
A MAORI CULTURAL REPORT FOR MARTINBOROUGH WASTEWATER TREATMENT PLANT UPGRADE



BY RAWIRI SMITH

INTRODUCTION

1. My name is Rawiri Smith and I am a resource consent officer for my iwi, Kahungunu Ki Wairarapa.
2. Ngati Kahungunu is one of the two recognised iwi in the Wairarapa.
3. Kahungunu ki Wairarapa is a legally established organisation responsible to the Ngati Kahungunu people of Wairarapa. It also works to support the collective of Ngati Kahungunu marae and hapu, known as Te Kotahitanga.
4. He Kawa Whakakotahi - our guiding charter - was signed by marae and hapu groups in January 2007.
5. The mandate for Ngati Kahungunu was signed by hapu and marae in the document He Kawa Whakakotahi.
6. I was the signatory for Hurunuiorangi Marae
7. The charter confirms the relationships between Kahungunu ki Wairarapa and our whanau, hapu and marae.
8. The charter also aims to protect the rangatiratanga of marae, hapu and whakapapa entities allowing them to operate as a collective without being subservient to Crown imposed legal constructs.
9. Through the rebuilding of our iwi authority, our people have directed the Kahungunu ki Wairarapa Board to focus on four key roles, these are to:
 10. Represent and lead on behalf of our people
 11. Communicate on behalf of, and within our iwi
 12. Advocate on behalf of our people and Te Kotahitanga
 13. Promote the mana of Ngati Kahungunu ki Wairarapa.
 14. Kahungunu ki Wairarapa support the kaitiakitanga of our hapu and marae with mana whenua over the Martinborough area.



15. My tipuna, or ancestors include Whatahoro Jury, Tutawake, Namana and link strongly to the Whanau between Te Whiti and Hurunuiorangi.
16. Uncle Kuki Rimene said of our whakapapa it reaches from the north to south and east to west in the Wairarapa boundaries set by Pehi Tutepakihirangi from the Manawatu River to Raukawa and from Tararua to Te Tai Rawhiti.
17. Both my grandfather and grandmother taught me as an older mokopuna or grandchild why I belong to Kahungunu.
18. They both taught me about our place and the traditions of our people in these places. They both taught the mana we should have in Whanau.

CULTURAL PERSPECTIVE ON EFFLUENT PROCESS

19. Critical theorising is a school of thought emerging from Germany that challenged hegemonic thinking.
20. Indigenous studies amongst Maori theorists like Graeme Smith examined what was needed for Maori research and came up with six principles that Maori research should include so that Maori might benefit from any research that they are involved in.
21. The benefits needed to extend passed the conceptual to the transformative.

Kaupapa Maori Principles

22. **Tino Rangatiratanga** transformative principle that seeks transformative action;
23. **Whanau** principle that seeks benefit for all parts of the community
24. **Raruraru o te Kainga**: socio economic principle that acknowledges the difficulties whanau face
25. **Taonga Tuku Iho** principle that acknowledges what we have been passed down to us
26. **The Ako Maori** principle that acknowledges the preferred way Maori want to transmit knowledge
27. **Moemoea** The kaupapa principle of a collective vision from the people going forward

Additional Treatment Options

Treatment options I have to agreed include in this cultural impact report include as the first option artificial Ultra Violet treatment and the second option UV in association with floating mats.

The third option is the treated effluent after UV and floating mat treatments being discharged to land for part of the year, specifically the summer period and when land set aside to receive this discharge can take the discharge.

The fourth option is the treated effluent after UV and floating mat treatments being discharged to land for the whole of the year.

These options are additions to the pond and other treatments that occurred before December 2011

TINO RANGATIRTANGA

28. The transformative action can come in a number of ways for tangata whenua, but they realise that proving themselves as assets among a line of other assets can widen the opportunity for autonomy.
29. In the Resource Management Act section 33 talks of the transfer of powers from the regulatory authority to other groups.
30. To action this section tangata whenua understand that there needs to be a confidence level that future applicants, the wider community, needs to have in tangata whenua's ability to carry out the powers of this position.
31. Before this happens though, tangata whenua can work with the wider community to bring about change

Ultra Violet – Tino Rangatiratanga

32. Ultra Violet allows the ability to choose to swim in the river as this treatment hopes to achieve the contact standard for freshwater. While recreation is an important aspect of tangata whenua life, there are a wider range of activities in waterways for tangata whenua that they would like to be involved in.
33. UV treatment can be a stepping stone for better transformative actions. The improvements for physical health can allow the wider community to reflect on other aspects of health, e.g. the health of the ecosystem, cultural health, spiritual health and emotional health.

UV & Floating mats – Tino Rangatiratanga

34. The outputs for floating mats with respect to water are the removal of nutrients, especially nitrates and phosphates.
35. This process can include Maori preferences in the type of plants being grown on the mat. The use of flaxes like raupo, kuta and harakeke are natural indigenous filters that can have other benefits especially for Maori.
36. The vision of having more wetlands linked to the success of floating mats can be an extension of this variation to floating mats.
37. If this type of floating mat is successful in a District Council operation it can be an initiative that is encouraged by council with farmers and other major land owners.

UV, FM & Partial Discharge To Land – Tino Rangatiratanga

38. Partial discharge can allow other summertime actions, or the development of plans that blossom in summer to occur.
39. While the focus might still be too narrow, there is an opportunity again to build on.
40. The thinking behind why partial discharge might allow an initiative like making summer improvements in places associated with rivers can be sustainable.

41. As potential water reusers see the results at this stage the positive results will attract other uses and other users to become involved
42. For example swimming holes might use the natural hard rock to be used as permanent swimming hole.
43. This becomes an opportunity for freshwater fauna to use pools for cooler water too.

UV, FM & Total Discharge To Land – Tino Rangatiratanga

44. The thinking that is behind this option will need to bring the whole community to accepting the concepts that our waterways are a way of enhancing the whole of the community and as such are worth investing in.
45. While Maori can see quickly how this position will allow us to be free to be involved in a wider range of contacts with our whenua we can see that the other areas we wish to develop can happen when the rest of the community acts on these underlying thoughts.
46. There can be excessive costs associated with this option and I outline many of these to consider in the Nga Raruraru o te Kainga section of this report, but in this subsection I wish to concentrate the opportunities connected with the theorizing process outlined in 44.
47. The aquaculture activities, can give iwi in Wairarapa a sense of their traditional identity associated with the eel, especially the long fin eel.
48. The sense of being kaitiaki for these treasures as discussed in the section about taonga tuku iho more can be discussed about this there.

The Mauri of Wairarapa

1. The identity for the whole of the province to be realized in our Maori name Wairarapa could especially be a source of pride for its tangata whenua
2. In Maori we have a concept called mauri ora when the ihi, wehi and wana heighten our experience of life.
3. The ihi is the excitement with life, the wehi is the awe with life and the wana is the inspiration that is life.
4. For tangata whenua this is connected with the land including the water
5. In the Martinborough area, the hapu of Ngati Hikawera and Ngati Rakaiwhakairi, have produced men who have had a heightened appreciation of who they were because of the taonga they were surrounded by.
6. The Lake Wairarapa, the Ruamahanga River, the Huangarua River, Lake Onoke situated between Aorangi and Remutaka, leading out to Raukawa, (Cook Strait) and Palliser Bay with the bounty that was their mahinga kai, their transport systems, their places of ritual performance and their places of safety.
7. All the hierarchy of psychological needs were met
8. In this level of treatment sustained by the rest of the community we can move to the best place for Maori
9. The vision is really the place this starts

TAONGA TUKU IHO

50. The treasures passed onto tangata whenua are in part the types of the whenua whanau, hapu and iwi live with.
51. The responsibility for caring for these treasures so they are left in a better state than when the treasures were received is a key imperative for kaitiaki.
52. The RMA does not ensure the enhancement of an environment during development, but adverse effects on the environment are less than minor during development and through operation.
53. In a wastewater environment the point discharge is required not to degrade the receiving environment in any significant manner.
54. When the receiving environment is significantly degraded the treatment of effluent is not required to be robust, but for Maori the presence of human waste degrades the receiving environment.

Ultra Violet - Taonga Tuku Iho

55. We have the responsibility of katiakitanga and at this level of treatment there is removal of pathogens so that diseases are not being passed on.
56. The contact standard for recreation can be a standard that would not denigrate the receiving environment if its standard was better than the contact standard.
57. As water standards can be met through dilution, the concentration of nutrients in lower water levels, especially for summer means that waterways tangata whenua are kaitiaki for can still be degraded at the time when most Whanau want to use it.

UV and Floating mats – Taonga Tuku Iho

58. The concentration on health standards from point discharge that stops disease can widen its focus to improving water's life supporting qualities
59. The outputs for floating mats with respect to water are the removal of nutrients, especially nitrates and phosphates.
60. This allows the waterways and the indigenous fauna to develop in better conditions

UV, FM & Partial Discharge To Land – Taonga Tuku Iho

61. The summer months are a time when Whanau will have the most contact with places they whakapapa to or have a genealogical link to.
62. Our natural taonga as places we have lived with for generations are enjoyed by Whanau from outside the area and this is an opportunity to have them contribute to the sustainable development of our waterways for the rest of the year.

UV, FM & Total Discharge To Land – Taonga Tuku Iho

Ultra Violet - Ako Maori

64. The removal of pathogens from the treated effluent, while not total, is at least producing safer effluent and better physical health for humans.
65. Maori concepts of health extend past the physical and includes as a model prevalent in New Zealand health, the Whare Tapa Wha, indicates that wairua, hinengaro and Whanau health aspects are important.
66. These three aspects are not made improved on by a nutrient rich river that continues to degrade.

Floating mats – Ako Maori

67. This process can include Maori preferences in the type of plants being grown on the mat.
68. The use of flaxes like raupo, kuta and harakeke are natural indigenous filters that can have other benefits especially for Maori.
69. The harvesting of indigenous plants used in floating mats can be used for Maori activities, especially weaving.

Partial Discharge To Land – Ako Maori

70. While this is not our preferred option because the discharging of treated effluent into waterways still can pollute, there are at least some advantages to this option.
71. By taking out treated effluent from the river in summer months, coincides with a time when water levels are lower and any effect will be more intense.
72. It is the period of time when the levels of recreation in the river increase.

Total Discharge To Land – Ako Maori

73. Discharge to land should be done in a sustainable manner if it is appropriate.
74. The extensive nature of Maori agriculture as witnessed by the Kumara gardens in South Wairarapa indicates our preferred option of using treated effluent across a wide number of users.
75. The supplementary use of treated effluent to a wide range of users means the supplier is not dependent on one industry.
76. Diversification alongside extensive use could lead to keeping treated effluent out of the food chain.

WHANAU MAORI

77. The Whanau unit is multi generational with the normal standard being three generations, but at times can be more.
78. Ancestors have an influence through their words and establishing practical ways that families act and respond to threats.
79. Those of the Whanau yet to come are being prepared for in kaitiaki responsibilities which I comment on in detail in the taonga tuku iho.
80. Key considerations in any initiative for Maori are the effects on each part of the whanau and the whanau as a whole.
81. The treatment of effluent and the discharge of the treated effluent are processes that can affect any of the various demographics differently.
82. The most basic unit of Maori organization is the Whanau unit and having traditional activities that the whole Whanau unit is involved in nurtures them.
83. This nurturing of the family unit occurred often in rivers that were safe

Ultra Violet

84. The artificial UV process, as opposed to the natural UV process through the sun that ponds use, is at least based on a natural process.
85. The intensification of the UV process is effective on eliminating pathogens and disinfecting the effluent.
86. While there are gains in intensifying the UV process, especially when infiltration of water into the sewage process decreases the time treatment can occur, there are some losses in intensification.
87. The breaking down of effluent still happens in ponds, but the finishing of the process can be done under artificial UV conditions

Ultra Violet - Whanau Maori

88. While it is safer for Whanau to be involved in contact recreation, there are many other aspects of health for the Whanau including issues of identification.
89. Wairarapa Maori, including those from the Martinborough area have strong identifiers with fresh water and its environment.
90. The name of the province, Wairarapa applies more to the southern part of the province and highlights the glistening waters.
91. Our visitors to our marae and hui expect when they come to a province of this name to see the products of glistening waters.
92. The tangata whenua as hosts would like nothing more than to manaaki or care for their hosts with tuna, whitebait or flounder.

93. This treatment will still allow for nutrient rich effluent to enter the waterways and degrade the habitat of threatened indigenous species, including long fin eel, koura, dwarf galaxias, mudfish and lamprey.
94. Maori will have difficulty in accepting this challenge that undermines who they are as tangata whenua.

Floating mats – Whanau Maori

95. Whanau could be involved in a number of ways directly and indirectly from the process of floating mat treatment system.
96. The indirect involvement is the option that has the greatest likelihood of being implemented, though this would be unusual.
97. If Whanau were involved in working with council on the floating mats and indigenous flora was involved, material for weaving might eventuate and the educating of children by nannies and mothers for the strengthening of the marae is a possible outcome.
98. The outputs for floating mats with respect to water are the removal of nutrients, especially nitrates and phosphates.
99. A direct benefit from the output expected is a lowering of nutrient levels in the treated effluent before it is discharged to water.
100. The better quality of effluent will mean better ecological conditions.
101. The use of indigenous plants as filters is a concept that can encourage other parts of the community that might be contributing to non point discharge to encourage natural filters on their land.

Partial Discharge To Land – Whanau Maori

102. Tangata whenua realise they are in a relatively autonomous position, so pragmatically they accept what gains they are presented with, while pushing for better results.
103. The partial discharge might realise gains in the summer, but there are risks that Whanau will be weary about.
104. The thinking behind partial discharge could be seen as getting the best result given the circumstances, which usually means costs won't allow other options.
105. Being resigned to this option can fall short of investigating the final option, especially when it allows greater benefits for the family.

Total Discharge To Land – Whanau Maori

106. The cost of total discharge to land can be difficult to reconcile, but in a cost benefit analysis there might be opportunities for all parts of the Whanau to benefit.
107. While the financial specifics will be left to the raruraru o te kainga section, there are wider benefits whanau might gain from total discharge to land.
108. Should the attitude brought to this initiative pervade the community, the expected enhancement in the waterway could be an asset for all sections of the Whanau.

109. Descendants or uri, not yet born could enjoy the rituals of their iwi like tohi rites performed in the waterways like their ancestors performed.
110. Children, or tamariki can play and learn safely in the water.
111. The youth or rangatahi can take on kaitiaki responsibilities. Adults can supplement their food needs for their own Whanau or mauhiri with traditional kai that is healthy and grown in their traditional areas.
112. Kaumatua can learn the karakia their own ancestors gave for the rituals that teach wider lessons to the tangata whenua.
113. Ancestors can be encouraged by the renaissance.

MOEMOEA

114. The vision for tangata whenua is to connect as the name suggests tangata or people with the whenua or the land, including freshwater waterways.
115. This connection is one of nurturing the Whanau in terms of recreational activities together, their complete health, the supplementing of their kai, ritual activities and other ways that home nurtures its own.
116. The vision of having a people thrive, even though they have relative autonomy which is affected by being in a minority, refers to all parts of life in line with the four well beings, economic, environmental, cultural and social.

Ultra Violet - Moemoea

117. A moemoea for tangata whenua is the health of the people and the health of the land.
118. UV is about one side of this health equation and then it is the physical health of the people.
119. While this is important it is a bottom line to work from.

UV & Floating mats – Moemoea

120. This process can include Maori preferences in the type of plants being grown on the mat.
121. The use of flaxes like raupo, kuta and harakeke are natural indigenous filters that can have other benefits especially for Maori.
122. The vision of having more wetlands linked to the success of floating mats can be an extension of this variation to floating mats.
123. If this type of floating mat is successful in a District Council operation it can be an initiative that is encouraged by council with farmers and other major land owners.
124. The increase of numbers of wetlands, the efficiency of wetlands and the different ways the utilisation of wetlands can occur are all aspirations Maori.

125. The opportunity for indigenous plants to have greater a greater presence because of the uses they have in purifying water highlights the importance of indigenous plants.

126. The outputs for floating mats with respect to water are the removal of nutrients, especially nitrates and phosphates.

UV & FM Partial Discharge To Land – Moemoea

127. The summer discharge to land following other treatments will allow some summer aspirations for Whanau like a safe waterway to swim in and the harvesting of wetlands to occur

128. Tangata whenua aspirations extend pass summer though, so the building on the thinking behind this initiative as addressed in the tino rangatiratanga section can help in having zero treated effluent in the river.

Total Discharge To Land – Moemoea

129. The vision of having waterways free of point discharge, extends to having waterways free from non point discharge.

130. The total discharge of treated effluent is a stepping stone to seeing the reuse of water on land for wider projects that include irrigation for cropping, nurturing livestock, promoting forest growth, watering public lands and countering the risks of drought.

NGA RARURARU O TE KAINGA

131. The baseline amongst many people associated with developments is the affordability.
132. While the benefits should also be balanced alongside costs in a cost benefit analysis, the cost as a proportion of expendable income is of key importance for iwi.
133. The stress that Whanau are subject to because of two key factors, the average income is lower for Maori and then the number of dependents relying on the average income is higher for Maori.
134. These are just some of the reasons iwi need to understand what they are committing Whanau to in terms of rate increases.

Ultra Violet - Raruraru o te Kainga

135. While artificial ultra violet imitates the natural process that have been left to occur in the sun, the effluent is not left in the ponds long enough to be broken down so as to reduce pathogens to the contact standard for recreational activities in the water ways.
136. The cost of UV is not as much as other more expensive options that do not remove as much pathogens, but remove more nutrients than the UV option.
137. The cost of operation is expensive, but most artificial treatment options are electricity dependent.
138. The electricity option could be cheaper if it was bought at auction prices rather than standard rates.
139. This treatment system might not meet the standard required for discharge to waterways with respect to nutrients.
140. The discharge to land that can meet the nutrient standards could take care of pathogens more cheaply in terms of treatment process, but the initial capital outlay for the land is more expensive.

UV and Floating mats – Raruraru o te Kainga

141. This has the potential to be the cheapest and most effective option, but does not break down the pathogens, so needs to be combined with artificial UV treatment when the ponds are not able to break down the pathogens well enough.
142. The cost can be comfortably taken on by rate payers, but if artificial UV is needed it would be an added cost to the UV plant because mainstream thinking would prioritise the reduction of pathogens before reducing nutrients.
143. The benefits for Whanau Maori are the plants grown in the floating mats might be able to include indigenous plants that are useful for weaving including raupo, kuta and harakeke
144. A healthy waterway could improve the quality of kai that can supplement the kai needed for Whanau Maori.

145. In Martinborough the mahinga kai opportunity will be dependent on other factors including the reduction of nutrient levels from non point discharge.
146. The floating mat treatment option is an affordable option, but can be difficult to operate.

UV, FM & Partial Discharge To Land – Raruraru o te Kainga

147. The partial discharge of treated effluent to land option incurs costs associated with pumping the treated effluent to the land.
148. Another possible cost for this option could be further treatment than the two treatments given above, because these treatments might not be enough to get the effluent to a high enough quality for discharging to agricultural land.
149. The purchase of the land is another possible cost though having 200% more land through passing it onto neighbouring farmers is a reduction in the cost.
150. A possible income can occur when there is a competitive market for the treated effluent, especially during drought conditions.
151. The security of supply in terms of water with treated effluent that might be broken down enough to be considered as nutrients.

UV, FM & Total Discharge To Land – Raruraru o te Kainga

152. The total discharge of treated effluent to land has the added cost of storage.
153. The winter period is an over-supply and under-demand for the treated effluent for farmers and for council if they owned their own land.
154. This would mean that the treated effluent would be going to a storage facility to be used when needed and/or when there is a demand.
155. The cost at first looks to be too excessive, but there are some factors that need to be considered.
156. By coping with water infiltration problems, not that these are excessive in Martinborough, the size of the dam can be further reduced, thus reducing the cost.
157. If other activities can be added to the uses that the dam takes on then costs can be further reduced when multiple use benefits are realized.
158. The income can be greater than the partial discharge option or the number of uses for the treated effluent can mean that diversification for effluent use allows for public good to occur in other ways like irrigating public land.

Supplementary Evidence:

Specific Aspects of Martinborough Wastewater Treatment Plant

1. The cultural impact assessment of the proposed and existing Martinborough Wastewater Treatment Plant examines traditional land and water activities.
2. This assessment recognizes those practices that exist today from physical activities through to group rituals that realized spiritual need.
3. The traditional period of development set attitudes to the land and water that is the framework for New Zealand's indigenous culture and in this case the culture of the tangata whenua or people of the land.
4. The specific area which could be affected by effects from the on land was traditionally called Waihinga, and in the Ruamahanga River.
5. While local history recognizes the establishment of Martinborough, the pre-history of this settlement starts in the Maori settlement of Waihinga.
6. Many of the reasons European settlement chose Martinborough are the reasons Maori chose this place.
7. Key amongst these reasons was the access to clean healthy water.
8. West Waihinga was the access point from the west side of the Ruamahanga River and the north end of Lake Wairarapa through ferrying and ultimately bridging the river.
9. The holistic view of health aspects presented by the Whare Tapawha model framed by Mason Durie groups health concerns into four general areas.

10. These areas are physical health or tinana, mental health or hinengaro, spiritual health or wairua and family health or whanau.
11. It is easy to see that these elements work together and artificially separating them is problematic, so I will present issues thematically, identifying aspects of health.

Drinking Water

12. The settlement, traditionally Waihinga, and presently Martinborough is raised above the potential of flooding, but close enough to make water collection for the pa and the township an easy proposition.

Tinana

13. Drinking water is essential for settlement and while most people can currently access urban water supply and rain fed water holding tanks, but there is no option to take drinking water from the Ruamahanga River at present with the discharge of treated effluent to this river because the water does not meet the drinking water standard.
14. The drinking water standard is more stringent and while UV treatment can remove pathogens to a high standard, the process with treated effluent is not able to rely on no breaches of the drinking standard occurring in the discharge to water.

Whanau

15. The whanau who meet in traditional marae, Kohunui Marae, down river from Martinborough Wastewater Treatment Plant's point discharge can not use their traditional water gathering place, the river to use for the whanau of the marae and the manuhiri, or visitors to the marae.
16. This has become more problematic for the marae's whanau as the Ministry of Health's assistance for drinking water does not extend to marae communities.

Hinengaro

17. The concern about water quality meeting the drinking water standard can be unsettling as parents uncertainty affects their children

Wairua

18. The two waters will be spoken of below, but can exist in a physical sense and a spiritual sense.
19. The confluence of two waters is in part explained in the changing of the name Waihinga to Waihenga by Iraia Te Whaiti.

Mahinga Kai - Eels

20. The point discharge of treated effluent even after Ultra Violet treatment leaves nutrient enriched water that can cause oxygen deficit in the water and ammonia that could cause acidic complications
21. This means that the quality of life for eel will become degraded, exposing eel to disease.

Tinana

22. Eel is a traditional food collected from many places, but for the whanau from Waihinga, eel was collected for supplementing food gathered from the wider area.
23. Eel was an important dietary addition because meat was not easy to obtain.
24. In the contemporary context a wider range of food is available, but access is dependent on earning power and for many of our whanau, the food requirements are supplemented by traditional foods including eel.

25. The restriction of eel as a resource through degraded waters is more complex than the discharge of treated effluent to water from Martinborough Wastewater Treatment Plant contributes to the overall issue.

26. The attitude of taking responsibility for the eels starts with small steps

Hinengaro

27. The characterizing of Maori in Wairarapa is in part related to eel.

28. It is how other iwi characterized Wairarapa too

29. So the thinking connected to being a part of watching an icon like the long fin eel, a threatened species sink into extinction is against the responsibility Maori take up being kaitiaki.

30. The self-loathing apparent in youth suicide in Wairarapa could lessen when self esteem is connected in a positive way to aspects of their culture like being kaitiaki for the eel.

Whanau

31. The time spent shoulder to shoulder as Whanau, working with each other in fishing for eels was a traditional time for passing on information about the lands and waters the Whanau were connected to.

32. This is not an option for the whanau of Waihinga as the eel are affected by degraded water quality.

33. While going to other places and having family connections in the myriad of activities families can be involved in is an option, it is not the tangata whenua option for the

people on this land with an activity the ancestors of this land did for hundreds of years.

34. Learning how to supplement income in a responsible way with fishing eel in the appropriate season and understanding why is just the start of all the different types of skills needed to be a kaitiaki

Wairua

35. The cumulative nature of the effects on water bodies like the lower Ruamahanga affects the resources like
36. The sharing of the eeling space amongst Wairarapa hapu brought a unity amongst Wairarapa Maori as they worked together.
37. Lake Onoke, an area that can be affected by discharge to water, not only Martinborough's discharges, had many hapu from the wider Wairarapa area come to eel there in times of plenty
38. The Ultra Violet treatment of effluent that is already partially treated by natural UV sources can be successful in removing pathogens that meets current recreational contact standards.

From Waihinga to Waihenga

39. In the book, *The Canoes of Kupe*, the author Roberta McIntyre quotes Mita Carter as saying the name of this block of land changed from Waihinga meaning waterfalls or tumbling waters to Waihenga meaning the meeting of two rivers in honour of Iraia Te Whaiti.
40. This important ancestor became the first Maori Freemason and honoured the occasion with the statement, "Now we are here, we are one people".

41. He continued with the symbolism when he said that the merging of the two rivers, the Ruamahanga and Huangarua, near Martinborough symbolized the merging of two peoples.
42. This account is a very narrow retelling of a vitally important concept that can be of benefit to all aspects of holistic health as seen through a Maori worldview.
43. The depth of meaning to the above quote, "Now we are here, we are one people", were realized at these levels:
- The joining of newborn children to their immediate and wider families;
 - The joining of hapu together across river boundaries;
 - The joining of iwi together across mountain ranges can lead to
 - The joining of Pakeha and Maori across the discharge of treated human effluent.
44. The following sections look at how these aspects of unity are affected by the discharge to water even in partial amounts.

Wairua and Whanau

45. The celebration of Iraia makes the land at this section of the river important, but it aligns significantly with traditional thought and practice.
46. Where two rivers come together the mauri of both rivers comes together and the place has the mana of both rivers.
47. The significance of this in practice was the celebration of birth ritual, also known as tohi, was carried out this section of the river.
48. At Waihenga the people who were from this area would have their children blessed by tohunga in this section of the river.

49. Consigning this ritual to history eliminates an option for bringing families together to understand the importance of a newborn child at a time when the Wairarapa is recovering from child murders.
50. The tohi practice is happening for some of our families now in fresher water not compromised by human waste.
51. For the people of Waihenga there are traces of human effluent from other point discharges, but starting from the local point of discharge to have no treated human effluent could see a ritual that helps to value whanau.
52. This ritual was well developed in Wairarapa and for Wairarapa Maori moving from a state of self loathing to being empowered by their heritage can bring the value of cultural imperatives to help in areas of stress.

Tinana

53. The bringing of two peoples together was a traditional opportunity too.
54. Boundaries within Wairarapa were not seen entirely as points of separation, but also as shared resources because often the boundaries were the rivers.
55. The concept of people coming together to fish on the river is defined above, but bringing traditional hapu to work together can lead to other options between the two hapu.
56. Again consigning opportunity to history in this area of collaboration because of degraded water has a cultural impact of not having traditional relationships to land and waterways acknowledged and accounted for.

Wairua

57. At the Waihenga land block one of the most important unions was present in the form of a marriage.
58. The tohu or symbol of peace between Wairarapa Maori and Wellington Maori was the image of a tatau pounamu or a greenstone door.
59. To celebrate the peace two, people were joined in marriage, one from each tribe and this was done with Ripeka and Ihaka Ngahiwi who lived on the land opposite the Waihenga Block.
60. For Wairarapa Maori in the present reality, they are in places around the world and being able to celebrate the peace with other iwi can allow their place in foreign environments that was once celebrated on the banks of the Ruamahanga at Waihenga.
61. The coming together of two iwi is celebrated at this place and remembered by those who understand the significance of all parts of the meaning behind the words uttered by Iraia Te Whaiti.
62. The stronger part might be yet to come and that is in the working between Pakeha and Maori to press for gains for this section of the river at Waihenga

A Solution Through Whare Tapa Wha

63. The addressing of all these aspects of health and to lessen the cultural impact on Maorii especially the tangata whenua of Waihenga and the tangata whenua downstream at including the wider Wairarapa Moana.
64. An ultimate solution can be 100% discharge to land in a responsible manner that would include deficit irrigation.

65. This way the discharge of treated effluent could be used as a resource