

Wairoa River



Key Values

Cultural

Recreation

Ecology (wildlife, fisheries)

Landscape (geological features)

Table 1: List of documents reviewed

Year	Name	Author
1979	64 New Zealand Rivers	Egarr, Egarr & Mackay
1981	New Zealand Recreational River Survey	G & J Egarr
1988	Wildlife and Wildlife Habitat of Hawke's Bay Rivers	G.R. Parrish
1998	East Coast Conservation Management Strategy: Southern Coast Sub Region.	Department of Conservation
2000	Te Iwi o Rakaipaaka Hapū Environment and Resource Management Plan	Nga Hua o Te Taiao Rakaipaaka
2004	Potential Water Bodies of National Importance	Ministry for the Environment
2004	Potential Water Bodies of National Importance for Recreation Value	Ministry for the Environment
2006	Areas of Significant Conservation Values: HB Coastal Marine Area (HBRC Report Number 4203 - Draft)	Hawke's Bay Regional Council
2008	Wetland Monitoring Review – A Review of Hawke's Bay Regional Council's Wetland Monitoring	Hawke's Bay Regional Council
2010	Recreational Use of Hawke's Bay Rivers – Results of the Recreational Usage Survey 2010	Hawke's Bay Regional Council
2012	River Values Assessment System (RiVAS)	Lindis Consulting
2014	Jet Boasting NZ – Rivers Information	Jet Boasting New Zealand
2016	New Zealand Geo-preservation Inventory	Geological Society of New Zealand
2016	Iwi and Hapū of Te Rohe o Te Wairoa Deed of settlement + documents schedule	Iwi and Hapū of Te Rohe o Te Wairoa and the Crown
2016	New Zealand Waterfalls	Waterfalls.co.nz

2016	Wairoa Fisheries Catchment	Fish and Game New Zealand
2017	New Zealand Landscape Behind the Scene	P. Williams
2017	Whakaki Lake & Waiora River – A better place for Wairoa People	Hawke’s Bay Regional Council
2018	Cultural Values Table	Hawke’s Bay Regional Council
2018	No-swim zone for Wairoa River	Māori Television
2018	Land Air Water Aotearoa (LAWA)	Hawke’s Bay Regional Council
2018	Swimmers told to stay out of Wairoa River due to high E coli levels	Stuff.co.nz
2018	Summary of cultural values associated with water bodies in Hawke’s Bay, Wairoa District – Turirioa, Huramua & Awamate Catchment (2018)	Ngāti Kirituna Hapū – Ki Whakaki Nui-a-Rua, Allen Smith, Christine Smith
2018	Wairoa River Trout Fishing	nz.fishing.com
2018	Visit Wairoa	Wairoa District Council
2018	Whakamahi Lagoon Wildlife in New Zealand	Protected Planet

Discussion

Purpose of report

1. The purpose of this report is to assist the RPC members to determine whether any of the values of the Wairoa River are outstanding for the purposes of the National Policy Statement for Freshwater Management (NPSFM).
2. This report presents the summarised findings of the values attributed to the Wairoa River in those documents referred to in Table 1, above. In accordance with decisions made by the RPC in June 2017, economic and consumptive use values have not been discussed in detail in this report.

Overview

3. The Wairoa River is a large river which begins the confluence of the Hangaroa River and Ruakituri Rivers just before Te Reinga Falls. The length of the river is approximately 65 km, flowing south through the town of Wairoa and into the Wairoa River estuary where it discharges to the sea.
4. The Wairoa River is popular for a range of recreational activities such as water skiing, rowing, sailing and swimming due to its wide, slow moving nature. The river is popular for kayaking and salmonid angling between Te Reinga Falls and Marumarū.
5. The full Māori name of the river is *Te Wairoa Hōpūpū Hōnengenenge Mātangi Rau*, which means the long, bubbling, swirling, uneven waters. The ancestral canoe Tākitimu travelled up the river and landed near where the Tākitimu marae now sits. The river has significant cultural and spiritual values.
6. The Wairoa River has the region’s largest catchment of around 660 km² in size. The land use in the catchment is predominately farming and forestry followed by urban areas. A significant amount of sediment enters the Wairoa River from erosion on the hill country. Stormwater and wastewater from the Wairoa Township is discharged into the estuary area.
7. Historically, the Wairoa River mouth has regularly closed up due to the sea currents, causing flooding of the low lying areas near the township. To prevent flooding, the Wairoa River mouth is manually opened by Hawke’s Bay Regional Council using a digger, when conditions allow.
8. Despite significant modifications and discharges, the Wairoa River estuary has high fisheries and wildlife values, and is listed as a Significant Conversation Area in the Hawke’s Bay Regional Coastal Environment Plan. The Wairoa River has been identified as one of the six ‘environmental hotspots’ by Hawke’s Bay Regional Council, and funding has been allocated towards improving the area.

Location

9. The Wairoa River is located in northern Hawke’s Bay. Major tributaries of the Wairoa River are the Hangaroa River, Ruakituri River, Mangapoike River, Mangaaruhe River, Waiau River and the Waikaretaheke River.
10. The location and extent of the Wairoa River can be seen in Figures 1 and 2, below.



Figure 1: Wairoa River



Figure 2: location of Wairoa River

Cultural values *

11. The Wairoa River is significant to the iwi and hapū of Te Rohe o Te Wairoa. People of upper and lower Wairoa were descendants of Kahungunu's marriage to Rongomaiwahine through their eldest son Kahukuranui and his son Rakaipaaka and daughter Hinemanuhiri.
12. The river is regarded as tapu. It is bound by rituals and traditions, which stem from gods and belongs to their ancestors. The water of the Wairoa River was used for purification, ancient chants and prayers. The river was also a major avenue for trading and commerce and an important mahinga kai.
13. It is said that the Tākitimu waka came up the Wairoa River and landed at Makeakea Stream. Te Reinga Falls, the starting point of the river, is associated with Hinekorako and Ruamano, which were taniwha carried to Aotearoa on the Tākitimu waka. The river mouth is also associated with two taniwha engaged in an ongoing struggle between Tapuwae and Te Maaha.
14. Attachment 1 contains a more detailed explanation of the cultural values associated with the Wairoa River.

Recreation values

15. The lower reaches of the Wairoa River are popular for a range of recreational activities such as water skiing, waka ama, rowing, sailing and swimming. This area is also highly valued for white baiting between August and November.
16. The water quality in this area currently has high levels of bacteria and is unsafe for swimming, this has a significant impact on the recreational values of this area.
17. In 2004, The Wairoa River was recognised as a Potential Water Body of National Importance for recreation by the Ministry for the Environment.
18. Recreational activities which take place on the Wairoa River are discussed in more detail below.

Angling

19. Both rainbow and brown trout are present in the Wairoa River, which average around 1.5 kg and are present in reasonable numbers. The NZ fishing website advises anglers that the Wairoa River is best known for its tributaries which provide world class fishing.
20. The majority of angling occurs at the beginning of Wairoa River below Te Reinga Falls. The river is open to fishing all year round and at times trout larger than 1.5 kg are caught here.

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21. The NZ fishing website describes the Wairoa River as a river which is silt laden and not particularly attractive, further advising that its banks are often lined with willows making access difficult in places.
22. In 2012, the Wairoa River was identified as locally significant in the Hawke's Bay RiVAS assessments for salmonid angling.

Boating

23. The Wairoa River provides a 20 km stretch of easy jet boating water up to Marumaru and slightly beyond depending on the water levels. During low flows, the ledges of rock across the river above Marumaru impede navigation.
24. The Wairoa River is used for rafting and kayaking, with the most popular trip being from Te Reinga Falls down to Marumaru. Paddling can occur past Marumaru however, the river is flat and sluggish past this point.
25. In 1981, The Recreational River Survey assigned the recreational and scenic values of the Wairoa River an 'intermediate'¹ and 'moderate'² rating, respectively.
26. The Wairoa River does not feature in the RiVAS assessment undertaken in Hawke's Bay for whitewater kayaking. However, it is noted that that the flatwater of the river is sometimes used by whitewater kayakers for slalom, park'n'play and training.

Ecology values

27. The Wairoa River Estuary is part of a much larger wetland complex which includes Ngamotu, Ohuia, Waihoratuna, Wairau, Te Paeroa, Patangata and Whakaki Lagoons. Collectively these wetlands constitute the largest such system on the east coast of the North Island.
28. The Wairoa River is the discharge area for a number of non-point and point source discharges which severely impacts on its ecological values. The town's stormwater and wastewater flow directly into the river at certain times, and there are both active and closed landfills near the river mouth. Elevated bacteria levels are generally observed after heavy and prolonged rainfall.

Fish

29. The Wairoa River Estuary, and its associated wetland areas, provide an important habitat for shortfinned eel and whitebait spawning. The area is also an important access point into inland waters for a number of native freshwater species including longfinned eel, smelt, koaro, redfin bull, bluegill bully, torrentfish, lamprey and cran's bully.
30. The Hawke's Bay Regional Coastal Environment Plan identifies the Wairoa River Estuary, and its associated coastal wetlands, as having regionally important fisheries values.
31. In 2012, the Wairoa River was identified as nationally significant in the Hawke's Bay RiVAS assessments for native fish.

Wildlife

32. A large section of the Wairoa River Estuary is located within the Whakamahi Wildlife Management Reserve which is around 144 hectares in size and managed by the Department of Conservation. This area supports both introduced and native waterbirds and has breeding populations of Canadian Goose and a small number of South Island pied oystercatcher.
33. The Whakamahi Wildlife Management Reserve includes the lagoons, sandspit and mudflats connected with the Wairoa River mouth and the Whakamahi Lagoon. The Whakamahi Lagoon, and its associated sandspit and tidal flats are connected to the Wairoa River. The bar is highly mobile and its outlet location changes frequently. The extent of the Whakamahi Wildlife Reserve can be seen in Figure 3 below:

¹ Recreational values graded on a five point scale: insignificant, low, intermediate, high, exceptional

² Scenic values graded on a six point scale: dull, uninspiring, moderate, picturesque, impressive, exceptional.



Figure 3: Whakamahi Wildlife Management Reserve

34. Hawke's Bay Regional Council have conducted ecological surveys in this area since 2003. The survey results indicate that human disturbance along the spit bar is a problem for ground nesting birds causing a low diversity of bird species.
35. In 2012, the Wairoa River was identified as regionally significant in the Hawke's Bay RiVAS assessments for native birdlife.

Landscape/scenic values

36. The Wairoa River begins at the Te Reinga Falls. A short distance after the falls, the river begins to flatten out and flows predominately through farmland, then urban areas in its lower parts. There are high limestone bluffs standing above the hills which provide a rugged backdrop in its initial reaches.
37. Te Reinga Falls consist of four waterfalls which tumble down in stages and into a narrow channel that creates a large amount of mist on the water.
38. In 1979, the scenic values of the Wairoa River were assessed in "64 New Zealand Rivers" which provided an in-depth scenic evaluation of sixty four of New Zealand's major Rivers. As part of this study, the section of Wairoa River between Te Reinga Falls and Marumaru was given an 'interesting'³ scenic rating, with the section of river between Marumaru and the sea given an 'ordinary' scenic rating.
39. In 1981, The New Zealand Recreational River Survey assigned the scenic values of the Wairoa River a 'moderate'⁴ rating and specifically described the Te Reinga Falls as very scenic.
40. The NZ waterfalls website describes Te Reinga Falls as spectacular, it advises that the view is not perfect due to limited access.
41. Photographs of the Wairoa River are contained in Attachment 2.

Geological features

42. Te Reinga Falls and Te Reinga Cave are located at the beginning of the Wairoa River. The falls are easily accessible and a local tourist attraction. The cave system is difficult to access and has no official access track.
43. The National Geo-preservation Inventory, which identifies and ranks geological features according to their relative significance, classifies Te Reinga Cave system as nationally significant and Te Reinga Falls as regionally significant. Both are described in more detail in Table 2.

³ Scenic values graded on a five point scale: dull, ordinary, interesting, impressive, exceptional.

⁴ Scenic values graded on a six point scale: dull, uninspiring, moderate, picturesque, impressive, exceptional.

Table 2: Key geological features - Wairoa River

Geological feature	Description
Te Reinga Cave System	Te Reinga Cave is a major cave system in Pliocene limestone. Its system consists of four cave segments with a total surveyed length of 5.2 km and vertical depth of about 140 m. It is the largest known cave system on the east coast. Although it has not been dye traced, its resurgence is thought to be the large spring which is located behind Te Reinga marae. This is around 400 m from the end of the explored cave and around 80 m above sea level. There is no official access into Te Reinga Caves, with the unofficial access being slippery and dangerous.
Te Reinga Falls	Te Reinga Falls are a major waterfall over Pliocene calcareous sandstone and limestone, with rich Pliocene fossils. The falls are officially four waterfalls, which tumble down in stages and into a narrow channel that creates a large amount of mist on the water. The view is not perfect due to limited access - the waterfalls are partially seen from the official lookout.

Naturalness/intactness of waterbody

44. The Wairoa River is not in a natural state. As discussed earlier in the report, a number of non-point and point source discharges flow directly into the Wairoa River, and the river mouth is artificially opened on occasions to ease flooding.

Water Quality

45. Hawke's Bay Regional Council regularly monitors the quality of water in the Wairoa River for both recreational and ecosystem purposes.
46. The water quality of the Wairoa River with regard to 'recreation' and 'ecosystem health' is discussed below.

Water quality – recreation

47. Hawke's Bay Regional Council regularly samples the water quality of the Wairoa River for *E.coli* at the Ski Club Ramp. *E.coli* concentrations are measured at these sites to determine whether a site is suitable for full immersion activities such as swimming. An overall bacterial risk rating is assigned based on three years of data.
48. The water quality in the lower Wairoa River currently has high bacteria levels and is not safe for swimming. Sampling results are outlined in Table 3.

Table 3: Recreational water quality – Wairoa River: Ski Club Ramp (2016).

Monitoring site	Microbiological Indicator (<i>E. coli</i>)	Overall bacterial risk rating
Wairoa River (Ski Club Ramp)	<i>E. coli</i> level significantly vary, in the last three years lowest reading = 6 cfu/100ml and highest reading = 20,300 cfu/100ml.	HIGH RISK - water quality is not suitable for swimming - this site does not meet the water quality standards for faecal indicator bacteria.

Water quality – ecosystem health

49. Hawke's Bay Regional Council regularly monitors the water quality of the Wairoa River at Rail Bridge, which is classed as a lowland rural site (see Table 4). The nitrate and ammonia attribute bands provide an indication of the chronic toxicity risk to aquatic animals.

Table 4: Water quality – Wairoa River: Railway Bridge (2016).

Monitoring site	Water clarity	Nitrogen	Phosphorus	Microbiological Indicator (<i>E. coli</i>)
Waiora River (Rail bridge)	Turbidity = 7.44 NTU; Black disk = 0.5 metres. Turbidity state and black disk are in the worst 25% of like sites within New Zealand.	NOF BAND A Total Nitrogen = 0.23 g/m ³ ; Total Oxidised Nitrogen = 0.0325 g/m ³ (Annual median) and 0.299 g/m ³ (95 th percentile); Ammoniacal Nitrogen = 0.0069 g/m ³ (Annual median), 0.0381 g.m ³ (annual maximum). All are within the best 25% of like sites in New Zealand.	Dissolved Phosphorus, and Total Phosphorus are within the best 50% of 'like' sites within New Zealand. Dissolved Phosphorus = 0.0094 g/m ³ , Total Phosphorus = 0.021 g/m ³ .	NOF Band A E. coli = 80 n/100ml (annual median) In the best 50% of like sites in New Zealand

Note 1: NOF BAND A for *E.coli* = water suitable for designed use with less than 1% risk of infection from contact with water during activities with occasional immersion (such as wading and boating). Band A is suitable for swimming

Note 2: NOF BAND A for Nitrogen = unlikely to be effects even on sensitive species.

Values Summary

Overarching Value	Sub-value	Description	Outstanding Yes/no	Comments
Cultural	TBC	TBC	TBC	TBC
Recreational	TBC	TBC	TBC	TBC
Ecological	TBC	TBC	TBC	TBC
Landscape	TBC	TBC	TBC	TBC
Natural Character	TBC	TBC	TBC	TBC

Attachment 1

Wairoa River – Cultural Values Report



Key Values

Wāhi Tapu, wāhi taonga, wai tapu

Mahinga kai, Pā tuna

Pā, Kāinga

Rohe boundary

Table 1: List of documents reviewed

Year	Name	Author
1999	Rangahaua Whanui District 4: Te Urewera, Waitangi Tribunal Rangahaua Whanui Series	Anita Miles
2010	Wai 894: Te Urewera Pre-publication, Part 2	Waitangi Tribunal
2011	Ngai Tāmanuhiri Deed of Settlement documents	Ngai Tāmanuhiri and the Crown
2013	Tūhoe Deed of Settlement documents	Tūhoe and the Crown
2015	Wai 894: Te Urewera Pre-publication, Part 6	Waitangi Tribunal
2016	Iwi and hapū of Te Rohe o Te Wairoa Deed of settlement + documents schedule	Iwi and Hapū of Te Rohe o Te Wairoa and the Crown.
2018	http://www.ttotw.iwi.nz/	Tātau Tātau o Te Wairoa Trust

1. Introduction *

Purpose

The purpose of this report is to assist the RPC members to determine whether any of the cultural values associated with the Wairoa River are outstanding for the purposes of the National Policy Statement for Freshwater Management (NPSFM).

This report presents the summarised findings of the cultural values attributed to the Wairoa River in those documents referred to in Table 1, above.

The report summarises the cultural values associated with the Wairoa River into a series of categories. It is recognised that isolating the values into categories can be problematic from a Māori worldview and many of the values are part of a narrative that doesn't fit neatly into categories. However, the intention is not to take a reductionist or isolated approach to cultural values but to try and gain an appreciation of their significance and the level of detail available to progress a plan change. In preparing the reports, it became obvious that all waterways are part of a wider cultural landscape that weaves people and the environment into a rich history of cultural and spiritual association.

Ultimately, the Regional Planning Committee will need to decide what the appropriate threshold is for outstanding cultural values. Any objectives, policies or rules that are proposed to support outstanding waterbodies will be subject to scrutiny and potential challenges by those who may be affected by a plan change.

Importance

The Wairoa River is significant to the iwi and hapū of Te Rohe o Te Wairoa - one of six large natural groups negotiating the settlement of Ngāti Kahungunu Treaty of Waitangi claims.

The Ngāti Kahungunu peoples of the upper and lower Wairoa were descendants of Kahungunu's marriage to Rongomaiwahine through their eldest son Kahukuranui and his son Rakaipaaka and daughter Hinemanuhiri. They have been described as comprising 'a number of distinct tribal groups, all with autonomous leaders' (Wai 894 Tribunal Report).

2. Spiritual values

The Wairoa River is of spiritual significance. The river is regarded as tapu. It is bound by rituals and traditions, which stem from gods and belongs to their ancestors.

The water of the river was used for purification, ancient chants and prayers. It is said that the Tākitimu waka came up the Wairoa River and landed at Makeakea Stream. Te Reinga Falls, the starting point of the river, is associated with Hinekorako and Ruamano, which were taniwha carried to Aotearoa on the Tākitimu waka. The river mouth is associated with two taniwha engaged in an ongoing struggle between Tapuwae and Te Maaha (Deed of Settlement).

3. Mahinga kai

The Wairoa River is an important source of food, including inanga (whitebait), mohoa (flounder), kanae (mullet), tuna (eel), kākahi (fresh water mussels) and koura (fresh water crayfish).

The river mouth lagoons are also an important mahinga kai for tāngata whenua. The Ngamotu lagoon is on the eastern side, the Whakamahi lagoon on the west (Deed of Settlement).

4. Pā, Kāinga, ara

The River was used as a major avenue for trading and commerce. Several important pā sites are located along and at the mouth of the river including Rangihoua/Pilot Hill, this is sacred to tāngata whenua and is a registered archaeological site (Deed of Settlement).

5. Conflict

Fighting between Crown forces and Māori who lived in the district took place from December 1865 to April 1866. This fighting stemmed from the siege of Waerenga a Hika pa (near Gisborne) by Crown forces in November 1865, in which some upper Wairoa Ngāti Kahungunu participated. Crown forces arrived in the Wairoa district in December 1865. On 25 December, a major battle occurred at Omaruhakeke on the Wairoa River. This was followed by another battle on 12 January 1866 at Te Kopani, on the southern shore of Lake

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Waikaremoana. Further operations were conducted until many upper Wairoa people surrendered. During this period, a number of people were killed and homes and property destroyed. The Crown's conduct of hostilities has been a significant grievance for the Tūhoe, Ngāti Ruapani and Ngāti Kahungunu people who submitted claims on these issues (Wai 894 Tribunal Report).

6. Archaeology

The Wairoa River has a large number of registered archaeological sites along its banks and in the adjacent hills. The images below do not show the many pits, terraces and platforms that are recorded.



Figure 1: Archaeological sites around Wairoa township and the river mouth



Figure 2: Archaeological sites between Wairoa and Frasertown



Figure 3: Archaeological sites north of Frasertown



Figure 4: Archaeological sites around the junction with the Ruakituri and Hangaroa Rivers

7. Statutory Acknowledgement Area of Interest



Figure 5: Te Rohe o Wairoa Area of Interest

8. Resource Management Plans

The following tables list any relevant resource management plans developed by iwi/hapū, the regional council or territorial authorities. The tables include any specific provisions that apply to the Wairoa River. They do not include all of the general policies or rules that may apply. Water quality and water quantity provisions have been included as it is recognised that these aspects can significantly impact on cultural values.

Regional Resource Management Plan

Specific water quality standards apply to Wairoa River and tributaries upstream of Frasertown

- 100 Faecal Coliforms (cfu/100ml)
- 25 Suspended Solids (mg/l)

Specific water quality standards apply to Wairoa River Wairoa River downstream of Frasertown

- 200 Faecal Coliforms (cfu/100ml)
- 25 Suspended Solids (mg/l)

Known Productive Aquifer Systems (Schedule 4)

Rivers Considered for Riparian Protection (Schedule 8)

Regional Coastal Environment Plan

Specific water quality standards apply to Wairoa River

- 200 Faecal Coliforms (cfu/100ml)
- 25 Suspended Solids (mg/l)

Known Productive Aquifer Systems in Hawke's Bay Coastal Environment

Wairoa District Plan

Significant Lakes and Rivers (Schedule 5)

Attachment 2: Photographs – Wairoa River



Wairoa River



Te Reinga Falls



Te Reinga Falls



Wairoa River



Wairoa River and tributaries