



PRE-HEARING

Tararua District Council Pahiatua and Eketahuna Wastewater Treatment Plants

Horizons Regional Council Consents:

APP-2005011178.01 – Eketahuna
APP-1993001253.02 – Pahiatua

**15 June 2016
9.30 am – 5:00 pm**

**HELD AT:
Council Chambers
136 Main Street
Pahiatua 4910**

PRE-HEARING MEETING CONFIRMATION

Tararua District Council Pahiatua and Eketahuna WWTP

PRE HEARING DATE: 15 June 2016
MEETING TIME: 9.30 am – 5:00 pm
VENUE: Council Chambers, 136 Main Street, Pahiatua, 4910
INDEPENDENT FACILITATOR: Mrs Christine Foster

ATTENDEES FOR HORIZONS REGIONAL COUNCIL

Fiona Morton – Consultant Planner
Logan Brown – Senior Water Quality Scientist
Michael Patterson – Senior Water Quality Research Associate

ATTENDEES FOR TARARUA DISTRICT COUNCIL

Tabitha Manderson – Consultant Planner for TDC
Dr Olivier Ausseil – Water Quality Scientist
Dave Watson – Tararua District Council
Kathy Dever-Tod – Tararua District Council

AGENDA

- 9.30 am Opening of the Pre-Hearing and introductions by the Facilitator
- Applicant's opening statements regarding the application / proposal.
 - Outline of main issues as identified from the submissions received (this will involve discussion as to whether all parties agree with the issues as identified).
 - Summary of discussion, including points of agreement or disagreement.
 - Conclusion and confirmation of process from this point forward.

APPENDICIES

- Appendix A** List of submitters
- Appendix B** Pahiatua summary of submissions
- Appendix C** Eketahuna summary of submissions

APPLICATIONS

1. APP-1993001253.02 PAHIATUA CONSENT APPLICATION

ATH-199501433.02 This discharge to water permit is to authorise the discharge of treated wastewater from the Pahiatua Oxidation Ponds into Town Creek and consequently into the Mangatainoka River.

ATH-2016200747.00 This discharge to land permit is to authorise the discharge of treated effluent to land via seepage from the Pahiatua Wastewater Treatment Plant oxidation ponds.

ATH-2016200772.00 This discharge to air permit is to authorise the discharge of contaminants to air (principally odour) generated from the Pahiatua Wastewater Treatment Plant.

Location: Town Creek and Mangatainoka River, Julia Street, Pahiatua

A term of 15 years is sought for application.

2. APP-2005011178.01 EKETAHUNA CONSENT APPLICATION

ATH-2013010987.01 This discharge to water permit is to authorise the discharge of treated wastewater from the Eketahuna Wastewater Treatment Plant into the Makakahi River.

ATH-2015200247.00 This discharge to land permit is to authorise the discharge the treated wastewater from the Eketahuna Wastewater Treatment Plant into land via ground seepage from the Oxidation Ponds.

ATH-2013011395.01 This discharge to air permit is to authorise the discharge of contaminants to air (principally odour) generated from the Eketahuna Wastewater Treatment Plant.

Location: Makakahi River, Bridge Street, Eketahuna.

A term of 20 years is sought for application.

SUBMISSIONS

There are a total of 12 submissions received in relation to the Eketahuna resource consent application. There are a total of 11 submissions received in relation to the Pahiatua resource consent.

Appendix A provides a list of the submissions received on the resource consent applications. Appendix B & C are a summary of the submissions received.

KEY ISSUES FROM SUBMISSIONS

Tables 1 and 2 attached below provide a summary of the main issues identified within the submissions received. The issues identified are intended to provide a base for discussion and it is expected that each issue is to be discussed in more detail. Please note that these are not listed in order of importance.

Table 1: APP-1993001253.02 Pahiatua Summary of Issues

Issue #	Issues / Concerns raised through submissions	Submission #
1	Lack of assessment on the degree of human interaction with the environment.	1
2	The AEE does not clearly identify that the Mangatainoka River downstream of the discharge is used as a drinking water source.	1
3	Lack of assessment regarding the cultural and spiritual relationships/effects on mauri	2, 8, 11
4	Air dispersion modelling	2
5	Groundwater monitoring	2
6	Provision of information to Kahungunu ki Tamaki nui-a-rua.	2
7	Lack of robust scientific information/inconsistency in application data	2, 5, 6, 7, 8, 9,
8	Cumulative effects	2, 6, 7
9	Permeability of clay liner in oxidation pond	2
10	Consent term	3, 5, 6, 7, 8, 9, 10, 11
11	Periphyton and algal growth, effects on aquatic species	4, 7
12	Consent monitoring / consent enforcement / regular reporting	2, 3, 4, 7
13	Lack of assessment of alternatives	4, 5, 7, 8, 9,
14	Implement an adaptive management approach	4, 7
15	Consistency with the National Policy Statement for Freshwater	4
16	Lack of compliance with the One Plan	6, 9

Table 2: APP-2005011178.01 Eketahuna Summary of Issues

Issue #	Issues / Concerns raised through submissions	Submission #
1	Lack of assessment on the degree of human interaction with the environment	2
2	Consistency with the NPS-FWM	2, 6
3	Lack of assessment regarding the cultural and spiritual relationships/effects on Mauri	3, 6, 9, 12
4	Provision of information to Kahungunu ki Tamaki nui-a-rua.	3
5	Cultural health monitoring/Assessment	3, 6, 12
6	Groundwater monitoring	3
7	Compliance with ANZECC water quality guidelines	3
8	Cumulative effects	3, 7
9	Consent term	4, 6, 8, 10, 12
10	Periphyton and algal growth, effects on aquatic species / Effects on life-supporting capacity	5
11	Assessment of alternative methods of disposal and discharge	5, 6, 9, 10, 11
12	Adaptive management	5
13	Lack of robust scientific information	6, 7, 9, 10
14	Consent monitoring / consent enforcement / regular reporting	1, 5, 6, 8, 9, 10
15	Lack of compliance with the One Plan	7, 8, 10
16	Influent and effluent monitoring	8, 9

APPENDIX A

List of submitters

Sub #	Name	Address	Support / Oppose	Status (Heard/Not Heard)
Submissions received on Pahiatua WWTP application				
1	MidCentral District Health Board	Private Bag 11036, Ruahine Street, Palmerston North 4442	Oppose	Heard
2	Kahungunu ki Tamaki nui-a-rua Trust	PO Box 97, Dannevirke 4930	Oppose	Heard
3	Corny & Charlotte Andrews	62 Sheehan St, Shannon 4821	Oppose	Heard
4	Wellington Fish & Game Council	PO Box 1325, Palmerston North 4440	Oppose	Heard
5	Christina Paton	6 Warren Street, Foxton Beach 4815	Oppose	Heard
6	John Bent	17 Seaforth Avenue, Palmerston North	Oppose	Heard
7	Water Protection Society Inc	C/- 37 Oxford Street, Palmerston North	Oppose	Heard
8	Te Roopu Taiao o Ngati Whakatere	PO Box 21 Shannon 4821	Oppose	Heard
9	Water and Environmental Care Ass.Inc.	C/- 116 Heatherlea West Road, RD 5, Levin 5575	Oppose	Heard
10	Manawatu Estuary Trust	201 Kaihinau Road RD 4 Palmerston North 4474	Oppose	Heard
11	Rangitane o Tamaki nui a Rua Incorporated	PO Box 62 Dannevirke	Oppose	Not stated
Submissions received on Eketahuna WWTP application include all of the above as well as the submission including the submitter below				
12	Eketahuna Golf Club	186 Mt Munro Rd, Mauriceville West, RD 2, Masterton	Support	Not heard

APPENDIX B

Summary of submissions

APP-1993001253.02 – Pahiatua

Submitter 1: MidCentral Public Health Services (MCPHS)

Request to be heard: Yes

Oppose

MCPHS acknowledge that the Wastewater Treatment System is essential infrastructure vital for the wellbeing of the people of Eketahuna. MCPHS supports the continued operation of the Eketahuna Wastewater system subject to the other points raised in their submission.

Recognise that the River has ecological values, and is used for recreational purposes, and potentially for drinking water. Human wastewater is a known source of environmentally persistent human pathogens. As *E. coli* may not be a representative indicator of all human pathogens the desired health objective is to minimise or eliminate direct human contact with wastewater.

MCPHS recommends that the current degree of human interaction with the environment is assessed, and that the Medical Officer of Health is consulted regarding the options for minimising or eliminating direct human contact with wastewater.

They reserve the right to withdraw the opposition subject to reaching agreement with the applicant.

Submitter 2: Kahungunu ki Tamaki nui-a-rua Trust

Request to be heard: Yes

Oppose

Kahungunu ki Tamaki nui-a-rua are a collective who represent the broad interests of the marae, hapū and whānau who affiliate to Ngati Kahungunu and reside within the Tamaki nui-a-rua (Tararua District). They operate as a Trust and advocate for the health and well-being of their registered members, their families and associates, and for Māori from other iwi who reside within their traditional rohe (tribal area).

They oppose their applications in their current form and seek the addition of the following specific conditions:

- A condition requiring commissioning and resourcing for Kahungunu ki Tamaki nui-a-rua to carry out cultural health monitoring and assessment of the wastewater discharge and the Mangatainoka River at 2-yearly intervals.
- A requirement for TDC to carry out dispersion monitoring for the air discharge consent.
- Monitoring of the groundwater below and adjacent to the oxidation pond; and
- The provision of all scientific monitoring data undertaken by or on behalf of Tararua District Council, to Kahungunu ki Tamaki nui-a-rua.

Kahungunu ki Tamaki nui-a-rua consider that

- The background information provided in the AEE is not scientifically robust enough to base long-term decisions on;
- the application does not adequately address or cater for the cultural and spiritual relationships that the hapu of Kahungunu ki Tamaki nui-a-rua have with the Mangatainoka River and its Catchment;
- the application does not include results from cultural values of cultural health monitoring whereby the effects of the discharges on the cultural values and relationships that the hapu and whanau have with the Mangatainoka River have been categorised, assessed or addressed;
- the application has not assessed the cumulative effects of these discharges and other discharges, in their view, been adequately monitored or assessed;
- some species that reside in the Mangatainoka River are taonga species and classified as threatened so their habitat requires more careful management;
- Some data in Table 1 are estimates only, not actual, so have not been measured for accuracy. E.g. inflow estimates at 550m³ per day is derived from calculating 220m³ per person per day. This does not take into account any stormwater infiltration or volume of inflow from other sources.
- There is a significant lack of relevant information on the quality or volume of wastewater entering the pond. The submission considers this to be 'extraordinary' given that TDC first applied to renew their consent in 2004-2006 and in the last 10 years have still not accumulated the necessary data to present in their AEE. Consider that this signals that TDC have not established a baseline set of data from which to calculate adequacy or otherwise of their proposed wastewater upgrade treatment.
- That the level of permeability for the clay liner on the Pahiatua oxidation pond is also unknown; and
- the effects of the discharges on Mauri can only be accurately determined by the hapu of Kahungunu ki Tamaki nui-a-rua who are the Kaitiaki.

Request to be heard at a prehearing or hearing.

Submitter 3: Cyril (Corny) and Charlotte Andrews

Request to be heard: Yes

Oppose

This submission is a blanket submission opposing the application. They request that the application is 'rejected.' But if the application is granted a maximum term of three years should be imposed. Request enforcement of resource consent conditions.

Request to be heard at a pre-hearing (if held) and a hearing also.

Submitter 4: Wellington Fish and Game New Zealand.

Request to be heard: Yes

Oppose

Wellington Fish and Game New Zealand (F&G) acknowledge the importance of the Mangatainoka River to the anglers of the Manawatu River and visitors to the Region.

F&G are concerned about the excessive periphyton growth and degradation of ecosystem health downstream of the WWTP. Regular monitoring has identified an approximate doubling of dissolved inorganic nitrogen and dissolved phosphorous downstream of the WWTP discharge point, relative to upstream. The increased enrichment has also observed considerable increases in filamentous algae and periphyton downstream and a reduction in the biological diversity and biomass due to oxygen fluctuations. There has also been a significant increase in *E.coli* and cyanobacteria downstream of the discharge.

F&G seek that conditions are imposed that:

- address levels of nutrients discharged into the river that may result in excessive periphyton and algal growths;
- require adequate monitoring to enable levels of periphyton and algal growth to be assessed in a timely manner;
- require adequate monitoring of potential indicator species for abundance and diversity including macroinvertebrates, and potentially trout;
- require actions in an adaptive management plan in response to trigger points to high levels of nutrient concentrations at discharge point and downstream, and periphyton levels downstream;
- require a regular report (three monthly) on the discharge wastewater quality and indication of occurrences of non-compliances within limits;
- require investigation of alternative methods of treatment and discharge options (including discharge to land, or alternatives) to ensure continuous improvement and re-evaluation;

- require conditions imposed that are consistent with the principles of the National Policy Statement for Freshwater.

F&G request to be heard in respect of their submission.

Submitter 5: Christina Paton

Request to be heard: Yes

Oppose

This submission opposes the ATH-199501433.02 Discharge to Water permit for the following reasons:

- there is insufficient data to justify the term requested
- There is insufficient information on investigation of alternate disposal methods (e.g. land based disposal by irrigation or similar)
- That the applications as submitted are significantly out of date
- There is no cultural assessment
- That paragraphs in this application refer to documentation of other plants as a comparison, but no actual data is offered.

Supports ATH-2016209772.00 Discharge to Air and ATH-2016200747.00 Discharge to Land conditional on a term of three years being imposed.

Requests that either the application is rejected or the term is reduced to 3 years and a compulsory, comprehensive historical and on-going monitoring data is revealed and supplied to all parties..

Submitter 6: John Bent

Request to be heard: Yes

Oppose

This submission considers that there is a lack of detail/data/evidence in support of the application – which precludes an examination of the *minutiae*. It considers that there is no consideration given to the cumulative effects of all Tararua discharges of human sewage within the District and outside.

That there is no consideration of the cumulative contribution of these discharges to the adverse effects below the Palmerston North sewage outfall. That there has been no attempt to comply with Policy 5-11 of the One Plan. While commending the District Council, considers that the current policies and their implementation is inadequate.

The submission opposes the overall intent of the application, and the submitter reserves his position on all matters. The submission requests that the applications be declined, or as an

alternative arising from relief sought by other submitters, would consider consent terms of 3 years on all consents applied for.

Submitter 7: Water Protection Society Inc

Request to be heard: Yes

Neutral

Submission indicates that it neither currently supports nor opposes the applications, due to insufficient information in the application. Submission indicates that they may call upon experts to support their position [once confirmed].

The submitter is concerned about the effects of the discharge on the various values that have been agreed for the Mangatainoka River, including the effects on invertebrates, indigenous aquatic vertebrates and on the significant trout fishery, these effects being in combination with those due to other sources of contaminants in the catchment.

They are also concerned about the lack of adequate up-to-date data on wastewater quantities and characteristics as well as on effluent quality, in the application.

Although the submitter has confidence that the proposed DRP-removal measures will achieve the desired level of DRP in the effluent, it has not such confidence in the system's ability to achieve similarly effective reduction in SIN concentrations.

The submitter is also perturbed that more than 10 years has passed since the former long term consent expired in 2004, with application 103246 being placed on hold once submissions were received. They consider this an extraordinary length of time which should have been ample to gather abundant data pertaining to the towns wastewater and its effect on the river.

The submission indicates that there are many unknowns about the proposal (which have been acknowledged by the applicant) including, among others, the likely performance of the lamella plate clarifier, drum filter and UV treatment.

Given the lack of sufficient data on the plant and the difficulty of accurately predicting the effluent quality following the proposed upgrades, the submitter would be open to an adaptive management approach in which intensive monitoring accompanies installation and tuning of the proposed equipment and processes.

The submitter considers that there should be a clear and appropriate timeframe for achieving high quality effluent and consequences for not doing so. The submission considers that a 20 year is too long a term and suggests that 5 years of tuning and data gathering after installation should be sufficient. Because of the multiple uncertainties involved and the need

to deter indefinite fine-tuning being engaged in, the submitter considers that a term of 7 years would be a reasonable term. This would give up to 18 months to develop and apply for consent for an alternative should the currently proposed system prove unsatisfactory.

The submitter considers that the alternatives considered were inadequate, being all end of pipe considerations, i.e. what to do with wastewater rather than involving decreasing wastewater generation. Notes that even the alternatives considered appear to have been inadequate as end of pipe solutions.

The submitter considers that the cumulative effects of the WWTP discharge with other sources of contaminants in the catchment. The Mangatainoka River is highly prized for its recreational and habitat values and these are already being compromised by other discharges (both diffuse and point-source) in the catchment. It is inappropriate to try to justify the WWTP discharge on the grounds that the catchment is already contaminated. If the assimilative capacity of the river is already exceeded then if the WWTP cannot divert its effluent from the river, then other sources of contaminants must be required to do so.

Submitter 8: Te Roopu Taiao o Ngati Whakatere

Request to be heard: Yes

Oppose

Te Roopu Taiao o Ngati Whakatere (TRToNW) oppose the application. They request to be heard and will attend a pre-hearing should one be held. They reserve the right to bring support.

TRToNW consider that there is insufficient data to justify the term requested, that there is insufficient information on investigation of alternative disposal methods, that the application as submitted is significantly out of date and there is no cultural values assessment.

TRToNW request that the term is reduced, and a comprehensive monitoring programme is initiated so that a clear performance record is produced, including influent and effluent flow metering. Request that a cultural impact should be commissioned by TDC.

TRToNW reiterate their statement that they are willing to engage in discussion with the Applicant and/or Consent Authority prior to any hearing/pre-hearing.

Submitter 9: WECA

Request to be heard: Yes

Oppose

This submission opposes the application for the following reasons:

- there is insufficient data to justify the term requested

- There is insufficient information on investigation of alternate disposal methods (e.g. land based disposal by irrigation or similar)
- That the application as submitted are significantly out of date
- That the application as submitted does not meet the requirements of the One Plan.
- That the configuration offered differs from documented options
- That the difference between the Peak Wet Weather Flow applied for, and 'Average Dry Weather Flow' quoted in the documentation is unacceptably high and does not reflect claimed repair work to the network
- That paragraphs in this application refer to documentation of other plants as a comparison, but no actual data is offered. For example The results from the Eketahuna pilot plant currently being tested will be used to inform the design solution for Pahiatua". However, this is not supported by evidence.

Requests that the term is reduced to 7 years, being the time required to complete the planned upgrade and a clear comprehensive monitoring programme (5 years) is initiated so that a clear performance record is produced, including influent and effluent flow metering.

The submitter considers that this will provide the basis for a longer term consent when the plant is fully upgraded and meeting the requirements of the One Plan and the obligations of the Manawatu River Accord.

The submitter is curious as to why the Woodville plant has not been included in this upgrade of consents, given that all three plants are being upgraded to a similar format.

The submitter notes that whilst there has been considerable progress with plant upgrades, there appears to have been very little effort made to gain irrigation take agreements with local farmers – accepting that this may not provide a year round solution.

The submitter reiterates their statement that they are willing to engage in discussion with the Applicant and/or Consent Authority prior to any hearing/pre-hearing.

Submitter 10: Manawatu Estuary Trust

Request to be heard: Yes

Oppose

Manawatu Estuary Trust (MET) oppose the application. They request to be heard and will attend a pre-hearing should one be held. They reserve the right to bring support.

MET oppose the application on the basis that there is no provision for land based disposal, to maximise utilisation of the natural UV.

They request that the term is reduced to three years as a determining factor to appropriate the best practicable option of safeguarding the life force of the river and its environs to the estuary and sea.

Submitter 11¹: Rangitāne o Tamaki nui a Rua Incorporated **Request to be heard:** N/S²

Oppose

Rangitāne o Tamaki nui a Rua Incorporated submitted late on the application. The late submission was accepted by the applicant.

RTnaR visited the site in 2015. They acknowledge the effort that has gone into finding the best possible ways to ensure that the water being discharged is of a very high quality. They acknowledge the Cultural Values Assessment (CVA) undertaken with RTnaR for the Pahiatua WWTP. They wish the applicant to continue work towards advanced operations in line with a goal of nil discharge to waterways.

They note that Pahiatua is home to the Ngāi Te Kapuārangi (Te Kohanga Whakawhaiti Marae) hapū of Rangitāne, of which the Town Creek tributary to the Mangatainoka River is affected by the wastewater discharge. The River downstream from the WWTP has been utilised by this hapū and the community for recreational activities, Mahinga Kai, and wāhi tapu sites.

The submission notes that it is important to ensure that the values and aspirations for our environment are upheld and that the mana and mauri of our freshwater are maintained and or preferable enhanced.

¹ Late submission received on the 19 May 2016

² N/S = not stated

APPENDIX C

Summary of submissions

APP-2005011178.01 – Eketahuna

Submitter 1: Eketahuna Golf Club Inc

Request to be heard: No

Support

Supports the application. Consider that the future proposals will improve the discharge into the environment and the Makakahi River.

Requests that the Regional Council approve the consent. Request ongoing monitoring to ensure there is no deterioration in air or water quality. Does not wish to attend a pre-hearing.

Submitter 2: MidCentral Public Health Services (MCPHS)

Request to be heard: Yes

Oppose

MCPHS acknowledge that the Wastewater Treatment System is essential infrastructure vital for the wellbeing of the people of Eketahuna. MCPHS supports the continued operation of the Eketahuna Wastewater system subject to the other points raised in their submission.

Recognise that the River has ecological values, and is used for recreational purposes, and potentially for drinking water. Human wastewater is a known source of environmentally persistent human pathogens. As *E. coli* may not be a representative indicator of all human pathogens the desired health objective is to minimise or eliminate direct human contact with wastewater.

MCPHS recommends that the current degree of human interaction with the environment is assessed, and that the Medical Officer of Health is consulted regarding the options for minimising or eliminating direct human contact with wastewater.

They reserve the right to withdraw the opposition subject to reaching agreement with the applicant.

Submitter 3: Kahungunu ki Tamaki nui-a-rua Trust

Request to be heard: Yes

Oppose

Kahungunu ki Tamaki nui-a-rua are a collective who represent the broad interests of the marae, hapū and whānau who affiliate to Ngati Kahungunu and reside within the Tamaki nui-a-rua (Tararua District). They operate as a Trust and advocate for the health and well-being of their registered members, their families and associates, and for Māori from other iwi who reside within their traditional rohe (tribal area).

They oppose their applications in their current form and seek the addition of the following specific conditions:

- A condition requiring commissioning and resourcing for Kahungunu ki Tamaki nui-a-rua to carry out cultural health monitoring and assessment of the wastewater discharge and the Makakahi River at 2-yearly intervals.
- Imposition of a groundwater monitoring programme that incorporates a monthly monitoring frequency for 2 years, then quarterly thereafter, with monitoring of the groundwater below and adjacent to the oxidation pond to gauge groundwater quality and ground water flow direction;
- Monitoring of treated wastewater existing the oxidation pond for the range of determinants in Table 2 (AEE) with concentrations restricted to enable compliance with current ANZECC water quality guidelines within the Makakahi River 200 metres downstream of the discharge; and
- The provision of all scientific monitoring data undertaken by or on behalf of Tararua District Council, to Kahungunu ki Tamaki nui-a-rua.

Kahungunu ki Tamaki nui-a-rua consider that

- the application has not taken into account the cultural and spiritual relationships that the hapu of Kahungunu ki Tamaki nui-a-rua have with the Makakahi River of the wider Manawatu Catchment;
- the application does not include results from cultural values of cultural health monitoring whereby the effects of the discharges on the cultural values and relationships that the hapu and whanau have with the Makakahi River have been categorised, assessed or addressed;
- the application has not assessed the cumulative effects of these discharges and other discharges, in their view, been adequately monitored or assessed;
- some species that reside in the Makakahi River are taonga species and classified as threatened so their habitat requires more careful management; and
- the effects of the discharges on Mauri can only be accurately determined by the hapu of Kahungunu ki Tamaki nui-a-rua who are the Kaitiaki.

Kahungunu ki Tamaki nui-a-rua agree with the 20 year duration of consent for the wastewater discharge consents to water and to land where such discharge may enter water.

Request to be heard at a prehearing or hearing.

Submitter4: Cyril (Corny) and Charlotte Andrews

Request to be heard: Yes

Oppose

This submission is a blanket submission opposing the application. They request that the application is 'rejected.' But if the application is granted a maximum term of three years should be imposed. Request enforcement of resource consent conditions.

Request to be heard at a pre-hearing (if held) and a hearing also.

Submitter 5: Wellington Fish and Game New Zealand.

Request to be heard: Yes

Oppose

Wellington Fish and Game New Zealand (F&G) acknowledge the importance of the Makakahi River to the anglers of the Manawatu River and visitors to the Region.

F&G are concerned about the excessive periphyton growth and degradation of ecosystem health downstream of the WWTP. Regular monitoring has identified an approximate doubling of dissolved inorganic nitrogen and dissolved phosphorous downstream of the WWTP discharge point, relative to upstream. The increased enrichment has also observed considerable increases in filamentous algae and periphyton downstream and a reduction in the biological diversity and biomass due to oxygen fluctuations. There has also been a significant increase in *E.coli* and cyanobacteria downstream of the discharge.

F&G seek that conditions are imposed that:

- address levels of nutrients discharged into the river that may result in excessive periphyton and algal growths;
- require adequate monitoring to enable levels of periphyton and algal growth to be assessed in a timely manner;
- require adequate monitoring of potential indicator species for abundance and diversity including macroinvertebrates, and potentially trout;
- require actions in an adaptive management plan in response to trigger points to high levels of nutrient concentrations at discharge point and downstream, and periphyton levels downstream;
- require a regular report (three monthly) on the discharge wastewater quality and indication of occurrences of non-compliances within limits;
- require investigation of alternative methods of treatment and discharge options (including discharge to land, or alternatives) to ensure continuous improvement and re-evaluation;

- require conditions imposed that are consistent with the principles of the National Policy Statement for Freshwater.

F&G request to be heard in respect of their submission.

Submitter 6: Christina Paton

Request to be heard: Yes

Oppose

This submission opposes the application for the following reasons:

- there is insufficient data to justify the term requested
- There is insufficient information on investigation of alternate disposal methods (e.g. land based disposal by irrigation or similar)
- That the applications as submitted are significantly out of date
- There is no cultural assessment
- That paragraphs in this application refer to documentation of other plants as a comparison, but no actual data is offered.

Requests that the term is reduced to 3 years and a comprehensive monitoring programme is initiated so that a clear performance record is produced, including influent and effluent flow metering.

Submitter 7: John Bent

Request to be heard: Yes

Oppose

This submission considers that there is a lack of detail/data/evidence in support of the application – which precludes an examination of the *minutiae*. It considers that there is no consideration given to the cumulative effects of all Tararua discharges of human sewage within the District and outside.

That there is no consideration of the cumulative contribution of these discharges to the adverse effects below the Palmerston North sewage outfall. That there has been no attempt to comply with Policy 5-11 of the One Plan. While commending the District Council, considers that the current policies and their implementation is inadequate.

The submission opposes the overall intent of the application, and the submitter reserves his position on all matters. The submission requests that the applications be declined, or as an alternative arising from relief sought by other submitters, would consider consent terms of 3 years on all consents applied for.

Submitter 8: Water Protection Society Inc

Request to be heard: Yes

Neutral

Submission indicates that it neither currently supports nor opposes the applications, due to insufficient information in the application. Submission indicates that they may call upon experts to support their position [once confirmed].

The submitter is concerned about the effects of the discharge on the various values that have been agreed for the Makakahi River, including the effects on invertebrates, indigenous aquatic vertebrates and on the significant trout fishery, these effects being in combination with those due to other sources of contaminants in the catchment.

They are also concerned about the lack of adequate up-to-date data on wastewater quantities and characteristics as well as on effluent quality, in the application. The Eketahuna earthquake of 2014 caused considerable damage to piping infrastructure which has since been addressed, but no up-to-date influent volumes are provided.

The submitter is concerned with the failure of TDC to implement those measures required of it in the 2012 short-term consent 103346 such as the installation of a UV treatment unit and rock filter. Questions how there can be confidence in its compliance with any future consent when it appears to have failed to comply with its existing short term consent.

The submitter also indicates that they are perturbed that more than 10 years has passed since the former long term consent expired in 2005, with it being extended by a short term consent not issued until 2012. There seems to be a history of delaying doing anything.

The submission indicates that there are many unknowns about the proposal (which have been acknowledged by the applicant) including, among others, the likely performance of the lamella plate clarifier, the wet weather flow rate once the reticulation network is repaired, long-term performance of tephra filter.

Given the lack of sufficient data on the plant and the difficulty of accurately predicting the effluent quality following the proposed upgrades, the submitter would be open to an adaptive management approach in which intensive monitoring accompanies installation and tuning of the proposed equipment and processes.

The submitter considers that there should be a clear and appropriate timeframe for achieving high quality effluent and consequences for not doing so. The submission considers that a 20 year is too long a term and suggests that 5 years of tuning and data gathering after installation should be sufficient. Because of the multiple uncertainties involved and the need to deter indefinite fine-tuning being engaged in, the submitter considers that a term of 7 years

would be a reasonable term. This would give up to 18 months to develop and apply for consent for an alternative should the currently proposed system prove unsatisfactory.

The submitter considers that the alternatives considered were inadequate, being all end of pipe considerations, i.e. what to do with wastewater rather than involving decreasing wastewater generation. Notes that even the alternatives considered appear to have been inadequate as end of pipe solutions.

The submitter considers that the cumulative effects of the WWTP discharge with other sources of contaminants in the catchment, esp. the Ngatahaka Creek, need to be considered. It is inappropriate to try to justify the WWTP discharge on the grounds that the catchment is already contaminated. If the assimilative capacity of the river is already exceeded then if the WWTP cannot divert its effluent from the river, then other sources of contaminants must be required to do so.

Submitter 9: Te Roopu Taiao o Ngati Whakatere

Request to be heard: Yes

Oppose

Te Roopu Taiao o Ngati Whakatere (TRToNW) oppose the application. They request to be heard and will attend a pre-hearing should one be held. They reserve the right to bring support.

TRToNW consider that there is insufficient data to justify the term requested, that there is insufficient information on investigation of alternative disposal methods, that the application as submitted is significantly out of date and there is no cultural values assessment.

TRToNW request that the term is reduced, and a comprehensive monitoring programme is initiated so that a clear performance record is produced, including influent and effluent flow metering. Request that a cultural impact should be commissioned by TDC to be completed by TRToNW.

TRToNW recognise that TDC has carried out significant repairs to the sewage network as a result of earthquake damage, however they consider that the peak wet weather flows applied for are excessive. A time series of influent flow data should be obtained for a more accurate assessment of consent requirements.

TRToNW consider that at no point in the application is there any recognition of downstream values, of TRToNW and especially at low flow when cumulative effects become more evident.

TRToNW are curious as to why the Woodville plant has not been included in this upgrade of consents, given that all three plants are being upgraded to a similar format.

They note that whilst there has been considerable progress with plant upgrades, there appears to have been very little effort made to gain irrigation take agreements with local farmers – accepting that this may not provide a year round solution.

TRToNW reiterate their statement that they are willing to engage in discussion with the Applicant and/or Consent Authority prior to any hearing/pre-hearing.

Submitter 10: WECA

Request to be heard: Yes

Oppose

This submission opposes the application for the following reasons:

- there is insufficient data to justify the term requested
- There is insufficient information on investigation of alternate disposal methods (e.g. land based disposal by irrigation or similar)
- That the application as submitted are significantly out of date
- That the application as submitted does not meet the requirements of the One Plan.
- That the configuration offered differs from documented options
- That the difference between the Peak Wet Weather Flow applied for, and 'Average Dry Weather Flow' quoted in the documentation is unacceptably high and does not reflect claimed repair work to the network
- That paragraphs in this application refer to documentation of other plants as a comparison, but no actual data is offered.

Requests that the term is reduced to 7 years, being the time required to complete the planned upgrade and a clear comprehensive monitoring programme (5 years) is initiated so that a clear performance record is produced, including influent and effluent flow metering.

The submitter considers that this will provide the basis for a longer term consent when the plant is fully upgraded and meeting the requirements of the One Plan and the obligations of the Manawatu River Accord.

The submitter recognise that TDC has carried out significant repairs to the sewage network as a result of earthquake damage, however they consider that the peak wet weather flows applied for are excessive. A time series of influent flow data should be obtained for a more accurate assessment of consent requirements.

The submitter considers that at no point in the application is there any recognition of downstream values, especially at low flow when cumulative effects become more evident.

The submitter is curious as to why the Woodville plant has not been included in this upgrade of consents, given that all three plants are being upgraded to a similar format.

The submitter notes that whilst there has been considerable progress with plant upgrades, there appears to have been very little effort made to gain irrigation take agreements with local farmers – accepting that this may not provide a year round solution.

The submitter reiterates their statement that they are willing to engage in discussion with the Applicant and/or Consent Authority prior to any hearing/pre-hearing.

Submitter 11: Manawatu Estuary Trust

Request to be heard: Yes

Oppose

Manawatu Estuary Trust (MET) oppose the application. They request to be heard and will attend a pre-hearing should one be held. They reserve the right to bring support.

MET oppose the application on the basis that there is no provision for land based disposal, to match the diversity of domestic sewage.

Submitter 12³: Rangitāne o Tamaki nui a Rua Incorporated

Request to be heard: N/S⁴

Oppose

Rangitāne o Tamaki nui a Rua Incorporated submitted late on the application. The late submission was accepted by the applicant.

The submission notes that they have not visited the site and therefore are unable to make a comment on whether there are any concerns regarding their cultural values within the project site. With the responsibility of mana whenua and mana moana for this rohe, RTnaR Inc strongly object to any activity that has the potential to cause blemish, pollution and devastation to Papatūānuku.

They advocate a nil sewage discharge to waterways. They encourage the applicant to continue to work towards advancing operations in line with a goal of a nil discharge to waterways.

³ Late submission received on the 19 May 2016

⁴ N/S = not stated

It is important to their hapū and iwi to ensure that the values and aspirations for their environment are upheld and that the mana and the mauri of their freshwater are maintained and or preferably enhanced. These values acknowledge that everything is connected and that decisions that are beneficial from one point of view (for example the human view) can have a negative impact from another point of view (for example the environment).

They recommend a 10 year term, with a 5 year review of the permit to ensure that the most up to date technology and changes and monitoring programs are in place.