BEFORE THE HEARING PANEL

IN THE MATTER of the Resource Management Act 1991

AND

IN THE MATTER of applications by Tararua District Council to Horizons Regional Council for application **APP-2005011178.01** for resource consents associated with the operation of the Eketahuna Wastewater Treatment Plant, including a discharge into the Makakahi River, a discharge to air (principally odour), and a discharge to land via pond seepage, located at Bridge Street, Eketahuna.

REPORT TO THE COMMISSIONERS

DR BRENT COWIE (CHAIR), MR REGINALD PROFFIT AND MR PETER CALLANDER

SECTION 42A REPORT OF FIONA MORTON - PLANNING

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7 March 2017

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A. INTRODUCTION

Qualification and Experience

1. My name is Fiona Janet Morton.

2. I am contracted to the Manawatu-Wanganui Regional Council (Regional Council) in the position of Senior Consents Planner.

3. I hold an honours degree in Resource Management and Environmental Planning. I am a full member of the New Zealand Planning Institute. Following my graduation in 2000 and up until May 2006 I was firstly a Policy Analyst, Consents Planner and then a Senior Consents Planner at the Regional Council. During 2007 to 2012 I periodically assisted the Regional Council in a planning peer review role.

4. I have over 15 years resource management experience, predominantly in the natural resource field, and in particular relating to resource consenting matters.

5. I have read the Environment Court Practice Note 2014 as it relates to conduct of expert witnesses and I agree to comply with it and have complied with it in preparation of this evidence. Other than where I state that I am relying on the advice of another person, the matters covered in this report are within my area of expertise. I have not omitted to consider material facts known to me that might detract from the opinions I express

Background

6. **APP-2005011178.01** was lodged on 1 April 2015 by Tararua District Council (the Applicant). This application was lodged three months prior to Consent 103346 expiring (1 July 2015). Under s124(2)(e), the consent holder (Tararua District Council), can continue to operate at the discretion of the Regional Council. While there is no 'formal record' of this discretion being granted, the Regional Council accepted the application (and deposit), and commenced processing of the application.

7. This report refers to matters which relate to the resource consent sought by the Applicant. More detail regarding the application is discussed in Section D of this report.

8. This report is to be read in conjunction with the s42A reports prepared by Mr Tim Baker (Consultant Groundwater Scientist to the Regional Council), Ms Deborah Ryan (Consultant Air Quality Scientist to the Regional Council) and Mr Logan Brown (Manager Freshwater and Partnerships, Horizons Regional Council).

9. In preparing this report I have considered:

   a. The Assessment of Environment Effects (AEE) which accompanied the application;

   b. The further information provided in December 2015 received via email in response to the Regional Council s92 request.

   c. Following the close of submissions, and the pre-hearing meetings, further information was requested on 13 November 2016. The Applicant's consultant agreed to provide this information in a letter dated 12 December 2016 (Commissioner Folder Tab 3). This further information was received on 27 February 2017. Where possible this report has included the s92 response, but a revised set of conditions and additional supplementary evidence on this response may be required to be tabled at the hearing.

10. I have considered all submissions received on the application and the relevant resource management matters which are required to be considered by a consenting authority in relation to this application.

Site Visit

11. I visited the site on 23 February 2017. Also in attendance was Mr Tim Baker (Groundwater), Ms Deborah Ryan (Air) and Mr Robert Rose (HRC Compliance).

12. I am familiar with the location, its surrounds and characteristics of the current activity.

B. OUTLINE OF EVIDENCE

13. In my report I have provided the following:

   a. A description of the activity;
   b. An outline of the consenting background;

c. An outline of the public notification process;

d. A summary of the matters raised in submissions;

e. An assessment of the relevant section 104 matters including:

   i. An assessment of the environmental effects associated with the ongoing effects of the activity,

   ii. An assessment of the relevant National Environmental Standards, National Policy Statements, Regional Policy Statement and Regional Plans (namely the One Plan);

   iii. An analysis of Part 2 of the Resource Management Act 1991 as it relates to the application.

14. This section 42A report provides an analysis of the relevant plans and policy documents, as well as an interpretation of those where required. It also includes discussion on the effects associated with the activity, and an assessment of the submissions received. It concludes with my recommendation.

15. In accordance with section 42A (1A) and (1B) of the RMA, I have minimised the repetition of information included in the application and where I have considered it appropriate, adopted that information.

C. THE SITE AND SURROUNDING AREA

16. The existing environment is detailed in Section 1.2 of the Applicant's AEE (pg. 4). The waste water treatment plant (WWTP) is accessed from Bridge Street, Eketahuna. The existing discharge point from the WWTP is to the Makakahi River. The 27th February s92 response indicates two possible discharge locations (Option 1 and Option 2). The applicant has yet to confirm which option will be used. However the receiving environment and the discharge itself will still be to the Makakahi River.

17. The proposed direct discharge of treated wastewater from the Eketahuna WWTP to the Makakahi River falls within the Makakahi (Mana_18d) sub-zone. This is a water management sub-zone of the Mangatainoka (Mana_8) water management zone. Mr Brown's report [section D, para. 13] identifies the values associated with this water management zone.

D. THE ACTIVITY

18. On 1 April 2015, the applicant sought consent from the Regional Council for the following activities:

    a. Discharge permit to discharge treated wastewater to the Makakahi River;

    b. Discharge permit to discharge treated wastewater to land. This application is to deal with any potential seepage from the treatment ponds; and

    c. Discharge to air (odour).

19. These applications have been lodged to replace 103346 and 103732 which expired on 1 July 2015. A term of 20 years was sought for all permits in the application.

20. Section 1.7 on page 10 of the application details the existing infrastructure and proposed upgrades programmed to occur.

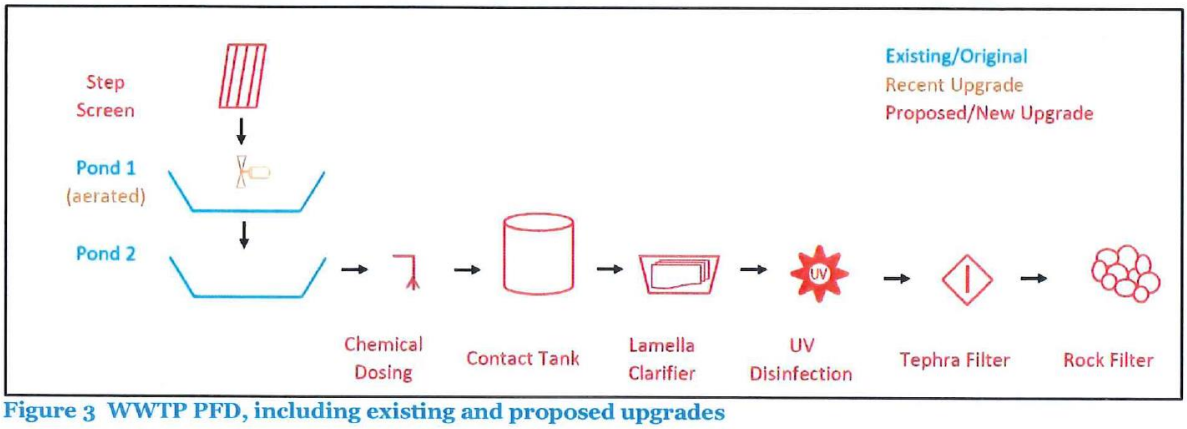

Figure 3 WWTP PFD, including existing and proposed upgrades

21. I expect that the s41B reports will discuss the above further.

22. A final discharge point has yet to be determined. The further information of 27 February 2017 proposes two possible discharge locations. The potential issues associated with the end discharge point are discussed in the report of Mr Brown [Section I, para. 81].

23. There is no timeline of when the upgrades are proposed to occur. I do note that the further information received in December 2015 states that the ponds are to

be lined with a synthetic liner by March 2017. In my view it would be helpful if a proposed timeline of when the upgrades at the Plant are to occur are included in s41B reports.

E. NOTIFICATIONS AND SUBMISSIONS

24. The application, along with the application for the Pahiatua WWTP was publically notified in the Manawatu Standard (9 April 2016) and the Bush Telegraph (11 April 2016). A copy of the public notice is included at Tab 2 of the Commissioner folder. Specifically this notice stated that three discharge permits were sought (water, land, air).

25. The discharge to water permit is seeking to authorise 3,200m^3/day (Peak Wet Weather Flow) of treated wastewater from the upgraded Eketahuna Wastewater Treatment Plant to a land based rock filter[1] and then into the Makakahi River.

26. The discharge to land permit is seeking to authorise the discharge the treated wastewater from the operation of the upgraded Eketahuna Wastewater Treatment Plant into land via ground seepage from the oxidation ponds.

27. The discharge to air permit is seeking to authorise the discharge of contaminants to air (principally odour) generated from the upgraded Eketahuna Wastewater Treatment Plant.

28. A term of 20 years for all permits has been sought.

29. A total of twelve submissions were received. A list of all submitters is included in the Commissioner's folder (Tab four). This list includes whether or not the submitter requested to be heard at the hearing. The original submissions as well as a summary of submissions have been provided to the Commissioner's. (Tab five). The table below briefly notes the issues raised in the submissions, and where possible the relief that has been requested to address that issue.

[1] It is likely that land use consent will be required for the construction of a rock filter of the bed and banks of the Makakahi River. An application for the rock filter has not been received.

Table 1: Summary of submissions

No.	Issues / Concerns raised through submissions	Relief requested	Submission Number(s)
1	Duration	Submissions requested a term ranging from 3-20 years, with reviews	3, 4, 6, 9, 10, 12
2	Effects of recreational use	Assess degree of human use downstream	2
3	Cultural impact	Request for Kahungunu ki Tamaki nui-a-rua Trust to undertake and be resourced for 2 yearly cultural health monitoring. CIA to be prepared by Te Roopu Taiao o Ngati Whakatere	3, 9
4	Failure to consider cumulative effects		3, 7, 8, 9
5	Mauri	Request for Kahungunu ki Tamaki nui-a-rua Trust to undertake 2 yearly cultural health monitoring CIA to be prepared by Te Roopu Taiao o Ngati Whakatere	3
6	Failure to monitor or categorise influent/effluent flows	Monitor influent and effluent flows	3, 8
7	Impacts on Fish		3, 5

No.	Issues / Concerns raised through submissions	Relief requested	Submission Number(s)
8	Downstream instream effects	Address nutrient levels, monitor indicator species including macroinvertebrates, use adaptive management. Monitor groundwater	5, 8 9
9	Inadequate consideration of alternative disposal options	Investigate alternative treatment and disposal options (land)	6, 8, 9, 10, 12
10	Outdated applications		6, 9, 10
11	No adherence to Policy 5-11		7
12	Excessive peak wet weather flows		6, 10
13	Configuration differs from documented options		6, 10
14	Permeability of clay liner is unknown		3, 10
15	Monitoring and reporting	Comprehensive monitoring programme required	3, 5, 6, 9, 12

F. PRE-HEARING

30. Three pre-hearings were held in respect of the TDC WWTP discharges from Eketahuna and Pahiatua. The first was held on 15 June 2016 in the Old Council Chambers, Pahiatua. The second was held on 30 August 2016 at the Masters Conference Centre, Masterton Road, Pahiatua, Pahiatua. The third pre-hearing was held on 19th October 2016, again at the Masters Conference Centre. This pre-hearing focussed predominantly on the Pahiatua WWTP discharge. However I have mentioned it here as there was some agreement on matters relating to the Pahiatua WWTP that were to apply to Eketahuna WWTP consent conditions. This was in relation to the formation of a Tararua Wastewater Forum.

31. At the outset of the prehearing it was agreed that between the participants who attended, that the pre-hearing meetings proceeded on a 'without prejudice' basis. The meeting record was confidential to the people who were present at the pre-hearing meeting and, by agreement between them, is not to be circulated or shared with persons who were not in attendance at the pre-hearing meeting.

32. The pre-hearing facilitator will prepare a report pursuant to s99(5). This will be provided to the Commissioners (Tab six) in accordance with the timeframes specified in the Act once it is received.

G. ASSESSMENT – SECTION 104

33. The provisions of Section 104 of the Resource Management Act 1991 (the Act) must be considered by the Hearing Commissioners in making a decision on the resource consent application. Section 3, page 24 of the application sets out some of the relevant provisions that require assessment. The matters contained in Section 104 that in my opinion are of relevance to the application include:

    104(1)a. **Actual and potential environmental effects.** An assessment of the environmental effects is provided by the Applicant and in the section 42A report prepared by Ms Ryan, Messrs Brown and Baker. In the following paragraphs I consider the findings of both the AEE and the s42A technical reports in concluding my overall assessment of the actual and potential ongoing effects of the activities. This assessment is given in Section H of my report.

b.(i) **National Environmental Standards.** There are no National Environmental Standards of relevance to be relevant to authorising the ongoing effects associated with this activity.

b.(ii) **Other regulations.** There are no other regulations that I am aware of which would be considered to be relevant to authorising the ongoing effects associated with this activity.

b.(iii) **Relevant National Policy Statements**. Section J of my report comments on relevant provisions of the NPS for Freshwater Management 2014.

b.(iv) **New Zealand Coastal Policy Statement.** Not relevant to this application.

b.(v) **Relevant Regional Policy Statement**. The Applicant's assessment of the relevant Objectives and Policies of the Regional One Plan Policy Statement is given in Section 3.2, pages 28-32 of the AEE. Section L of my report expands on these provisions.

b.(vi) **Relevant Regional Plan.** The Applicant's assessment of the relevant Objectives and Policies of the Regional One Plan is given in Section 3.3, pages 32-34. Section K of this report expands on the Applicants' assessment.

(c) **Other Matters the Consent Authority Considers Relevant.** The Manawatu Leaders Accord

H. S104(1)(A) ACTUAL AND POTENTIAL EFFECTS

34. Part 1, Section 3 of the Act encompasses a broad definition of what constitutes environmental effects. The Act requires the consideration of both **actual effects** and **possible future effects**. Potential cumulative effects on the environment must be taken into account. In addition, consideration must be given to any potential effect of high probability and any potential effect of low probability which has a high potential impact.

35. The following are considered to be the actual and potential effects that require consideration:

a. Effects on surface water quality from the discharge of treated wastewater to the Makakahi River, including cumulative effects;

b. Effects on groundwater from potential WWTP pond seepage;

c. Odour effects;

d. Effects on recreation and amenity values; and

e. Effects on cultural values.

Actual and Potential Adverse Effects

Effects on Surface Water Quality

36. The discharge of treated wastewater has the potential to cause effects to surface water quality. Appendix I of the application[2] provides the applicant's assessment of the current effects on freshwater quality and ecology. Mr Brown's s42A report further discusses these effects [Section H, para. 53]. Mr Brown's report considers the current effluent quality, quantity and current effects on the receiving environment.

37. The existing consents that the applicant is operating under require that regular monitoring be undertaken to look at the effects of the discharge on the Makakahi River. This monitoring includes:

i. Monthly water quality monitoring of the discharge itself and also in the Makakahi upstream of the discharge point, the Ngatahaka upstream of the Makakahi confluence, and the Makakahi downstream of the WWTP discharge;

ii. Periphyton monitoring every two months in the Makakahi upstream of the discharge point, the Ngatahaka upstream of the Makakahi confluence, and the Makakahi downstream of the WWTP discharge;

iii. Macroinvertebrate monitoring on an annual basis in the Makakahi upstream of the discharge point, the Ngatahaka upstream of the Makakahi confluence, and the Makakahi downstream of the WWTP discharge.

[2] Appendix I – Eketahuna WWTP discharge to the Makakahi River – Summary of current effects on freshwater quality and ecology – Aquanet Consulting Ltd Report

38. It is my understanding of the Eketahuna proposal that a number of upgrades will be undertaken which will result in improvements of the effluent quality. The upgrades (which are yet to occur), are to be based on the upgrades to the Pahiatua WWTP as the two plants will have many of the same components. Mr Brown's report identifies there is limited monitoring data or identification of the expected quality of the wastewater to assess possible potential future effects on water quality instream.

39. The s92 response of 27 February 2017 does not provide much in the way of further clarity in respect of likely effluent quality from the proposed upgrades. Several of the parameters are 'expected' only rather than certain or actual and in Mr Brown's view; do not appear to reflect current results from Pahiatua WWTP.

40. In Mr Brown's view this has made assessing any effects from the proposal difficult. Therefore his assessment is largely based on the current effects of the discharge to the Makakahi River. Mr Brown's report commences this assessment at paragraph 53. His report notes that assessment of the Makakahi at downstream of the Eketahuna STP discharge against the One Plan shows that the current discharge does not met the One Plan targets for SIN, or DRP, but does meet it for ammonia. The Makakahi River upstream of the discharge location meets SIN, DRP and ammonia targets. The Ngatahaka upstream of the confluence with the Makakahi River also does not meet the SIN, DRP targets, but it does meet the ammonia target. It is my understanding that Mr Brown does not consider that non-compliance with One Plan targets at the downstream Makakahi site can be attributed solely to the confounding influence of the Ngatahaka.

41. In respect of *E.coli,* compliance with the 95% is not achieved at any of the above three sites in respect of *E.coli* concentrations as specified in the One Plan. It is my understanding that the current discharge does at times exacerbate *E.coli* levels.

Macroinvertebrate monitoring

42. The previous consent required macroinvertebrate monitoring to be undertaken on an annual basis. Mr Brown notes that the macroinvertebrate communities are of a lower quality downstream of the WWTP discharge into the Makakahi River. His report notes that the reduction in the indices is seen regardless of whether the

control site is in the Makakahi River upstream of the discharge, or if it is in the Ngatahaka upstream of the confluence with the River.

43. The monitoring data collected on 2nd February 2013 shows that the change is a decline of 30.3% and 25.1% between the downstream point and the Ngatahaka and Makakahi control sites respectively.

44. This trend continued in March 2014 with the change being 32.6% in the Ngatahaka and 43% in the Makakahi respectively. The QMCI data on 26th January 2015 was a decline of 19.86 (Ngatahaka) and 43.3 % (Makakahi). The QMCI data on 17th March 2016 is a decline of 15.6% (Ngatahaka) and 18.6% (Makakahi).

45. In Mr Brown's opinion a change to the QMCI greater than 20% equates to evidence of a significant adverse effect as it signifies a significant change in ecosystem processes and indigenous species. This approach has been accepted in previous discharge permits[3] as being appropriate. The approach taken in the Feilding WWTP was accepted by the Environment Court. I am of the view that using the change greater than 20% in QMCI is appropriate in the context of this discharge. Furthermore the changes in QMCI observed in the case of the discharge constitute a significant adverse effect on the life supporting capacity of the aquatic ecosystem.

Periphyton

46. Results of the *chlorophyll a* data collected show that upstream of the discharge the periphyton growth falls within the One Plan target. The Ngatahaka upstream of the confluence exceeds the target by 11.2 mg/m^2 (131.2mg/m^2). The Makakahi downstream of the discharge further increases the exceedance of the One Plan target by another 13.6 mg/m^2, making it a total of 24.8 mg/m^2 (144.8 mg/m^2) above the One Plan target of 120 mg/m^2.

[3] Fonterra Pahiatua Plant Expansion, Hunterville WWTP, Feilding WWTP

Pond seepage/Groundwater interface

47. Mr Baker notes that no conceptualisation or description of the local groundwater environment was provided in the AEE or s92 response. Therefore there is no site specific data in respect to groundwater depth, flow direction or quality.

48. Mr Baker has interpreted the hydrological setting as follows:

    a. Groundwater is likely to be present in an unconfined aquifer beneath the site.

    b. The unconfined aquifer comprises of late Pleistocene river deposits which typically consist of poorly to moderately sorted gravels with sands and silts.

    c. Groundwater flow direction is likely to reflect topography and flow from west to east across the site i.e. from the Golf Course to the river.

    d. Based on the height of the terrace above the river, groundwater is likely to be in the region of 10-15m below the pond level.

    e. Groundwater quality is unknown.

49. Mr Baker's s42A report notes that the historic landfill located to the immediate west of the WWTP may also influence groundwater quality before it discharges to the river. This historic landfill is not monitored.

50. In regards to specific effects on other groundwater users, Mr Baker notes that there is only one know well within a 1km radius of the WWTP on the Regional Council database. This well is located downgradient and on the opposite bank of the Makakahi River to the WWTP. Therefore he is of the view that known groundwater users are unlikely to be at risk from the WWTP groundwater discharge.

51. Mr Baker has assumed that the groundwater beneath the WWTP does discharge indirectly to the river. He is of the view that this diffuse discharge is likely to be indirectly measured as part of the river water monitoring programme.

52. Importantly he notes that leakage from the ponds have not had the full treatment that the pond systems provides, therefore it has the potential to be of a poorer quality than the final treated discharge.

53. He considers that the most likely effects from this discharge would be on instream ecological values of the Makakahi River. These effects are discussed more completely in Mr Brown's s42A report.

54. Mr Baker's view is that as the applicant's intention is to line the ponds, the adverse effects from the groundwater discharge should be limited in duration. As the relining is proposed (although the exact timing is unknown), the installation of monitoring wells to measure impacts from the existing ponds is not warranted.

55. However, that is not to say that a 'do nothing' approach should be taken until the pond is relined. Mr Baker suggests that the applicant to calculate pond leakage on a daily basis, and report this information to the Regional Council on a quarterly basis. His view is that this could be achieved through the monitoring of inflows and outflows and the creation of basic water balance model. To achieve this installation and ongoing operation of flow meters on the influent and effluent lines would be required.

56. If the pond lining installation is not completed within the yet unconfirmed timeframe, a condition could be imposed to require a groundwater monitoring programme to be implemented. This would require the applicant to install a single up-gradient and two down-gradient wells and monitor these on a six-monthly basis for a suite of analytes.

Odour

57. The report of Ms Ryan has considered the potential sources of odour discharge from the WWTP; the controls in place, the potential failure of controls, the odour complaint and compliance history and the mitigation and management required to ensure the potential for objectionable effects from odour is low.

58. Her report notes that odorous compounds can discharge from all operations at the plant, either where untreated wastewater is exposed to air, and/or where wastewater becomes anaerobic. Where oxygen levels drop to zero anaerobic biological activity is promoted, which results in pungent and offensive odorous

compounds, such as hydrogen sulphide and mercaptans. These compounds have a high potential to create adverse effects from odour beyond the site due to their offensive nature and low concentration thresholds for detection in air. In addition stored waste solids by nature are odorous with the potential for anaerobic conditions to occur.

59. Ms Ryan considers that the key aspects that require management and maintenance include:

    a. The primary screen and screenings storage area;

    b. Maintaining the wastewater/effluent in an aerobic state throughout the ponds and the additional treatment stages;

    c. Handling and storage of clarifier sludge; and

    d. Pond desludging and sludge storage and handling activities.

60. She notes that at Eketahuna the dwell times in pipes to the sewerage system is short, which will lower the potential for anaerobic conditions to develop and the subsequent high strength odours.

61. The applicant has indicated that the screening operation will be semi-enclosed, with the screenings discharged into a mobile garbage bin lined with a plastic bag. Ms Ryan is of the view that provided the screen and screenings are enclosed, and the screenings regularly removed, these measures should be adequate to avoid offensive odours from incoming wastewater and solids handling.

62. Ms Ryan has commented on the pond desludging that has been undertaken in the past year, and the consequential storage of the sludge in bio-bags while the dewatering takes place. She has cautioned that if the geotextile bags being used at the site have the potential to generate odour if they are opened to move the sludge material for disposal. She has recommended that management of this potential odour source at the site should be included in a management plan.

63. I consider that for this aspect of the application at least, there is enough information in respect of actual and potential effects, and consequential management that may be required.

64. Ms Ryan's report has indicated some possible areas for consideration in respect of condition formulation. I have incorporated these into my suggested conditions for the discharge to air permit (Appendix 1).

Recreation and amenity values

65. The effects on recreation and amenity values are unknown. The AEE does not describe the degree of human interaction with the environment, and this has been noted as a point of concern in the submission from MidCentral Public Health Services (MCPHS). This submission has asked that the Medical Officer of Health is consulted regarding the options for minimising or eliminating direct human contact with wastewater.

66. Usually conditions are required to ensure appropriate signage is in the vicinity of the final discharge point and at the end of the mixing zone. In this instance I am uncertain of the recreational use of the area, and whether there are any local swimming spots which may be adversely impacted by the current or future discharge. Therefore it would be helpful if the applicant could address this point in the s41B reports. If the recreational use of the area is unknown then it may be prudent that a condition is imposed in order for the applicant to undertake a recreational survey of this area of the River to get a better understanding of the actual river use for recreational purposes. If access to the River is readily achievable within the mixing zone[4] then signage should definitely be required and or maintained.

67. MCPHS may have a further comment on such an approach as I expect would Wellington Fish and Game (F&G).

Effects on cultural values

68. A cultural impact assessment (CIA) has not been undertaken as part of the application. The application (page 35) notes that some consultation that has been undertaken, which included local iwi, however it does not record which local iwi were involved in this consultation. Representatives from Ngati Kahungunu[5] have visited the site. I am not aware if representatives from Te Roopu Taiao o

[4] Noting that any future mixing zone will be different to what is within the existing consent.
[5] Section 5, pg 35 Opus AEE

Ngati Whakatere or Rangitane o Tamaki nui a Rua Inc have visited the WWTP prior to or since the close of submissions.

69. It is clear from the submissions received from the three iwi groups that there is a negative cultural impact and an adverse effect on mauri. Specifically Kahungunu ki Tamaki nui-a-rua note that the application has not taken into account the cultural and spiritual relationships that their hapū have with the Makakahi River or the wider Manawatu catchment. This submission considers that the effects of the discharges on Mauri can only be accurately determined by the hapū of Kahungunu ki Tamaki nui-a-rua. I note that their submission agrees with the 20 year requested duration for the consent.

70. The submission of Te Roopu Taiao o Ngāti Whakatere (TRToNW) opposes the duration requested and requests that a Cultural Impact Report should be commissioned by TDC and completed by TRToNW.

71. The submission of Rangitāne o Tamaki nui a Rua Inc. (RTnaR) strongly objects to any activity that has the potential to cause blemish, pollution and devastation to Papatūānuku. This submission encourages continued work towards the goal of nil discharge to waterways. They consider that a term of 20 years is too long and a 10 year term with 5 yearly reviews would be more appropriate. They request that they are kept informed in respect to the quality and quantity being discharged into waterways.

72. I consider that there will be continuing adverse cultural effects as a result of the discharge. Currently I consider there to be a gap around the actual and potential effects associated with this discharge in regards to effects on Mauri. The three submissions received do indicate that there is an adverse impact on mauri, but that effect remains to be quantified. It is anticipated that evidence presented by Kahungunu ki Tamaki nui-a-rua, TRToNW and RTnaR at the hearing will assist the Commissioners in assessing these effects.

I. NATIONAL ENVIRONMENT STANDARDS

73. Section 104 requires consideration of any NES's that are relevant. I have reviewed the National Environmental Standards for Sources of Human Drinking Water 2007 (NESDW). There are no registered drinking-water supply's located

downstream of either proposed discharge point 1 or proposed discharge point 2. Therefore this standard does not apply.

74. The National Environmental Standards for Assessing and Managing Contaminants in Soil to Protect Human Health (NESCS) applies to certain activities on certain land, including the disturbance of soil on land where an activity described on the Hazardous Substances and Industries List (**HAIL**) is taking place. Wastewater treatment is an activity that is included on the HAIL.

75. As far as I am aware earthworks are not proposed within at the site in respect of the application so I do not consider this standard to be relevant. However, if TDC are to undertake earthworks within the WWTP site to accommodate new treatment infrastructure it will need to comply within the permitted activity requirement contained in Regulation 8(3) of the NESCS.

J. RELEVANT NATIONAL POLICY STATEMENTS

National Policy Statement for Freshwater Management

76. Section 104 requires consideration of National Policy Statements that are relevant. In this case the National Policy Statement for Freshwater Management (2014) is relevant. The application does not include as assessment of the relevant objectives and policies of the NPSFM. However a technical assessment against the NPSFM is contained with Appendix I[6] of the application.

77. The NPSFM outlines a number of national values of freshwater where water is valued for a number of uses, including the cleaning, dilution and disposal of waste. Recognising and respecting fresh waters intrinsic values, such as safeguarding the life-supporting capacity of water is also noted.

78. The NPSFM 2014 states how councils are to set objectives, policies and rules regarding fresh water in their regional plans. They must do this by establishing freshwater management units across their regions and identifying the values that communities hold for the water in those areas, e.g. ecosystem health and recreational values.

[6] ibid

79. Councils are required to gather water quality and quantity information on the water bodies to assess their current state and decide the water quality objective or goal (grouped into A, B or C bands) for each value the community has chosen based on the economic, social, cultural, and environmental impact to that community. The final step is for the community to assess how, and over what timeframes, those goals are to be met.

80. "Ecosystem Health" and "Human Health for Recreation" are compulsory national values and must be provided for everywhere. The NPSFM 2014 now includes nationally-set minimum acceptable states for these two values. There are nine of these and they are called national bottom lines. Seven of these attributes relate to "Ecosystem Health."

81. The national bottom line for Human Health for Recreation is set at a level for wading and boating. Councils are required to consider whether to manage water in rivers and lakes for swimming or any other level above the national bottom line.

82. Councils cannot set an objective below a national bottom line unless:

    i. water quality is naturally below the bottom line, e.g. the effects of the Mount Ruapehu crater lake overflows into the Whangaehu River; or

    ii. significant existing infrastructure such as the hydro-electric power stations, means water quality is below the bottom line

83. I consider that Policy A3(a) is of particular importance, whereby regional councils may impose conditions on discharge permits to ensure the limits and targets specified pursuant to Policy A1 and Policy A2 can be met. Importantly none of the One Plan's Schedule E target values lie below national bottom lines.

84. The NPSFM is a higher order document. The One Plan (Change 1) includes Policy 14-9 which guides any consent decision making requirements from the NPSFM. It is my view that as long as the Commissioner gives due consideration to this Policy (Included in **Appendix two – Planning Provisions**) in their decision making process, then they have had regard to the NPSFM.

K. REGIONAL ONE PLAN POLICY STATEMENT

85. Section 104(b)(i)(v) of the RMA requires consideration of a Regional Policy Statement (RPS), in this case part one of the One Plan. The applicant has provided an assessment of the RPS in the application[7]. While I broadly agree with the objectives and policies identified, I have widened the assessment to include all the objectives and policies that I consider relevant. Rather than repeat the objectives and policies, I have provided commentary of the relevant objectives and policies below and the full text of the provisions are contained within **Appendix two.**

86. It is slightly unclear what version of the One Plan has been used in the application (Proposed or Operative) in regards to the planning assessment. In the interests of clarity, the One Plan became operative on 19 December 2014.

87. Minor amendments were made to the One Plan through Plan Change 1, which came into effect from 28 April 2016. The plan change inserted a new policy (Policy 14-9) and consequential amendments required by Policy the National Policy Statement for Freshwater Management (NPSFM). It also provided the opportunity to correct a number of minor errors that have been identified since the One Plan became operative.

88. This application was lodged in April 2015. Therefore the correct planning instrument in respect of the activity status that applies to the discharges is the One Plan 2014. The correct planning instrument in respect of assessment of objectives and policies is One Plan - Plan Change 1 (2016).

[7] Application, Section 3.2, Page 28

Chapter 2 – Te Ao Maori	
Objective	**Policy**
Objective 2-1: Resource Management	Policy 2-1: Hapū and iwi involvement in resource management Policy 2-3: The mauri of water Policy 2-4: Other resource management issues

89. Policy 2-1 provides some direction in respect of *Hapū** and *iwi** involvement in resource management, including:

> c. development of catchment-based forums, involving the Regional Council, *hapū**, *iwi**, and other interested groups including resource users, for information sharing, planning and research,
>
> d. development, where appropriate, of *hapū** and *iwi** cultural indicator monitoring programmes by the Regional Council, and…
>
> ….
>
> i. the Regional Council advising and encouraging *resource consent*^* applicants to consult directly with *hapū** or *iwi** where it is necessary to identify:
>
> (i) the relationship of Māori and their culture and traditions with their ancestral *lands*^, *water*^, *sites**, *wāhi tapu** and other *taonga** (including *wāhi tūpuna**), and
>
> (ii) the actual and potential adverse *effects*^ of proposed activities on those relationships.

90. Policy 2.3 is very directive and requires the Regional Council to have regard to the mauri of water by implementing Policy 2-1(a) to (i).

91. Under Policy 2.4 specific resource management issues identified as being significant are set out. This is not intended to be an exhaustive list. Policy 2-4 (a) which relates to the management of water quality in the Region and Policy 2.4(d)

relates to access to and availability of clean water to exercise cultural activities is also considered.

92. There is a preference to have the discharge removed from the River, or at the very least to assess alternative disposal options (e.g. land). Based on the submissions received and the issues identified within them, I do not consider that the proposal is fully consistent with the above Objective and Policies.

93. The three iwi submissions received have indicated some willingness to have meaningful and purposeful engagement. What form this may take with this application is unclear, however the submission of Rangitāne o Tamaki nui a Rua Inc (RTnaR) has indicated that they would appreciate being informed through the consent term and receive reports and information generated as consent condition requirements.

94. As the application stands now, it is my view that the effects associated with the 'discharge' are inconsistent with the objectives and policies of Chapter 2 of the One Plan. Potential exists, by way of imposition of consent conditions to address some of these effects. This could go someway to rectifying the nature of the ongoing effects when considering the relevant provisions of this Chapter. Further evidence provided at the hearing from all iwi submitters should help with further assessing this objective and supporting policies.

Chapter 3 – Infrastructure and Energy	
Objective	**Policy**
Objective 3-1: Infrastructure and other physical resources of regional or national importance	Policy 3-1: Benefits of infrastructure and other physical resources of regional or national importance

95. The application has identified the above objective and policy as being relevant to the Eketahuna WWTP. I agree that these provisions are relevant and should be considered. Policy 3-1 clause (viii) specifically lists public or community sewage treatment plants and associated reticulation and disposal systems as infrastructure of regional importance. The focus of these Objectives and Policies require recognition of regionally important infrastructure and the role they play in servicing communities.

96. I consider that the application is consistent with the provisions of this chapter.

Chapter 5 – Water	
Objective	**Policy**
Objective 5-1: Water management values Objective 5-2: Water quality	Policy 5-1: Water management zones and values Policy 5-2: Water quality targets Policy 5-3: Ongoing compliance where water quality targets are met Policy 5-4: Enhancement where water quality targets are not met Policy 5-6: Maintenance of groundwater quality Policy 5-9: Point source discharges to water Policy 5-11: Human sewage discharges to water

97. I largely agree with the objectives and policies identified in the application (section 3.2.2) regarding the relevant water quality provisions. I agree that Policy 5-4 is relevant as from Mr Brown's report it is clear that not all water quality targets (Schedule E) are met. As the proposed discharge quality is unknown it is unclear as to whether the upgrades are going to improve the discharge to the extent that the Schedule E targets are met.

98. The s92 response did not provide any determinative evidence as to what the future water quality may be – hence Mr Brown's comments that he was unable to undertake a comprehensive analysis of the water quality of the discharge following the upgrades.

99. Where the discharge does currently meet the Schedule E targets, then Policy 5-3 is relevant and applies. The discharge (current or future), cannot detract from those targets that are currently being met (as is the case with ammonia).

100. Policy 5-6 deals with maintenance of groundwater quality. This policy is relevant because of the 'pond seepage' consent. Subject to the pond being lined, as detailed in the application, I am satisfied that the application would be consistent with these policies. Mr Baker's report details a fall back position which should be implemented should the pond lining not proceed in a timely fashion.

101. Policy 5-9 relates to the management of point source discharges into water. In respect of this policy I have provided a summary table below.

Policy 5-9: Point source *discharges^* to *water^*		
The management of point source *discharges^* into surface *water^* must have regard to the strategies for surface *water^* quality management set out in Policies 5-3, 5-4 and 5-5, while having regard to:		
(a)	The degree to which the activity will adversely affect the Schedule B Values for the relevant *Water Management Sub-zone**	This is assessed in terms of life supporting capacity more than any of the other values. Mr Brown's evidence establishes that the change in QMCI greater than 20% equates to a significant adverse effect on life-supporting capacity.
(b)	Whether the *discharge^*, in combination with other *discharges^*, including non-point source *discharges^* will cause the Schedule E *water quality targets** to be breached	The QMCI is one of the Schedule E targets. This discharge exceeds that target. In addition, although not solely the result of the discharge, SIN, DRP, and *E.coli* do not met the One Plan targets.
(c)	The extent to which the activity is consistent with *contaminant^* treatment and *discharge^* best management practices	Until the applicant provides effluent quality standards for the discharge it is not possible to assess the application with best management practices.
(d)	The need to allow reasonable time to achieve any required improvements to the quality of the *discharge^*	No timeline has been proposed in the application within which the upgrades will be completed. The application states that the lining will occur in March 2017.
(e)	Whether the *discharge^* is of a temporary nature or is associated with necessary *maintenance^* or *upgrade** work and the *discharge^* cannot practicably be avoided	N/A
(f)	Whether adverse *effects^* resulting from the *discharge^* can be offset by way of a financial contribution set in accordance	It is my view that the if there was greater certainty regarding the final discharge point, effluent quality and volumes post then the adverse effects could

Policy 5-9: Point source *discharges*^ to *water*^ The management of point source *discharges*^ into surface *water*^ must have regard to the strategies for surface *water*^ quality management set out in Policies 5-3, 5-4 and 5-5, while having regard to:	
with Chapter 18	potentially be by mitigated conditions, therefore I do not consider this provision applies.
(g) Whether it is appropriate to adopt the best practicable option.	The application states that the design upgrades are the best practicable option. However in the absence of evidence in respect of final discharge water quality, and in the absence of potential cultural effects, I consider that it is hard to determine if this is the best practicable option. The applicant may be able to present further evidence in this regard.

102. Policy 5-11 is a pivotal policy in respect of WWTP discharges. Policy 5-11 in the ***Proposed*** One Plan included a pathway through this policy if the final discharge was via a rock filter. A rock filter is included in the application as being one of the design components.

103. However, following One Plan mediation, and consequential adoption of the One Plan (2014) the rock filter clause was deleted. Policy 5-11 in the One Plan (2014) remained unchanged by Plan Change 1 (2016).

104. Policy 5-11 now reads

> **Policy 5-11: Human sewage *discharges*^**
>
> Notwithstanding other policies in this chapter:
>
> (a) before entering a surface *water body*^ all new *discharges*^ of treated human sewage must:
>
> (i) be applied onto or into *land*^, or
>
> (ii) flow overland, or
>
> (iii) pass through an alternative system that mitigates the adverse *effects*^ on the *mauri** of the receiving *water body*^, and
>
> (b) all existing direct *discharges*^ of treated human sewage into a surface *water body*^ must change to a treatment system described under (a) by the year 2020 or on renewal of an existing consent, whichever is the earlier date.

105. As this is a renewal of an existing consent, then clause (a) is the relevant clause. Therefore in order to be consistent with this policy the discharge needs to **either** be applied onto or into land (i), or flow overland (ii), or pass through an alternative system that mitigates the adverse effects on the mauri of the receiving water body (iii).

106. Currently the discharge meets none of those clauses.

107. The proposed upgrades are unclear in respect of what component (if any) may fulfil this policy. The s92 response of 27 February 2017 does state that both of the possible new discharge locations will have some form of wetland feature but in the absence of certainty or provision of a wetland design I am of the opinion that either clause (i) or (ii) have been met.

108. It is clear the policy requires consent applicants to consider the effects of a discharge on Mauri. I am of the opinion that the applicant for a wastewater system is better placed consulting with local Iwi to determine a culturally appropriate method of protecting the Mauri as is considered under point (iii) of Policy 5-11.

Chapter 7 – Air	
Objective	**Policy**
Objective 7-1 Ambient air quality	Policy 7-2: Regional Standards for ambient air quality Policy 7-3: Regulation of discharges to air

109. Based on the report of Ms Ryan and my assessment of the above objective and policies, I am satisfied that the potential odour discharge is consistent with these provisions.

L. REGIONAL ONE PLAN

Relevant Objectives and Policies

110. The most relevant chapter to this application in the Regional One Plan is Chapter 14 – Discharges to Land and Water.

Chapter 14 – Discharges to Land and Water	
Objective	**Policy**
Objective 14-1: Management of discharges to land and water and land uses affecting groundwater and surface water quality.	Policy 14-1: Consent decision-making for discharges to water Policy 14-4: Options for discharges to surface water and land Policy 14-8: Monitoring requirements for consent holders Policy 14-9: Consent decision making requirements from the National Policy Statement for Freshwater Management

111. Chapter 14 relates to Discharges to Land and Water. Objective 14-1 seeks to manage discharges and land use activities in a manner which safeguards the life supporting capacity of water and provides for the Values associated with waterbodies, provides for the objectives and policies of Chapter 5 and avoids, remedies or mitigates adverse effects of discharges to land on surface or groundwater.

112. The supporting Policy 14-1 sets out what needs to be considered when making decisions including an assessment against the objectives and policies of Chapter 5. The assessment of Chapter 5 was completed earlier in this report and so is not repeated here. Suffice to say I consider that there are at least two[8] policies of Chapter 5 that the application is inconsistent with.

113. Policy 14-4 requires both the application and decision maker to consider utilising alternative discharge options, or a mix of discharge regimes, for the purpose of mitigating adverse effects, including applying the best practicable option. These matters must be considered and include:

    a. Discharging contaminants onto and into land as an alternative to discharging contaminants to water,

    b. Withholding from discharging contaminants into surface water at time of low flow, and

[8] Policy 5-9 (noting that by necessity this policy was assessed using the 'known' discharge effects) and Policy 5-11

c. Adopting different treatment and discharge options for different receiving environments or at different times (including different flow requires or levels in surface water bodies).

114. The applicant did provide a preliminary investigation report regarding possible land irrigation for the Eketahuna Wastewater as part of the December 2015 s92 response. I am not aware of a more substantive report beyond this.

115. It would be helpful if the s41B report clarifies whether this policy (including clauses (b) and (c) has been considered any further other than what is detailed in the application and s92 response.

116. Policy 14-8 makes it clear that point source discharges of contaminants to water will generally be required to have the volumes discharged measured and telemetered. It also states that monitoring and reporting on the quality of the discharge at the point of discharge as well as the quality of the receiving water upstream and downstream may also be required. The monitoring regime should also align with the Regional Council's environmental monitoring programme where reasonably practicable in order to assess cumulative impacts.

117. I see no reason for these permits (should they be granted) to deviate from this policy. I consider that monitoring of effluent flows as well as a supporting monitoring regime for the discharge should form a part of any possible consent conditions. I note that Mr Baker's report also suggests that monitoring of the influent volume should be required in order to calculate potential seepage volumes.

118. Consideration of Policy 14-9 is required in order to address the requirements of the NPS-FM 14. It was not possible for assessment of this policy to be included in the application, as this policy was not in existence until Plan Change 1 (2016).

119. This policy directs the Regional Council to have regard to the following matters

> (b) When considering any application for a *discharge*^ the Regional Council must have regard to the following matters:
>
> (i) the extent to which the *discharge*^ would avoid contamination that will have an adverse effect on the life-supporting capacity of fresh *water*^ including on any ecosystem associated with fresh *water*^; and

(ii) the extent to which it is feasible and dependable that any more than minor adverse effect on fresh *water*^, and on any ecosystem associated with fresh *water*^, resulting from the *discharge*^ would be avoided.

This clause of the policy does not apply to any application for consent first lodged before the National Policy Statement for Freshwater Management 2011 took effect on 1 July 2011.

(c) When considering any application for a *discharge*^ the Regional Council must have regard to the following matters:

(i) the extent to which the *discharge*^ would avoid contamination that will have an adverse effect on the health of people and communities as affected by their secondary contact with fresh *water*^; and

(ii) the extent to which it is feasible and dependable that any more than minor adverse effect on the health of people and communities as affected by their secondary contact with fresh *water*^ resulting from the *discharge*^ would be avoided.

This clause of the policy does not apply to any application for consent first lodged before the National Policy Statement for Freshwater Management 2014 took effect on 4 July 2014.

120. It is my view that the lack of certainty around the proposed upgrades, the timeline for completion, the discharge volumes, the discharge location, and the discharge quality mean that I cannot address this policy at this point in time.

Chapter 15 – Discharges to Air	
Objective	**Policy**
Objective 14-1: Air quality	Policy 15-2: Consent decision-making for other discharges into air

121. As with the equivalent Chapter in the Regional Policy Statement I am satisfied that the potential odour discharge is consistent with these provisions. In particular I note that clause 15-2 (b) states that regard must be given to the guidelines in Section 15-3 in respect of managing noxious, dangerous, offensive and objectionable effects. The recommendation of Ms Ryan's report suggests what types of conditions are required to manage these possible effects.

122. The final chapter that requires consideration is Chapter 12 – General objectives and policies.

Chapter 12 – General objectives and policies	
Objective	**Policy**
Objective 12-2: Consent duration and review	Policy 12-4: Consent conditions Policy 12-5: Consent durations

123. Chapter 12 sets out general objectives and policies, Policy 12-4 deals with the imposition of consent conditions and Policy 12-5 deals with consent durations.

124. The applicant has sought a term of 20 years. Under this policy consents are generally granted for the term sought by the applicant, other than when providing for a term set under (b) or for other identified reasons makes this inappropriate.

125. Consideration must be given to common catchment expiry dates. Consents should expire or have the ability to be reviewed on these dates and every 10 years thereafter. The common catchment expiry for this Water Management Zone is 1 July 2010. As this date is within 3 years prior to the next relevant catchment date (1 July 2020) the policy states that an expiry date of 1 July 2030 may be granted.

126. To grant a date beyond this the Commissioner's must consider the following criteria set out in (i) through (iv), I have assessed each of these below.

    (i) I am not aware of directly relevant codes of practice or good practice guidelines in respect of WWTP's

    (ii) In balancing environmental protection and investment by the applicant, to my mind there uncertainty with regards to the scale of potential effects, particularly on the Makakahi River (acknowledging that the upgrades should result in an improvement over and about what the River currently experiences). I have not seen evidence as to what the existing investment made by the applicant is in relation to the storage ponds or overall asset management.

(iii) This clause provides for review conditions to be imposed. I am of the view that review clauses are an important tool in the resource management process, and should be used.

(iv) Clause (iv) does allow for consideration of a longer consent term for sewage treatment plants.

127. Clause (c) of policy 12-5 provides direction as to matters that should be taken into account when considering shorter consent durations. To my mind there is significant uncertainty within the application and s92 responses in respect of proposed upgrade timeframes, final discharge volumes, final discharge location, and final discharge quality which would warrant a consent term of less than 20 years.

128. I make a comment on possible permit duration at Section O of this report. The duration I have suggested is reflective of the discussions held at the pre-hearings. However I cannot unequivocally say that all parties present at the pre-hearings were or remain in agreeance with this suggested term.

Rule Framework

129. All the permits are regulated by regional rules that are discretionary in nature and are subject to 104 (B) of the Act. As the Panel is well aware this provides the ability to either grant or refuse the application; and should it determine that the application can be granted, conditions can be imposed under s108.

130. As noted previously, although this application was lodged under the One Plan (2014), the rule status for each of the permits was unchanged by One Plan Change 1 (2016).

Relevant Rule		
Activity	**Relevant Rule**	**Status**
Discharge of treated wastewater to Water	Rule 14-30 – Discharges of water or contaminants to land or water not covered by other rules in this Plan or chapter	Discretionary
Discharge of treated wastewater to land where it may enter water (pond seepage)	Rule 14-30 – Discharges of water or contaminants to land or water not covered by other rules in this Plan or chapter	Discretionary
Discharge to Air (odour)	Rule 15-17 – Other discharges	Discretionary

M. OTHER MATTERS - SECTION104(C)

Manawatu River Accord

131. The goal of the Accord is to improve the mauri of the Manawatu River catchment, such that it sustains fish species, and is suitable for contact recreation, in balance with the social, cultural and economic activities of the catchment community. The specific goals of the Accord are:

    a. The Manawatū River becomes a source of regional pride and mana.

    b. Waterways in the Manawatū Catchment are safe, accessible, swimmable, and provide good recreation and food resources.

    c. The Manawatū Catchment and waterways are returned to a healthy condition.

    d. Sustainable use of the land and water resources of the Manawatū Catchment continues to underpin the economic prosperity of the Region

132. Tararua District Council is a signatory to the Accord. The aspirational target of the 2011 Action Plan was that this application would be resolved within 12 months of the Accord Action Plan becoming operative (2011). The revised goal of the 2016 Action Plan was that the current consent application would be resolved as per RMA timeframes. In this instance timeframes have been

extended, however these have all been done by utilizing the s37 procedures of the RMA.

133. In considering possible conditions and length of term I am of the view that there is a good deal of alignment between the One Plan policies and the Accord. Economic concerns must be balanced against other concerns. This is one reason why I consider it necessary to know the effects of the upgraded discharge itself and balance the findings against the cost of further mitigation. The conditions I have suggested, should the Commissioner's consider there is enough information tabled to make an informed decision support the intent of the Accord.

N. SECTION 105

134. Section 105 requires the applicant to consider the effects of the discharge on the receiving environment, reasons for the proposed choice and consideration of alternatives.

135. The applicant provides an outline of alternatives considered in Section 1.11 of the application. These alternatives included;

a. Land disposal;

   The application notes that land disposal has been considered for the site, and that a preliminary report was commissioned. This report was provided in the s92 response of December 2015.

b. Alternative treatment configurations;

   The application details four different alternative treatment configurations. The preferred option was Option 2 which was the use of a conventional clarifier with ferric sulphate and T floc dosing. I expect that the s41B reports will reconfirm that this is the preferred option.

c. Alternative discharge location;

   The application states that shifting the discharge location to directly upstream of the Ngatahaka Stream was considered by discounted. However the s92 response of February 2017 indicates that there are two possible discharge locations into the Makakahi River (Option 1 and

Option 2). The report of Mr Brown considers that Option 1 will not provide comparable monitoring sites upstream and downstream of the discharge.

O. SECTION 107

136. Section 107 of the RMA notes the restrictions on the granting of a discharge permit. A consenting authority shall not grant a discharge if, after reasonable mixing, the contaminant discharged is likely to give rise to any of the following:

a) *The production of conspicuous oil or grease files, scums or foams, or floatable or suspended materials;*

b) *Any conspicuous change in the colour or visual clarity;*

c) *Any emission of objectionable odour;*

d) *The rendering of freshwater unsuitable for consumption by farm animals;*

e) *Any significant adverse effects on aquatic life.*

137. The application comments that further assessment regarding s107 matters will be possible once the 'refined effluent quality data is available.'

138. While I have included possible conditions to address s107 matters in Appendix 1, in the absence of the knowledge of the final effluent quality, I cannot be certain that these effects will be avoided. I do acknowledge that the current discharge has not recorded the matters of s107 (condition 11 in the existing consent) as being of issue in the recent compliance reports[9].

P. PART 2 ASSESSMENT

139. This report does not provide an analysis of the application against particular matters that appear in Part 2 RMA. I have taken this approach because I am aware of the recent High Court authority (*R J Davidson Family Trust v Marlborough District Council*) to the effect that consideration of an application under s 104 of the RMA does not permit general recourse to Part 2 RMA ***unless*** the relevant provisions of the planning instruments to be considered under s 104

[9] I can provide the most recent compliance reports (September 2015 – Site visit and November 2015 – Report), should the Commissioner's like to view them.

RMA are invalid, incomplete or uncertain (this is the Supreme Court's approach from the *King Salmon* Decision).

140. My analysis of the relevant provisions of the One Plan is that, in my opinion, there is complete coverage of relevant resource management considerations in the One Plan, and that those provisions point to an outcome with little uncertainty[10]. I am also unaware of any challenges to validity of the relevant provisions. Accordingly, in my opinion, recourse to Part 2 RMA is not necessary in this case.

141. I further understand that until such time as there are any appeals to higher courts and any subsequent decision/s, that the approach as confirmed by the High Court is the one to be followed.

142. Given the recent release of the High Court decision, it may be that Commissioner's would like to hear from the parties as to the application of the approach I have set out above

143. This approach is different to how I have previously addressed the relationship of a Part 2 assessment under section 104 in the preparation of Section 42A Reports. Therefore if the Commissioner's would prefer that I undertake a Part 2 analysis, then I can present this by way of supplementary evidence to the hearing.

Q. CONSENT DURATION

144. The One Plan identifies common catchment expiry dates and in this case, the Mangatainoka common catchment expiry is set at 2010.

145. Policy 12-5 of the One Plan to provide guidance on the duration of the consents. In this instance the applicant has sought a term of 20 years for all three permits.

[10] Acknowledging that the provision of information in the s41B reports may refine my view on the application of the One Plan provisions.

Chapter 12 – General objectives and policies	
Objective	**Policy**
Objective 12-2: Consent duration and review	Policy 12-4: Consent conditions Policy 12-5: Consent durations

146. In this case, it is considered that a term of 20 years is inappropriate. In my opinion there is too much uncertainty on the level and extent of the effects to warrant a consent term of this length for this application. Neither does this application fulfil the requirements of Chapter 2, Policy 5-9, Policy 5-11 and potential some provisions of Chapter 14. This, together with the uncertainty around the effects of the proposal, it is considered that 20 years is unjustifiably long.

147. Should the Panel be of a mind to grant this application based on the information included in the s42A reports, the applicant s41 B reports and submitter evidence (expert and layperson), I am of the view that the consent should have a duration of no more than **5 years**.

R. CONCLUSION

148. It is my view that there is not enough clarity or information in the application, or in either of the s92 responses to allow me to make an unequivocal recommendation to the Commissioner in respect of the granting of this application.

149. There are gaps regarding the final discharge location point, there is no certainty regarding effluent quality, and neither the influent and effluent volumes are known. In regards to a possible land discharge, although this was alluded to in the s92 response of 27 February 2017 it is unclear what exact 'form'[11] that may take.

[11]Tthe comment in the s92 response of 27 February referred to either smaller bunded wetland areas or a larger wetland

150. Not withstanding the above, and bearing in mind that the applicant is in a position to address some of these matters in the s41B reports, I have provided conditions in Appendix 1 to assist the Commissioner's.

Descriptive Specification

1. The activity authorised by these permits shall be undertaken in general accordance with the concepts, parameters, drawings, specifications, statement of intent, proposed mitigation measures and other information supplied in the application received on 1 April 2015 and supplementary documents received:
   a. On 11 December 2015, being a response to the s92 further information request of June 2015; and
   b. On 27 February 2017, being a response to the s92 further information request of November 2016.

   Where the application is inconsistent with the requirements of the conditions, the conditions will prevail.

2. The wastewater discharge authorised by these permits shall be limited to:
   a. A maximum 12 month rolling median daily (midnight to midnight) discharge of [**applicant to indicate**] cubic metres;
   b. A maximum discharge of 3,200 cubic metres peak wet weather flow,

   at approximate map reference NZMS 260T25-380-594/NZTopo50 BN35:280-977.[1]

Environmental Standard

3. **Within two years of commencement** of these permits**,** the permit holder shall have achieved the requirements of Policy 5-11 by either ensuring the discharge is
   (i) being applied onto or into land, or
   (ii) flowing overland, or
   (iii) passing through an alternative system that mitigates the adverse effects on the mauri of the receiving water body.

Monitoring Provision

4. **Within [xx] months of commencement** of these permits, the permit holder shall install signage advising Makakahi River users that treated wastewater is being discharge into the location[2].

[1] May require updating depending on discharge location
[2] Greater specificity is required as to where the placement of signage should be but until the final discharge location is known I am unable to indicate this.

5. Within five years of commencement of these permits, the permit holder shall have **completed** an investigation into alternative methods of treatment and discharge, including land based disposal. The alternative disposal feasibility study shall inform the permit holder's decision on the best practicable option for treatment and disposal from the Eketahuna Wastewater Treatment Plant. The findings of the feasibility study shall be provided to the Tararua District Wastewater Forum (TDWF), and to the Regulatory Manager of the Manawatu-Wanganui Regional Council.

6. **Within twelve months of commencement** of these permits, the permit holder shall have completed a recreational user's investigation of the Makakahi River **[xx]** kilometres upstream and **[xx]** kilometres downstream of the discharge point and mixing zone[3].

7. The permit holder shall inspect the Sewage Treatment Plant at least once weekly for the term of these permits for the purpose of attending to all operational requirements, monitoring and maintenance. A record of these visits and any maintenance undertaken shall be kept in a log book, available to the Manawatu-Wanganui Regional Council's Consents Monitoring Officer upon request.

8. **By 31 October of each year**, the Consent Holder shall provide the Manawatu-Wanganui Regional Council's Consents Monitoring Team and the Tararua District Wastewater Forum (TDWF), an Annual Environmental Report for the 12 month period ending 30 June. The monitoring report shall include but shall not be limited to:
   a. A summary of analyses and records collected in accordance with conditions of these permits, including all sampling conditions;
   b. A summary of the daily inflow and outflow volumes for the oxidation ponds including a comment on the relative volumes;
   c. An assessment of the analyses and records;
   d. An assessment of the effects on both groundwater and surface water including an assessment of those water quality analyses under Conditions [xx], [xx], and [xx] and against any relevant targets in Schedule E of the One Plan.
   e. A report on the effects of the discharge on the benthic biota of the Makakahi River as required by condition xx of the discharge to water permit
   f. A comment on the extent to which conditions of these permits have been complied with;
   g. A record of any complaints that are received relating to the operation of the Oxidation ponds;

[3] Signage may be required to be shifted depending on any outcomes from this report.

h. Report on trends as a result of permit monitoring.

9. **Within 3 months** of these permits commencing, the Permit Holder shall install a pond level sensor alarm.

10. **Within 3 months** of these permits commencing, the Permit Holder shall install a high level alarm.[4]

Tararua District Wastewater Forum (TDWF)

11. The permit holder shall initiate the inaugural meeting of the Tararua District Wastewater Forum **(TDWF)** on or before 31 October in the year either or both of the Pahiatua (APP-1993001253.02) or Eketahuna application (APP-2005011178.01) commence.

ADVICE NOTE: The inaugural TDWF meeting shall be initiated following commencement of the earliest application to be authorised.

12. The permit holder shall secure the services of an independent facilitator who is responsible for facilitating discussions any time the forum meets.

13. The permit holder shall, for all TDWF's, provide the venue and administrative support, including but not limited to recording attendees recording and circulating notes and outcomes discussed at the forum.

14. Two weeks prior to hosting any meeting of the TDWF, the permit holder shall by way of formal correspondence issue invitations to the following parties:
    a. Kahungunu ki Tamaki nui-a-rua Trust and Rangitane o Tamaki nui a Rua Inc,
    b. Water & Environmental Care Ass. Inc,
    c. Water Protection Society Inc,
    d. MIdCentral District Health Board,
    e. Manawatu Estuary Trust,
    f. Wellington Fish and Game ,
    g. John Bent, Christina Paton, Te Roopu Taiao o Ngati Whakatere, Corny and Charlotte Andrews,
    h. A representative of Horizons Regional Council as the Regulatory Authority,
    i. A representative of the Tararua District Council as the permit holder, and
    j. Manawatu River Accord participants.

[4] These two conditions require further development including what pond level would trip a trigger e.g. how full the pond is and the corresponding warning alarm. It would be best if the applicant provided what these levels would be.

15. In addition to condition 14 above, the permit holder shall place in the Manawatu Standard and the Bush Telegraph a public notice advising of the date, time, location and purpose of the TDWF meeting.

16. The permit holder shall ensure that at least one TDWF shall occur annually.

ADVICE NOTE: Meeting frequency can be amended if participants in the TDWF agree.

Review

17. The Manawatu-Wanganui Regional Council may, pursuant to section 128 of the Act, initiate a review of any conditions of these permits in the month of **July 2018 and July 2021**. Any review shall be for the purpose of reviewing the effectiveness of the conditions in avoiding, or mitigating any adverse effects on the environment, which may arise as a result of the exercise of this permit. The review of conditions shall be for the purpose of:
    a. The modification of the monitoring programme, including reviewing the frequency of the monitoring or the determinants required;
    b. Requiring compliance with any relevant rule of an operative Regional Plan;
    c. The amendment, deletion or addition of new conditions as necessary to avoid, remedy or mitigate any adverse effect on the environment but not limited to conditions to mitigate adverse effects attributed to any breach of any condition;
    d. Addressing any adverse effects on the environment which may arise that are appropriately addressed at a later stage;
    e. Requiring the permit holder to adopt the best practicable option to remove or reduce any adverse effects on the environment;
    f. Requiring the permit holder to adopt the best practicable option to remove or reduce any adverse effects on the environment;
    g. Assessing the performance of the wastewater treatment plant in terms of the quality of the effluent being discharged to the receiving environment;
    h. Reviewing the effectiveness of the standards in the conditions of this permit in addressing the adverse effects on the Makakahi River;
    i. The review may result in any of the following outcomes to ensure that any adverse effects are appropriately mitigated:
        i. The deletion or amendment of any conditions of the permits;
        ii. The addition of new conditions of consent including conditions imposing more stringent discharge quality standards or more stringent receiving water standards;-

iii. The addition of new conditions requiring the permit holder to adopt the best practicable option;-

iv. Achieving an outcome that arises from a review that is initiated by the equivalent

ADVICE NOTE: Any review exercised under this condition may result in the wastewater discharge volume and / or rate being reduced and / or restricted, or further restrictions being placed on the discharge volume and / or rate during low flow conditions.

Duration

18. These permits shall expire on **1 July 2023**.

Pre-Development Assurance

1. **Within two months** of the granting of this permit**,** the permit holder shall provide an Odour Operation and Management Plan (OMP) for certification to the Regulatory Manager of the Manawatu-Wanganui Regional Council. The purpose of the OMP shall be to detail the measures the permit holder intends to take to avoid and mitigate the potential for odour from the wastewater treatment plant and ponds. The Operation and Management Plan shall include, but not be limited to the following:
    a. Details of regular inspections, plant maintenance and cleaning as required to avoid offensive odours;
    b. Responsibilities of on-site staff;
    c. Monitoring procedures;
    d. Contingency procedures in the event of equipment failures;
    e. A complaints procedure including;
        i. Provision of a 24 hour telephone contact number,
        ii. A stated commitment by the permit holder to respond to odour complaints within a specified time period,
        iii. Actions to be taken by the permit holder to verify complaints
        iv. Provision for recording the responses made by the permit holder to complaints, and
        v. Records of actions taken by the permit holder to address the sources of any verified odour
    f. Management procedures for storage and handling of primary screenings and other solid wastes handling; and
    g. Procedures for monitoring and managing pond sludge levels to minimize the risk of upset conditions in the ponds resulting in offensive odours.

Environmental Standards

2. The discharge to air authorised by this consent shall not cause the emission of odour that, in the opinion of the Manawatu-Wanganui Regional Council's Consents Monitoring Officer, is offensive or objectionable at or beyond the property boundary of the Eketahuna Wastewater Treatment Plant site.

    ADVICE NOTE: When considering the objectionableness of odour, the Manawatu-Wanganui Regional Council will take into consideration the FIDOL factors: frequency, intensity, duration, offensiveness and location.

3. The Consent Holder shall keep a complaints register to record complaints relating to discharges of odour or contaminant gases to air arising from the Wastewater Treatment Plant. The register shall include:
   a. The details of the complainant if given;
   b. The location of where the contaminant, e.g. odour, was detected;
   c. A description of the wind speed and direction when the alleged adverse effect was detected by the complainant;
   d. The date and time of the detection;
   e. The most likely cause of the discharge detected;
   f. The dissolved oxygen levels in both ponds; and
   g. If applicable, any corrective action undertaken by the Consent Holder to avoid, remedy or mitigate the adverse environmental effect detected by the Complainant.

4. The Consent Holder shall advise the Manawatu-Wanganui Regional Council's Consents Monitoring Team within 24 hours of any complaints relating to air discharges being received.

5. A copy of information recorded in the complaints register shall be included in the Annual Environmental Report required by condition 8 of the General Conditions. The Annual Environmental Report shall be provided to the Regulatory Manager by **31 October** of each year.

6. The permit holder shall continuously monitor Dissolved Oxygen in the wastewater storage ponds and ensure that the Dissolved Oxygen measurement is at or above 0.5 mg/L.

7. In the event that any dissolved oxygen measurement is less than 0.5 mg/L, the consent holder shall take appropriate action to raise the dissolved oxygen as necessary to avoid the occurrence of an incident likely to cause non-compliance with condition 2.

8. The consent holder shall advise the Consents Monitoring Team at least fourteen (14) days prior to undertaking any pond desludging works. The consent holder shall include as part of this advice, notice to the Regional Council of the method or methods proposed for sludge removal, the likely duration of the activity and the methods that will be used to manage the discharge of odour that has the potential to cause non-compliance with condition 2.

Environmental Standards

1. **Within three months** of commencing this permit, the Consent Holder shall monitor, calculate and record the daily rate of leakage from the WWTP pond system to groundwater. This leakage rate shall be determined based on a water balance calculation incorporating monitored daily WWTP pond influent and effluent flows and daily climate data (rainfall and evaporation).

2. The Consent Holder shall provide daily Pond Seepage rate data, as monitored and calculated in accordance with consent condition 2 above, on a quarterly basis, in a format that is compatible with the Manawatu-Wanganui Regional Council data system.

3. **By 1 July 2018,** all wastewater treatment ponds must have a lining with a permeability not exceeding 1 $x10^{-9}$ m/s

4. Following completion of the pond lining as required by condition 3, the Consent Holder shall undertake six monthly monitoring of a sub-liner drainage/leakage detection system.

Monitoring Provision

5. Samples collected under Condition 4 shall be analysed for the following parameters:
   a. Total Phosphorus (TP)
   b. Dissolved Reactive Phosphorus (DRP)
   c. Total Nitrogen (TN)
   d. Nitrate Nitrogen (NO3-N)
   e. Nitrite Nitrogen (NO2N)
   f. Ammoniacal Nitrogen (NH$-N)
   g. Escherichia coli (E. coli)
   h. Dissolved oxygen (field measurements)
   i. Electrical Conductivity (EC) (field measurements)
   j. Chloride
   k. Static water level
   l. pH (field measurement and laboratory measurement)
   m. Soluble Carbonaceous Biological Oxygen Demand (ScBOD5)

6. Results of this monitoring shall be transferred within ten working days of their receipt to the Manawatu-Wanganui Regional Council in a format compatible with the Manawatu-Wanganui Regional Council systems.

7. The results from the monitoring required by condition 5 of this permit shall be collated, analysed and interpreted and included in the Annual Report, as required by condition 8 in the General Conditions.

Post-development Assurance

8. Should the consent holder not achieve Condition 3 (the pond lining condition) by 1 July 2018, a plan to install and monitor groundwater at one up-gradient and two down-gradient monitoring wells will be provided to Manawatu-Wanganui Regional Council for approval. Groundwater shall be monitored six-monthly for the suite of analytes listed in 5 above and shall commence no later than **1 September 2018**.

Definitions:	
$cBOD_5$	Carbonaceous five days Biochemical Oxygen Demand
$ScBOD_5$	Soluble Carbonaceous five days Biochemical Oxygen Demand
NH_4-N	Ammoniacal Nitrogen
NO_xN	Total oxidised nitrogen
TN	Total Nitrogen
TSS	Total Suspended Solids
DRP	Dissolved Reactive Phosphorous
E.coli	*Escherishia coli*
g/m^3	Grams per cubic metre

Environmental Standards

1. **Until 1 July 2018,** the treated wastewater shall meet the following standards:

   a. The concentration of Ammonical-nitrogen (NH_4-N) shall not exceed 4 g/m^3 in more than 8 out of 12 consecutive samples, and no more than 11 g/m^3 in more than 2 out of 12 consecutive samples;

   b. The concentration of soluble carbonaceous BOD5 (sCBOD5) shall not exceed 3 g/m^3 in more than 8 out of 12 consecutive samples; and no more than 6 g/ m^3 in more than 2 out of 12 consecutive samples

   c. The concentration of total suspended solids shall not exceed 21 g/m^3 in more than 8 out of 12 consecutive samples, and no more than 27 g/m^3 in more than 2 out of 12 consecutive samples.

   ADVICE NOTE: Compliance shall be based on grab samples taken immediately downstream of the UV treatment plant.

2. **Until 1 July 2018,** the treated wastewater shall meet the following standards in the Makakahi River as measured at "Makakahi at Hamua" flow recording station is at or below the 20^{th} flow exceedance percentile flow:

   a. The concentration of *E.coli* shall not exceed 490 MPN/100ml in more than 8 out of 12 samples, and no more than 4,700 MPN/100ml in more than 2 out of 12 consecutive samples.

b. The concentration of DRP shall not exceed 0.5 g/m^3 in more than 8 out of 12 samples, and no more than 2 g/m^3 in more than 2 out of 12 consecutive samples.

3. **By 1 July 2018,** the treated wastewater shall meet the following standards:

a. The concentration of Ammonical-nitrogen (NH_4-N) shall not exceed 4 g/m^3 in more than 8 out of 12 consecutive samples, and no more than 11 g/m^3 in more than 2 out of 12 consecutive samples;

b. The concentration of soluble carbonaceous BOD_5 ($sCBOD_5$) shall not exceed 3 g/ m^3 in more than 8 out of 12 consecutive samples; and no more than 6 g/m^3 in more than 2 out of 12 consecutive samples

c. The concentration of total suspended solids shall not exceed 15 g/m^3 in more than 8 out of 12 consecutive samples, and no more than 30 g/m^3 in more than 2 out of 12 consecutive samples.

ADVICE NOTE: Compliance shall be based on grab samples taken immediately downstream of the UV treatment plant.

4. **By 1 July 2018,** the treated wastewater shall meet the following standards in the Makakahi River as measured at "Makakahi at Hamua" flow recording station is at or below the 20th flow exceedance percentile flow:

a. The concentration of *E.coli* shall not exceed 50 MPN/100ml in more than 8 out of 12 samples, and no more than 200 MPN/100ml in more than 2 out of 12 consecutive samples.

b. The concentration of DRP shall not exceed 0.5 g/m^3 in more than 8 out of 12 samples, and no more than 0.7 g/m^3 in more than 2 out of 12 consecutive samples.

ADVICE NOTE: Compliance with condition 4 will be based on the flow at the "Makakahi at Hamua" flow recording station is less than 8,293 l/s. Compliance shall be based on grab samples taken immediately downstream of the UV treatment plant.

5. **By 1 July 2018,** all wastewater discharge into the Makakahi River shall pass through the primary screening unit, the oxidation ponds, rock filter and be treated by the UV disinfection unit.

6. The UV disinfection unit shall be equipped with a UV sensor to monitor UV transmission or intensity through the wastewater during operation.

7. The UV sensor shall be monitored continuously, with an alarm notifying the consent holding is the applied UV intensity is operating ineffectively.

Receiving Water Quality

8. The treated wastewater discharge shall not cause any of the following in the Makakahi River at the river flows outlined in Table 1, and after the reasonable mixing distance of 330 metres:

    a. the production of any conspicuous oil or grease films, scums or foams, or floatable or suspended materials; or

    b. bacterial and / or fungal slime growths visible to the naked eye as plumose growths or mats; or

    c. any emission or objectionable odour; or

    d. any conspicuous change in colour or clarity; or

    e. render the receiving water unsuitable for consumption by farm animals; or

    f. a more than minor adverse effect on aquatic life; or

    g. a change in horizontal visibility, defined as the horizontal sighting range of a black disc, by more than 20%; or

    h. the DO concentration to fall below 80 % saturation; or

    i. the ammoniacal nitrogen (NH_4-N) concentration to exceed 2.1 grams per cubic metre at any time, or to exceed 0.4 grams per cubic metre on an rolling annual average ; or

    j. the average POM concentration to exceed 5 g/m^3 at flows below median; or

    k. the *Chlorophyll a*. to exceed 120 mg/m^2 on more than 8% of sampling occasions, on the basis of monthly measurements taken over a period of at least 36 months; or

    l. the Chlorophyll a levels to move between bands as prescribed by the Freshwater NPS 2014, on the basis of monthly measurements taken over a period of at least 36 months; or

    m. the cover of filamentous mats greater than 2 cm long to exceed 30% or cover of mats greater than 3mm thick to exceed 60%; or

    n. a reduction in QMCI of greater than 20%; or

    o. the concentration of toxicants to exceed the trigger values for freshwater for the protection of 99% of species (ANZECC 2000); or

    p. the soluble carbonaceous BOD_5 concentration due to dissolved organic compounds (that is, material passing through a GF/C filter) to exceed 1.5 g/m^3 at flows below the 20^{th} FEP.

Table 1

Condition	Contaminant or Effect (abbreviated, for reference only)	River Flows	Zone of Reasonable Mixing downstream
(a)	Films, scums, foams	All	330 metres
(b)	Bacterial/fungal slime growths	All	330 metres
(c)	Objectionable odour	All	330 metres
(d)	Conspicuous colour or clarity change	All	330 metres
(e)	Unsuitable for farm animals	All	330 metres
(f)	Effects on Aquatic Life	All	330 metres
(g)	Horizontal visibility	All	330 metres
(h)	Dissolved Oxygen	All	330 metres
(i)	Ammonia-nitrogen	All	330 metres
(j)	Particulate organic matter	At or below the median	330 metres
(k ,l)	Periphyton biomass	All	330 metres
(m)	Periphyton cover	All	330 metres
(n)	QMCI	All	330 metres
(o)	Toxicants	All	330 metres
(p)	Soluble carbonaceous BOD_5	At or below the 20th FEP	330 metres

ADVICE NOTE: The River flows in Table 1 are those measured at the "Makakahi at Hamua" water level recording station and the 20th flow exceedance percentile at the station is 8,293 l/s.

9. If the consent holder is unable to comply with any of the limits in Condition 8 due to the upstream exceedances, the consent holder shall use a Wilcoxon Signed Rank test to determine if there are any significant increases or decreases that are having adverse effects. If it is determined that there are significant adverse effects occurring, it will be considered as a non-compliance with the respective limit.

ADVICE NOTE: To perform the statistical test, analysis needs to be against a minimum of 12 upstream and downstream paired results from the monthly sampling.

Effluent Monitoring

10. To enable the sampling of the treated wastewater, easy and safe access to a sampling port(s) shall be provided by the Consent Holder and maintained as close as is practicable to those sampling locations specified in condition 17.

11. The consent holder shall take monthly grab samples of the wastewater downstream of the UV treatment unit and the samples shall be analysed for the constituents and at the frequencies listed in Table 2 to assess compliance with Condition 8 and 9 of these consents.

12. **Within three months** of commencement of these consents**,** the consent holder shall have a flow meter installed, by an accredited installer. The installer must ensure the flow meters are located on the inflow and outflow line. The flow meters must have a pulse counter output traceably calibrated to +/- 5 % or better. The flow meter shall be capable of providing daily inflow and discharge volumes use as well as a pulse counter output. The flow meter shall be positioned to measure the entire volume of treated sewage effluent discharge into the surface water of the Makakahi River discharged under authorisation of these consents.

13. The consent holder shall ensure the flow meter required by Condition 12, is installed by an Irrigation New Zealand Blue Tick accredited installer and be installed in accordance with the standards set out in the Ministry for the Environment Guidelines *Resource Management (Measurement and Reporting of Water Takes) Regulations 2010*.

14. **Within three months of** commencement of these consents, the consent holder shall install and maintain, in a fully operational condition, a GPRS data logger / telemetry unit compatible with the Manawatu-Wanganui Regional Council's Telemetry system on the discharge line traceable to +/- 5 % or better.

    ADVICE NOTE: This unit, which is attached to the pulse counter output, will be monitored by the Manawatu-Wanganui Regional Council to ensure compliance with the resource consent conditions.

15. Where telemetry equipment fails for reasons other than fair wear and tear, replacement or repair will be at the consent holder's expense and replacement will be required within seven days.

16. With the exception of network power failure or network maintenance the consent holder shall ensure that power supply is maintained at the site at all times.

    ADVICE NOTE: If power supply is lost at the site due to consent holder negligence or abuse and telemetry units require recalibration by Manawatu-Wanganui Regional Council staff the costs associated will be recovered from the consent holder.

River Monitoring

17. The consent holder shall take samples from the Makakahi River at approximately T25:380-592; BN35:280-975 90 metres upstream (Site A) and at approximately T25:383-595; BN35:283-977 330 metres downstream (Site B) of the discharge point to the Makakahi River, and a sample of the discharge at the Discharge Point as shown on **Plan APP-200511178.01 A**[5] attached to and forming part of these consent conditions. The samples shall be analysed for the constituents and at the frequency listed in Table 2 to assess compliance with Condition 8 of these consents.

Table 2: Effluent and River Monitoring

Constituent	Wastewater - Monthly	River - Monthly
$cBOD_5$	X	X
$ScBOD_5$	X	X
Dissolved oxygen		X
NH4-N	X	X
Nitrite	X	X
Nitrate	X	X
TN	X	X
TSS	X	X
Turbidity		X
Horizontal visibility (black disc)		X
Particulate organic matter	X	X
DRP	X	X
Total Phosphorus	X	X
E.coli	X	X
pH		X
Conductivity		X
Temperature		X

ADVICE NOTE: pH, temperature, horizontal visibility and dissolved oxygen shall be measured on site, directly in the River.

ADVICE NOTE: It is preferable that the downstream sample is collected before the upstream sample so that disturbed sediment does not impact the downstream sampling result.

18. All wastewater and river water quality analysis shall be undertaken by an appropriate accredited laboratory. All methodologies adopted shall be appropriate for either

[5] This will be updated depending on discharge location

wastewater or river water analyses respectively and the soluble $CBOD_5$ shall be GF/C filtered. The methodologies shall be determined in consultation with the Manawatu-Wanganui Regional Council's Regulatory Manager.

19. The consent holder shall have an appropriately experienced and qualified freshwater ecologist undertake macroinvertebrate sampling in the Makakahi River. The macroinvertebrate assessment shall be undertaken following a period of at least three weeks without a significant flood event (defined as an instantaneous river flow exceeding three times the median flow, defined as 9.54 m^3/s in the Makakahi River at Hamua) and during a period of low flow (at least one week below ½ median flow in the Makakahi River at Hamua defined as 1.59 m^3/second).

20. The locations of the assessments and sampling are shown on **Plan APP-200511178.01 A** as Site A, and Site B and as detailed below:

    a. the Makakahi River at a site located in the reach 200 metres upstream of the discharge point to the Makakahi River (Site A); and

    b. The Makakahi River at a site located in the reach 100 metres to 330 metres downstream of the discharge point to the Makakahi River (Site B); and

21. Macroinvertebrate sampling referred to in Condition 19 is to be undertaken **annually** between **January to March** inclusive when a discharge is occurring. The macroinvertebrate sampling shall follow Protocols C3 (Hard-bottomed quantitative), P3 (full count with subsampling option) and QC3 (Quality control for full count with subsampling option) from the Ministry for the Environment's "protocols for sampling macroinvertebrates in wadeable streams" (Stark et al. 2001). This shall involve:

    a. collection of 5 replicate 0.1 m^2 Surber samples at random within a 20 m section of riffle habitat at each sampling site.

    b. full count of the macroinvertebrate taxa within each replicate sample to the taxonomic resolution level specified for use of the Macroinvertebrate Community Index (MCI).

    c. enumeration of the results as taxa richness, MCI, QMCI, %EPT taxa and %EPT individuals.

22. The consent holder shall have an appropriately experienced and qualified freshwater ecologist undertake monthly assessments of the percentage cover, biomass, chlorophyll a, AFDW and community composition of periphyton, filamentous algae and cyanobacterial mats in riffle habitat, as close as possible to the sites selected under Condition 19 above regardless of flows. The periphyton and algae assessment is to include:

    a. a visual assessment of the percentage cover of both filamentous algae and algal mats (to the nearest 5%) at 5 points across each of four transects

encompassing riffle habitat, and extending across the width of the river at each sampling site. The visual monitoring methods shall follow the protocols outlined in Appendix 2 of "A periphyton monitoring plan for the Manawatu-Wanganui Region" (Kilroy et al. 2008). Reported estimates shall include:

i. percentage cover of visible stream or river bed by bacterial and/or fungal growths (sewage fungus) visible to the naked eye;

ii. percentage cover of visible stream or river bed by filamentous algae more than 2 cm long;

iii. percentage cover of visible stream or river bed by diatoms or cyanobacteria mats more than 0.3 cm thick;

iv. percentage cover of visible stream or river bed by diatoms less than 0.3 cm thick; and

v. percentage cover of visible stream or river bed that is clean.

b. the collection of a periphyton sample at the same established monitoring sites and transects as defined in Condition 19 above, using method QM-1b from the Stream Periphyton Monitoring Manual (Biggs & Kilroy 2000). Analysis of periphyton samples shall follow the Biggs & Kilroy (2000) guidelines for *chlorophyll a* analysis.

23. The consent holder shall advise the Manawatu-Wanganui Regional Council's Regulatory Manager if the absence of low flow conditions prevent the monitoring required by Conditions 19, 21 and 22 within five days of a decision being made that the monitoring cannot be undertaken.

Operational Restrictions

24. **Within three months** of commencement of these consents, the consent holder shall arrange safe access to sampling sites consistent with the requirements of Conditions 17 and 19 of these consents. Such safe access shall be maintained at all times for the duration of these consents, with the exclusion of times when high flows in the River may render access hazardous.

Post-Development Assurance

25. At least once every five years, or earlier if there is an unexplained increase in flows, the Consent Holder must review records of wastewater flows received at the treatment plant to ensure there has been no unexplained increase in flows (based on

a five year running average) that could adversely affect treatment plant performance. The results of the review must be included in the next annual monitoring report to the Regulatory Manager. In the event that the review shows that unexplained increased flows could result in adverse effects on treatment plant performance, the permit holder must investigate the reasons for the unexplained increased flows and put in place remedial works as necessary. In the event there is disagreement between the permit holder and consent authority in relation to the need for investigations and/or remedial works, the permit holder must commission an independent review by a suitably qualified expert acceptable to the consent authority.

26. The consent holder shall notify the Manawatu-Wanganui Regional Council's Environmental Protection Manager within two working days of any non-compliance occurring or when it becomes certain that a breach of consent conditions is about to occur. For conditions requiring compliance with a particular water quality standard, notification is required within two working days of receipt of the water quality analysis from the Laboratory.

Monitoring Provision

27. The consent holder shall make results of monitoring undertaken required by Conditions 17 and 19 of these consents available to the Manawatu-Wanganui Regional Council's Regulatory Manager on request, and data records for each three month period ending March, June, September and December shall be forwarded to Manawatu-Wanganui Regional Council's Regulatory Manager in a suitable electronic format, within 14 days after the end of each three monthly period.

28. At least six months prior to the assessment of water quality being required pursuant to condition 29 the permit holder shall engage an independent panel comprising three appropriately qualified and experienced scientists:

    a one scientist nominated by the permit holder;
    b one scientist nominated by Manawatu-Wanganui Regional Council; and
    c one independent scientist (and, for these purposes, an independent scientist shall exclude any person who has presented evidence to the hearing of this permit).

    Should the engagement of any of the appointed scientists cease the party who nominated that scientist shall nominate a further appropriately qualified and experienced replacement.

29. The independent panel engaged pursuant to Condition 28 shall, no later than 5 years following the upgrades are completed, undertake an assessment of the water quality,

periphyton, and macroinvertebrate monitoring data collected during the monitoring periods.

The assessments shall:

a. examine the effects of the discharge on the Schedule B values identified in the One Plan for this reach of the Makakahi River;
b. Consider any reports received from the Liaison Group;
c. Consider the results of macroinvertebrate and periphyton monitoring undertaken in accordance with Conditions 19, 20, 21 and 22;
d. Consider past and likely future compliance with Conditions 3 and 4.
e. Provide recommendations on the monitoring frequency and monitoring parameters for the remainder of the permit;
f. Provide recommendations on any changes required to the discharge regime, and effluent quality (including nutrient concentrations and loads discharged to the Makakahi River),so as to minimize adverse effects on the One Plan's Schedule B values for the Makakahi River.
g. The findings of the independent panel's assessment shall be submitted to the Regulatory Manager and the **TDWF** by **1 July 2022**.

30. **By 31 July** each year commencing **31 July 2017** the consent holder shall prepare a report that summarises and assesses all of the monitoring information required under Conditions 17, 19, 21 and 22 of these consents. The provision of this report should be included in the Annual Environmental Report required by condition 8 of the general conditions..

31. The Report required by condition 30 will be provided to the Manawatu-Wanganui Regional Council's Regulatory Manager by **31 October** of each year.

A. REGIONAL POLICY STATEMENT

2 Te Ao Māori[1] - Resource Management Issues of Significance to *Hapū** and *Iwi**

Objective 2-1: Resource management

Whāinga 2-1: Te whakahaere rauemi

(a) To have regard to the *mauri** of *natural and physical resources*^ to enable *hapū** and *iwi** to provide for their social, economic and cultural wellbeing.

Kia aro atu ki te mauri o ngā rauemi māori - ōkiko hoki - hei oranga hapori, ōhanga hoki, tikanga hoki mō ngā hapū me ngā iwi.

(b) *Kaitiakitanga*^ must be given particular regard and the relationship of *hapū** and *iwi** with their ancestral *lands*^, *water*^, *sites**, *wāhi tapu** and other *taonga** (including *wāhi tūpuna**) must be recognised and provided for through resource management processes.

Ka mate ka tino arohia te kaitiakitanga, ā, ka mate ka whakamanatia te hononga o ngā hapū me ngā iwi ki ō rātou whenua tūpuna, wai, papa, wāhi tapu hoki me ētahi atu taonga (pērā i ngā wāhi tūpuna), ā, ka whakaratongia mā ngā tukanga whakahaere rauemi.

Policy 2-1: *Hapū** and *iwi** involvement in resource management

Kaupapa 2-1: Te whakauru mai o ngā hapū me ngā iwi ki roto i te whakahaere rauemi

The Regional Council must enable and foster *kaitiakitanga*^ and the relationship between *hapū** and *iwi** and their ancestral *lands*^, *water*^, *sites**, *wāhi tapu** and other *taonga** (including *wāhi tūpuna**) through increased involvement of *hapū** and *iwi** in resource management processes including:

Ka mate ka tutuki i te Kaunihera ā-Rohe - ka atawhaitia hoki - te kaitiakitanga me te hononga o ngā hapū me ngā iwi ki ō rātou whenua tūpuna, wai, papa, wāhi tapu hoki me ētahi atu taonga (pērā i ngā wāhi tūpuna) mā te piki ake o te whakauru mai o ngā hapū me ngā iwi ki roto i ngā tukanga whakahaere rauemi, arā, ko:

(a) memoranda of partnership between the Regional Council and *hapū** or *iwi** which set clear relationship and communication parameters to address resource management objectives,

ngā manatū rangapū i waenga i ngā hapū me ngā iwi hei whakatakoto i te āhua o te hononga me te whitiwhiti kōrero hei whakatutuki i ngā whāinga whakahaere rauemi,

(b) recognition of existing arrangements and agreements between resource users, local authorities and *hapū** or *iwi**,

[1] Te Ao Māori - The Māori World.

te aro atu ki ngā whakaritenga me ngā whakaaetanga kei te tū tonu i waenga i ngā kaiwhakamahi rauemi, ngā mana takiwā, me ngā hapū, iwi rānei,

(c) development of catchment-based forums, involving the Regional Council, *hapū**, *iwi**, and other interested groups including resource users, for information sharing, planning and research,

te whakarite wānanga ā-takiwā e whai wāhi ai te Kaunihera ā-Rohe me ngā hapū, ngā iwi, me ētahi atu tira whai pānga pērā i te hunga whakamahi hei tuari pārongo, hei whakatakoto mahere hoki, rangahau anō hoki,

(d) development, where appropriate, of *hapū** and *iwi** cultural indicator monitoring programmes by the Regional Council,

te whakahiato a te Kaunihera ā-Rohe i ngā kaupapa aroturuki tohu tikanga - hapū mai, iwi mai hoki - i ngā wā e tika ana,

(e) assistance from the Regional Council to *hapū** or *iwi** to facilitate research, projects, seminars and training,

te tuku āwhina a te Kaunihera ā-Rohe ki ngā hapū, iwi rānei ki te whakahaere rangahau, kaupapa hoki, awheawhe hoki, whakangungu hoki,

(f) development of *joint management agreements*^ between the Regional Council and *hapū** or *iwi** where appropriate,

te whakahiato whakaaetanga whakahaere ngātahi i waenga i te Kaunihera me ngā hapū, iwi rānei e tika ana,

(g) the Regional Council having regard to *iwi management plans** lodged with Council,

te aro atu a te Kaunihera ā-Rohe ki ngā mahere whakahaere ā-iwi kua tukuna ki te Kaunihera,

(h) involvement of *hapū** or *iwi** in *resource consent*^ decision-making and planning processes in the ways agreed in the memoranda of partnership and *joint management agreements*^ developed under (a) and (f) above, and

te whakaurunga o ngā hapū, iwi rānei ki roto i ngā tukanga whakatau whakaaetanga rauemi i runga i ngā tikanga i whakaaetia i roto i ngā manatū rangapū me ngā whakaaetanga whakahaere ngātahi i whakahiatongia i raro i te (a) me te (f) kei runga nei, me,

(i) the Regional Council advising and encouraging *resource consent*^ applicants to consult directly with *hapū** or *iwi** where it is necessary to identify:

te mahi a te Kaunihera ā-Rohe ki te tuku aratohu, ki te akiaki i ngā kaitono whakaaetanga rauemi ki te kōrerorero me ngā hapū, iwi rānei e tika ana kia tautuhia:

(i) the relationship of Māori and their culture and traditions with their ancestral *lands*^, *water*^, *sites**, *wāhi tapu** and other *taonga** (including *wāhi tūpuna**), and

te hononga o te Māori ki tōna ahurea me ngā tikanga e pā ana ki ngā whenua tūpuna, ngā wai, ngā papa, ngā wāhi tapu me ētahi atu taonga (pērā i ngā wāhi tūpuna), me

(ii) the actual and potential adverse *effects*^ of proposed activities on those relationships.

ngā pānga kino ki aua hononga mai i ngā ngohe ka marohitia - ka whakatinanahia, ka pāngia kinotia pea hoki.

Policy 2-3: The *mauri** of *water*^

Kaupapa 2-3: Te mauri o ngā wai

(a) The Regional Council must have regard to the *mauri** of *water*^ by implementing Policy 2-1 (a) to (i) above and by restricting and suspending *water*^ takes in times of minimum flow consistent with Policy 5-18 in Chapter 5.

Ka mate ka aro atu te Kaunihera ā-Rohe ki te mauri o ngā wai mā te whakamahi i Kaupapa 2-1 (a) ki (i) kei runga nei, me te whakatiki, te aukati hoki i te tango wai i ngā wā o te wai rere iti noa e ai ki Kaupapa 5-18 kei te Wāhanga 5.

(b) In exceptional circumstances the Regional Council, following advice and guidance of *hapū** or *iwi** and consultation with potentially affected resource users, may facilitate a voluntary *rāhui** - temporary cessation of resource activities (with the exception of *public water supply**).

I ngā wā tino rerekē ka tūāpā te Kaunihera ā-Rohe i tētahi rāhui tūao - i runga i ngā tohutohu me ngā tohu ārahi a ngā hapū me ngā iwi, me te kōrerorero tahi me ngā kaiwhakamahi rauemi ka pāngia pea - mō te aukati taupua i ngā ngohe whakamahi rauemi (hāunga ko te puna wai mō te iwi whānui.

Policy 2-4: Other resource management issues

Kaupapa 2-4: Ētahi take whakahaere rauemi anō

The specific issues listed in 2.2 which were raised by *hapū** and *iwi** must be addressed in the manner set out in Table 2.1 below.

Ka mate ka whakatauria ngā take motuhake e rārangitia ana ki 2.2, kua whakaarahia e ngā hapū me ngā iwi Māori, i runga hoki i te takoto o Table 2.1 kei raro nei.

Table 2.1 highlights issues of significance to the Region's *hapū** and *iwi**, provides explanations in the context of Māori belief and demonstrates how the Regional Council must address these matters. The issues and explanations do not in any way represent a complete picture of *hapū** and *iwi** concerns, but they offer possible explanations as to the depth of feeling and connection *hapū** and *iwi** have with the Region's natural resources.

Ka tīpako a Table 2.1 i ngā take hirahira ki ngā hapū me ngā iwi o te Rohe, ka whakamārama hoki i runga i te whakaaro Māori, ā, ka whakaatu ka pēhea te Kaunihera ā-Rohe e whakatutuki pai i ēnei take ka tika. Ehara i te mea mā ngā take me ngā kōrero whakamārama kei konei e whakaatu i te katoa o ngā māharahara o ngā hapū me ngā iwi. Heoi, ko tāna he tuku whakamārama pea mō te kaha o te whakaaro aroha me ngā hononga o ngā hapū me ngā iwi ki ngā rauemi māori o te Rohe.

Table 2.1 Resource management issues of significance to *hapū and *iwi****

Ngā Take Whakahaere Rauemi e Hirahira ana ki ngā Hapū me ngā Iwi

Resource issue of significance to *hapū and *iwi** ***He take rauemi e hirahira ana ki ngā hapū me ngā iwi***	**Resource issue in the context of *tikanga Māori^* *He take rauemi me te tikanga Māori***	**Relevant part of One Plan where issue is addressed *Te wāhanga o te One Plan ka kōrerotia te take***
(a) Management of *water^* quality and quantity throughout the Region does not provide for the special qualities significant to Māori. *Kāore te whakahaeretanga o te kounga me te nui o te wai huri noa i te Rohe i te whakarato wāhanga ki ngā āhuatanga e hirahira ana ki te Māori.*	***Mauri**** ***Mauri*** Wai Māori (pure water) is essential to *hapū** and *iwi** in the Region to ensure activities conducted for cultural purposes, such as spiritual cleansing, baptismal rituals and food gathering, are achievable. *He mea nui te Wai-Māori ki ngā hapū me ngā iwi o te Rohe kia hua ai ka taea te whakatutuki i ngā mahi tikanga Māori pērā i te whakanoa, te tohi, me te kohikohi kai.* *Mauri** acts as a balancing agent to ensure the life-supporting qualities within the *water^* are maintained. *Ko tā te Mauri he whakatautika kia hua ai ka puritia tonutia ngā āhuatanga tuku oranga o te wai.* Human activities, application of impure agents, loss of *water^* capacity, and *contaminants^* all affect the ability of the *mauri** to perform its role effectively, therefore resulting in a standard of *water^* not suitable for *hapū** and *iwi** to perform their relevant *tikanga Māori^* or cultural activities associated with its use. *Ka pāngia kinotia te mauri me tōna āhei ki te whakatutuki pai i tōna kaupapa e te mahi a te tangata me te whakamahi mea paruparu, te mimiti o te wai hoki, me te uru mai o ngā paru kino. Ko te hua he wai kāore i te pai ki ngā hapū me ngā iwi hei whakatutuki i ō rātou tikanga e pā ana ki te whakamahi i te wai.*	Surface *water^* quality *Te kounga o te wai mata* Chapter 2 - Te Ao Māori Objective 2-1 Policy 2-3 Chapter 2 Methods Chapter 5 - Water Objective 5-1 Policy 5-1 Chapter 5 Methods Rules, Chapter 14 - Discharges to Land and Water *Wāhanga 2 - Te Ao Māori* *Whāinga 2-1* *Kaupapa 2-3* *Ngā mahi kei Wāhanga 2* *Wāhanga 5 - Wai* *Whāinga 5-1* *Kaupapa 5-1* *Ngā mahi kei Wāhanga 5* *Ngā ture kei Wāhanga 14 - Te Tuku Parakaingaki ki te Whenua me ngā Wai*

Resource issue of significance to *hapū and *iwi** *He take rauemi e hirahira ana ki ngā hapū me ngā iwi***	**Resource issue in the context of *tikanga Māori^* *He take rauemi me te tikanga Māori***	**Relevant part of One Plan where issue is addressed *Te wāhanga o te One Plan ka kōrerotia te take***
(b) *Hazardous substances^* and nitrate run-off need to be better managed to avoid *contaminants^* entering *water^*. *Me pai ake te whakahaere matū mōrearea me ngā rerenga pākawa ota hei pare i te uru o ngā paru kino ki roto i ngā wai.*		Surface *water^* quality *Te kounga o te wai mata* Chapter 5 - Water Objective 5-2 Policy 5-8 Chapter 5 Methods Rules, Chapter 14 - Discharges to Land and Water *Wāhanga 5 - Wai* *Whāinga 5-2* *Kaupapa 5-8* *Ngā mahi kei Wāhanga 5* *Ngā ture kei Wāhanga 14 - Te Tuku Parakaingaki ki te Whenua me ngā Wai*
(c) *Lakes^* and streams (for example, Punahau/Waipunahau (Lake Horowhenua and Hokio Stream) have suffered degradation which continues and are considered culturally unclean. *Kua hemo haere ngā roto me ngā manga (hei tauira, ko Punahau/Waipunahau, arā, ko Lake Horowhenua me te manga o Hokio) i te whakakinotanga - kei te mahia tonutia hoki, ā, kua pokea te tapu.*		Surface *water^* quality *Te kounga o te wai mata* Chapter 5 - Water Objectives 5-1 and 5-2, Policies 5-1 to 5-5 and 5-8 to 5-10 Chapter 5 Methods Rules, Chapter 14 - Discharges to Land and Water *Wāhanga 5 - Wai* *Whāinga 5-1 and 5-2* *Kaupapa 5-1 ki 5-5 me 5-8 ki 5-10* *Ngā mahi kei Wāhanga 5* *Ngā ture kei Wāhanga 14 - Te Tuku Parakaingaki ki te Whenua me ngā Wai*

Resource issue of significance to *hapū and *iwi** *He take rauemi e hirahira ana ki ngā hapū me ngā iwi***	**Resource issue in the context of *tikanga Māori^* *He take rauemi me te tikanga Māori***	**Relevant part of One Plan where issue is addressed *Te wāhanga o te One Plan ka kōrerotia te take***
(d) Access to and availability of clean *water^* to exercise cultural activities such as food gathering and baptismal rituals have diminished. *Kua mimiti haere te putanga ki te wai me te wātea o te wai mō te hāpai i ngā tikanga pērā i te kohikohi kai, te tohi tamariki, te mea, te mea.*		Surface *water^* quality *Te kounga o te wai mata* Chapter 5 - Water Objective 5-2 Policies 5-2 to 5-11 Chapter 5 Methods *Wāhanga 5 - Wai* *Whāinga 5-2* *Kaupapa 5-2 ki 5-11* *Ngā mahi kei Wāhanga 5*
(e) Marae groundwater bore supply is affected in some areas during seasonal drought. *I ngā wā kōpaka o te tau ka pāngia ngā poka waiopapa o ngā marae i roto i ētahi takiwā.* (f) Excessive groundwater abstractions can adversely affect *water^* and existing groundwater users. *Mā nui rawa o te waiopapa ka tangohia e raru ai te wai me ngā kaiwhakamahi wai o nāianei.*	**Manaakitanga (hospitality)** ***Manaakitanga*** The hau kainga (home people) will always ensure the essential needs of their manuhiri (visitors) are accommodated during their stay at the marae, whether it be for hui (social gatherings), tangihanga (funerals), or wānanga (learning institutions). This is a sign of *mana**. *Ahakoa he hui, he tangihanga, he wānanga rānei, i ngā wā katoa ka manaakitia te manuhiri e te hau kāinga i runga i ngā marae. He tohu whai mana tēnei.* In some circumstances, *water^* shortages have affected the ability to meet these needs. *I ētahi wā, nā te iti o te wai, kāore i taea te whakarato hei whakaea i ēnei matea.*	*Water^* allocation *Te tuaritanga o te wai* Chapter 5 - Water Objective 5-3 Policy 5-21 Chapter 5 Methods *Wāhanga 5 - Wai* *Whāinga 5-3* *Kaupapa 5-21* *Ngā mahi kei Wāhanga 5*
(g) *Water^* diversion from one catchment to another is considered culturally abhorrent. *Ko te whakaaro he mea kiriweti te whakataha i te rere noa a te wai mai i tētahi takiwā ki tētahi atu takiwā.*	***Mauri**** ***Mauri*** *Hapū** and *iwi** may have differing views on the diversion of *water^* from one catchment to another. If more information is required on the issue of diverting *water^* from one catchment to another, consultation with the relevant *hapū** or *iwi** may clarify their position on this matter. *Kei tēnā hapū, kei tēnā iwi ōna ake whakaaro pea mō te whakataha wai mai i tētahi takiwā ki tētahi atu takiwā. Ki te pīrangitia ētahi pārongo anō e pā ana ki te take nei o te whakataha wai mai i tētahi takiwā ki tētahi atu takiwā, mā te kōrerorero tahi me ngā hapū, iwi rānei ka whai pānga e whakamāramatia ō rātou whakaaro mō tēnei take.*	*Water^* diversions *Te whakataha wai* Refer to rules regarding *water^* diversion in Chapter 16 - Takes, Uses and Diversions of Water, and Bores *Tirohia ngā ture e pā ana ki te whakataha wai kei roto i Wāhanga 16 - Te Tango, te Whakamahi, me te Whakataha Wai, Poka hoki*

Resource issue of significance to *hapū and *iwi** *He take rauemi e hirahira ana ki ngā hapū me ngā iwi***	**Resource issue in the context of *tikanga Māori*^ *He take rauemi me te tikanga Māori***	**Relevant part of One Plan where issue is addressed *Te wāhanga o te One Plan ka kōrerotia te take***
(h) Sewage disposed to *water*^, in treated form or otherwise, is culturally abhorrent. Land-based treatment is preferred. *Ko te whakaaro he mea kiriweti te tuku parakaingaki - ahakoa kua tangohia ngā paru, aha rānei - ki roto i ngā wai. Pai kē ake te whakapai ki uta.*	**Mahi tautara (sewage waste)** There are serious physical and spiritual connotations to *hapū** and *iwi** associated with human sewage *discharge*^ to *water*^. The act of doing so intentionally is, in itself, regarded as poke - an act of spiritual and physical uncleanliness (this term may vary between *iwi**). Land-based treatment of sewage is preferred. *Ki ngā hapū me ngā iwi Māori, arā ētahi āhuatanga taha ōkiko, taha wairua hoki e pā ana ki te tuku rukenga parakaingaki tangata ki roto i ngā rerenga wai. He poke, arā, he whakaparu wairua, he whakaparu ōkiko hoki te āta mahi pērā (ka rerekē pea te whakamahi a tēnā iwi, a tēnā iwi i tēnei kupu). Pai kē ake te whakapai ki uta.* The physical and spiritual effects on *hapū** and *iwi** can be wide-ranging. The best method of avoiding these effects is the prevention of direct *discharge*^. *Maha kē ngā pānga ōkiko me ngā pānga a-wairua ki ngā hapū me ngā iwi. Ko te tikanga kia āraia te tuku rukenga ki roto tonu i te wai hei pare i ngā pānga.*	Sewage *discharge*^ *Te rukenga parakaingaki* Chapter 5 - Water Objective 5-2 Policy 5-11 Chapter 5 Methods Rules, Chapter 14 - Discharges to Land and Water *Wāhanga 5 - Wai* *Whāinga 5-2* *Kaupapa 5-11* *Ngā mahi kei Wāhanga 5* *Ture, Wāhanga 14* *Te rukenga parakaingaki ki te Whenua me te Wai*

Resource issue of significance to *hapū and *iwi** *He take rauemi e hirahira ana ki ngā hapū me ngā iwi***	**Resource issue in the context of *tikanga Māori*^ *He take rauemi me te tikanga Māori***	**Relevant part of One Plan where issue is addressed *Te wāhanga o te One Plan ka kōrerotia te take***
(i) More riparian retirement and planting is needed to protect *river*^ banks from erosion. Several *iwi** believe harakeke (flax) would provide the most desirable outcome. *Ko te tikanga me whakarite wāhi whakatū rākau, me whakatō rākau hoki, hei whakamarumaru i ngā parenga i te horo whenua. Ko te whakapono o ētahi iwi mā te harakeke e tutuki pai ai tēnei.* (j) *Land*^ management plans need to be encouraged to ensure consistent *land*^ management practices Region-wide. *Me kaha akiaki te whakatakoto mahere whakahaere pāmu kia hua ai ngā tikanga rite mō te whakahaere whenua.* (k) Adverse *effects*^ of *land*^ use continue to have a detrimental *effect*^ on traditional food gathering areas, native habitats and ecosystems. *Mā te whakamahi i te whenua me ōna pānga e raru ai tonu ngā wāhi nō mai rānō ka kohikohia he kai, ngā nohonga taketake me ngā pūnaha rauropi.*	**Manaaki whenua (nurturing the *land*^)** ***Manaaki whenua*** *Hapū** and *iwi** would like to see more measures put in place to plant *river*^ banks throughout the Region to avoid bank erosion and silt build-up in *rivers*^. Harakeke (common New Zealand flax) would be the ideal choice. *Ko te pīrangi o ngā hapū me ngā iwi kia whakatauria he ritenga mō te whakatō tupu ki ngā parenga o ngā awa huri noa i te rohe hei pare i te horo whenua o ngā pārengarenga me te pikinga o te parahua i roto i ngā awa. Ko te harakeke te tupu tino pai rawa atu mō tēnei mahi.* *Land*^ management plans give *hapū** and *iwi** more certainty that landowners have an holistic *land*^ use management approach. *Mā ngā mahere whakahaere whenua ngā hapū me ngā iwi e āta mōhio ai kei ngā kaipupuri whenua tētahi tikanga whakahaere e manaakitia ai te whenua.* Traditional food gathering *sites** and associated native habitats and ecosystems are valued very highly by Māori. *He mea tino whai wāriu e te Māori ngā wāhi nō mai rānō ka kohikohia he kai, me ngā nohonga taketake, me ngā pūnaha rauropi hoki.*	Surface *water*^ quality *Te kounga o te wai mata* Chapter 5 - Water Objective 5-2 Policy 5-8 Rules, Chapter 14 - Discharges to Land and Water and *Water*^ Quality Standards in Schedule D *Wāhanga 5 - Wai* *Whāinga 5-2* *Kaupapa 5-8* *Ture, Wāhanga 14* *Te rukenga parakaingaki ki te Whenua me te Wai Taumata Kounga kei roto i te Pukapuka Āpiti D* *Land*^ use management *Te whakahaere i te whakamahi whenua* Chapter 4 - Land Objective 4-1 Policy 4-1 Chapter 4 Methods Rules, Chapter 13 - Land Use Activities and Indigenous Biological Diversity *Wāhanga 4 - Whenua* *Whāinga 4-1* *Kaupapa 4-1* *Ngā mahi kei Wāhanga 4* *Ture, Wāhanga 13 - Ngohe Whakamahi Whenua me te Kanorau Koiora Taketake*

Resource issue of significance to *hapū and *iwi** *He take rauemi e hirahira ana ki ngā hapū me ngā iwi***	**Resource issue in the context of *tikanga Māori*^ *He take rauemi me te tikanga Māori***	**Relevant part of One Plan where issue is addressed *Te wāhanga o te One Plan ka kōrerotia te take***
(l) The removal, destruction or alteration of *wāhi tapu** and *wāhi tūpuna** by inappropriate activities continues to have a detrimental *effect*^ on those *sites** and upon *hapū** and *iwi**. *Ka pāngia kinotia tonu ngā wāhi, me ngā hapū me ngā iwi hoki - i te tango, te wāwāhi, te whakarerekē rānei i ngā wāhi tapu me ngā wāhi tūpuna.*	***Wāhi tapu** and *wāhi tūpuna**** ***Wāhi tapu me ngā wāhi tūpuna*** *Hapū** and *iwi** view *wāhi tapu** and *wāhi tūpuna** as western cultures view cemeteries and churches - as locations that are a significant part of history which require protection and preservation. *Wāhi tapu** are *sites** that remain tapu (sacred), given the nature of their location and purpose. *Ki tā te hapū titiro - ki tā te iwi titiro hoki - āhua rite te wāhi tapu ki tā tauiwi titiro e pā ana ki ō rātou urupā, whare karakia hoki, arā, me whakamarumaru, me tiaki hoki ngā wāhi pērā ka tika. Te mutunga iho ka noho tapu tonu aua wāhi tapu i runga i te āhua o aua wāhi me te kaupapa o aua wāhi.* Ancient urupā (burial *sites**) are prominent throughout the Region and their locations more often than not remain the intellectual property of *hapū** or *iwi** members charged with keeping them safe from harm. *Maha kē ngā urupā o nehe huri noa i te Rohe. Te nuinga o te wā nō ngā hapū me ngā iwi ake te mōhio kei hea aua wāhi nei, ā, nō rātou hoki te kawenga kia tiaki i aua wāhi tapu kia noho haumaru.*	*Land*^ use management *Te whakahaere i te whakamahi whenua* Chapter 4 - Land Objective 4-1 Policy 4-1 Chapter 4 Method Rules, Chapter 14 - Discharges to Land and Water *Wāhanga 4 - Whenua* *Whāinga 4-1* *Kaupapa 4-1* *Ngā mahi kei Wāhanga 4* *Ture, Wāhanga 14* *Te rukenga parakaingaki ki te Whenua me te Wai* Chapter 6 - Indigenous biological diversity, landscape and historic heritage Objective 6-3 Policies 6-11 and 6-12 Method 6-10 *Wāhanga 6 - Kanorau Koiora Taketake, tohu whenua, hītori tuku iho* *Whāinga 6-3* *Kaupapa 6-11 me 6-12* *Mahi 6-10* Rules and *conditions*^ protecting *wāhi tapu** throughout the Plan. *Ngā ture me ngā tikanga puta noa i te Mahere hei whakamarumaru i ngā wāhi tapu*

Resource issue of significance to *hapū** and *iwi** *He take rauemi e hirahira ana ki ngā hapū me ngā iwi*	Resource issue in the context of *tikanga Māori*^ *He take rauemi me te tikanga Māori*	Relevant part of One Plan where issue is addressed *Te wāhanga o te One Plan ka kōrerotia te take*
(m) The transfer of indigenous plants from *rohe** to *rohe** is considered culturally unnatural. *Kāore i te tika ki te whakaaro ahurea Māori te whakawhiti tupu taketake mai i tētahi rohe ki tētahi atu rohe.*	**Tapu (sacred)** ***Tapu*** The transfer of indigenous plants from one *rohe** to another can result in the cross-pollination of plants native to a particular *rohe**, affecting elements of tapu. The act of artificially cross-pollinating plants including trees or removing and planting them away from their points of origin is not common practice to *hapū** and *iwi**. Ideally they would like the integrity of each *rohe** preserved in its natural state. *Ka pāngia rawatia ētahi āhuatanga o te tapu e te whakaaiai whitiwhiti i ngā tupu taketake mai i tētahi rohe ki tētahi atu rohe. Ehara i te mahi māori noa ki ngā hapū me ngā iwi te whakaaiai whitiwhiti i ngā tupu, pērā i ngā rākau, te tango i ērā mai i tētahi rohe me te whakatō ki wāhi kē. Ko tō rātou pīrangi ake kia tiakina te rohe kia tūturu tonu te taiao.* *Hapū** and *iwi** are advocating for assistance via policy and funding to protect the integrity of indigenous plants and animals from human activity and pest plants and pest animals. *Kei te tohe tonu ngā hapū me ngā iwi kia tautokona ā-kaupapa nei, ā-putea nei hoki te whakamarumaru i te ngā tupu taketake me te aitanga kararehe i ngā mahi a te tangata, ngā otaota, me ngā orotā.*	Chapter 6 - Indigenous biological diversity, landscape and historic heritage Objective 6-1 Policies 6-1 to 6-5 Chapter 6 Methods Rules, Chapter 13 - Land Use Activities and Indigenous Biological Diversity *Wāhanga 6 - Kanorau koiora taketake, tohu whenua, hītori tuku iho* *Whāinga 6-1* *Kaupapa 6-1 ki 6-5* *Ngā mahi kei Wāhanga 6* *Ture, Wāhanga 13 - Ngohe Whakamahi Whenua me te Kanorau Koiora Taketake*
(n) Indigenous plants and animals continue to be under increased threat by human and pest activity. *Kei te whakawetia tonutia ake ngā tupu taketake me te aitanga kararehe taketake e te mahi a te tangata me te orotā.*		Indigenous *biological diversity*^ *Te kanorau koiora taketake* Chapter 6 - Indigenous biological diversity, landscape and historic heritage Objective 6-1 Policies 6-1 to 6-5 Chapter 6 Methods Rules, Chapter 13 - Land Use Activities and Indigenous Biological Diversity *Wāhanga 6 - Kanorau koiora taketake, tohu whenua, hītori tuku iho* *Whāinga 6-1* *Kaupapa 6-1 ki 6-5* *Ngā mahi kei Wāhanga 6* *Ture, Wāhanga 13 - Ngohe Whakamahi Whenua me te Kanorau Koiora Taketake*

Resource issue of significance to *hapū** and *iwi** *He take rauemi e hirahira ana ki ngā hapū me ngā iwi*	Resource issue in the context of *tikanga Māori^* *He take rauemi me te tikanga Māori*	Relevant part of One Plan where issue is addressed *Te wāhanga o te One Plan ka kōrerotia te take*
(o) Further research on preventing saltwater intrusion into coastal aquifers is a necessity. *Ka mate ka rangahaua tonutia te ārai i te urunga waitai ki roto i ngā kahupapa takutai moana.*	**Manaaki manuhiri (caring for your visitors)** ***Manaaki manuhiri*** Saltwater intrusion is a significant issue for *hapū** and *iwi** as many marae situated close to the coastal environment rely on groundwater bores as their primary water supply. *Hapū** and *iwi** encourage proactive research to ensure this situation is avoided. *He take nui te urunga waitai ki ngā hapū me ngā iwi, nō te mea, he maha ngā marae e noho tata nei ki te taiao takutai moana e tango ana i te waiopapa i ngā poka i te tuatahi hei whāngai i ngā marae. Ka akiaki ngā hapū me ngā iwi i te mahi rangahau kia hua ai ka parea tēnei āhuatanga.*	Groundwater quality *Te kounga o te waiopapa* Chapter 5 - Water Objective 5-2 Policy 16-7 Rules, Chapter 16 - Takes, Uses and Diversions of Water, and Bores *Wāhanga 5 - Wai Whāinga 5-2 Kaupapa 16-7* *Ture, Wāhanga 16 - Te Tango, te Whakamahi, me te Whakataha Wai, Poka hoki*
(p) Biodiversity research needs more funding. *Me whai putea anō te rangahau e pā ana ki te kanorau koiora.*	**Tiro whakamua (a glance at the future)** ***Tiro whakamua*** Many Māori landowners are actively involved in restoring and preserving *wetlands^* to maintain native habitats for future generations. *Tokomaha ngā kaipupuri whenua Māori e kaha whakahou ana, e tiaki ana hoki i ngā papa waiwai hei pupuri i ngā wāhi noho pēnei mā ngā whakatupuranga e haere mai nei.*	Threatened indigenous *biological diversity^* *Te kanorau koiora ka whakawetia* Chapter 6 - Indigenous biological diversity, landscape and historic heritage Objective 6-1 Policies 6-1 to 6-4 Chapter 6 Methods Rules, Chapter 13 - Land Use Activities and Indigenous Biological Diversity *Wāhanga 6 - Kanorau Koiora Taketake, tohu whenua, hītori tuku iho Whāinga 6-1 Kaupapa 6-1 ki 6-4 Wāhanga 6 ngā ture* *Ture, Wāhanga 13 - Ngohe Whakamahi Whenua me te Kanorau Koiora Taketake*

Resource issue of significance to *hapū** and *iwi** *He take rauemi e hirahira ana ki ngā hapū me ngā iwi*	Resource issue in the context of *tikanga Māori^* *He take rauemi me te tikanga Māori*	Relevant part of One Plan where issue is addressed *Te wāhanga o te One Plan ka kōrerotia te take*
(q) Monitoring and enforcement of environmental standards, including those contained in *regional plans^*, *district plans^* and *resource consents^*, are insufficient at times. *I ētahi wā he iti rawa te aroturuki me te ūruhitanga o ngā taumata taiao pērā ki ērā kei roto i ngā mahere rohe, ngā mahere takiwā, me ngā whakaaetanga rauemi.*	**Te aroturuki me te ūruhitanga (monitoring and enforcement)** ***Te aroturuki me te ūruhitanga*** Māori wish to see a greater level of monitoring undertaken for resource use activities. Many Māori also wish to see those who do not comply with *resource consent^* or *permitted activity^ conditions^* undertake remedial work to remedy their actions. *Ko te pirangi o te Māori kia nui ake te aroturuki ka mahia hei ngohe whakamahi rauemi. Ko tētahi pirangi anō o te Māori kia mahi te hunga kore whai i ngā whakaritenga whakaaetanga rauemi me ngā mahi ka whakaaetia ki te whakatikatika i ā rātou mahi hē.*	Monitoring and enforcement *Te aroturuki me te ūruhitanga* Chapter 12 Policy 12-8 *Wāhanga 12* *Kaupapa 12-8*

3 Infrastructure, Energy, *Waste**, *Hazardous Substances** and Contaminated Land

Objective 3-1: *Infrastructure*^ and other physical resources of regional or national importance

Have regard to the benefits of *infrastructure*^ and other physical resources of regional or national importance by recognising and providing for their establishment, *operation**, *maintenance** and *upgrading**.

Whāinga 3-1: *Ngā kaupapa o raro me ētahi atu rauemi ōkiko whakahirahira - rohe mai, motu mai rānei*

Aro atu ki ngā painga o ngā kaupapa o raro me ētahi atu rauemi ōkiko whakahirahira – rohe mai, motu mai rānei mā te āhukahuka me te whakarato i te whakatū, te whakamahi, te tiaki me te whakapai ake i ērā.

Policy 3-1: Benefits of *infrastructure*^ and other physical resources of regional or national importance

(a) The Regional Council and *Territorial Authorities*^ must recognise the following *infrastructure*^ as being physical resources of regional or national importance:

- (i) facilities for the generation of more than 1 MW of electricity and its supporting *infrastructure*^ where the electricity generated is supplied to the electricity distribution and transmission networks
- (ii) the National Grid and electricity distribution and transmission networks defined as the system of transmission lines, sub-transmission and distribution feeders (6.6kV and above) and all associated substations and other works to convey electricity
- (iii) pipelines and gas facilities used for the transmission and distribution of natural and manufactured gas
- (iv) the *road*^ and rail networks as mapped in the Regional Land Transport Strategy
- (v) the Palmerston North and Wanganui *airports*^
- (vi) the RNZAF *airport*^ at Ohakea
- (vii) telecommunications and radiocommunications facilities
- (viii) public or community sewage treatment plants and associated reticulation and disposal systems
- (ix) *public water supply** intakes, treatment plants and distribution systems
- (x) public or community drainage systems, including stormwater systems
- (xi) the Port of Wanganui.

(b) The Regional Council and *Territorial Authorities*^ must recognise the following facilities and assets as being physical resources of regional or national importance:

- (i) solid *waste** facilities including *landfills**, transfer stations and resource recovery facilities that deal with municipal *waste**
- (ii) existing flood protection schemes

(iii) New Zealand Defence Force facilities.

(c) The Regional Council and *Territorial Authorities*^ must, in relation to the establishment, *operation**, *maintenance**, or *upgrading** of *infrastructure*^ and other physical resources of regional or national importance, listed in (a) and (b), have regard to the benefits derived from those activities.

(d) The Regional Council and *Territorial Authorities*^ must achieve as much consistency across *local authority*^ boundaries as is reasonably possible with respect to policy and plan provisions and decision-making for existing and future *infrastructure*^.

5 Water

Objective 5-1: *Water*^ management Values

Surface *water bodies*^ and their *beds*^ are managed in a manner which safe guards their life supporting capacity and recognises and provides for the Values in Schedule B[2]

Whāinga 5-1: He ūara whakahaere wai

Ka āta whakahaeretia ngā mata wai me ngā papa o ērā kia whakamaru ai i te āheinga toko ora o ērā, ā, ka mōhiotia, ka pukumaharatia hoki ngā Uara kei roto i Pukapuka Āpiti B.

Objective 5-2: *Water*^ quality

(a) Surface *water*^ quality is managed to ensure that:

(i) *water*^ quality is maintained in those *rivers*^ and *lakes*^ where the existing *water*^ quality is at a level sufficient to support the Values in Schedule B

(ii) *water*^ quality is enhanced in those *rivers*^ and *lakes*^ where the existing *water*^ quality is not at a level sufficient to support the Values in Schedule B

(iii) accelerated eutrophication and sedimentation of *lakes*^ in the Region is prevented or minimised

(iv) the special values of *rivers*^ protected by w*ater conservation orders*^ are maintained.

(b) Groundwater quality is managed to ensure that existing groundwater quality is maintained or where it is degraded/over allocated as a result of human activity, groundwater quality is enhanced.

Whāinga 5-2: Te kounga o te wai

(a) Ka whakahaeretia te kounga o te mata wai kia hua ai:

(i) ka tiakina te kounga o te wai kei roto i ngā awa me ngā roto he kaha tonu te kounga o te wai hei hāpai i ngā Uara kei roto i Pukapuka Āpiti B

(ii) ka whakapaingia te kounga o te wai kei roto i ngā awa me ngā roto kāore i te kaha te kounga o te wai hei hāpai i ngā Uara kei roto i Pukapuka Āpiti B

(iii) ka āraia, ka whakaitingia rānei te tere parahanga ā-matū whakamōmona, te parakiwai hoki o ngā roto o te Rohe, ā,

(iv) ka tiakina ngā uara motuhake o ngā awa e whakamarumarutia e ngā whakahau whakauka wai, arā, ko ngā water conservation orders.

(b) Ka whakahaeretia te kounga o te waiopapa kia hua ai ka tiakina tonutia te kounga o te waiopapa kei reira kē; ka whakarākaitia rānei te kounga o te waiopapa, ka whakaparungia rānei, ka tuhenetia te tuaritanga rānei nā te mahi a te tangata.

[2] Schedule B is not a component of Part I - the Regional Policy Statement. It is a component of Part II - the Regional Plan.

Policy 5-1: *Water Management Zones** and Values

For the purposes of managing *water*^ quality, *water*^ quantity, and activities in the *beds*^ of *rivers*^ and *lakes*^, the catchments in the Region have been divided into *Water Management Zones** and *Water Management Sub-zones** in Schedule A.[3] Groundwater has been divided into *Groundwater Management Zones** in Schedule D.[4]

The *rivers*^ and *lakes*^ and their *beds*^ must be managed in a manner which safeguards their life supporting capacity and recognises and provides for the Schedule B Values when decisions are made on avoiding, remedying or mitigating the adverse *effects*^ of activities or in relation to any other function under the Resource Management Act 1991 exercised by the Regional Council or Territorial Authorities. The individual Values and their associated management objectives are set out in the Schedule B Surface *Water*^ Management Values Key and repeated in Table 5.2.

Table 5.2 Surface *Water*^ Management Values and Management Objectives

Value Group	Individual Values		Management Objective
Ecosystem Values	NS	Natural State	The *river*^ and its *bed*^ are maintained in their natural state
	LSC	Life-supporting Capacity	The *water body*^ and its *bed*^ support healthy aquatic life / ecosystems
	SOS-A	Sites of Significance – Aquatic	Sites of significance for indigenous aquatic biodiversity are maintained or enhanced
	SOS-R	Sites of Significance – Riparian	Sites of significance for indigenous riparian biodiversity are maintained or enhanced
	IS	Inanga Spawning	The *water body*^ and its *bed*^ sustain healthy inanga spawning and egg development
	WM	*Whitebait** Migration	The *water body*^ and its *bed*^ are maintained or enhanced to provide safe passage of inwardly migrating juvenile native fish known collectively as *whitebait**
Recreational and Cultural Values	CR	Contact Recreation	The *water body*^ and its *bed*^ are suitable for contact recreation
	AM	Amenity	The amenity values of the *water body*^ and its *bed*^ (and its margins where in public ownership) are maintained or enhanced
	MAU	*Mauri**	The *mauri** of the *water body*^ and its *bed*^ is maintained or enhanced
	SOS-C	Sites of Significance - Cultural	Sites of significance for cultural values are maintained
	TF	Trout Fishery	The *water body*^ and its *bed*^ sustain healthy rainbow or brown trout fisheries

[3] Schedule A is not a component of Part I - the Regional Policy Statement. It is a component of Part II - the Regional Plan.
[4] Schedule D is not a component of Part I - the Regional Policy Statement. It is a component of Part II - the Regional Plan.

Value Group		Individual Values	Management Objective
	TS	Trout Spawning	The *water body*^ and its *bed*^ meet the requirements of rainbow and brown trout spawning and larval and fry development
	AE	Aesthetics	The aesthetic values of the *water body*^ and its *bed*^ are maintained or enhanced
***Water*^ Use**	WS	*Water*^ Supply	The *water*^ is suitable, after treatment, as a drinking *water*^ source for human consumption
	IA	Industrial Abstraction	The *water*^ is suitable as a *water*^ source for industrial abstraction or use, including for hydroelectricity generation+
	I	Irrigation	The *water*^ is suitable as a *water*^ source for irrigation
	SW	Stockwater	The *water*^ is suitable as a supply of drinking *water*^ for livestock
	DFS	*Domestic Food Supply**	The *water*^ is suitable for domestic food production
Social/ Economic Values	CAP	Capacity to Assimilate Pollution	The capacity of a *water body*^ and its *bed*^ to assimilate pollution is not exceeded
	FC/D	Flood Control and Drainage	The integrity of existing flood and *river*^ bank erosion protection *structures*^ and existing drainage *structures*^ is not compromised and the risks associated with flooding and erosion are managed sustainably
	EI	Existing *Infrastructure*^	The integrity of existing *infrastructure*^ is not compromised

+ *Water Management Zones** and *Water Management Sub-zones** throughout the Region (and particularly those with good head and flow available) may have potential for hydroelectricity generation. Further *site**-specific assessment will be needed to establish the locations where such potential may be realised while having regard to the Schedule B Values of the relevant *water bodies*^ and their *beds*^.

Policy 5-2: *Water quality targets**

In Schedule E[5], *water quality targets** relating to the Schedule B Values (repeated in Table 5.2) are identified for each *Water Management Sub-Zone**. Other than where they are incorporated into *permitted activity*^ rules as *conditions*^ to be met, the *water quality targets** in Schedule E must be used to inform the management of surface *water*^ quality in the manner set out in Policies 5-3, 5-4 and 5-5.

[5] Schedule E is not a component of Part I - the Regional Policy Statement. It is a component of Part II - the Regional Plan.

Policy 5-3: Ongoing compliance where *water quality targets** are met

(a) Where the existing *water*^ quality meets the relevant Schedule E *water quality targets** within a *Water Management Sub-zone**, *water*^ quality must be managed in a manner which ensures that the *water quality targets** continue to be met beyond the zone of reasonable mixing (where mixing is applicable).

(b) For the avoidance of doubt:

(i) in circumstances where the existing *water*^ quality of a *Water Management Sub-zone** meets all of the *water quality targets** for the *Sub-zone** (a) applies to every *water quality target** for the *Sub-zone**

(ii) in circumstances where the existing *water*^ quality of a *Water Management Sub-zone** meets some of the *water quality targets** for the *Sub-zone** (a) applies only to those *water quality* targets* that are met

(iii) for the purpose of (a) reasonable mixing is only applicable to a *discharge*^ from an identifiable location.

Policy 5-4: Enhancement where *water quality targets** are not met

(a) Where the existing *water*^ quality does not meet the relevant Schedule E *water quality targets** within a *Water Management Sub-zone**, *water*^ quality within that sub-zone must be managed in a manner that enhances existing *water*^ quality in order to meet:

(i) the *water quality target** for the *Water Management Zone** in Schedule E, and/or

(ii) the relevant Schedule B Values and management objectives that the *water quality target** is designed to safeguard.

(b) For the avoidance of doubt:

(i) in circumstances where the existing *water*^ quality of a *Water Management Sub-zone** does not meet all of the *water quality targets** for the *Sub-zone**, (a) applies to every *water quality target** for the Sub-zone

(ii) in circumstances where the existing *water*^ quality of a *Water Management Sub-zone** does not meet some of the *water quality targets** for the *Sub-zone**, (a) applies only to those *water quality targets** not met.

Policy 5-6: Maintenance of groundwater quality

(a) *Discharges*^ and *land*^ use activities must be managed in a manner which maintains the existing groundwater quality, or where groundwater quality is degraded/over allocated as a result of human activity, it is enhanced.

(b) An exception may be made under (a) where a *discharge*^ onto or into *land*^ better meets the purpose of the RMA than a *discharge*^ to *water*^, provided that the best practicable *option*^ is adopted for the treatment and *discharge*^ system.

(c) Groundwater takes in the vicinity of the coast must be managed in a manner which avoids saltwater intrusion.

Policy 5-7: *Land*^ use activities affecting groundwater and surface *water*^ quality

The management of *land*^ use activities affecting groundwater and surface *water*^ must give effect to the strategy for surface *water*^ quality set out in Policies 5-2, 5-3, 5-4 and 5-5, and the strategy for groundwater quality in Policy 5-6, by managing diffuse *discharges*^ of contaminants in the following manner:

(a) identifying in the regional plan targeted *Water Management Sub-zones**. Targeted *Water Management Sub-zones** are those subzones where, collectively, *land*^ use activities are significant contributors to elevated contaminant levels in groundwater or surface *water*^

(b) identifying in the regional plan intensive farming *land*^ use activities. Intensive farming *land*^ use activities are rural *land*^ use activities that (either individually or collectively) make a significant contribution to elevated contaminant levels in the targeted *Water Management Sub-zones** identified in (a) above

(c) actively managing the intensive farming *land*^ use activities identified in (b) including through regulation in the regional plan, in the manner specified in Policy 5-8

Policy 5-9: Point source *discharges*^ to *water*^

The management of point source *discharges*^ into surface *water*^ must have regard to the strategies for surface *water*^ quality management set out in Policies 5-3, 5-4 and 5-5, while having regard to:

(a) the degree to which the activity will adversely affect the Schedule B Values for the relevant *Water Management Sub-zone**

(b) whether the *discharge*^, in combination with other *discharges*^, including non-point source *discharges*^ will cause the Schedule E *water quality targets** to be breached

(c) the extent to which the activity is consistent with *contaminant*^ treatment and *discharge*^ best management practices

(d) the need to allow reasonable time to achieve any required improvements to the quality of the *discharge*^

(e) whether the *discharge*^ is of a temporary nature or is associated with necessary *maintenance*^ or *upgrade** work and the *discharge*^ cannot practicably be avoided

(f) whether adverse *effects*^ resulting from the *discharge*^ can be offset by way of a financial contribution set in accordance with Chapter 19

(g) whether it is appropriate to adopt the *best practicable option*^.

Policy 5-11: Human sewage *discharges*^

Notwithstanding other policies in this chapter:

(a) before entering a surface *water body*^ all new *discharges*^ of treated human sewage must:

  (i) be applied onto or into *land*^, or

  (ii) flow overland, or

  (iii) pass through an alternative system that mitigates the adverse *effects*^ on the *mauri** of the receiving *water body*^, and

(b) all existing direct *discharges*^ of treated human sewage into a surface *water body*^ must change to a treatment system described under (a) by the year 2020 or on renewal of an existing consent, whichever is the earlier date.

7. Air

Objective 7-1: *Ambient air** quality

A standard of *ambient air** quality is maintained which is not detrimental to *amenity values*^, human health, property or the life-supporting capacity of air and meets the national *ambient air** quality standards.

Whāinga 7-1: Te kounga hau o-waho

Ka tiakina tētahi paenga kounga hau o-waho kāore he whakawhara ki ngā ūara Taonga whakaahuru, te hauora tangata, ngā rawa, te oranga tonutanga rānei o te hau – ka eke hoki ki ngā paenga kounga hau o-waho o te motu.*

Policy 7-2: Regional standards for *ambient air** quality

In addition to the *National Environmental Standards*^ set out in Policy 7-1, *ambient air** quality must be managed in accordance with the regional standards set out in Table 7.3.

Table 7.3 Regional Standards for *Ambient Air** Quality

Contaminant^*	Regional Standard
Odour	• A *discharge*^ must not cause any offensive or objectionable odour beyond the *property** boundary.
Dust	• A *discharge*^ must not cause any noxious, offensive or objectionable dust beyond the *property** boundary.
Smoke and *water*^ vapour	• A *discharge*^ must not result in any objectionable or offensive smoke or *water*^ vapour beyond the *property** boundary.
*Agrichemicals**	• A *discharge*^ must not give rise to noxious or dangerous levels of *agrichemicals** in terms of human health, non-target plants or animals, or *property**.
Gases and other airborne *contaminants*^	• A *discharge*^ must not result in noxious or dangerous levels of gases or other airborne *contaminants*^ beyond the *property** boundary.

Note: There are guidelines contained within Chapter 15, Section 15.2 that assist in defining the terms noxious, dangerous, offensive and objectionable.

Policy 7-3: Regulation of *discharges*^ to air

Discharges^ of *contaminants*^ into air will be generally allowed, provided:

(a) the *effects*^ of the *discharge*^ are consistent with the approach set out in Policy 7-1 for implementing the *National Environmental Standards*^ for *ambient air** quality, and

(b) the *discharge*^ is consistent with the regional standards for *ambient air** quality set out in Policy 7-2.

B. REGIONAL ONE PLAN

12 General Objectives and Policies

Objective 12-2: Consent duration, review and enforcement

(a) The provisions of the RMA dealing with the duration of resource consents, review of consent conditions, and enforcement procedures must be implemented in a manner that provides the maximum reasonable certainty to resource users, affected parties and submitters.

(b) The Regional Council will provide user-friendly consents of appropriate duration and will carefully monitor and manage compliance.

Policy 12-4: Consent *conditions*^

(a) The Regional Council will grant consents with *conditions*^ identified as necessary during the *resource consent*^ process, including *conditions*^ proposed by the applicant as a result of pre-application consultation agreements.

(b) In respect of (a) above, the Regional Council will draft consent *conditions*^ that ensure:

(i) the applicant is certain how compliance will be achieved and monitored;

(ii) the *conditions*^ are specific to the activity being undertaken;

(iii) the *conditions*^ are fair, reasonable and practical;

(iv) the *conditions*^ are in plain English; and

(v) the *conditions*^ are enforceable.

Policy 12-5: Consent durations

(a) Other than as provided for under (b), the Regional Council will generally grant *resource consents*^ for the term sought by the applicant unless reasons are identified during the consent process that make this inappropriate.

(b) *Resource consent*^ durations for applications required under ss13, 14 and 15 of the RMA will generally be set to the next common catchment expiry date listed in Table 12.1. The dates listed in Table 12.1 show the initial expiry or review dates for consents within the catchment. Future dates for expiry or review of consents within that catchment must occur again every 10 years thereafter. Consents granted within three years prior to the relevant common catchment expiry date may be granted with a duration to align with the second common expiry date (that is the number of years up to the next expiry date plus 10 years). Dates may also be extended in 10 year increments where a term longer than 10 years can be granted after considering the following criteria:

(iv) the extent to which an activity is carried out in accordance with a recognised code of practice, environmental standard or good practice guideline;

(v) the most appropriate balance between environmental protection and investment by the applicant;

(vi) the provision of s128 review opportunities to enable matters of contention to be periodically reviewed in light of monitoring and compliance information; and

(vii) whether the activity is *infrastructure*^; *water*^, sewage or stormwater treatment plants and facilities; or publicly accessible *solid waste** facilities including *landfills**, transfer stations and resource recovery facilities.

For a consent which is granted for a duration longer than 10 years, review of the consent must occur, as a minimum, on the review date in Table 12.1 and every 10 years thereafter until consent expiry. Extra review dates may be set in accordance with Policy 12-6.

(c) Matters to be considered in determining a shorter consent duration than that requested under (a):

(i) whether it is necessary for an activity to cease at a specified time;

(ii) whether the activity has *effects*^ that are unpredictable and potentially serious for the locality where it is undertaken and a precautionary approach is needed;

(iii) the risks of long-term allocation of a resource whose availability changes over time in an unpredictable manner, requiring a precautionary approach; and

(iv) in the case of existing activities, whether the consent holder has a good or poor compliance history in relation to environmental *effects*^ for the same activity.

Table 12.1: Common expiry/review dates for consents in *Water Management Sub-zones**

*Water Management Zone**	*Water Management Sub-zone**	Expiry / review (1 July)
Mangatainoka	Upper, Middle and Lower Mangatainoka and Makakahi	2010

14 Discharges to Land and Water

Objective 14-1: Management of *discharges*^ to *land*^ and *water*^ and *land*^ uses affecting groundwater and surface water quality

The management of *discharges*^ onto or into *land*^ (including those that enter *water*^) or directly into *water*^ and *land*^ use activities affecting groundwater and surface *water*^ quality in a manner that:

(a) safeguards the life supporting capacity of water and recognises and provides for the Values and management objectives in Schedule B,

(b) provides for the objectives and policies of Chapter 5 as they relate to surface *water*^ and groundwater quality, and

(c) where a *discharge*^ is onto or into *land*^, avoids, remedies or mitigates adverse *effects*^ on surface *water*^ or groundwater.

Policy 14-1: Consent decision-making for *discharges*^ to *water*^

When making decisions on *resource consent*^ applications, and setting consent *conditions*^, for *discharges*^ of *water*^ or *contaminants*^ into *water*^, the Regional Council must specifically consider:

(a) the objectives and Policies 5-1 to 5-5 and 5-9 of Chapter 5,

and have regard to:

(b) avoiding *discharges*^ which contain any persistent *contaminants*^ that are likely to accumulate in a *water body*^ or its *bed*^,

(c) the appropriateness of adopting the *best practicable option*^ to prevent or minimise adverse *effects*^ in circumstances where:

  (i) it is difficult to establish *discharge*^ parameters for a particular *discharge*^ that give effect to the management approaches for *water*^ quality and *discharges*^ set out in Chapter 5, or

  (ii) the potential adverse *effects*^ are likely to be minor, and the costs associated with adopting the *best practicable option*^ are small in comparison to the costs of investigating the likely *effects*^ on *land*^ and *water*^, and

(d) the objectives and policies of Chapters 2, 3, 6, 9 and 12 to the extent that they are relevant to the *discharge*^.

Policy 14-4: Options for *discharges*^ to surface *water*^ and *land*^

When applying for consents and making decisions on consent applications for *discharges*^ of *contaminants*^ into *water*^ or onto or into *land*^, the opportunity to utilise alternative *discharge*^ options, or a mix of *discharge*^ regimes, for the purpose of mitigating adverse *effects*^, applying the best practicable option, must be considered, including but not limited to:

(a) discharging *contaminants*^ onto or into *land*^ as an alternative to discharging *contaminants*^ into *water*^,

(b) withholding from discharging *contaminants*^ into surface *water*^ at times of low flow, and

(c) adopting different treatment and *discharge*^ options for different receiving *environments*^ or at different times (including different flow regimes or levels in surface *water bodies*^).

Policy 14-8: Monitoring requirements for consent holders

Point source *discharges*^ of *contaminants*^ to *water*^ must generally be subject to the following monitoring requirements:

(a) the regular monitoring of *discharge*^ volumes on *discharges*^ smaller than 100 m^3/day and making the records available to the Regional Council on request,

(b) the installation of a pulse-count capable meter in order to monitor the volume *discharged*^ for *discharges*^ of 100 m^3/day or greater,

(c) the installation of a Regional Council compatible telemetry system on *discharges*^ of 300 m^3/day or greater, and

(d) monitoring and reporting on the quality of the *discharge*^ at the point of *discharge*^ before it enters surface *water*^ and the quality of the receiving *water*^ upstream and downstream of the point of *discharge*^ (after *reasonable mixing**) may also be required. This must align with the Regional Council's environmental monitoring programme where reasonably practicable to enable cumulative impacts to be measured.

Policy 14-9: Consent decision making requirements from the National Policy Statement for Freshwater Management

(a) This policy applies to any application for the following *discharges*^ (including a diffuse *discharge*^ by any person or animal):

(i) a new *discharge*^; or

(ii) a change or increase in any *discharge*^ –

of any *contaminant*^ into fresh *water*^, or onto or into *land*^ in circumstances that may result in that *contaminant*^ (or, as a result of any natural process from the *discharge*^ of that *contaminant*^, any other *contaminant*^) entering fresh *water*^.

(b) When considering any application for a *discharge*^ the Regional Council must have regard to the following matters:

(i) the extent to which the *discharge*^ would avoid contamination that will have an adverse effect on the life-supporting capacity of fresh *water*^ including on any ecosystem associated with fresh *water*^; and

(ii) the extent to which it is feasible and dependable that any more than minor adverse effect on fresh *water*^, and on any ecosystem associated with fresh *water*^, resulting from the *discharge*^ would be avoided.

This clause of the policy does not apply to any application for consent first lodged before the National Policy Statement for Freshwater Management 2011 took effect on 1 July 2011.

(c) When considering any application for a *discharge*^ the Regional Council must have regard to the following matters:

(i) the extent to which the *discharge*^ would avoid contamination that will have an adverse effect on the health of people and communities as affected by their secondary contact with fresh *water*^; and

(ii) the extent to which it is feasible and dependable that any more than minor adverse effect on the health of people and communities as affected by their secondary contact with fresh *water*^ resulting from the *discharge*^ would be avoided.

This clause of the policy does not apply to any application for consent first lodged before the National Policy Statement for Freshwater Management 2014 took effect on 4 July 2014.

15 Discharges to Air

Objective 15-1: Air quality

The management of air quality in a manner that has regard to:

(a) maintaining or enhancing ambient air* quality in a manner that safeguards the health of the Region's community,

(b) meeting the regional ambient air* standards (Table 7.3) and National Environmental Standards^ (Table 7.1),

(c) managing air quality so that it is not detrimental to amenity values^, and

(d) managing fine particle (PM10*) levels to ensure that they are reduced in unacceptable airsheds and managed in other areas to ensure compliance with the national ambient air* quality standard for PM10*.

Policy 15-2: Consent decision-making for other *discharges*^ into air

When making decisions on *resource consent*^ applications and setting consent *conditions*^ for *discharges*^ of *contaminants*^ into air, the Regional Council must have regard to:

(a) the objectives and policies of Chapter 7 including:

  (i) the degree of consistency with the approach set out in Policy 7-1 for implementing the *National Environmental Standards*^ for *ambient air** quality,

  (ii) the degree of compliance with the regional standards for *ambient air** quality set out in Policy 7-2, and

  (iii) for *discharges*^ of fine particles, the approaches for managing fine particles (PM_{10}*) in Policies 7-5, 7-6 and 7-7, and the likely contribution of the proposed *discharge*^ to cumulative adverse *effects*^ in an unacceptable airshed or degraded area as identified under these policies,

(b) the guidelines in Section 15.3 for managing noxious, dangerous, offensive and objectionable *effects*^,

(c) any *national policy statements*^, national *regulations*^, or nationally-accepted guidelines or codes of practice relevant to the activity, including the matters in Policy 14-9 for activities involving an ancillary discharge,

(d) the location of the *discharge*^ in relation to, and any associated *effects*^ on, sensitive areas including, but not limited to:

  (i) residential buildings,

  (ii) public places and amenity areas where people congregate,

  (iii) education facilities,

  (iv) public roads,

  (v) surface *water bodies*^,

  (vi) *wāhi tapu**, marae and other *sites** of significance to *hapū** and *iwi**,

(vii) domestic, commercial and *public water supply** catchments and intakes,

(viii) *rare habitats**, *threatened habitats** and *at-risk habitats**, and

(ix) sensitive crops or farming systems (including certified organically farmed *properties** and greenhouses),

(e) effects on scenic, landscape, heritage and recreational values,

(f) the appropriateness of adopting the *best practicable option*^ to prevent or minimise adverse *effects*^ in circumstances where:

(i) numerical guidelines or standards establishing a level of protection for a receiving *environment*^ are not available or cannot easily be established,

(ii) insufficient monitoring data is available to establish the existing air quality with sufficient certainty, or

(iii) the likely adverse *effects*^ are minor, and the costs associated with adopting the *best practicable option*^ are small in comparison to the costs of investigating the likely *effects*^ on air quality,

(g) the need for contingency measures to avoid accidental *discharges*^, including *discharges*^ arising from mechanical failure, and

(h) adverse *effects*^ on *aircraft*^ safety from high velocity vertical *discharges*^ to air.

C. REGIONAL RULES

Rule	Activity	Classification	Conditions/Standards/Terms	Control/Discretion Non-Notification
14-30 ***Discharges^* of water^ or *contaminants^* to *land^* or *water^* not covered by other *rules^* in this Plan or chapter**	The *discharge^* of *water^* or *contaminants^* into surface *water^* pursuant to s15(1)(a) RMA or *discharge^* of *contaminants^* onto or into *land^* pursuant to ss15(1)(b), 15(1)(d) or 15(2A) RMA which are not regulated by other *rules^* in this Plan, or which do not comply with the *permitted activity^*, *controlled activity^* or *restricted discretionary activity^* *rules^* in this chapter.	**Discretionary**		
15-17 **Other *discharges^***	The *discharge^* of *contaminants^* into air pursuant to ss15(1) or 15(2A) RMA and any subsequent *discharge^* of *contaminants^* onto *land^* from activities which either: (a) are located on *industrial or trade premises^* and are not addressed by any other *rule^* in this Plan, or (b) do not comply with one or more *conditions^*, standards or terms of a *permitted activity^* *rule^*, but which are not expressly classified as a *controlled activity^*, *restricted discretionary activity^*, *discretionary activity^*, *non-complying activity^* or *prohibited activity^*. *Discharges^* that are covered by this *rule^* under (a) include, but are not limited to, those activities listed in the *rule^* guide following this *rule^* table.	**Discretionary**		