁶.

227. Ms Baguley also made reference to the Environment Court's *Paokahu* decision in her opening legal submissions. She highlighted that the focus of the case was on the effect of the discharge of treated wastewater via a submarine outfall pipe on tikanga Māori and the application of section 107 of the RMA. She noted the Court found that there were significant adverse cultural effects of the discharge on the tikanga of collecting kaimoana and protection of taonga of the appellants.

¹⁶ Paragraph [77].

228. Ms Baguley quoted the same excerpt from the Court's decision that Mr Hegarty did in his evidence (see above) but also that the Court found '*We accept, that in the short term. Gisborne City would face insurmountable difficulties by reason of not being able to dispose of its sewage. The associated social, economic and health effects are beyond comprehension. On balance we have no alternative but to dismiss the appeal in the exercise of our discretion...*'¹⁷.
229. We agree that there are some similarities between the current application and that of *Paokahu*. Mr Tait confirmed that the WWTP met the definition of being 'regionally significant infrastructure' and, as such, it provides a vital function and service for the East Coast communities that are connected to it.
230. We consider that, while there will be breaches of section 107(1)(g), exceptional circumstances exist in this case and, further, we have imposed conditions as provided for by section 107(3) that require either a land discharge to be implemented or, if that is not practicable, upgrades to the WWTP which, when implemented, will ensure all of the requirements of section 107(1) will be met.

PART 2 of the RMA

231. The matters specified in section 104(1) that we must consider are 'subject to Part 2' of the RMA. These words, and how they apply to the consideration of resource consent applications, has been the subject of a number of cases heard in the Environment Court, High Court, and more recently the Court of Appeal.
232. The Court of Appeal decision on *RJ Davidson Family Trust v Marlborough District Council*¹⁸ (**the Davidson decision**) provides the latest, and most authoritative, position on this matter. Neither Mr Tait nor Mr Hegarty made mention of the Davidson decision in their evidence, which we find somewhat surprising. However, having made several decisions on resource consent applications since the Davidson decision we are familiar with what that decision directs of us in respect of Part 2 matters.
233. In summary, the Davidson decision directs that where the New Zealand Coastal Policy Statement (NZCPS) is relevant to an application and it is clear from the relevant NZCPS policies whether consent should be granted or refused, then there is no need for a decision maker to refer back to Part 2 RMA matters as it would not add anything to the required evaluative exercise – that is, separate recourse to Part 2 RMA matters is not required as those matters are already reflected in the NZCPS objectives and policies. As the Court of Appeal stated¹⁹:

17 Paragraph [48].

18 CA97/2017 [2018] NZCA 316

19 At para [71]

“Putting it another way, even if the consent authority considered pt 2, it would be unlikely to get any guidance for its decision not already provided by the NZCPS. But more than that, resort to pt 2 for the purpose of subverting a clearly relevant restriction in the NZCPS adverse to the applicant would be contrary to King Salmon and expose the consent authority to being overturned on appeal”.

234. The Davidson decision also provides guidance on whether Part 2 RMA matters need to be considered where the NZCPS provisions do not provide clear guidance on whether consent should be granted or refused, and situations for applications where the NZCPS is not relevant – the latter being the case for the current application as we have found the NZCPS to not be directly relevant. In both situations the decision maker needs to determine whether the relevant plan has been ‘competently prepared’ under the RMA – that is, whether it contains a coherent set of policies designed to achieve clear environmental outcomes. If the relevant plan meets these criteria then there is no need to consider Part 2 RMA matters, and if the relevant plan does not meet these criteria then the decision maker should consider Part 2 RMA matters and determine whether they provide assistance in making a decision on the application.
235. We heard no evidence to suggest the relevant plan(s) has not been competently prepared under the RMA. As such, according to directions provided by the Court in the Davidson decision, there is no need for us to consider Part 2 RMA matters for this application.
236. Mr Tait did make reference to the earlier Davidson Environment Court decision, but only in relation to the relative weightings that may need to be given to higher order planning documents and not whether we needed to consider Part 2 matters for this application. He did, however, state *‘I think that it is not necessary to consider Part 2 of the RMA in the context of the Far North District Council’s resource consent application. That is because I think that the Part 2 matters have been adequately dealt with by the provisions in the RWSP, RAQP, RPS and NPSFM*. While he did not point to the Davidson decision as being the basis for this decision, we take this statement to confirm that he considered the specified planning documents to have been competently prepared and therefore the provision give effect to Part 2 RMA matters.
237. Mr Hegarty was silent on the Davidson decision and presented an analysis of Part 2 considerations as they relate to this application
238. Many submitters included statements regarding Part 2 matters, in particular section 6(e)²⁰, section 7(a)²¹, and section 8²².

20 The relationship of Māori and their culture and traditions with their ancestral lands, water, sites, waahi tapu, and other taonga

21 Kaitiakitanga

22 Principles of the Treaty of Waitangi

239. Given the directions issued by the Court of Appeal in the Davidson decision, we do not consider reference to RMA Part 2 matters would add anything to the evaluative exercise we have undertaken under section 104 of the RMA.

CONCLUSION AND OVERALL DETERMINATION

240. On the basis of the evidence in front of us, we have determined that the resource consents should be granted subject to conditions. We discuss the conditions in the next section of this decision.
241. In coming to our decision to grant the consents, we are mindful that these consents are essentially 'interim' in nature. Only after the BPO assessment is completed will we know whether land disposal, which is the preferred option, is feasible. Further, even if land disposal is found to be the BPO the Applicant will need to consult with the local community and get funding approval from its elected members before a cessation of the direct discharge to water occurs.
242. We are hopeful that land disposal is found to be the BPO but we are not in a position to 'require' that option to be implemented as part of our consideration of the application in front of us. The best we can do is to codify through conditions a process that the Applicant must follow to enable it to undertake a BPO assessment and to then implement that BPO.

Conditions

243. Throughout the previous sections of this decision we have outlined the substantive changes to conditions, including the reasons for them.
244. The conditions we have imposed are contained in Appendix 1 to this decision. They are generally based on the final version of conditions provided by the Applicant in its Right of Reply. There was general agreement between the Applicant and Mr Tait regarding this version of the conditions, albeit with differences of opinion on timeframes, the conditions associated with the Working Party, codification of the LTP/AP process, and reduction in sampling frequency.
245. The changes we have made to the conditions are both substantive, grammatical, and typographical. We have 'hard coded' dates into the key conditions rather than having the condition referencing a time period 'from the date of commencement of the consent' – we have done this because figuring out the date of commencement can be problematic and it is clearer to have a date specified so as to avoid any ambiguity. The dates used are essentially based on a date of commencement (i.e. starting date) of 1 September 2019 for the consents.

246. We heard from several Ngāti Kahu submitters, including Te Rūnanga a Iwi o Ngāti Kahu, who expressed a wish to have hapū representatives nominated on a Working Group so as to reflect the appropriate level of community participation and tangata whenua relationships with the area. We have given much thought as to whether the conditions should be prescriptive in this regard, that is, requiring hapū (Ngāti Whata, Matakairiri, Ngāti Tara, Ngāti Rurunga), marae (Te Ahua, Parapara, Kauhanga), iwi (Ngāti Kahu), or other types of representation and setting out a process of appointment. We have decided that providing for a minimum of three Ngāti Kahu representatives on a Working Group (appointed by tangata whenua) is appropriate in this case. Our expectation is that Ngāti Kahu whānau can exercise their rangatiratanga in selecting an appropriate process and representatives for their interests on the Working Group. We expect the representatives will have the support of their community and be constructive and committed to the Terms of Reference that are to be developed for the Group.

247. In summary, the following are the key conditions we have imposed:

- Establish a Working Group by 1 October 2019. The Working Group to be made up of three representatives of Ngāti Kahu (appointed by tangata whenua), two senior officers appointed by the Applicant, supported by an independent person qualified and specialising in wastewater engineering and land disposal systems (appointed by the Applicant and certified by the Northland Regional Council's Compliance Manager as being independent and having no conflicts of interest);
- The QMRA report must be completed and provided to the NRC by 1 September 2020;
- Scope of the QMRA, in particular selecting the sites and aquatic species to be assessed by the QMRA, must be developed in consultation with the Working Group;
- If the QMRA determines additional pathogen reduction is required then the WWTP needs to be upgraded by 1 March 2022;
- BPO report must be provided to the NRC no later than 1 September 2020, including a recommendation as to which disposal option is the considered BPO;
- If land disposal is the BPO then the NRC must be advised by 1 July 2021 whether this is being committed to (this provides time to consult and get councillor approval);
- If committing to land disposal then that system must be commissioned by 1 September 2025. We have included a requirement for progress reports to be provided to the NRC every six months;

- If not committing to land disposal then the WWTP must be upgraded to achieve specified discharge standards by 1 September 2023. We have removed the conditions which would require submission of draft and final WWTP upgrade option(s) reports to the NRC. We see no need for these to be required by conditions of consent – the important matter is that the upgrades are completed and commissioned to achieve the specified standards within the specified timeframe. We have, however, included an Advice Note confirming the Applicant’s commitment to include the Working Group in determining the appropriate upgrade option(s);
- Fortnightly samples of treated wastewater must be collected throughout the duration of the consents. We do not agree with the Applicant’s request to reduce the sampling frequency – we agree with Mr Tait that a good dataset is needed in advance of any replacement consents being applied for and this is best achieved through collecting fortnightly samples; and
- We have added a requirement for two indicator bacteria (*Escherichia coli* and *Enterococci*) to be monitored within the discharge as well as within the receiving environment. We consider analysis for these will provide important and useful information on the quality and effects of the discharge.

Duration

248. The Applicant initially sought an expiry date of 2033, this being 25 years from when it lodged its application in 2008. Mr Tait initially recommended a 25-year duration be granted from the date that our decision is issued, resulting in a 2044 expiry date.
249. As discussed earlier in this decision, the Applicant has volunteered a significantly reduced term of consent of eight years (2027), this reflecting the ‘interim’ nature of the consents that would be issued. The Applicant confirmed that, in the event land disposal was shown to not be the BPO, it would apply for new consents to continue to discharge to water – that application would be lodged prior to 2027. Further, if land disposal was shown to be the BPO, then the Applicant acknowledged it will require new consents to authorise such a consent and, if those consents are granted and land disposal occurs, the current consent to discharge directly to water would not then be needed and it could be surrendered.
250. Mr Tait provided us with the guidance on duration of consent included in the RWSP and the PRP. We have had regard to those documents but note they are not entirely relevant in this case given the interim nature of the consents being granted.

DECISION

For the above reasons, it is our decision, pursuant to section 104B of the Resource Management Act 1991, to **GRANT** the following resource consents to the Far North District Council, subject to terms and conditions set out in Appendix 1, attached to this decision:

AUT.004007.01.03 To discharge treated municipal wastewater to an unnamed tributary of Te Wai o Te Parapara (Parapara Stream), at or about location co-ordinates 1640435E 6126160N.

AUT.004007.02.02 To discharge contaminants to land from the base of a wastewater treatment system, at or about location co-ordinates 1641450E 6126950N and 1640435E 6126160N.

AUT.004007.03.02 To discharge contaminants to air (primarily odour) from a wastewater treatment system, at or about location co-ordinates 1641450E 6126950N and 1640435E 6126160N.

Dated this 13th day of August 2019



Dr Rob Lieffering

Hearing Commissioner (Chair)



Antoine Coffin

Hearing Commissioner

APPENDIX 1: CONDITIONS

FAR NORTH DISTRICT COUNCIL, PRIVATE BAG 752, KAIKOHE 0440

To undertake the following activities associated with the operation of the East Coast Wastewater Treatment System on Pt Allot 24 PSH of Taipa and Sec 1 SO 69379 Blk IV Mangonui SD (treatment plant) and Sec 1 SO 65075 Blk IV Mangonui SD (wetland)Pt:

AUT.004007.01.03 To discharge treated municipal wastewater to an unnamed tributary of Te Wai o Te Parapara (Parapara Stream), at or about location co-ordinates 1640435E 6126160N.

AUT.004007.02.02 To discharge contaminants to land from the base of a wastewater treatment system, at or about location co-ordinates 1641450E 6126950N and 1640435E 6126160N.

AUT.004007.03.02 To discharge contaminants to air (primarily odour) from a wastewater treatment system, at or about location co-ordinates 1641450E 6126950N and 1640435E 6126160N.

Note: All location co-ordinates in this document refer to Geodetic Datum 2000, New Zealand Transverse Mercator Projection.

Subject to the following conditions:

AUT.004007.01.03 and AUT.004007.02.02 - DISCHARGE TO WATER AND LAND

- 1 The volume of treated wastewater discharged to the unnamed tributary of Te Wai o Te Parapara must not, based on a 30-day rolling average dry weather flow, exceed 790 cubic metres per day. The average dry weather flow is defined in Section 1 (Wastewater Volumes) of Schedule 1 (**attached**).
- 2 The Consent Holder must install and maintain an operational flow meter with a measurement error of no more than $\pm 5\%$ to measure the volume of wastewater discharged into the unnamed tributary.
- 3 The Consent Holder must keep a record of the daily volume of wastewater through the flow meter required by Condition 2 and the calculated 30-day rolling average dry weather flow discharge volume. A copy of these records must be forwarded to the Northland Regional Council's Compliance Manager by the 15th of each month and also upon request by the Northland Regional Council's assigned Monitoring Officer.
- 4 The Consent Holder must calibrate the flow meter at least annually. The calibration must be undertaken by a suitably qualified and experienced person. Written verification from the suitably qualified and experienced person that the meter accuracy has been verified must be forwarded to the Northland Regional Council's assigned Monitoring Officer within one month of the verification being completed.

- 5 The Consent Holder must, no later than 1 September 2020, provide a written report to the Northland Regional Council's Compliance Manager which outlines the results of a quantitative microbiological risk assessment (**QMRA**) that the treated wastewater discharged from the East Coast Wastewater Treatment Plant poses to the health of people as affected by their contact with water in, and consumption of aquatic species from, Te Wai o Te Parapara and Te Wai o Te Awapoko (Awapoko River and Estuary). The scope of the QMRA, in particular selecting the sites and aquatic species to be assessed by the QMRA, must be developed in consultation with the Working Group required to be established by Condition 7. If the outcome of the QMRA indicates that the discharge of treated wastewater from the East Coast Wastewater Treatment Plant is likely to be resulting in an unacceptable public health risk downstream of NRC Sample Site 105941, then the QMRA report must also recommend a level of pathogen reduction required to reduce the risk associated with the East Coast Wastewater Treatment Plant discharge to an acceptable level. The QMRA and recommended risk reduction, if required, must be undertaken by a suitably qualified and experienced independent person(s) with specialisations in faecal pathogen microbiological risk assessments. The Consent Holder must make the report publicly available on its website and provide the findings and recommendations to Te Rūnanga ā Iwi o Ngāti Kahu and the Working Group required to be established by Condition 7.
- 6 If the report required by Condition 5 recommends that additional pathogen reduction in the treated wastewater discharge is required to reduce risks to the health of people as affected by their contact with water in, and consumption of aquatic species from, Te Wai o Te Parapara and Te Wai o Te Awapoko (Awapoko River and Estuary), then the Consent Holder must:
- (a) Provide a written report to the Northland Regional Council's Compliance Manager no later than 1 March 2021 on how the required pathogen reduction will be achieved in the treated wastewater prior to it being pumped to the wetlands; and
 - (b) Upgrade the wastewater treatment system in accordance with that report no later than 1 March 2022.

Advice Note: *If the method of pathogen removal introduces any new contaminants into the discharge, then a new consent for these contaminants may be required.*

- 7 The Consent Holder must, no later than 1 October 2019, establish a Working Group and invite a minimum, of three representatives of Ngāti Kahu (appointed by tangata whenua) to be members of the Working Group. The Working Group must also comprise of two senior officers appointed by the Consent Holder, supported by an independent person qualified and specialising in wastewater engineering and land disposal systems (appointed by the Consent Holder and certified by the Northland Regional Council's Compliance Manager as being independent and having no conflict of interest).
- 8 The purpose of the Working Group is to provide for the involvement of Ngāti Kahu in:
- (a) The scoping of the QMRA required to be undertaken by Condition 5;

- (b) The assessment of disposal options for the treated wastewater required by Condition 10;
 - (c) Providing a recommendation to the Consent Holder regarding the best practicable option for the disposal of treated wastewater required by Condition 10; and
 - (d) The analysis of options for upgrading the wastewater treatment plant if such an upgrade is required by Condition 13.
- 9 The Consent Holder must, no later than 1 November 2019, establish a Terms of Reference with the representatives of Ngāti Kahu in the Working Group, that sets out:
- (a) The frequency and format of the Working Group meetings and methods for decision-making within the Working Group; and
 - (b) A dispute resolution process whereby any differences that may arise may be resolved by direct discussions between the parties in dispute, and failing that, by reference to mediation by an Arbitrators' and Mediators' Institute of New Zealand (AMINZ) affiliated mediator, the costs of which must be met by the Consent Holder.
- 10 The Consent Holder must, no later than 1 September 2020, provide a report to the Northland Regional Council's Compliance Manager which assesses the options for disposing treated wastewater from the East Coast Wastewater Treatment and the report must include a recommendation as to which disposal option is considered to be the best practicable option (**BPO**). The assessment must include the option of disposing the treated wastewater to land and must identify the costs and benefits of all practicable disposal options. The assessment of options must be undertaken by a suitably qualified and experienced person(s) and must involve the Working Group established in accordance with Condition 7.
- 11 If the report required by Condition 10 determines that the BPO is to change to land disposal then the Consent Holder must, no later than 1 July 2021, advise the Northland Regional Council's Compliance Manager, in writing, whether or not it is committing to the land disposal option.
- Advice Note:** *The ten-month period between the date specified in Condition 10 and the date specified in Condition 11 has been provided in acknowledgement that the Consent Holder may need to undertake consultation with the local community and that funding for the land disposal system may need to go through, and may need to be approved through, its Long Term Plan or Annual Plan processes.*
- 12 If the Consent Holder has advised the Northland Regional Council's Compliance Manager that it is committing to the land disposal option (refer Condition 11) then the Consent Holder must establish and commission the land disposal system no later than 1 September 2025. During the period that the land disposal system is being established, the Consent Holder must provide a written progress report to the Northland Regional Council's Compliance Manager every six months.

- 13 If the Consent Holder has advised the Northland Regional Council’s Compliance Manager that it is not committing to the land disposal option (refer Condition 11) then the Consent Holder must, no later than 1 September 2023, upgrade the wastewater treatment system (and commission the upgrades) so that the quality of the treated wastewater, as measured at NRC Sample Site 101687 (discharge from the wetland), meets the following standards, based on the results of 26 fortnightly samples collected each calendar year as required by Schedule 1 (**attached**):

Parameter	Compliance metric	Standard
Total ammoniacal nitrogen (TAN)	Annual median*	≤10 grams per cubic metre
	Maximum number of samples exceeding >15 g TAN/m ³ per year per calendar year*	4
Five-day biochemical oxygen demand (BOD ₅)	Annual median	≤20 grams per cubic metre
	Maximum number of samples exceeding >30 g BOD ₅ /m ³ per calendar year	4
Total suspended solids (TSS)	Annual median	≤20 g grams per cubic metre
	Maximum number of samples exceeding >40 g TSS/m ³ per year per calendar year	4

* Based on pH 8 and temperature of 20°C. Compliance with the standards should be undertaken after pH adjustment.

Advice Note: *The Consent Holder has advised that it will involve the Working Group required to be established in accordance with Condition 7 in determining the appropriate option to upgrade the wastewater treatment plant to meet these standards.*

- 14 The treated wastewater discharged from the constructed wetland must not result in any of the following effects in the waters of the unnamed tributary of Te Wai o Te Parapara downstream of NRC Sample Site 105941 (refer NRC Plan 3078A **attached**):
- (a) The pH must not be outside the range of 6.0 to 9.0.
 - (b) The production of any conspicuous oil or grease films, scums or foams, or floatable or suspended materials
 - (c) Any conspicuous change in the colour or visual clarity
 - (d) Any emission of objectionable odour.
- 15 The Consent Holder must maintain easy and safe access to the discharge point from the constructed wetland for the purposes of sampling.

AUT.004007.03.02 - DISCHARGE TO AIR

- 16 The exercise of this consent must not result in the discharge of contaminants which are deemed by a Monitoring Officer of the Northland Regional Council to be noxious, dangerous, offensive or objectionable at or beyond the property boundary of the East Coast Wastewater Treatment Plant.

GENERAL CONDITIONS

- 17 The Consent Holder must maintain the treatment system so that it operates effectively at all times, and a written record of all maintenance undertaken must be kept. A copy of this record must be forwarded as soon as practicable to the Northland Regional Council upon written request.
- 18 The Consent Holder must monitor the exercise of these consents in accordance with Schedule 1 (**attached**).

Advice Note: *The Consent Holder should attempt to maintain fencing of the drain, an unnamed tributary of the Parapara Stream, between NRC sampling sites 101687 and 105940, as shown on NRC Plan 3078A (**attached**), to prevent stock access.*

- 19 The Consent Holder must, on becoming aware of any unauthorised discharge associated with the East Coast Wastewater Treatment System:
- (a) Take immediate action to stop and/or contain the discharge; and
 - (b) Immediately notify the Northland Regional Council by telephone of the discharge; and
 - (c) Take all reasonable steps to remedy or mitigate any adverse effects on the environment resulting from the discharge; and
 - (d) Notify the Northland Regional Council in writing within one week on the cause of the unauthorised discharge and the steps taken or being taken to remedy or mitigate the effects of the discharge.

For telephone notification during the Northland Regional Council's opening hours (8.00 a.m. to 5.00 p.m.), the Northland Regional Council's assigned Monitoring Officer for these consents must be contacted. If that person cannot be spoken to directly, or it is outside of the Northland Regional Council's opening hours, then the Environmental Hotline (0800 504 639) must be contacted.

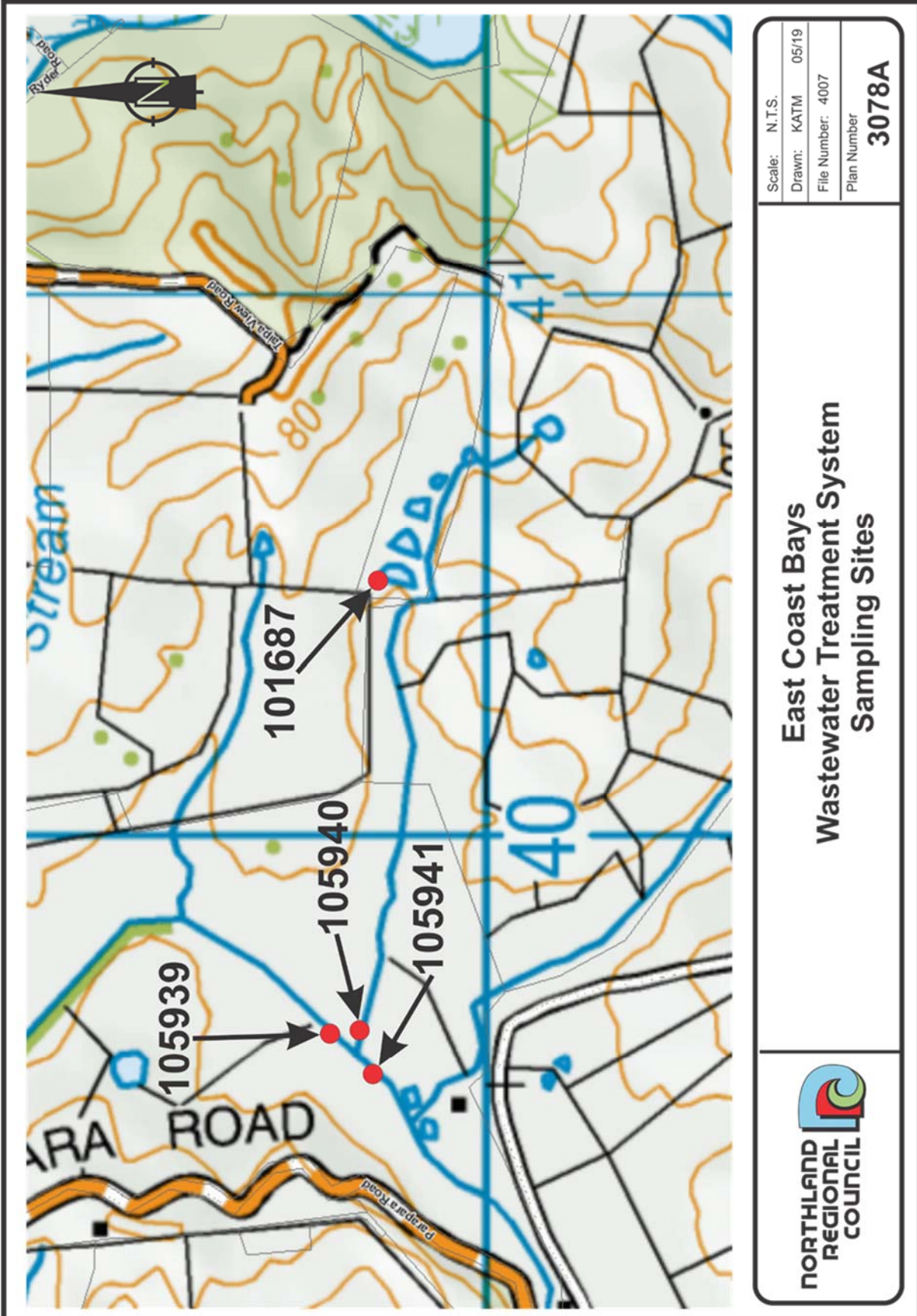
- 20 The Northland Regional Council may, in accordance with Section 128 of the Resource Management Act 1991, serve notice on the Consent Holder of its intention to review the conditions of these consents:
- (a) Annually for one or more of the following purposes:
 - (i) To deal with any adverse effects on the environment that may arise from the exercise of the consents and which it is appropriate to deal with at a later stage, or
 - (ii) To require the adoption of the best practicable option to remove or reduce any adverse effect on the environment.
 - (b) Within three months of receiving the written report required by Condition 10 to provide for additional work on land disposal options; and
 - (c) Within three months of receiving the written report required by Condition 6(a) to insert new conditions or change the Monitoring Programme in Schedule 1 to deal with the ongoing monitoring and compliance of the pathogen reduction system that is to be installed.

- (d) Annually during the month of October to change the Monitoring Programme in Schedule 1 to deal with the ongoing monitoring of the wastewater treatment system.

The Consent Holder must meet all reasonable costs of any such review.

EXPIRY DATES

Resource consents AUT.004007.01.03, AUT.004007.02.02 and AUT.004007.03.02 will expire eight years from their dates of commencement.



SCHEDULE 1

MONITORING PROGRAMME

The Consent Holder, or its authorised agent, must undertake the following monitoring:

1. WASTEWATER VOLUMES

The Consent Holder must keep a record of the daily (midnight to midnight) treated wastewater flows through the meter required by Condition 2 of the consent. The 30-day rolling average dry weather flow discharge volume must be calculated and recorded daily. A wet weather flow day is defined as any day with 10 or more millimetres of rain and the two subsequent days. A dry weather flow day is defined as any day that is not a wet weather flow day.

The daily rainfall must be taken from the Northland Regional Council's automatic rain station 530511 (Oruru Bowling Club). This data can either be downloaded from the Northland Regional Council's website or supplied by the Northland Regional Council on request. An alternative rainfall station may be used with the prior written approval of the Northland Regional Council's Compliance Manager.

2. MONITORING OF THE WASTEWATER WITHIN THE WASTEWATER TREATMENT PLANT

At fortnightly intervals, samples of wastewater must be collected at the influent to the WWTP, outflow from Pond 3, and the outflow from the Maturation Pond, and analysed for the following:

- (a) Total ammoniacal nitrogen (g/m^3)
- (b) Five-day biochemical oxygen demand (g/m^3)
- (c) pH
- (d) Dissolved oxygen (g/m^3)
- (e) Temperature ($^{\circ}\text{C}$).

3. MONITORING OF THE DISCHARGE FROM THE CONSTRUCTED WETLAND

At fortnightly intervals, samples of wastewater must be collected at NRC Sampling Site 101687 (discharge point from the wetland) and analysed for the following:

- (a) Total ammoniacal nitrogen (g/m^3)
- (b) Five-day biochemical oxygen demand (g/m^3)
- (c) pH

- (d) Dissolved oxygen (g/m³)
- (e) Total suspended solids (g/m³)
- (f) Temperature (°C)
- (g) Escherichia coli (cfu/100 mL)
- (h) Enterococci (cfu/100 mL).

4. MONITORING OF RECEIVING WATER QUALITY

Each calendar month, samples of water must be collected from the unnamed tributaries of the Te Wai o Te Parapara at NRC Sampling Sites 105939, 105940, and 105941, as shown on NRC Plan 3078A (**attached**), and analysed for the following:

- (a) Total ammoniacal nitrogen (g/m³)
- (b) pH
- (c) Dissolved oxygen (g/m³)
- (d) Escherichia coli (cfu/100 mL)
- (e) Enterococci (cfu/100 mL).

5. SAMPLE COLLECTION, SAMPLE TRANSPORT, AND LABORATORY REQUIREMENTS

All samples must be collected using standard procedures and in appropriate laboratory supplied containers.

All samples collected as part of this monitoring programme must be transported in accordance with standard procedures and under chain of custody to the laboratory.

All samples collected must be analysed at a laboratory with registered quality assurance procedures[#], and all analyses are to be undertaken using standard methods, where applicable.

[#] Registered Quality Assurance Procedures are procedures which ensure that the laboratory meets recognised management practices as would include registrations such as ISO 9000, ISO Guide 25, Ministry of Health Accreditation.

6. REPORTING

By the 15th of each month, the results of monitoring in accordance with Sections 2, 3 and 4 of this schedule, for the previous calendar month, must be forwarded to the Northland Regional Council.

This information must be in an electronic format that has been agreed to by the Northland Regional Council.