

Outstanding Water Bodies Plan Change

Selecting a list of outstanding water bodies in Hawke's Bay

HBRC Report Number: SD19-18
Publication Number: 5400

Outstanding Water Bodies Plan Change

Selecting a list of outstanding water bodies in Hawke's Bay

HBRC Report Number: SD19-18
Publication Number: 5400



Prepared by:

Belinda Harper, Senior Planner

Dale Meredith, Senior Planner

Reviewed by:

Ceri Edmonds: Policy and Planning

Dale Meredith: Senior Planner

Tom Skerman: Group Manager Strategic Planning

Contents

Index of Appendices	4
List of Tables:	4
Executive Summary	5
Purpose of Report	7
Project Background	7
Project Timeline & Information Base	8
What is an outstanding water body	9
List of Candidate Outstanding Water Bodies	10
Local expert panel process	11
Selection options – choosing a list of outstanding water bodies	11
Overview of findings	14
Ecology values	14
Ecology: Wildlife	16
Ecology: Native Fish	30
Ecology: Native Plants.....	38
Ecology: Aquatic macroinvertebrates.....	45
Natural Character	47
Landscape / geological features	56
Recreation values	69
Heretaunga & Ruataniwha Aquifer Systems	79
Cultural and Spiritual values	86

Index of Appendices

Appendix 1	Frequently Asked Questions
Appendix 2	Outstanding Water Body Plan Change - Project Approach
Appendix 3	Location Maps: Candidate List of OWB & Nominated Water Bodies
Appendix 4	Candidate list of Outstanding Water Bodies: Secondary Assessments
Appendix 5	Summary of Engagement
Appendix 6	Outstanding Water Bodies in Hawke's Bay: Report of the Local Expert Panel
Appendix 7	List of OWB – Selection Options 1 and 2 (recreation, landscape, geology, natural character, ecology value sets)
Appendix 8	Summary Tables: Wildlife, Native Fish, Native Plants, Aquatic Macroinvertebrates, Natural Character, Landscape and Geology, Recreation, Ruataniwha and Heretaunga Aquifer Systems, Cultural and Spiritual

List of Tables:

	Main report
Table 1	Change 7 Project Timeline and Information Base
Table 2	Candidate list of outstanding water bodies
Table 3	Nominated list of outstanding water bodies
Table 4	Lists 1 – 3: classification key and corresponding colour codes
Table 5	Principal selection options – cultural and spiritual value set
Table 5A	Principal selection options – recreation, landscape, geology, natural character and ecology value sets
Table 6	NZTCS and IUCN descriptions
Table 7	LakeSPI categories
Table 8	MCI Index
Table 9	Lists 1 – 3 - classification key and corresponding colour codes (wildlife values)
Table 10	Summary Table: Key features - wildlife
Table 11	Lists 1 – 3 - classification key and corresponding colour codes (native fish values)
Table 12	Summary Table: Key features – native fish
Table 13	Lists 1 – 3 - classification key and corresponding colour codes (native plant values)
Table 14	Summary Table: Key features – native plants
Table 15	Lists 1 – 3 - classification key and corresponding colour codes (aquatic macroinvertebrates)
Table 16	Summary Table: Key features – aquatic macroinvertebrates
Table 17	Lists 1 – 3 - classification key and corresponding colour codes (natural character)
Table 18	Summary Table: Key features – natural character
Table 19	Lists 1 – 3 - classification key and corresponding colour codes (landscape and geology)
Table 20	Summary Table: Key features – landscape and geology
Table 21	Lists 1 – 3 - classification key and corresponding colour codes (recreation)
Table 22	Summary Table: Key features – recreation
Table 23	Summary Table: Key features – Heretaunga and Ruataniwha aquifer systems
Table 24	Lists 1 – 5 classification key and corresponding colour codes (cultural and spiritual)
Table 25	Summary Table - cultural and spiritual values
	Appendix 1
Table 26	Project Approach – Outstanding Water Body Plan Change
	Appendix 5
Table 27	Plan Change 7 – Engagement timeline
Table 28	Summary of feedback received on Plan Change 7
	Appendix 7
Table 29	Selection Option 1: List of OWB (recreation, landscape, ecology value sets)
Table 30	Selection Option 2: List of OWB (recreation, landscape, ecology value sets)

Executive Summary

1. Over the past 2 years, Hawke’s Bay Regional Council (HBRC) has been working towards identifying outstanding water bodies within the region. This is a key aspect of implementing the National Policy Statement for Freshwater Management (NPSFM).
2. The HBRC is tasked with ensuring all water bodies within the region are managed wisely. The identification of outstanding water bodies in Hawke’s Bay is one of a series of work programmes which are currently being undertaken to implement the NPSFM and ensure that water is available for the use and enjoyment of everyone in the region, including tangata whenua, now and for future generations.
3. HBRC proposes to change its Regional Policy Statement (RPS) to include a list of the region’s outstanding water bodies, together with a framework which prescribes a high level of protection for these water bodies in future plan making. That change to the RPS is referred to as ‘Plan Change 7’ or the ‘OWB Plan Change.’

Purpose of the OWB Plan Change

4. The OWB Plan Change proposes to change the RPS by inserting a list of the region’s outstanding water bodies. The list includes both freshwater bodies and water bodies in the coastal environment that have outstanding values or characteristics.
5. The OWB plan change is not about identifying those water bodies which have historically had outstanding recreation, landscape or ecology values which are now degraded¹, or managing or improving degraded waterways. The HBRC has a number of regulatory and non-regulatory programmes in place which are more suited to restoring these water bodies².
6. Further, the management response for degraded water bodies and outstanding water bodies is different: outstanding water bodies are to be protected under the NPSFM, degraded water bodies are to be improved. Restoring degraded water bodies can be difficult, and will often require comprehensive plans, extensive community meetings, significant funding and changes to established activities. These types of initiatives are underway, but are not within scope of the OWB plan change project, which aims to protect outstanding values as they currently exist.

What makes a water body outstanding?

7. HBRC’s work on this OWB plan change project has repeatedly affirmed that an outstanding water body is one that is truly exceptional or stands out from the rest. The NPSFM’s definition of an outstanding freshwater body is one *“as having outstanding values including ecological, landscape, recreational and spiritual values”* but is not necessarily limited to only those types of values.

Key challenges in identifying outstanding values

8. The identification of outstanding water bodies in the Hawke’s Bay rohe is a difficult task. There are many rivers, lakes and coastal areas which are of high (but not necessarily ‘outstanding’) value to the people who live in this region and tāngata whenua have special cultural, spiritual, historical and traditional associations with all water bodies.
9. A key challenge in implementing the NPSFM and identifying outstanding water bodies is the special relationships and historical associations that tāngata whenua have with all water bodies. Freshwater is recognised by Māori as a taonga of paramount importance. A core Māori belief is that no waterbody is more important than another and each waterbody has its own individual mauri or vital essence. The NPSFM’s provisions for outstanding freshwater bodies directly conflict with this Māori worldview, by requiring regional councils identify a list of outstanding water bodies in their region.

Key work to date

10. Since commencing this OWB plan change project in early 2017, HBRC’s Regional Planning Committee (RPC) has made a number of key decisions about the scope and direction of the plan change. The RPC has opted to prepare

¹ For clarification, degraded water bodies may still be identified as containing outstanding cultural and spiritual values. These are current values which exist regardless of the condition of the waterbody. Cultural and spiritual values are not historic.

² For example: ‘hot spots’, erosion control schemes, native plantings in riparian areas etc.

the OWB plan change with a focus on cultural, spiritual, recreational, landscape, geological, natural character and ecological value sets concurrently.

11. Despite the challenges from a Māori worldview, as discussed in Paragraph 9, the RPC tāngata whenua representatives did not want the Māori cultural and spiritual value set excluded from the OWB plan change, and worked closely with HBRC staff to co-design an approach to identify outstanding water bodies in Hawke's Bay.
12. The approach subsequently taken has been informed by numerous existing reports, publications and other information sources. This has included:
 - 12.1. a thorough review of deeds of settlements, statutory acknowledgements, customary uses reports, Waitangi Tribunal reports, affidavits and relevant court cases (which culminated in a literature review report summarising key values associated with 130 of the region's water bodies)
 - 12.2. 'secondary assessment' reports for 22 candidate outstanding water bodies short-listed by the RPC
 - 12.3. public feedback on those 22 secondary assessment reports and wider plan change preparation processes
 - 12.4. meetings with iwi authorities, territorial local authorities and key stakeholders to discuss the OWB plan change project and drafting
 - 12.5. consideration of an additional 20 waterbodies which had arisen as nominations through the series of meetings and stakeholder feedback
 - 12.6. formation of a small technical local expert panel who applied their expertise to the total 42 nominated candidate waterbodies.

This report's summary

13. This report summarises the key values associated with each of the 42 nominated water bodies. The summary is presented by value-type, based on the work to date and the direction given by HBRC's Regional Planning Committee.
14. Paragraphs 50 to 63 set out several principal options to further assist the RPC in selecting a robust evidence-based list of outstanding water bodies which feature values that are clearly superior to other water bodies in the region.
15. A list of frequently asked questions about Plan Change 7 is contained in Appendix 1.

Purpose of Report

16. The purpose of this report is to assist the RPC to identify a list of outstanding water bodies within Hawke's Bay, for the purposes of the NPSFM.
17. This report summarises the relevant key values of each of the 42 water bodies set out in Tables 2 and 3, below (on a value by value basis), based on the secondary assessments and local expert panel findings. All comments received from territorial authorities, iwi authorities, key stakeholder groups and members of the community are summarised in Appendix 5.
18. In accordance with directions by the RPC, staff have identified those water bodies which contain a value which clearly 'stands out' when compared to other water bodies, with a focus on existing literature. Staff have also identified those water bodies which also contain excellent values, but are similar to one or more other water bodies in Hawke's Bay and warrant further consideration for an outstanding status by the RPC.
19. Paragraphs 50 to 63 sets out the principal options developed by staff to assist the RPC to select a list of outstanding water bodies. One principal option has been developed for the cultural and spiritual value set, and two principal options have been developed for the recreation, landscape, geology, natural character and ecology value sets.
20. This report has been prepared in accordance with Parts Four and Five of the OWB Plan Change project approach which was co-designed with the RPC tāngata whenua representatives to identify outstanding water bodies in Hawke's Bay.
21. Appendix 2 sets out the OWB Plan Change project approach.

Project Background

22. In 2011, the Government released the NPSFM to help drive national consistency in freshwater planning. Soon after, the Council began work on a change to the RPS to implement the new direction for freshwater management contained in the NPSFM (Plan Change 5). Part of this approach was the identification of outstanding water bodies in Hawke's Bay.
23. In 2012, a draft version of Plan Change 5 was released for public comment containing a number of provisions relating to the integrated management of water and land, along with a list of outstanding freshwater bodies and outstanding areas within the coastal environment.
24. Comments received on Change 5 indicated a high level of support of the identification of outstanding water bodies in Hawke's Bay. However, concerns were raised regarding the subjective nature of outstanding and the list of OWB. After carefully considering the written feedback, Council removed the list of OWB from the proposed version of Plan Change 5 for notification, and added a standalone OWB plan change into its work programme.
25. A number of submitters expressed concern at the removal of list of OWB from Proposed Plan Change 5, and subsequently lodged appeals with the Environment Court. To alleviate concerns that an OWB Plan would not be progressed, a new policy was included in Plan Change 5³ requiring an OWB plan change to be notified prior to the next catchment based management plan.
26. Since 2014, a significant amount of work has been undertaken on this topic, with earlier work focussing on the intent of the NPSFM OFWB (Outstanding Freshwater Bodies) provisions and criteria and thresholds for 'outstandingness'; and more recent work focussing on building a clearer picture of the water bodies within the region, their different values and potential for being classified as outstanding.
27. In 2017, Council staff co-designed an approach with the RPC tāngata whenua representatives to identify outstanding water bodies in Hawke's Bay. This approach was underpinned by existing information, with the RPC agreeing that no new studies or investigations were to be commissioned to further investigate a water body's 'outstandingness'.

³ Included through appeals on Plan Change 5 in 2013

Project Timeline & Information Base

28. The following table sets out a summary of the Plan Change 7 development process, and the associated key pieces of work used to inform the plan change.

29. **Table 1: Plan Change 7 - Project Timeline and Information Base**

Project timeline & Information base			
Plan Change 5			
Aug 2012	Draft Change 5 released for informal public comment. The following water bodies and coastal areas were identified in Draft Change 5 as outstanding. <table border="0"> <tr> <td style="vertical-align: top;"> <u>Outstanding freshwater bodies</u> <ul style="list-style-type: none"> • Lake Waikareiti • Lake Waikaremoana • Mohaka River catchment above 'Willowflat' • Ngaruroro River, Taruarau River and their tributaries above Whanawhana cableway. </td> <td style="vertical-align: top; padding-left: 20px;"> <u>Outstanding coastal areas</u> <ul style="list-style-type: none"> • Ahuriri Estuary • Maungawhio Lagoon • Porangahau Estuary • Whakaki Lagoon, Ngamotu Lagoon, Ohuia Lagoon, Wairau Lagoon and Te Paeroa Lagoon. </td> </tr> </table>	<u>Outstanding freshwater bodies</u> <ul style="list-style-type: none"> • Lake Waikareiti • Lake Waikaremoana • Mohaka River catchment above 'Willowflat' • Ngaruroro River, Taruarau River and their tributaries above Whanawhana cableway. 	<u>Outstanding coastal areas</u> <ul style="list-style-type: none"> • Ahuriri Estuary • Maungawhio Lagoon • Porangahau Estuary • Whakaki Lagoon, Ngamotu Lagoon, Ohuia Lagoon, Wairau Lagoon and Te Paeroa Lagoon.
<u>Outstanding freshwater bodies</u> <ul style="list-style-type: none"> • Lake Waikareiti • Lake Waikaremoana • Mohaka River catchment above 'Willowflat' • Ngaruroro River, Taruarau River and their tributaries above Whanawhana cableway. 	<u>Outstanding coastal areas</u> <ul style="list-style-type: none"> • Ahuriri Estuary • Maungawhio Lagoon • Porangahau Estuary • Whakaki Lagoon, Ngamotu Lagoon, Ohuia Lagoon, Wairau Lagoon and Te Paeroa Lagoon. 		
Aug 2012	Comments on Draft Change 5 supported the identification of OWB however, there were some concerns raised over the subjective nature of outstanding.		
Sept 2012	Council removes the list of outstanding freshwater bodies, and outstanding coastal areas, from Draft Change 5 and commits to a standalone OWB Plan Change.		
Oct 2012	Plan Change 5 publicly notified, without a list of OWB.		
Nov 2012	Submissions received on Plan Change 5 request various waterbodies across the region be identified as outstanding.		
July 2013	Appeals lodged on Plan Change 5 in respect to a number of matters, including the OWB provisions.		
Mar 2014	Mediated agreement between HBRC and Appellants. Change 5 amended to incorporate a new policy committing to the identification of outstanding water bodies prior to the next catchment based plan change.		
Community Environment Fund (CEF) – Outstanding Water Bodies Project			
Oct 2014	Literature Review 2: Determining Outstanding Values Throughout New Zealand ⁴ - A review of studies and investigations which have been undertaken to specifically determine outstanding values throughout New Zealand.		
July 2015	HBRC forms a project group with Auckland Council and the Ministry for the Environment to provide clarity around the intent of the NPSFM's OFWB provisions, and develop a set of criteria for identifying OFWB's across New Zealand. CEF Outstanding Freshwater Bodies Project commences		
Dec 2015	Literature Review 1: Intent of the NPSFM OFWB provisions (Literature Review 1 examined existing literature ⁵ produced over the last seven years to inform the development of the NPSFM)		
Dec 2015	Expert group convened to identify a set of 'outstanding' criteria and thresholds which could be used to identify those water bodies which contain outstanding economic, cultural, environmental and social values		
Jan 2016	Legal Opinion – NPSFM OFWB provisions		
May 2016	Technical Advisory Group Reports: <ul style="list-style-type: none"> - Identification of New Zealand Freshwater bodies with outstanding economic value - Outstanding Freshwater Bodies – sensory /visual values - Proposed Mana Whenua values attributes and measures for Outstanding Freshwater bodies - Outstanding Freshwater Body assessment criteria and assessment methodology: Recreation values - Ecological values Outstanding Freshwater Bodies 		
Aug 2016	International Literature Review: Notable criteria and thresholds used internationally which could be used to assist with the identification of New Zealand's outstanding freshwater bodies as per the NPSFM.		
Aug 2016	Water Conservation Order Review: wildlife, native fish, angling value sets and boating value sets.		
Nov 2016	The Outstanding Freshwater Bodies Think Piece		
Feb 2017	Expert workshop at Ministry for the Environment offices. Experts were present from all value sets with the aim to assist with the development of guidance that to identify outstanding freshwater bodies across New Zealand.		
May 2017	CEF Outstanding Freshwater Body Project: Final Project Report.		
Hawke's Bay Outstanding Water Body Plan Change			
Mar 2017	Draft project plan put forward for the identification of OFWB in Hawke's Bay. Based on CEF project findings – using previously accepted criteria and thresholds used in case law, water conservation orders or internationally accepted literature such as RAMSAR. Voted down at RPC with a revised proposal requested.		
June 2017	An approach to identify OWB in Hawke's Bay is co-designed with the tāngata whenua representatives of the RPC. Revised project plan adopted by RPC. Scope of the OWB plan change amended to allow the inclusion of coastal areas, in particular estuaries which potentially have a number of outstanding features.		
Dec 2017	Table C1 - Cultural Values Table: Cultural and Spiritual values associated with 130 water bodies across the region (high level review of 90 publications).		

⁴ Report still in draft form.

⁵ Including section 32 reports, briefing papers and cabinet papers.

Dec 17 – Mar 18	Feedback received from iwi authorities Table C1 – Cultural Values Table
Mar 2018	Recreational, Landscape and Ecology Values Table: Recreation, natural character, landscape and ecology values associated with 62 water bodies across the region.
Mar 2018	RPC identify a list of 14 water bodies as being potentially outstanding for the recreational, natural character, landscape and ecology value set (candidate outstanding water bodies) Te Whanganui a Orotū (Ahuriri Estuary), Upper Mōhaka River (above Te Hoe River), Lake Waikaremoana, Upper Ngaruroro River (above Whanawhana), Taruarau River, Ruakituri River, Lake Whakakī, Mangahauanga Stream, Wairoa River, Heretaunga Aquifer, Ruataniwha Aquifer, Lake Whatuma, Tukituki River, Waipawa River, Waipunga River.
May 2018	RPC Tangata Whenua Repts Hui on OWB. Shortlisting of water bodies potentially outstanding for the cultural and spiritual value set.
May 2018	RPC identify short list of 21 water bodies as being potentially outstanding for the cultural and spiritual value set (the 14 water bodies identified above + Makirikiri Stream, Lake Waikareiti, Karamū River, Pōrangahau River, Lower Ngaruroro River (below Whanawhana), Lake Tūtira (including Papakiri Stream, Waikoau River/ Aropaoanui River).
June 2018	Secondary assessments for each of the 21 candidate outstanding water bodies completed. This was done to build a clearer picture of the values associated with each water body and the potential for being classified as outstanding.
Aug 2018	27 iwi authorities provided with the secondary assessments and invitation to provide comments
Aug 2018	RPC identify an additional water body as being potentially outstanding for the cultural and spiritual value set (Tūtaekuri River), bringing the list of candidate OWB to 22.
Aug 2018	A feedback form placed on the OWB webpage inviting comments from the general public.
Sept 2018	Meetings held with key stakeholders and Territorial Authorities.
Feb 2019	Two Expert workshops take place to discuss and identify: a list of water bodies which best represent each value set in Hawke’s Bay, and a list of outstanding water bodies. - Local expert panellists ⁶ were nominated from key stakeholder groups and iwi authorities in Hawke’s Bay - Key stakeholder groups, general public and iwi authorities nominate additional water bodies, and sections of water bodies, for consideration by the local expert panel (20 in total).
March 2019	Meetings held with iwi authorities
May 2019	RPC – staff recommendation to adopt final draft OWB Plan Change for consultation prior to notification

What is an outstanding water body

30. Being outstanding is a high test. The term ‘outstanding’ distinguishes something from others based on its exceptional qualities and is typically used to describe the ‘best of the best’.
31. While the NPSFM does not provide guidance on how values should be assessed, it is generally accepted that the test for outstanding sets a high bar. This indicates in order to be classed as outstanding a water body must be exceptional in some way, with the values or attributes related to it being ‘superior’ or ‘standing out’ from other water bodies within the region.
32. In June 2017, the RPC agreed that in order to be identified as an OWB for the purposes of the NPSFM, the water body must contain a cultural, spiritual, recreation, landscape or ecology value which stands out from the rest on a national basis. After considering the intent of the NPSFM, economic and consumptive uses were deliberately excluded from Plan Change 7.
33. During the engagement phase of Plan Change 7, several stakeholders raised concerns that the Council would miss a number of outstanding water bodies in the region, by carrying out the outstanding assessment on a national instead of a regional scale, and therefore not give full effect to the NPSFM provisions.
34. While the NPSFM is ambiguous on whether an OWB assessment should be carried out in a regional or national context, after considering the feedback from key stakeholders, staff have progressed this report in a manner which allows the RPC to carry out an OWB assessment in a regional context.
35. Specifically, this report has been structured to enable the RPC to comparatively assess the key values associated with each of the water bodies listed in Tables 2 and 3, with a focus on existing literature.
36. Figure 1 is an illustration of where ‘outstanding’ rests on a spectrum of importance.

Figure 1 – conceptual illustration of ‘outstanding’ on value spectrum



⁶ Morry Black, Andrew Curtis, Tom Winlove, Bernie Kelly, Matthew Brady, John Cheyne.

List of Candidate Outstanding Water Bodies

37. In 2017, the Council adopted an approach to identify a list of outstanding water bodies in the Hawke's Bay, for the purposes of the NPSFM.
38. The first stage of this approach involved a high-level review of 90 publications, which documented the cultural, spiritual, recreation, landscape, natural character, geological and ecology values associated with 130 water bodies across the region. This was done to build a clearer picture of their value and potential for being classified as outstanding.
39. In 2018, the high level review findings were reported to the RPC, who selected a list of 22 candidate OWB to proceed forward a more detailed secondary assessment by staff. The list of candidate outstanding water bodies are set out below in Table 2, with an associated location map contained in Appendix 3. The secondary assessments for each of these water bodies is contained in Appendix 4.
40. **Table 2: Candidate list of outstanding water bodies**

Cultural, spiritual, recreation, landscape, geology, natural character and ecology value sets	Cultural and spiritual value set only
Heretaunga Aquifer	Karamu River
Lake Whakakī	Lake Waikareiti
Lake Whatumā	Lake Tūtira (including Aropoanui River + Papakiri Stream)
Lake Waikaremoana	Lower Ngaruroro River (below Whanawhana)
Mangahauanga Stream	Makirikiri River
Ruakituri River	Porangahau River
Ruataniwha Aquifer	Tutaekuri River
Taruarau River	Waipunga River
Te Whanganui a Orotū (Ahuriri Estuary)	
Tukituki River	
Upper Mohaka River	
Upper Ngaruroro River (above Whanawhana)	
Waipawa River	
Wairoa River	

41. Following completion of the secondary assessments, staff sought feedback from iwi authorities, territorial authorities, key stakeholder groups and the general public on Plan Change 7. Feedback from this process featured requests for an additional 20 water bodies to be identified as OWB, for all value sets, as part of Plan Change 7. Details of this engagement are contained in Appendix 5.
42. The nominated OWB are set out below in Table 3, with an associated location map contained in Appendix 3.

Table 3: Nominated list of outstanding water bodies

Additional candidate OWB requested by iwi authorities, key stakeholders and general public	
Waihua River	Ngamatea East Swamp
Boundary Stream, including Shine Falls	Nuhaka River
Kaweka and Ruahine Ranges wetlands	Opoutama Swamp
Kaweka Lakes (Lake Rototuna and Lake Rotoroa)	Porangahau Estuary
Lake Poukawa and Pekapeka Swamp	Tarawera Hot Pools
Lake Whakaki - Te Paeroa Lagoon - Wairau Lagoon: interconnected wetland complex	Te Hoe River
Putere Lakes	Waitangi Estuary
Lower Mohaka River (below Willowflat)	Waikaretaheke River
Maungawhio Lagoon	Waiau River
Morere Hot Springs	Lower Ngaruroro River

Local expert panel process

43. In December 2018, Council staff contracted a local expert panel to evaluate, categorise and identify outstanding characteristics, for all value sets, from the list of 22 candidate OWB and the additional 20 water bodies put forward by key stakeholders, iwi authorities and the general public listed in Tables 2 and 3, above.
44. The local expert panel was appointed via nominations by key stakeholders, iwi authorities and city and district councils⁷, and comprised six members⁸ with good knowledge of the Hawke's Bay region.
45. The recommendations made by the panel were based on existing information, their local knowledge, and a set of assessment criteria they developed at their first meeting. The assessment criteria used by the panel to identify outstanding features is set out at the beginning of each subsection for each value set.
46. The final report by the local expert panel found a total of 16 clusters of water bodies (22 individual water bodies) to contain an outstanding cultural, spiritual, recreation, landscape, natural character or ecology value.
47. A number of hydraulically connected surface water bodies were clustered together in the local expert panel's report due to the supporting function the connected water body provided to the outstanding value, or because the value itself extended over multiple water bodies. Given that Plan Change 7 is looking to solely identify water bodies which contain an outstanding value in their own right, these water bodies have been assessed separately in this report.
48. Notwithstanding, this is valuable information which will be used during the future catchment based plan changes, where a tailored management regime will be developed for each OWB, in consultation with key stakeholders, iwi authorities and the community. During this process, the contribution any other water body(s) make in support of the outstanding value(s) will identified and protected.
49. The local expert panel's report is contained in Appendix 6.

Selection options – choosing a list of outstanding water bodies

50. Since June 2017, a significant amount of work has been undertaken to build a clearer picture of water bodies within the region and their potential for being classed as outstanding. In accordance with directions from the RPC, this work has focused on existing literature, meaning no new studies or investigations have been undertaken.
51. To assist the RPC, staff have inserted a quick reference table at the beginning of each section which sets out the key features of each water body for that value set⁹, and have placed the water bodies onto Lists 1 to 5, with a corresponding colour code as set out in Table 4.

⁷ Including Ngati Kahungunu Iwi Incorporated, Hawke's Bay Fish and Game Council, Department of Conservation, city and district councils, NZ Forest and Bird Society, Federated Farmers, and whitewater rafting and jet boating groups.

⁸ Morry Black (Mauri Protection Agency), Matt Brady (DOC), John Cheyne (Te Taiao Environment), Andrew Curtis (Water Strategies Limited), Bernie Kelly (kayaking rep), Tom Winlove (Fish& Game)

⁹ Note: Not all 42 water bodies are discussed in every section. Only those with relevant key values.

52. **Table 4: Lists 1 – 5: classification key and corresponding colour codes**

List	Colour code	Recreation, landscape, geology, natural character, and ecology value sets	Cultural and spiritual value sets
List 1	Green	The water body has a recreation, landscape, geology, natural character, or ecology value which is clearly superior to the other water bodies in Tables 2 and 3, and has been consistently identified as outstanding in a number of different publications.	The water body contains 5 or more key values in Table C1: Cultural Values Table ¹⁰ and is; - identified as containing outstanding cultural values during feedback by iwi authorities; and/or - preliminary identified by the local expert panel as containing outstanding cultural values.
List 2	Blue	The water body has a recreation, landscape, geology, natural character, or ecology value which is of excellent quality, but similar to one or more water bodies in Tables 2 and 3, and requires further consideration by the RPC for an outstanding status.	The water body contains 3 - 4 key values in Table C1: Cultural Values Table ¹⁰ and is; - identified as containing outstanding cultural values during feedback by iwi authorities; and/or - preliminary identified by the local expert panel as containing outstanding cultural values.
List 3	Pink	The water body does not contain a recreation, landscape, geology, natural character, or ecology value which stands out when compared to the other water bodies in Tables 2 and 3 /OR not enough information to support an outstanding status.	The water body contains 1 - 2 key values in Table C1: Cultural Values Table ¹⁰ ; and/or - identified as containing outstanding cultural values during feedback by iwi authorities; and/or - preliminary identified by the local expert panel as containing outstanding cultural values.
List 4	Yellow	N/A	Water body: - iwi authority has advised that <u>all</u> water bodies are outstanding and have requested that no specific water body be identified as outstanding for cultural and spiritual values through Plan Change 7; or - iwi authority did not specifically identify the water body as containing outstanding cultural and spiritual values during feedback; or - iwi authority did not provide comments on Plan Change 7.
List 5	Purple	N/A	An iwi authority with cultural and spiritual linkages to the water body has specifically requested the water body not be identified as an outstanding water body in Plan Change 7.

53. List 1, for the recreation, landscape, natural character and ecology value sets, contains those water bodies which have values that are clearly superior when compared to the other water bodies in Tables 2 and 3, and have a history of being identified as containing outstanding values in past publications. Those water bodies in List 2 may also contain outstanding values, but these values are similar to one of more water bodies in Tables 2 and 3, and therefore warrant further consideration by the RPC.

54. For clarification, it is important to note that the cultural and spiritual value set identified in List 1 is not staff's recommendation. All water bodies on Lists 1 – 5 may contain outstanding cultural and spiritual values and warrant further consideration by the RPC.

55. Selection options

56. There is no right or wrong approach to identify a list of outstanding water bodies. Table 5A sets out two principal options that the RPC can use to identify OWB for the recreation, landscape, geology, natural character and ecology value sets, and Table 5 sets out one principal selection option that the RPC can use to identify outstanding water bodies for the cultural and spiritual value set¹¹.

¹⁰ HBRC Publication Number 4978: Summary of cultural values associated with water bodies in Hawke's Bay; 2018; Table C1: Cultural Values Table.

¹¹ For clarification, the option put forward for the cultural value set has been developed independently of the recreation, landscape, geology, natural character and ecology value sets. The options put forward are best suited to the different types of information reviewed for these value sets.

57. While a number of water bodies in Hawke’s Bay have high value, being outstanding is a high test. By definition, the term ‘outstanding’ distinguishes something from others based on its exceptional qualities and is typically used to describe the best of the best, meaning not all high value water bodies will be outstanding.
58. In 2017, in the absence of national guidance on criteria for evaluating and determining ‘outstanding’ water bodies, the RPC determined that in order to be outstanding, a water body must contain a cultural, spiritual, recreation, landscape or ecology value which stands out from the rest, and directed staff to focus on past publications. For clarification, for reporting purposes staff have differentiated ‘natural character’ and ‘geology’ values from ‘landscape’ values and each is discussed under a separate heading in this report.

59. **Table 5: Principal selection option – cultural and spiritual value set**

Options	Cultural and spiritual value set
Option 1	Select water bodies which are clearly supported as containing cultural or spiritual values which ‘stand out’ when compared to the other water bodies in Tables 2 and 3; using: <ul style="list-style-type: none"> • the traditional knowledge of the RPC tāngata whenua representatives; • information in Table C1: Cultural Values Table¹², • information in the secondary assessments, • feedback from iwi authorities, • preliminary findings of the local expert panel.

60. **Table 5A: Principal selection options – recreation, landscape, geology, natural character and ecology value sets**

Options	Recreation, landscape, geology, natural character and ecology value sets
Option 1	Select those water bodies which contain values that: <ul style="list-style-type: none"> • clearly ‘stand out’ and are ‘superior’ when compared to the other water bodies in Tables 2 and 3; and • are consistently identified as ‘outstanding’ in published literature.
Option 2	Select those water bodies which contain values that: <ul style="list-style-type: none"> • clearly ‘stand out’ and are ‘superior’ when compared to the other water bodies in Tables 2 and 3; and/or • are of excellent quality, despite being similar to one or more water bodies in Tables 2 and 3; and • are identified as ‘outstanding’ in published literature.

61. Appendix 7 sets out the possible list of outstanding water bodies using selection Options 1 and 2 for the recreation, landscape, geology, natural character and ecology value sets.
62. In making their decision on a list of outstanding water bodies in the region, the RPC will need to consider a range of matters including the information contained in the secondary assessments, the local expert panel’s findings, the traditional knowledge of the RPC tāngata whenua representatives, the intent of the NPSFM outstanding water body provisions, the definition of outstanding, and the feedback received from key stakeholders, iwi authorities, territorial authorities and the general community.
63. To ensure the final list of outstanding water bodies is defensible, and to minimise the risk of litigation, staff recommend that the RPC selects only those water bodies which can be clearly supported as containing an outstanding value(s).

¹² HBRC Publication Number 4978: Summary of cultural values associated with water bodies in Hawke’s Bay; 2018; Table C1: Cultural Values Table

Overview of findings

64. This section discusses the findings of the secondary assessments and the local expert panel together with the feedback received during engagement on Plan Change 7.
65. The section has been divided up between each of the key value sets, being cultural, spiritual, recreation, landscape, geology, natural character and ecology, with the exception of Ruataniwha and Heretaunga aquifer systems which are discussed together in a separate section.
66. Each subsection begins with an overview of the value for each water body, followed by the local expert panel recommendations and then staff findings. The RPC will need to consider this information, and determine which water bodies contain values that clearly stand out when compared to other water bodies in the region.
67. As discussed in Paragraph 51, staff have inserted a quick reference table at the beginning of each section which sets out the key features of each water body for that value set¹³, and have placed the water bodies onto Lists 1 to 5, with a corresponding colour code as set out in Table 4, above.
68. As discussed in Paragraph 56, there is no right or wrong approach to identify a list of outstanding water bodies. Notwithstanding, staff recommend that the RPC selects only those water bodies which can be clearly supported as containing an outstanding value(s).
69. The local expert panel recommendations can be found in Appendix 6, and the secondary assessments undertaken by staff for each of the 22 candidate OWB can be found in Appendix 4. Appendix 8 contains the summary tables set out at the beginning of each subsection.
70. Ngaruroro River
71. In 2015, six applicants¹⁴ lodged an application for a water conservation order for the Ngaruroro River with the Minister for the Environment.
72. The application states the Ngaruroro River contains a number of nationally outstanding values, including cultural, spiritual, scientific, recreation, landscape, natural character and ecological values.
73. A Special Tribunal, appointed by the Minister for the Environment, is currently considering all evidence which has been presented in support and in opposition to these outstanding values, with a decision due late 2019.
74. Given the quantity of conflicting information and evidence presented to the Special Tribunal regarding the values associated with the Ngaruroro River, staff have chosen not to directly discuss these publications in this report.
75. For clarification, the Ngaruroro River has been assessed in a similar manner to all other water bodies identified in Tables 2 and 3.

Ecology values

76. Water bodies in Hawke's Bay provide a diverse range of habitats for native waterbirds and fish, from braided and single channel river systems to lake and estuary areas.
77. This section discusses the ecology values associated with water bodies in Tables 2 and 3, as identified in the secondary assessments, the local expert panel findings, and any feedback received throughout this process.
78. Paragraphs 79 to 87, provide a brief overview of the threat classification systems, submerged plant indicators, and macroinvertebrates community index monitoring systems, to avoid repetition throughout this section.
79. International and national threat classification systems
80. The New Zealand Threat Classification System (NZTCS) is the national system used to assess the threat status of species in New Zealand. The International Union for Conservation of Nature (IUCN) red list evaluates the

¹³ Note: Not all 42 water bodies are referenced in every section, only those water bodies with relevant key values.

¹⁴ New Zealand Fish and Game Council, Hawke's Bay Fish and Game Council, Operation Patiki Ngāti Hori ki Kohupatiki, Whitewater NZ Incorporated, Jet Boating New Zealand, Royal Forest and Bird Protection Society of New Zealand.

extinction risk of thousands of species and subspecies worldwide. Both systems use a set of criteria to determine the rarity and importance of various species.

81. Table 6 sets out the IUCN and NZTCS threat categories, with associated meanings.

Table 6: NZTCS and IUCN descriptions

Threat Category		Description
New Zealand Threat Classification System		
Threatened	Nationally Critical	Most severely threatened, facing an immediate high risk of extinction.
	Nationally Endangered	Facing high risk of extinction in the short term.
	Nationally Vulnerable	Facing a risk of extinction in the medium term.
At Risk	Declining	Large population that is declining.
	Recovering	Population has historically declined but is now increasing.
	Relict	Population has historically declined but is now stable
	Naturally uncommon	Species whose distribution is naturally confined to a geographic area
International Union for Conservation of Nature		
Critically endangered	Considered to be facing an extremely high risk of extinction in the wild.	
Endangered	Considered to be facing a very high risk of extinction in the wild.	
Vulnerable	Considered to be facing a high risk of extinction in the wild.	
Near Threatened	Does not qualify for Critically Endangered, Endangered or Vulnerable now, but is close to qualifying for or is likely to qualify for a threatened category in the near future.	
Least Concern	Does not qualify for Critically Endangered, Endangered, Vulnerable or Near Threatened. Widespread and abundant taxa are included in this category.	

82. LakeSPI and MCI

83. The LakeSPI (Lakes Submerged Plant Indicators) and MCI (Macroinvertebrate Community Index), measure submerged aquatic plants, and macroinvertebrate communities to assess the water quality and overall health of lakes and rivers.

84. The LakeSPI is based on a principle that the ecological condition of a particular lake can be characterised by the composition of submerged aquatic plants in them¹⁵. Similarly, the MCI is based on a principle that the water quality of a particular stream/river can be characterised by its macroinvertebrate community¹⁶.

85. Tables 7 and 8 set out the criteria used for LakeSPI and MCI, below.

86. **Table 7: LakeSPI categories**

Score	Lakes Submerged Plant Indicators (LakeSPI)
>75%	Excellent
>50-75%	High
>20-50%	Moderate
>0-20%	Poor
0%	Non-vegetated

87. **Table 8: MCI Index**

Score	Macroinvertebrate Community Index (MCI)
>125	Pristine water quality
100-119	Good quality, clean water
80-99	Fair quality, possible mild pollution
<80	Poor quality, probable severe pollution

¹⁵ NIWA, 2017, Assessment of lakes in the Hawke's Bay Region using LakeSPI.

¹⁶ Cawthron, 2007, A user guide for the Macroinvertebrate Community Index; 2018, HBRC scientist: water quality and ecology

Ecology: Wildlife

88. Nineteen of the forty two nominated water bodies were identified as containing significant wildlife values during the secondary assessments and local expert panel proceedings¹⁷. Table 10 sets out a summary of the key wildlife features associated with each of these water bodies for ease of reference.
89. To assist the RPC to determine if any of the water bodies contain wildlife values which are clearly superior and 'stand out' when compared to other water bodies within the region, staff have placed the water bodies in Table 10, onto Lists 1 to 3, with a corresponding colour code as set out in Table 9, below.
90. The assessment and supporting reasons for each colour code and associated list classification is discussed in further detail, on a water body by water body basis, between paragraphs 98 and 239.

Table 9: Lists 1 – 3 - classification key and corresponding colour codes (wildlife values)

List	Colour code	Classification
List 1	Green	The water body contains wildlife values which are clearly superior to the other water bodies in Tables 2 and 3, and has been consistently identified as outstanding in a number of different publications.
List 2	Blue	The water body contains wildlife values which are of excellent quality but similar to one or more water bodies in Tables 2 and 3, and require further consideration by the RPC for an outstanding status
List 3	Pink	The water body does not contain wildlife values which stand out when compared to the other water bodies in Table 2 and 3 / OR not enough information to support an outstanding status.

91. Staff findings should be read in conjunction with those of the local expert panel, who applied the following assessment criteria to identify those water bodies in Hawke's Bay which contain an outstanding wildlife value:
 - Those water bodies which support 4 or more threatened species; and/or
 - Those water bodies which support > 2% of a national population of native species and/or
 - Those water bodies which support > 15% of a regional population of a native species and/or
 - Presence of a unique or distinctive habitat or species at the regional level and/or
 - Presence of a critical or outstanding: breeding site; ecosystem component; assemblage or Kohanga ika/nursery; fish passage / fish spawning.
92. The following section discusses the key values associated with each of the nineteen water body's between Paragraph 98 and 239.
93. **Wildlife: Key findings**
94. The Ahuriri Estuary, Lower Tukituki River (and estuary), Porangahau River (and estuary), Te Hoe River, Waiau River and Lake Whatumā all have a wildlife feature which clearly stands out and have been placed in List 1 by staff, specifically:
 - The Ahuriri Estuary supports the highest diversity of waterbirds in the region and is a significant breeding ground for a number of endangered species.
 - The Lower Tukituki River and Estuary area supports the highest population of wading birds in Hawke's Bay, and has significant regional populations of black fronted tern, banded dotterel and pied stilt.
 - The Porangahau River and Estuary, support the largest population of wrybill and banded dotterel in Hawke's Bay and is the only location in the region where royal spoonbill and Caspian tern nest.
 - Te Hoe River and the Waiau River support regional populations of the endangered blue duck, which are twice that of any other water body assessed in Table 10.
 - Lake Whatumā supports the highest number of the endangered Australasian bittern in the region.

¹⁷ For clarification, only those water bodies with key wildlife features are included in Table 10. Not all 42 nominated water bodies are discussed in this section.

95. While there is limited information on the wildlife life values associated with Lake Whatumā, Te Hoe River, and the Waiau River, these conclusions are based on the recent information and survey data supplied by the Department of Conservation.
96. Five other water bodies were found to have excellent wildlife values but similar to one or more water bodies in Table 10, and require further consideration by the RPC for an outstanding status. These water bodies are: the upper Ngaruroro River, lower Ngaruroro River, Lake Poukawa & Pekapeka Swamp, Lake Whakakī and the Maungawhio Lagoon. These have been placed on List 2.
97. As discussed in Paragraph 56, there is no set approach to the identification of outstanding waterbodies. Staff recommendations are for guidance only and one of many factors that the RPC may choose to take into account when making their decision.

Table 10: Summary Table: Key features - wildlife

Note 1: Underscore = nationally critical, nationally endangered and nationally vulnerable on the New Zealand Threat Classification System

Note 2: **Bold** = Endangered on the International Union Conservation of Nature (IUCN) Red List of Threatened Species

Note 3: The following table contains bird percentages which corresponds to the year the survey was carried out.

Water body	Total species diversity	Notable species of waterbirds Percentage of regional population (RP)	Distinctive features	Local expert panel /publications identifying water body as outstanding for wildlife values
Te Whanganui ā Orotu (Ahuriri Estuary)	70	<u>Australasian bittern</u> (11% RP) <u>Black billed gull</u> Caspian tern (1 % RP) <u>Shore plover</u> <u>Banded dotterel</u> <u>Wrybill plover</u> <u>Lesser knot</u> New Zealand Dabchick Eastern bar-tailed godwits	7 threatened species Highest diversity of waterbirds in the region Important population of Caspian tern Important wintering area for migratory shorebirds.	2019: Local expert panel: outstanding wildlife values 2006: RCEP – Ahuriri Estuary identified as a Significant Conservation Area for its nationally significant wildlife habitat 1996: DOC identify the area as meeting the RAMSAR criteria for wetlands of international importance for its wildlife values 1987 Designated as a wildlife sanctuary
Tukituki River & Estuary	51	<u>Blue Duck</u> (2% RP) <u>Black fronted tern</u> <u>Australasian bittern</u> <u>Black-billed gull</u> <u>Banded dotterel</u> (55% RP in 1980s) <u>Reef heron</u> <u>Caspian tern</u> Pied stilt (50% RP in 1980s)	7 threatened species largest population of wading birds in Hawke’s Bay (1980s) largest population of Banded dotterel in Hawkes Bay (1980s) largest population of pied stilt in Hawkes Bay (1980s)	2019: Local expert panel: outstanding wildlife values 2012: RiVAS assessments – Lower River nationally significant for native birdlife 2006: RCEP – Tukituki River mouth identified as a significant conservation area for wildlife values 1984: NZ wildlife service – identifies Tukituki River as having high importance for wildlife due to high numbers of waders & black billed gulls 1968: Surveys confirm largest population of: - waders gulls in Hawkes Bay - black billed gulls in Hawke’s Bay - banded dotterel in Hawke’s Bay 1967 Part of Tukituki River designed as a wildlife refuge
Te Hoe River	-	<u>Blue duck</u> (18% RP)	Supports largest population (18%) of the blue duck in Hawkes Bay Near natural state	2019: Local expert panel: outstanding wildlife values) 2019: DOC survey data
Waiau River	-	<u>Blue duck</u> (18% RP)	Supports largest population (18%) of the blue duck in Hawkes Bay Near natural state	2019: Local expert panel: outstanding wildlife values (Waiau River above Stream) 2019 DOC survey data
Lake Whatumā	24	<u>Australasian bittern</u> (22% RP) <u>black-billed gull</u> <u>banded dotterel</u> <u>Caspian tern</u> NZ Dabchick (26% RP) pied stilt (45% RP)	Supports 4 threatened species Supports highest number of Australasian bittern in Hawke’s Bay Significant regional population of pied stilt	2019: Local expert panel: outstanding wildlife values 2019: DOC survey data

Water body	Total species diversity	Notable species of waterbirds Percentage of regional population (RP)	Distinctive features	Local expert panel /publications identifying water body as outstanding for wildlife values
Porangahau River & Estuary	-	Black-billed gull black-fronted tern banded dotterel <u>Caspian tern</u> Wrybill plover (largest RP) <u>Lesser knot</u>	6 threatened species Supports largest population of wrybill and banded dotterel in Hawke's Bay (1992) Only known location in the region where royal spoonbill and Caspian tern nest Near natural state	2019: Local expert panel: outstanding wildlife values (lower river and estuary) 2006: RCEP – Porangahau Estuary identified as a Significant Conservation Area for its nationally significant wildlife values 1992: DOC Survey data - largest concentrations of Wrybill and banded dotterel
Upper Ngaruroro River	-	Blue duck (5% RP) Fernbird Pipit	Supports 6% regional population of blue duck Near natural state	2019: Local expert panel: outstanding wildlife values
Lower Ngaruroro River	42	Australasian Bittern (15% RP) black-billed gull black fronted tern banded dotterel (37% RP in 2018) <u>Caspian tern</u> Pied oyster catcher pied stilt (30% RP in 2018)	Supports 5 threatened species Supports high numbers of banded dotterel pied stilt and black fronted tern Only breeding population of Pied oyster catcher in the north island	2019: Local expert panel: outstanding wildlife values 2018: DOC survey data 1980: DOC Survey data
Lake Poukawa & Pekapeka Swamp	31	Australasian bittern (16% RP) black billed gull banded dotterel <u>Caspian tern</u> Grey teal (1% NZP) Shoveler duck (3% NZP) NZ dabchick (27% RP) Pied stilt (50% RP)	4 threatened species Supports significant populations of pied stilt, NZ dabchick and shoveler ducks	2019: Local expert panel: outstanding wildlife values 2019: DOC survey data
Lake Whakakī	46	Australasian bittern (13% RP) banded dotterel <u>Caspian tern</u> New Zealand dabchick	3 threatened species High diversity of waterbirds	2019: Local expert panel: outstanding wildlife values 2006: RCEP – Lake Whakakī identified as a Significant Conservation Area for its nationally significant bird habitat. 1986: Governments list of rivers and lakes – group one for its outstanding wildlife qualities. 1986: DOC's Wetland and Ecological Importance database –nationally significant for its wildlife habitat.

Water body	Total species diversity	Notable species of waterbirds Percentage of regional population (RP)	Distinctive features	Local expert panel /publications identifying water body as outstanding for wildlife values
Maungawhio Lagoon	25	Australasian bittern (16% RP) ¹⁸ Shore plover <u>Black billed gull</u> <u>Reef heron</u> <u>Banded dotterel</u> <u>Caspian tern</u> , <u>Lesser knot</u>	7 threatened species High numbers of the Australasian bittern	2019: Local expert panel: outstanding wildlife values 2006: RCEP – Maungawhio Lagoon identified as a significant conservation area for its nationally significant wildlife habitat
Upper Mohaka River (above Willowflat)	-	Blue duck (9% RP) <u>Caspian tern</u> <u>Black fronted dotterel</u> <u>Black shag</u> NZ Pipit Long tail bat	Supports 4 threatened species Supports 9% regional population of blue duck Near natural state	2019: Local expert panel: outstanding wildlife values 1996: Mohaka River identified by DOC as meeting the RAMSAR criteria for wetlands of international importance due to its blue duck population and habitat
Wairoa River Estuary	-	Canadian Goose South Island pied oystercatcher	Breeding populations of Canadian Goose	2006: RCEP – Wairoa River Estuary identified as a Significant Conservation Area for its nationally significant wildlife habitat. 1987: Large section of the Wairoa River Mouth Placed in the Whakamahi Wildlife Management Reserve
Waipawa River	-	<u>Banded dotterel</u> pied stilt	High numbers of banded dotterel	1980: Surveys – large numbers of banded dotterel and pied stilt
Ruakituri River	-	Blue duck (4% RP) NZ pipit Black shag	1 threatened species Supports 4% regional population of blue duck Near natural state	1986: Government list of rivers and lakes – group one for its outstanding wildlife qualities.
Ngamatea East Swamp	-	<u>Banded dotterel</u> Black shag	1 threatened species Near natural state	2019: Local expert panel: outstanding wildlife values
Lake Rototuna and Lake Rotoroa (Kaweka lakes)	-	Fernbird NZ pipit Black shag	Near natural state	2019: Local expert panel: outstanding wildlife values

¹⁸ Population combined with Opoutama Swamp.

Water body	Total species diversity	Notable species of waterbirds Percentage of regional population (RP)	Distinctive features	Local expert panel /publications identifying water body as outstanding for wildlife values
Lake Waikareiti	-	Blue duck NZ dabchick Black shag	1 threatened species Near natural state	
Lake Waikaremoana	-	Blue duck Mallard ducks Paradise ducks NZ dabchick Black shag	1 threatened species Near natural state	
Kaweka and Ruahine Ranges wetlands	-	-	-	-

Discussion: Wildlife

98. The following section provides a more detailed discussion, from Paragraph 113, on the wildlife values associated with each of the water bodies set out in Table 10, above. Table 6, at the beginning of this section, sets out the NZT and IUCN threat classifications which are referred to throughout this section.
99. A staff recommendation has been made under each discussion, specifically identifying whether the water body should be placed on Lists 1, 2 or 3 for its wildlife values, to further assist the RPC in determining which water bodies are outstanding for the purposes of the NPSFM.
100. For clarification, paragraphs 101 to 112 provide a brief overview of staff's findings with regard to grey ducks and white herons to avoid repetition in the following section.
101. Grey Duck
102. Grey duck used to comprise the vast majority of New Zealand's dabbling duck population, with numbers estimated to be above 1.5 million in 1970's. It is now classified as nationally critical, facing a high risk of extinction.
103. According to NZ birds online, an authoritative collaboration by Te Papa, DOC and the Ornithological Society, the New Zealand grey duck population is believed to be extensively hybridised with mallard ducks to such an extent that few pure grey ducks may now exist. The hybrid form, grey duck × mallard, has recently been given its own threat classification of 'Not Threatened'.
104. Grey duck has been identified in past publications as being present at 13 water bodies on the nominated candidate list¹⁹, with the total Hawke's Bay population of grey duck unknown.
105. Given the uncertainty around grey duck population numbers, and whether the grey ducks present at these water bodies are pure bred, Staff have not identified the grey duck as a notable species for any water bodies in the summary table for wildlife (Table 10).
106. At this time, the RPC are advised to exclude grey duck information from the identification of outstanding water bodies for outstanding wildlife values.
107. White heron
108. The endangered white heron (Kōtuku) is a very rare and sacred bird in New Zealand, with the national population estimated to be around 200, and the Hawke's Bay population estimated to be 5. Internationally, the white heron is common, with high numbers in Australia, the South Pacific and Asia.
109. The white heron is classified as least concern on the ICUN red list, and Nationally Critical on the New Zealand Threat Classification System (See Table 6 for descriptions).
110. According to NZ birds online, the NZ population is small but stable. The only known nesting site for white heron in New Zealand is on the West Coast of the South Island, where they return yearly to breed during spring and early summer.
111. Past publications have identified the white heron as being present at 8 water bodies on the candidate list²⁰, with an estimated Hawke's Bay population of 5. Given the migratory nature of the white heron, staff have not identified the white heron as a notable species for any water bodies in the summary table for wildlife (Table 10).
112. At this time, the RPC are advised to exclude consideration of the white heron when identifying outstanding water bodies in Hawkes Bay for outstanding wildlife values.
113. Lake Waikaremoana
114. Mallard ducks, paradise ducks, New Zealand dabchick, the black shag and the blue duck (Whio) are all present at Lake Waikaremoana. Both of New Zealand's rare native bat species, the long-tailed bat and short-tailed bat, are also present in the wider park area.

¹⁹ Lake Whakaki, Maungawhio Lagoon, Tukituki River and Estuary, Lake Poukawa & Pekapeka Swamp, Ngaruroro River and Waitangi Estuary, Ahuriri Estuary, Porangahau Estuary, Lake Whatumā.

²⁰ Lake Waikaremoana, Lake Waikareiti, Ruakituri River, Waiau River, Mohaka River, Lake Whakaki, Tukituki River and Estuary, Lake Poukawa & Pekapeka Swamp, Ngaruroro River and Waitangi Estuary, Porangahau Estuary, East Ngamatea Swamp, Lake Whatumā, Kaweka lakes.

115. The local expert panel also noted the grey duck as being present at Lake Waikaremoana however due to insufficient information staff are not recommending the grey duck be taken into account in the RPC's final assessment (see Paragraph 101).
116. Lake Waikaremoana is identified as a breeding site for blue ducks with around 3% of the region's blue duck population (6 Whio) present in the Lake Waikaremoana and Lake Waikareiti area.
117. The local expert panel did not find Lake Waikaremoana to contain outstanding wildlife values. Appendix 6 sets out the full findings of the local expert panel.
118. Based on this information, staff do not consider there is enough evidence to support an outstanding classification for wildlife values at the Lake Waikaremoana, and have placed it on List 3.
119. Lake Waikareiti
120. The New Zealand dabchick, the black shag and the blue duck (Whio) are all present at Lake Waikareiti.
121. The local expert panel also noted the grey duck as being present at Lake Waikareiti however due to insufficient information staff are not recommending the grey duck be taken into account in the RPC's final assessment (see Paragraph 101).
122. Lake Waikareiti is identified as a breeding site for blue ducks with around 3% of the Hawke's Bay Whio population (6 Whio) present in the Lake Waikaremoana and Lake Waikareiti area.
123. The local expert panel did not find Lake Waikareiti to contain outstanding wildlife values. Appendix 6 sets out the full findings of the local expert panel.
124. Based on this information staff have placed Lake Waikareiti on List 3. Very little information could be found on the wildlife values associated with Lake Waikareiti.
125. Ruakituri River
126. The NZ pipit, the black shag and the blue duck inhabit parts in and around the Ruakituri River. In particular, the Ruakituri River is identified as a breeding site for blue ducks with around 4% of the region's blue duck population (8 Whio) present at the river.
127. In 1985, the Ruakituri River was given a Site of Special Wildlife Interest (SSWI) rating of 'moderate', and in 1986 the Ruakituri River was placed in 'Group One' on the Government's list of rivers and lakes deserving protection, for its outstanding wildlife qualities.
128. In 2012, the Ruakituri River was identified as regionally significant by Hawke's Bay RiVAS assessments for native birdlife. Grey duck were identified as being present at the river during this assessment, however, it is unclear whether the grey ducks present are pure bred grey ducks and further investigations are necessary to ascertain this (see Paragraph 101).
129. The local expert panel did not find the Ruakituri River to contain outstanding wildlife values. Appendix 6 sets out the full findings of the local expert panel.
130. Based on this information, staff have placed the Ruakituri River on List 3. The wildlife values of the Ruakituri River do not stand out when compared to the other water bodies in Table 10.
131. Maungawhio Lagoon
132. The Maungawhio Lagoon is a gazetted Wildlife Management Reserve which supports around 25 different species of waterbirds, including a high number of threatened species being the Australasian bittern, shore plover, black billed gull, reef heron, banded dotterel, Caspian tern, lesser knot.
133. The white heron has previously been identified at Maungawhio Lagoon however due to insufficient information staff are not recommending white heron be taken into account in the RPC's final assessment (see Paragraph 107).
134. The Maungawhio Lagoon is listed as a Significant Conversation Area in the Regional Coastal Environment Plan, where it is identified as containing a nationally significant wildlife habitat.
135. The local expert panel found the Maungawhio Lagoon to have outstanding wildlife values, specifically noting the high numbers of threatened species present. The local expert panel's report is attached in Appendix 6.

136. Based on this information, staff have placed the Maungawhio Lagoon on List 2, given that its wildlife values are similar to several water bodies in Table 10, and warrant further consideration by the RPC.
137. Ngamatea East Swamp
138. The Banded dotterel and the black shag inhabit the Ngamatea East Swamp.
139. The local expert panel also noted the grey duck as being present at the Ngamatea East Swamp however due to insufficient information staff are not recommending grey duck be taken into account in the RPC's final assessment (see Paragraph 101).
140. The local expert panel found the Ngamatea East Swamp to have outstanding wildlife values, specifically noting the presence of the grey duck and banded dotterel at the site. The local expert panel's report is attached in Appendix 6.
141. Based on this information, staff have placed the Ngamatea East Swamp on List 3. Little information could be found on the wildlife values associated with the Ngamatea East Swamp.
142. Lake Rototuna and Lake Rotoroa (Kaweka Lakes)
143. The Fernbird, NZ pipit and the black shag inhabit the area around Lake Rototuna and Lake Rotoroa.
144. The local expert panel also noted the grey duck as being present at the two Lakes. However due to insufficient information staff are not recommending grey duck be taken into account in the RPC's final assessment (see Paragraph 101).
145. The local expert panel found Lake Rototuna and Lake Rotoroa to have outstanding wildlife values, specifically noting the presence of the grey duck at the site. The local expert panel's report is attached in Appendix 6.
146. Based on this information, staff have placed Lake Rototuna and Lake Rotoroa on List 3. Very little information could be found on the wildlife values associated with the Kaweka Lakes.
147. Wairoa River
148. The Wairoa River mouth is identified as a Significant Conservation Area in the Regional Coastal Environment Plan and is partly located within the Whakamahi Wildlife Management Reserve.
149. The secondary assessment for the Wairoa River indicates that the while the river mouth and surrounding habitat is highly valued as a wildlife habitat, it is currently in poor condition with a low diversity of birds.
150. The local expert panel did not find the Wairoa River to contain outstanding wildlife values. Appendix 6 sets out the full findings of the local expert panel.
151. Based on this information, staff do not consider there is enough evidence to support an outstanding classification for wildlife values at the Wairoa River mouth, and have placed the Wairoa River on List 3.
152. Lake Whatumā
153. Lake Whatumā is a large, 236 hectare, shallow lake which has been significantly modified. It is currently in a degraded state and suffers from algae blooms during the summer months.
154. Despite its degraded state, Lake Whatumā supports around 24 species of waterbirds, including the black-billed gull, banded dotterel, Caspian tern, pied stilt, New Zealand dabchick, Spotless Crake and the cattle egret.
155. Most notably, Lake Whatumā provides a favoured wetland type for the Australasian bittern and holds the best population in Hawke's Bay. The Australasian bittern is a specialist wading bird which is extremely rare. Around 2,000 remain worldwide. It is classified as endangered on the IUCN²¹ red list and nationally vulnerable on the NZTCS (See Table 6 for descriptions).
156. The local expert panel found Lake Whatumā to have outstanding wildlife values, specifically noting the threatened species present and the high numbers of Australasian bittern, dabchick and pied stilt (22%, 26% and 45% of the regional population, respectively). The local expert panel's report is attached in Appendix 6.
157. Based on this information, staff have placed Lake Whatumā on List 1. The Australasian Bittern population clearly stands out when compared to other water bodies in Table 10.

²¹ International Union for Conservation of Nature red list of threatened species.

158. Waipawa River

159. The Waipawa River is a large braided river system which is an uncommon habitat type internationally, but more common nationally with around 85 braided rivers across New Zealand. The condition of the Waipawa River varies throughout the year, with potentially toxic cyanobacteria mats occurring in the summer months.
160. Wildlife surveys undertaken in the 1980s indicate that the Waipawa River supports a high number of waders and wetland birds, including large numbers of banded dotterel and pied stilt. Both species are recorded as 'least concern' on the IUCN red list, with the banded dotterel classified as nationally vulnerable on the New NZTCS (see Table 6 for descriptions).
161. The local expert panel did not discuss the wildlife values associated with the Waipawa River. Appendix 6 sets out the full findings of the local expert panel.
162. While it is recognised that the Waipawa River provides valuable riverbed habitat for waterbirds, based on this information, staff concluded that the Waipawa River mouth does not currently have any wildlife values which 'stand out' or are 'exceptional' when compared to other water bodies in Hawke's Bay and have placed the Waipawa River on List 3.

163. Tukituki River

164. The Tukituki River is a large, 145 km long braided river system which has significant wildlife values despite being significantly modified in parts for flood control works and suffering from algae blooms during the summer months. Notably, the Tukituki River contains the largest population of wading birds in Hawke's Bay.
165. The braided river habitat of the Tukituki River is a rare habitat type internationally, more common nationally, with around 85 braided rivers across New Zealand, and 4 braided rivers in Hawke's Bay.
166. Part of the Tukituki River is located within a wildlife refuge which runs for approximately 342 hectares upstream of the Tukituki Bridge. The Estuary is listed as a Significant Conversation Area in the Regional Coastal Environment Plan, where it is identified as containing high wildlife values.
167. In total, the Tukituki River supports around 51 species of waterbirds (43 recorded at the river mouth), including the black billed gull, Australasian bittern, royal spoonbill, Caspian tern, reef heron, black-fronted tern, and large populations of banded dotterel and pied stilt. Around 2% of the regions' blue duck population exist its upper reaches.
168. In the 1980s, riverbed surveys found around 50% and 55% of the regional population of pied stilt and banded dotterel, located at the river, respectively. Both species are recorded as 'least concern' on the IUCN red list, with the banded dotterel classified as nationally vulnerable on the NZTCS.
169. In 2017, a black-billed gull colony of more than 300 nests was found at the Tukituki River mouth. The black billed gull is endemic to New Zealand and regarded as 'the most threatened gull species in the world' and classified as endangered on the IUCN red list and nationally critical on the NZTCS (See Table 6 for descriptions).
170. In 2012, Hawke's Bay RiVAS assessments for native birdlife concluded the lower Tukituki River was nationally significant for native birdlife. Out of the 38 river segments assessed for native birdlife, the lower Tukituki River was the only river segment within the region to be classed as nationally significant.
171. The local expert panel found the Tukituki River to have outstanding wildlife values and an outstanding ecological function, specifically noting the threatened species present and the high numbers of banded dotterel. The local expert panel's report is attached in Appendix 6.
172. Based on this information, staff have placed the Tukituki River on List 1. The river contains the highest number of wading birds in Hawke's Bay, with the reviewed publications consistently identify the Tukituki River as containing wildlife values which 'stand out' when compared to other water bodies in Table 10. Notably, in 2012, the lower Tukituki River was the only river segment to be classed as nationally significant in the Hawke's Bay RiVAS assessments.

173. Upper Ngaruroro River (above Whanawhana)

174. Three species of endemic birds are present along the upper Ngaruroro River, being the blue duck (whio), New Zealand fernbird and pipit. In particular, the upper Ngaruroro River is identified as a breeding site for blue duck with nearly 5% of the region's blue duck population (12 Whio) present at the river.

175. In 1967, the nationally critical grey duck was found in the upper reaches, however it is not known if any pure bred grey duck are still present in this area and further investigations are needed (see Paragraph 101).
176. In 2012, the upper Ngaruroro River was one of 16 river segments in Hawke's Bay identified as regionally significant in the Hawke's Bay RiVAS for native birdlife.
177. The local expert panel found the upper Ngaruroro River to have outstanding wildlife values and outstanding ecological function, specifically noting the high numbers of blue duck in the greater catchment area. The local expert panel's report is attached in Appendix 6.
178. While the upper Ngaruroro River has a good population of blue duck, this is similar to other water bodies in Table 10, with several other water bodies in Table 10 found to have substantially higher populations of who. As such, staff have placed the upper Ngaruroro River on List 2 for further consideration by the RPC.
179. Lower Ngaruroro River (below Whanawhana)
180. The Lower Ngaruroro River is a 50 km braided river system which has been significantly modified in parts for flood control works. The river flows into the sea through the Waitangi Estuary, which is listed as a Significant Conversation Area in the Regional Coastal Environment Plan as containing an important wildlife habitat.
181. The braided river habitat of the lower Ngaruroro River is a rare habitat type internationally, more common nationally, with around 85 braided rivers across New Zealand, and 4 braided rivers in Hawke's Bay. The lower river and estuary area support around 43 species of birds, including 5 threatened species, being the black-billed gull, black fronted tern, Australasian bittern, banded dotterel and Caspian tern.
182. Surveys undertaken in the 1980s by the Department of Conservation rated the Ngaruroro River as being of high value to wildlife, noting it contained the greatest number of banded dotterel per km of the rivers surveyed in Hawkes Bay. It also contained the only breeding population of the South Island pied oystercatcher in Hawke's Bay, a species which is classified as 'least concern' on the IUCN red list.
183. The Waitangi Estuary was rated moderate-high for wildlife in the 1980s wildlife surveys, despite a total of 42 wetland species of birds recorded there over a number of years. This was due to most being migratory birds, with generally low numbers of individuals of each species.
184. In 2012, the lower Ngaruroro River was one of 16 river segments in Hawke's Bay identified as regionally significant in the Hawke's Bay RiVAS for native birdlife.
185. In 2018, the Department of Conservation (DOC), estimated the lower Ngaruroro River to support around 37% of regions population of banded dotterel, and 30% of the region's population of pied stilt. These estimates are based on published and unpublished field data held by DOC.
186. The local expert panel found the lower Ngaruroro River to have outstanding wildlife values, specifically noting the threatened species present, and the high numbers of banded dotterel (37% of the regional population). The local expert panel's report is attached in Appendix 6.
187. While the lower Ngaruroro River has a number of threatened species, and a significant regional population of banded dotterel, this is similar to other water bodies in Hawke's Bay. As such, staff have placed the lower Ngaruroro River on List 2 for its wildlife values for further consideration by the RPC.
188. Whakakī Lake
189. Whakakī Lake is the second largest coastal lake on the North Island's east coast, with a total wetland area of around 600 hectares. It is currently in a degraded state and suffers from frequent algae blooms which severely affect its water quality and wildlife habitats.
190. Whakakī Lake has historically supported a high diversity of birds, with over 46 species of waterbirds having been recorded in this area, including the endangered Australasian bittern, the New Zealand dabchick, the Wrybill, Spotless Crake, Fernbird and Banded Rail, and a number of migratory species.
191. In the 1950s, the lake supported a large waterfowl population including grey teal ducks, shoveler ducks, the Canadian goose and thousands of black swan. In more recent years, black swan numbers have dwindled to less than a hundred.
192. Recent information from DOC suggests the lake and wetland area support around 14% of the regional population of Australasian bittern.

193. In 1986, Whakakī Lake was identified as containing an outstanding wildlife habitat and was placed in ‘Group One’ of the Government’s List of Rivers and Lakes Deserving Protection in New Zealand.
194. The local expert panel found Whakakī Lake (including Patangata, Te Paeroa and Wairau Lagoons) to have outstanding wildlife values and outstanding ecological function, specifically noting the connectivity between the wetlands, the number of threatened species present, and the high numbers of Australasian bittern. The local expert panel’s report is attached in Appendix 6.
195. Based on this information, staff have placed Whakakī Lake on List 2. While historically Whakakī Lake has had outstanding wildlife values, current information indicates its wildlife values are similar to other water bodies on Table 10.
196. Upper Mohaka River (above Willowflat)
197. The upper Mohaka River is in a highly natural state, supporting many native bird species, most notably the endangered blue duck (whio) and the long tail bat which roosts in the gorges and riparian areas.
198. In particular, the upper Mohaka River is identified as a breeding site for blue ducks with around 9% of the region’s blue duck population (19 Whio) present at the river.
199. In 1996, the Mohaka River was identified as meeting the Ramsar Sites Criteria, which identifies wetlands of international importance, with specific reference given to its blue duck population.
200. In 2012, the upper Mohaka River was one of 16 river segments in Hawke’s Bay identified as regionally significant in the Hawke’s Bay RIVAS for native birdlife.
201. The local expert panel found the upper Mohaka River to have outstanding wildlife values and outstanding ecological function, specifically noting the river as being regionally significant for native birds and the high numbers of blue duck in the greater catchment area. The local expert panel’s report is attached in Appendix 6.
202. Based on this information, staff have placed the Mohaka River on List 3, given that its whio population is currently similar to a number of other water bodies in Table 10.
203. Te Hoe River
204. Te Hoe River is a tributary of the Mohaka River. It is in a highly natural state and supports a significant number of blue duck, and high number of other native species.
205. Most notably, Te Hoe River is a breeding site for the blue duck, supporting around 18% of the regions (40 whio) blue duck population, which is one of the two largest populations in Hawke’s Bay.
206. The whio is an iconic species of waterbird, which were once widespread through New Zealand but are now extremely rare, with only 1,000 breeding pairs remaining. It is classified as endangered on the IUCN²² red list and nationally vulnerable on the NZTCS (see Table 6 for descriptions).
207. The local expert panel found Te Hoe River to have outstanding wildlife values, specifically noting the high numbers of blue duck in the greater catchment area. The local expert panel’s report is attached in Appendix 6.
208. Based on this information, staff have placed Te Hoe River on List 1. Te Hoe River is in a highly natural state and the whio population clearly stands out when compared to other water bodies in Table 10.
209. Te Whanganui a Orotū (Ahuriri Estuary)
210. The Ahuriri Estuary is a significant wetland in Hawke’s Bay which has been modified in parts and is currently in a degraded state. The Estuary is listed as a Significant Conversation Area in the Regional Coastal Environment Plan for its nationally significant wildlife habitat, and is partly located within a 160 hectare wildlife sanctuary.
211. The Ahuriri Estuary is used by over 70 species of waterbirds, 17 of which migrate every year from the Artic. Of particular note are the Australasian bittern, black billed gull, shore plover, which are classified as endangered on the ICUN red list, and Nationally Critical on the NZTCS.
212. The estuary is a vital summer feeding ground for migrating eastern bar-tailed godwits who migrate 12,000 km each year from Alaska, and the lessor knot who migrate from Siberia. Both species are classified as near threatened on the ICUN red list and Nationally Vulnerable on the NZTCS.

²² International Union for Conservation of Nature red list of threatened species.

213. The estuary has high numbers of banded dotterel and Caspian tern, which are classified as of least concern, and on the ICUN red list and Nationally Vulnerable on the NZTCS.
214. In 1996, the Ahuriri Estuary was identified as meeting the Ramsar Sites Criteria, which identifies wetlands of international importance, partly for its diverse range of birds, some of which are globally threatened and its large population of Caspian tern.
215. The local expert panel found the Ahuriri Estuary to have outstanding wildlife values and ecological function, specifically noting the threatened species present, the high numbers of Australasian bittern (11% of the regional population) and its importance as a feeding and breeding site for a diverse range of birds. The local expert panel's report is attached in Appendix 6.
216. Based on information, staff have placed the Ahuriri Estuary on List 1. The estuary supports the highest diversity of birds in Hawke's Bay, and supports seven threatened species, three of which are nationally critical and close to extinction.
217. Waiau River
218. The Waiau River is notable for its blue duck population, with its upper reaches supporting around 18% of the regions (40 whio) blue duck population. This is one of the two largest populations in Hawke's Bay.
219. The whio is an iconic species of waterbird, which were once widespread through New Zealand with the NZ birds online advising only 1000 breeding pairs remain. It is classified as endangered on the IUCN²³ red list and nationally vulnerable on the NZTCS (see Table 6 for descriptions).
220. The local expert panel found the Waiau River (above Matuku Stream) to have outstanding wildlife values and outstanding ecological function, specifically noting the high numbers of blue duck in the greater catchment area and the area significance for native birds. The local expert panel's report is attached in Appendix 6.
221. Based on this information, staff have placed the Waiau River (above Matuku Stream) on List 1. The Waiau River is in a highly natural state and supports one of the two biggest populations of whio in Hawke's Bay.
222. Porangahau Estuary
223. The Porangahau Estuary is a long, narrow estuary formed behind a low, sandy longshore bar which runs for around 14 km. It is the largest and least modified estuary in Hawke's Bay, and is listed as a Significant Conservation Area in the Hawke's Bay Regional Coastal Environment Plan for its nationally significant wildlife habitat.
224. The estuary is an important feeding and wintering area for migratory waders. It is the only location in Hawke's Bay where Caspian terns and royal spoonbill nest.
225. In 1992, surveys found significant populations of wrybill and banded dotterel, estimating that the area contained around 78% of banded dotterel species recorded along the Hawke's Bay Conservancy coast at that time. The wrybill and banded dotterel are respectively classified as vulnerable and least concern on the ICUN red list, respectively, and both are Nationally Vulnerable on the NZTCS.
226. The estuary is an important area for the eastern bar-tailed godwits and lesser knot, during migration. Both species are classified as near threatened on the ICUN red list, and Nationally Vulnerable on the NZTCS.
227. The local expert panel found the Porangahau Estuary to have outstanding wildlife values and ecological function, specifically noting its importance as a breeding and feeding ground for a number of bird species, the only location where the royal spoonbill and Caspian tern nest, and the number of threatened species present. The local expert panel's report is attached in Appendix 6.
228. Based on this information, staff have placed the Porangahau Estuary on List 1. It is the least modified estuary in Hawke's Bay, supporting large population of wrybill and banded dotterel and is the only location where Caspian terns and royal spoonbill nest.
229. Kaweka and Ruahine Ranges wetlands

²³ International Union for Conservation of Nature red list of threatened species.

230. The wetlands situated in the Kaweka and Ruahine Ranges were put forward for consideration as outstanding water bodies by the Department of Conservation. With the exception of Lakes Rototuna and Rotoroa, which are discussed separately in this report, no information could be found on these wetlands.
231. The local expert panel's report did not discuss the wetlands in the Kaweka and Ruahine Ranges. Appendix 6 sets out the full findings of the local expert panel.
232. Based on this information, staff have placed the Kaweka and Ruahine Ranges wetlands on List 3.
233. Lake Poukawa and Pekapeka Swamp
234. Lake Poukawa is a large (195 ha) shallow lake, fringed with raupo. It is currently in a degraded state and suffers from frequent algae blooms which impact on its water quality and wildlife habitats.
235. There is high connectivity between Lake Poukawa, Pekapeka Swamp and Karamu Stream for native bird movement, with the area supporting 31 bird species, including the Australasian bittern, black billed gull, banded dotterel, Caspian tern, New Zealand dabchick, and pied stilt.
236. Notably high numbers of the Australasian bittern, New Zealand dabchick and pied stilt are located at the site, with around 18%, 27% and 50% of the regional population located in this area, respectively. The area also a significant flocking site for shoveler ducks, supporting high numbers of game birds.
237. The New Zealand dabchick is classified as 'near threatened' on the ICUN red list, and 'recovering' on the NZTCS. The pied stilt is not threatened, and the Australasian bittern is classified as 'nationally critical'.
238. The local expert panel found Lake Poukawa and Pekapeka Swamp have outstanding wildlife values and outstanding ecological function, specifically noting the high populations of Australasian Bittern, New Zealand dab chick, pied stilt and shoveler duck and the number threatened species present. The local expert panel's report is attached in Appendix 6.
239. Based on this information, staff have placed Lake Poukawa and Pekapeka Swamp on List 2. The wildlife value associated with the area are similar to other water bodies listed in Table 10, and warrant further consideration by the RPC.

Ecology: Native Fish

240. Fifteen of the forty two nominated water bodies were identified as containing important native fish values during the secondary assessments and local expert panel proceedings²⁴. Table 12 sets out a summary of the key features associated with each water body for ease of reference.
241. To assist the RPC to determine if any of the water bodies contain native fish values which are clearly superior and 'stand out' when compared to other water bodies within the region, staff have placed the water bodies in Table 12, onto Lists 1 to 3, with a corresponding colour code as set out in Table 11, below.
242. The assessment and supporting reasons for each colour code and associated list classification is discussed in further detail, on a water body by water body basis, between paragraphs 250 and 335, below.

Table 11: Lists 1 – 3 - classification key and corresponding colour codes (native fish values)

List	Colour code	Staff Findings
List 1	Green	The water body contains native fish values which are clearly superior to the other water bodies in Table 12, and has been consistently identified as outstanding in a number of different publications.
List 2	Blue	The water body contains native fish values which are of excellent quality but similar to one or more water bodies in Table 12, and requires further consideration by the RPC for an outstanding status
List 3	Pink	The water body does not contain native fish values which stand out when compared to the other water bodies in Table 12 / not enough information to support an outstanding status.

243. Staff findings should be read in conjunction with the local expert panel findings, who applied the following assessment criteria to identify those water bodies in Hawke's Bay which contain outstanding native fish values:
- Those water bodies which support 4 or more threatened species; and/or
 - Those water bodies which support > 2% of a national population of native species and/or
 - Those water bodies which support > 15% of a regional population of a native species and/or
 - Presence of a unique or distinctive habitat or species at the regional level and/or
 - Presence of a critical or outstanding: breeding site; ecosystem component; assemblage or Kohanga ika/nursery; fish passage / fish spawning.
244. The following section discusses the key values associated with each of the fifteen water body's between paragraphs 250 and 335.
245. **Native fish: Key findings**
246. Te Whanganui a Orotū (Ahuriri Estuary) has been placed on List 1. The estuary contains the highest diversity of native fish in the region, with a significant number of native fish species relying on the area to breed and feed, and has been consistently identified as outstanding in a number of publications.
247. Staff have also placed Lake Rototuna and Lake Rotoroa on List 1. Recent information and survey data supplied by DOC indicates the Lake Rotoroa hold the best population of Kōaro in the region.
248. Three other water bodies were found to have excellent native fish values but similar to one or more water bodies in Table 12, and require further consideration by the RPC for an outstanding status. These water bodies have been placed on List 2, and include the upper Ngaruroro River, lower Ngaruroro River (including the Waitangi Estuary), and the Porangahau Estuary.
249. As discussed in Paragraph 56, there is no set approach to the identification of outstanding waterbodies. Staff findings are for guidance only and one of many factors that the RPC may choose to take into account when making their decision.

²⁴ For clarification, only those water bodies with key native fish values are included in Table12. Not all 42 water bodies are discussed in this section.

Table 12: Summary Table: Key features – Native fish

Water body	Total species diversity	Notable species	Distinctive features	Local expert panel /publications identifying water body as outstanding for wildlife values
Te Whanganui a Orotū (Ahuriri Estuary)	29	Shortfin eel Kahawai Grey mullet Yellow-bellied Flounder Stargazer Parore Sand flounder Common sole Yellow-eyed mullet	Highest diversity of native fish in the region Biologically important fish habitat Important breeding ground, nursery and feeding ground for a high number of species of fish Important traditional Maori fisheries	2019: Local expert panel: outstanding native fish values 2006: RCEP – identified as a Significant Conservation Area for its nationally significant fisheries habitat 1996: DOC identifies the area as meeting the RAMSAR criteria for wetlands of international importance for its native fish values 1987: MAFFish – identified as outstanding in ‘wetlands of national importance publication’. 1980: Considered for marine reserve status
Lake Rototuna and Lake Rotoroa (Kaweka Lakes)	1	Kōaro (lake locked)	Best population of Kōaro in Hawke’s Bay Large population of long fin eel Lake locked Kōaro Highly natural, pristine state	2019 Local expert panel: outstanding native fish values 2018 DOC – best Kōaro population in Hawke’s Bay 2017 DOC fish surveys - large population of Kōaro
Upper Ngaruroro River	3	Longfin eel Torrentfish Kōaro	Largely natural habitat with near pristine water quality Good populations of torrentfish, longfin eel	2019 Local expert panel: outstanding native fish values 2012 RiVAS – whole of <u>catchment</u> identified as nationally significant for native fish values
Lower Ngaruroro River and Waitangi Estuary	22	Longfin Eel Īnanga Redfin bully Bluegill bully Lamprey Torrentfish Kōaro Dwarf galaxiid.	High diversity of native fish	2019 Local expert panel: outstanding native fish values 2012 RiVAS – whole of <u>catchment</u> identified as nationally significant for native fish values 2006 RCEP – Waitangi Estuary identified as a Significant Conservation Area for its nationally significant fisheries habitat 1987: MAFFish – Waitangi Estuary identified as outstanding in ‘wetlands of national importance publication’.
Porangahau Estuary	-	Inanga Flounder Mullet Kahawai	A diverse assemblage of fish species Biologically important fish habitat for whitebait, flounder, mullet, and kahawai Good example of a specific type of fish habitat important traditional Maori fisheries 2 Īnanga spawning sites	2019: Local expert panel: outstanding native fish values 2006: RCEP – identified as a Significant Conservation Area for its nationally significant fisheries habitat 1987: MAFFish – identified as outstanding in ‘wetlands of national importance publication’.

Water body	Total species diversity	Notable species	Distinctive features	Local expert panel /publications identifying water body as outstanding for wildlife values
Upper Mohaka River (above Willowflat)	3	Shortfin eel Long fin eel Common bullies	Largely natural habitat with near pristine water quality High population of longfin eel	2019 Local expert panel: outstanding native fish values 2012 RiVAS – <u>whole of catchment</u> identified as nationally significant for native fish values 2006 RCEP – identified as a Significant Conservation Area for its nationally significant fisheries habitat 1996 DOC identifies <u>the whole of the Mohaka River</u> as meeting the RAMSAR criteria for wetlands of international importance for its native fish values
Tukituki River and Estuary	18	Longfin Eel Īnanga Redfin bully Bluegill bully Lamprey Torrentfish Kōaro Dwarf galaxiid.	High diversity of native fish Estuary area provides an Important spawning ground for native galaxiid species.	2019 Local expert panel: outstanding native fish values 2012: RiVAS – whole of <u>catchment</u> identified as nationally significant for native fish values
Lake Poukawa & Pekapeka Swamp	-	Shortfin eel	Large population of shortfin eel Significant for traditional Maori fisheries.	2019: Local expert panel: outstanding native fish values 1987: MAFFish – identified as outstanding in ‘wetlands of national importance publication’.
Maungawhio Lagoon	-	-	-	2019 Local expert panel: outstanding native fish values
Wairoa River	10	Shortfin eel Long fin eel Smelt Kōaro Redfin bull Bluegill bully Torrentfish Lamprey Cran’s bully	Important habitat for shortfin eel and whitebait spawning. important access point into inland waters for a number of native freshwater species	2012 RiVAS – whole of <u>catchment</u> identified as nationally significant for native fish values
Lake Whatumā	3	Shortfin eel Longfin eel common bully	Large shallow lake	

Water body	Total species diversity	Notable species	Distinctive features	Local expert panel /publications identifying water body as outstanding for wildlife values
Lake Whakakī	6	Common bully Longfin eel Flounder Grey mullet Inanga	ICOLL ²⁵ habitat	
Lake Waikaremoana	4	Shortfin eel Common bully Kōaro Longfin eel	Good quality native fish habitat with pristine water quality	
Waihua River	-	Eel Inanga Kakahi		
Nuhaka River	-	Inanga		

²⁵ Intermittently Closed and Open Lakes and Lagoons

Discussion: native fish

250. The following section provides a more detailed discussion on the native fish values associated with each of the water bodies set out in Table 12, above. Table 6, at the beginning of this section, sets out the NZ and IUCN threat classification meanings which are referred to throughout this section.
251. A staff recommendation has been made under each discussion, specifically identifying whether the water body should be placed on Lists 1, 2 or 3 for its native fish values, to further assist the RPC in determining which water bodies are outstanding for the purposes of the NPSFM.
252. Lake Poukawa & Pekapeka Swamp
253. Lake Poukawa is a large (195 ha) shallow lake, which supports a traditional Maori eel fishery. The area supports a large shortfin eel population and is important for fish passage.
254. Pekapeka Swamp is the only large swamp remaining in Hawke's Bay, and is maintained by the outflow from Lake Poukawa (Poukawa Stream). Poukawa Stream can dry up during droughts, and it currently has a LakeSPI rating of 0% and suffers from algae blooms at certain times of the year.
255. There is high connectivity between Lake Poukawa, Pekapeka Swamp and Karamū Stream for native fish migration, with Pekapeka Swamp providing access to Lake Poukawa for eels, and a rearing area for īnanga.
256. In 1987, Lake Poukawa and Pekapeka Swamp were assigned a Category A (outstanding) rating by MAFFish, in their publication "wetlands of national importance to fisheries", for the following reasons:
- A remnant or regionally representative wetland with significant fisheries values.
 - A nationally important non-salmonid fishery, including commercial and traditional Maori fisheries.
 - A wetland which is particularly important as a water retention or riparian buffer zone for fisheries in the catchment.
257. The local expert panel found Lake Poukawa and Pekapeka Swamp to have an outstanding ecological function, specifically noting their importance for fish migration and large population of shortfin eels. The local expert panel's report is attached in Appendix 6.
258. While the lake contains good populations of eel, it is unclear from literature whether its population stands out or is similar to other eel populations in Hawke's Bay. Further, the ecological condition of Lake Poukawa is poor with a LakeSPI rating of 0%. As such, staff have placed Lake Poukawa and Pekapeka Swamp on List 3.
259. Porangahau Estuary
260. The Porangahau Estuary is approximately 750 ha in size, and one of the few large estuaries in Hawke's Bay. It supports recreational fisheries for īnanga, flounder, mullet, and kahawai.
261. The Porangahau Estuary is listed as a Significant Conservation Area in the Hawke's Bay Regional Coastal Environment Plan, where it is recognised as containing a nationally significant fisheries habitat.
262. In 1987, the Porangahau Estuary assigned a Category A (outstanding) rating by MAFFish, in their publication "wetlands of national importance to fisheries", for its diverse fish assemblage, biologically important fish habitat, its nationally important non-salmonid fishery (including traditional Māori fisheries), and because it is a particularly good example of an estuarine fish habitat.
263. The local expert panel found the Porangahau Estuary to have an outstanding ecological function, specifically noting the two main īnanga spawning sites, and it being regionally significant for native fish. The local expert panel's report is attached in Appendix 6.
264. Based on this information, staff have placed the Porangahau Estuary on List 2. The native fish values in this area are similar to other water bodies listed in Table 12, and warrant further consideration by the RPC.
265. Te Whanganui a Orotū (Ahuriri Estuary)
266. The Ahuriri Estuary is a significant wetland in Hawke's Bay. Despite its degraded state, it provides a diverse habitat which supports approximately 29 species of fish at some stage during their life cycle. In the late 1980s the estuary area was under consideration for marine reserve status.

267. The estuary makes a significant contribution to Hawke’s Bay marine fisheries by providing nursery and spawning habitats and feeding areas for species which migrate between freshwater and the sea. Notable species in the area include, shortfin eel, kahawai, stargazer, parore, and some commercially important species such as yellow bellied flounder, grey mullet, sand flounder, common sole, and yellow-eyed mullet.
268. In 1987 and 1996 the Ahuriri Estuary was identified as containing outstanding native fish values due to its diverse assemblage of fish species and its biologically important fish habitat, particularly as a breeding ground and nursery for a number of species of fish. These features were found to meet the Ramsar Sites Criteria, which identifies wetlands of international importance.
269. The local expert panel found the Ahuriri Estuary to have an outstanding ecological function, specifically noting the marine fish species nursery. The local expert panel’s report is attached in Appendix 6.
270. Based on this information, staff have placed the Ahuriri Estuary on List 1. The Ahuriri Estuary contains the highest native fish diversity in the region, and has been consistently identified as contained outstanding native fish values in past publications.
271. Lake Whatumā
272. Lake Whatumā is a large shallow lake which supports three species of native fish being the shortfin eel, longfin eel and the common bully. The condition of the lake is poor, and during summer it can suffer from algae blooms and completely dry up.
273. In 1987, Lake Poukawa and Pekapeka Swamp were assigned a Category C (important) rating by MAFFish, in their publication “wetlands of national importance to fisheries”.
274. The local expert panel did not discuss the native fish values associated with Lake Whatumā. Appendix 6 sets out the full findings of the local expert panel.
275. Based on this information, staff do not consider there is enough evidence to support an outstanding classification for wildlife values at Lake Whatumā, and have placed it on List 3.
276. Whakakī Lake
277. Whakakī Lake is an intermittently closed and open lake (ICOLL) which is a rare habitat type both in New Zealand and internationally. It is currently in a degraded state and suffers from frequent algae blooms during the summer months.
278. Information in the secondary assessments indicates Whakakī Lake supports six native species of fish. The most numerous species is the shortfin eel, followed by the common bully, longfin eel, flounder, grey mullet and īnanga.
279. The local expert panel did not discuss the native fish values associated with Whakakī Lake. Appendix 6 sets out the full findings of the local expert panel.
280. Based on this information, staff do not consider there is enough evidence to support an outstanding classification for wildlife values at the Whakakī Lake, and have placed it on List 3
281. Tukituki River
282. The Tukituki River is a large gravel braided river system which has been significantly modified in parts for flood control. Potentially toxic cyanobacteria mats occur during the summer months, which affect water quality and fish habitat.
283. The Tukituki Catchment contains a high diversity of native fish with a total of 18 native species of fish recorded between 1964 and 2011. Species include longfin eel, īnanga, redfin bully, bluegill bully, lamprey, torrentfish, Kōaro and dwarf galaxiid, three of which are classed as being ‘at risk and declining’.
284. The Tukituki Estuary is vital for fish passage between the sea and freshwater and is recognised as an important spawning ground for the native galaxiid species. The area is listed as a Significant Conservation Area in the Hawke’s Bay Regional Coastal Environment Plan.

285. In 2012, the Tukituki Catchment was one of four major catchments²⁶ in Hawke's Bay to be identified as nationally important in the Hawke's Bay RiVAS assessments for native fish.
286. In 2015, DOC advised that the diversity of native fish in the Tukituki River is similar to other catchments draining the east coast of the North Island.
287. The local expert panel found the whole of the Tukituki River to have an outstanding ecological function, specifically noting its range of diverse habitats for fish species from the upper river in the Ruahine Ranges and the braided lower section and estuary. Appendix 6 sets out the full findings of the local expert panel.
288. Based on this information, staff have placed the Tukituki River on List 3. The native fish values of the Tukituki River do not stand out when compared to the other water bodies in Table 12.
289. Upper Ngaruroro River (above Whanawhana)
290. The upper Ngaruroro River contains a high quality habitat for native fish being largely natural with good water quality. The river supports three species of native fish, being the longfin eel, torrentfish and Kōaro, which are classified 'at risk and declining'.
291. In 2012, the Ngaruroro Catchment was one of four major catchments²⁷ in Hawke's Bay to be identified as nationally important in the Hawke's Bay RiVAS assessments for native fish, however, the assessments provided limited information specifically in regard to the upper section of river.
292. The local expert panel found the whole of the Ngaruroro River to have an outstanding ecological function, specifically noting its range of diverse habitats for fish species from the mountainous upper river, to the braided lower section and estuary area. Appendix 6 sets out the full findings of the local expert panel.
293. Based on this information, staff have placed the upper Ngaruroro River on List 2. While the upper Ngaruroro River contains a high quality native habitat, it contains a low diversity of native fish, all of which are found in numerous other rivers in the region.
294. Lower Ngaruroro River (below Whanawhana)
295. The Lower Ngaruroro, including the Waitangi Estuary, supports 22 species of fish including, a number of which are classified as at risk or declining. Due to high nutrient concentration, the Waitangi Estuary can have seasonal algae blooms which can affect its water quality and fish habitat.
296. The Waitangi Estuary, including Clive River, is listed as a Significant Conservation Area in the Hawke's Bay Regional Coastal Environment Plan, where it is recognised as containing a nationally significant fisheries habitat.
297. In 1987, the Waitangi Estuary was assigned a Category A (outstanding) rating by MAFFish, in their publication "wetlands of national importance to fisheries". In 2012, the Ngaruroro Catchment was one of four major catchments²⁸ in Hawke's Bay to be identified as nationally important in the Hawke's Bay RiVAS assessments for native fish.
298. The local expert panel found the whole of the Ngaruroro River to have an outstanding ecological function, specifically noting its range of diverse habitats for fish species. Appendix 6 sets out the full findings of the local expert panel.
299. Based on this information, staff have placed the lower Ngaruroro River on List 2. Its native fish values are similar to other water bodies listed in Table 12, and warrant further consideration by the RPC.
300. Lake Rototuna and Lake Rotoroa (Kaweka Lakes)
301. Lake Rototuna and Lake Rotoroa were formed thousands of years ago by streams being dammed by a large slip from Mount Kuripapango.
302. Lake Rotoroa has a large population of kōaro which are 'lake-locked' and carry out their entire life cycle in freshwater. DOC has advised that longfin eel are also thought to be present in the catchment of the lakes.
303. Kōaro and longfin eel are classified as at risk and declining, on the NZTCS.

²⁶ Tutaekuri, Mohaka, Ngaruroro, Tukituki Catchments.

²⁷ Tutaekuri, Mohaka, Ngaruroro, Tukituki Catchments.

²⁸ Tutaekuri, Mohaka, Ngaruroro, Tukituki Catchments.

304. The local expert panel found Lake Rototuna and Lake Rotoroa to have an outstanding ecological distinctiveness, specifically noting their populations of lake-locked kōaro. Appendix 6 sets out the full findings of the local expert panel.
305. Based on this information, staff have placed Lake Rototuna and Lake Rotoroa on List 1, given that Lake Rotoroa contains the best population of kōaro in Hawke’s Bay.
306. Maungawhio Lagoon
307. The Maungawhio Lagoon is listed as a Significant Conservation Area in the Hawke’s Bay Regional Coastal Environment Plan. The site supports regionally important shellfish and whitebait fisheries.
308. The local expert panel found the Maungawhio Lagoon to have outstanding ecological function, specifically noting the Lower Kopuwharo Stream as being regionally significant for native fish. Appendix 6 sets out the full findings of the local expert panel.
309. Based on this information, staff do not consider there is enough evidence to support an outstanding classification for native fish values at the Maungawhio Lagoon, and have placed it on List 3.
310. Upper Mohaka River (above Willowflat)
311. The upper Mohaka River has a high quality habitat for native fish species by providing a near natural environment with high water quality. The river supports good populations of longfin eel.
312. The upper reaches of the Mohaka River have a low native fish diversity, with the Mokonui Gorge acting as a natural barrier limiting the movement of native fish. Above the gorge, the native fish population is limited to only those native fish that don’t migrate or who are good climbers, such as shortfin eels, common bullies and long fin eels.
313. In 1996, the Mohaka River was identified as meeting the Ramsar Sites Criteria, which identifies wetlands of international importance, with specific reference given to ten indigenous species of native fish. This finding related to the river as a whole, including its estuary area.
314. In 2012, the Mohaka River Catchment was one of four major catchments²⁹ in Hawke’s Bay to be identified as nationally important in the Hawke’s Bay RiVAS assessments for native fish. However, the RiVAS findings were related to the whole catchment, including the Mohaka River estuary area. Limited information could be found specifically in regard to the upper section of river.
315. The local expert panel found the upper Mohaka River to have outstanding ecological distinctiveness, specifically noting the river as being regionally significant for native fish. Appendix 6 sets out the full findings of the local expert panel.
316. Based on this information, staff have placed the upper Mohaka River on List 3. The native fish values of the Mohaka River do not stand out when compared to the other water bodies in Table 12.
317. Lake Waikaremoana
318. Lake Waikaremoana has high quality native fish habitat with pristine water quality. Recorded native fish in Lake Waikaremoana include the shortfin eel, common bully, Kōaro and longfin eel. The numbers of eel are currently thought to be very low.
319. The local expert panel’s report does not discuss the native fish values associated with Lake Waikaremoana. Appendix 6 sets out the full findings of the local expert panel.
320. Based on this information, staff do not consider there is enough evidence to support an outstanding classification for native fish values at Lake Waikaremoana, and have placed it on List 3.
321. Waihua River
322. The Waihua River drains a small catchment of 160 km² near Wairoa that includes pasture and exotic forest. The river is popular for fishing, particularly white bait and kakahi. It is also open to commercial eeling.
323. The local expert panel’s report does not discuss the native fish values associated with the Waihua River. Appendix 6 sets out the full findings of the local expert panel.

²⁹ Tutaekuri, Mohaka, Ngaruroro, Tukituki Catchments.

324. Based on this information, staff do not consider there is enough evidence to support an outstanding classification for native fish values at the Waihua River, and have placed it on List 3.
325. Nuhaka River
326. The Nuhaka River is situated in northern Hawke’s Bay near the Mahia peninsula.
327. Very little information could be found on the native fish values associated with the Nuhaka River, however DOC has advised that īnanga are present.
328. The local expert panel’s report does not discuss the native fish values associated with the Nuhaka River. Appendix 6 sets out the full findings of the local expert panel.
329. Based on this information, Staff do not consider there is enough evidence to support an outstanding classification for native fish values at the Nuhaka River, and have placed it on List 3.
330. Wairoa River
331. The Wairoa River Estuary, and its associated wetland areas, provide an important habitat for shortfin eel and whitebait spawning. The area is also an important access point into inland waters for a number of native freshwater species including longfin eel, smelt, Kōaro, redfin bull, bluegill bully, torrentfish, lamprey and cran’s bully.
332. The Wairoa Estuary, and associated coastal wetlands, is listed as a Significant Conservation Area in the Hawke’s Bay Regional Coastal Environment Plan, where it is recognised as containing a regionally significant fishery habitat.
333. In 2012, the Wairoa River was one of four major catchments³⁰ in Hawke’s Bay to be identified as nationally important in the Hawke’s Bay RiVAS assessments for native fish. For clarification, this finding was for the whole catchment.
334. The local expert panel’s report does not discuss the native fish values associated with the Wairoa River and estuary area. Appendix 6 sets out the full findings of the local expert panel.
335. Based on this information, staff do not consider there is enough evidence to support an outstanding classification for native fish values at the Wairoa River mouth, and have placed the Wairoa River on List 3.

Ecology: Native Plants

336. Twelve of the forty two nominated water bodies were identified as containing important aquatic and/or wetland plant values during the secondary assessments and local expert panel proceedings³¹. Table 14 sets out a summary of the key features associated with each water body for ease of reference.
337. To assist the RPC to determine if any of the water bodies contain native plant values which are clearly superior and ‘stand out’ when compared to other water bodies within the region, Staff have placed the water bodies in Table 14, onto Lists 1 to 3, with a corresponding colour code as set out in Table 13, below.
338. The assessment and supporting reasons for each colour code and associated list classification is discussed in further detail, on a water body by water body basis, between paragraphs 344 to 409.

Table 13: Lists 1 – 3 - classification key and corresponding colour codes (native plant values)

List	Colour code	Staff Findings
List 1	Green	The water body contains native plant values which are clearly superior to the other water bodies in Table 14, and has been consistently identified as outstanding in a number of different publications.
List 2	Blue	The water body contains native plant values which are of excellent quality but similar to one or more water bodies in Table 14, and requires further consideration by the RPC for an outstanding status

³⁰ Tutaekuri, Mohaka, Ngaruroro, Tukituki Catchments.

³¹ For clarification, only those water bodies with key native plant features are included in Table 14. Not all 42 nominated water bodies are discussed in this section.

List 3	Pink	The water body does not contain native plant values which stand out when compared to the other water bodies in Table 14 / OR not enough information to support an outstanding status
--------	------	--

339. Staff findings should be read in conjunction with the local expert panel findings, who applied the following assessment criteria to identify those water bodies in Hawke’s Bay which contain an outstanding native plant value:

- *Those water bodies which support 4 or more threatened species; and/or*
- *Those water bodies which support > 2% of a national population of native species and/or*
- *Those water bodies which support > 15% of a regional population of a native species and/or*
- *Presence of a unique or distinctive habitat or species at the regional level and/or*
- *Presence of a critical or outstanding: breeding site; ecosystem component; assemblage or Kohanga ika/nursery; fish passage / fish spawning.*

340. The following section discusses the key values associated with each of the twelve water body’s between paragraphs 344 to 409.

341. **Native Plants: Key findings**

342. The Porangahau Estuary, Lake Waikaremoana, Lakes Rotoroa and Rototuna and the Ngamatea East Swamp, have native plant values which clearly stand out when compared to the other water bodies in Table 14, and have been placed on List 1 by Staff. Specifically:

- Lake Rotoroa and Lake Rotoroa have the best composition of submerged aquatic plants in Hawke’s Bay.
- Lake Waikaremoana is the best example of diverse aquatic vegetation in a large, deep lake in Hawke’s Bay. The Lake contains a high number of submerged plants, with an excellent indigenous turf community that has high native species diversity, and the nationally rare charophyte *Nitella opaca*.
- The Porangahau Estuary, is the only estuary in Hawke’s Bay to contain seagrass, which has not been found in Hawke’s Bay Estuaries for over 40 years.
- The Ngamatea East Swamp is the largest intact wetland in Hawke’s Bay and contains 15 threatened plant species, including the nationally endangered sedge *carex strictissima*.

343. As discussed in Paragraph 56, there is no set approach to the identification of outstanding water bodies. Staff findings are for guidance only and one of many factors that the RPC may choose to take into account when making their decision.

Table 14: Summary Table: Key features – native plants

Water body	Notable/ endangered species	Distinctive features	Publications identifying area as outstanding for native plant features
Porangahau Estuary	Seagrass (<i>Zostera muelleri</i>)	Only estuary in Hawke's Bay to contain seagrass (last sighting in estuaries 40 years)	2019: Local expert panel - outstanding native plant values 2018: HBRC monitoring and survey's find seagrass
Lake Waikaremoana	<i>Nitella opaca</i> (nationally rare charophyte)	Contains 22 species of submerged plants, including: - excellent indigenous turf communities with high native species diversity - native charophyte community forming extensive underwater meadows - <i>Nitella opaca</i> (nationally rare) is present in the charophyte community. One of the best examples of diverse aquatic vegetation in a large, deep, clear lake in Hawke's Bay and the North Island. Second best composition of submerged aquatic plants in Hawke's Bay (2017)	2019: Local expert panel - outstanding native plant values 2017: NIWA – Second best composition of submerged aquatic plants in Hawke's Bay 2013: NIWA survey – native condition index 77%/ invasive impact 26% (high diversity of native species, little apparent impact from invasive weed species) 2008: NIWA survey – native condition index 85%/ invasive impact 23% (high diversity of native species, little apparent impact from invasive weed species) 2003: NIWA survey – native condition index 86%/ invasive impact 30% (high diversity of native species, little apparent impact from invasive weed species)
Lake Rotoroa and Lake Rototuna(Kaweka Lakes)	<i>Amphibromus fluitans</i> , <i>Carex cirrhosa</i> <i>pterostylis micromega</i> .	3 nationally endangered species Best composition of submerged aquatic plants in Hawke's Bay Best example of a waterbody that is in an all-native vegetated state in the region.	2019: Local expert panel - outstanding native plant values 2017: NIWA – best composition of submerged aquatic plants in Hawke's Bay 2007: NIWA survey – native condition index 61%/ invasive impact 0% (well-developed native plant community, no invasive weed species)
Ngamatea East Swamp	<i>carex strictissima</i> <i>ranunculus recens var</i> ,	Intact wetland of 300 hectares 15 threatened plants	2019: Local expert panel - outstanding native plant values 2018: DOC surveys and information – large intact wetland of 300 hectares + 15 threatened plants
Maungawhio Lagoon			2019: Local expert panel - outstanding native plant values
Upper Mohaka River (above Willowflat)	<i>Greater catchment area:</i> <i>Pittosporum turneri</i> (threatened) tussock <i>Chionochloa flavicans</i> <i>Calceolaria Jovellana sinclairii</i> ,	Notable native plants are located in greater catchment areas, not within the Mohaka River system itself.	1996: DOC identifies the area as meeting the RAMSAR criteria for wetlands of international importance, with specific note given to the endemic plant species present in catchment
Te Whanganui a Orotū (Ahuriri Estuary)	-	Healthy native shore-line communities Substantial remnants of the wetlands that once bordered the lagoon	
Lake Whatumā	Swamp nettle (nationally threatened)	Historically had a good population of swamp nettle (nationally threatened)	
Lake Whakakī	No submerged plants in open water	No submerged plants in open water	
Lake Waikareiti	> 10 % submerged plant cover	> 10 % submerged plant cover	
Lake Poukawa and Pekapeka Swamp	No submerged plants in open water	No submerged plants in open water	
Putere Lakes (Rotonuiaha, Rotoroa and Rotongaio)	Good water clarity	Good water clarity	

Discussion – native plants

344. The following section provides a more detailed discussion on the native plant values associated with each of the water bodies set out in Table 14, above. Table 6, at the beginning of this section, sets out the NZTCS and IUCN threat classification meanings which are referred to throughout this section.
345. This section also refers to submerged plant monitoring undertaken by NIWA in lakes in Hawke's Bay. This section make specific reference to the 'native condition index' captured in this monitoring which measures the native character of vegetation in a lake based on diversity and extent of indigenous plant communities.
346. The higher the native condition index, the healthier, deeper, and more diverse native community. Further information about LakeSPI monitoring is contained in paragraphs 82 to 87.
347. A staff recommendation has been made under each discussion, specifically identifying whether the water body should be placed on Lists 1, 2 or 3 for its native plant values, to further assist the RPC in determining which water bodies are outstanding for the purposes of the NPSFM.
348. Lake Poukawa and Pekapeka Swamp
349. Historically, Lake Poukawa contained large beds of aquatic plants, with dense beds of native charophytes recorded in the lake in 1984.
350. In 2017, NIWA found Lake Poukawa to be in a degraded state with no submerged plants.
351. The local expert panel's report does not discuss the native plant values associated with Lake Poukawa and Pekapeka Swamp. Appendix 6 sets out the full findings of the local expert panel.
352. Based on this information, Staff have placed Lake Poukawa on List 3. The native plant values of Lake Poukawa do not stand out when compared to the other water bodies in Table 14, and there is insufficient information to support an outstanding classification for native plant values at Pekapeka Swamp.
353. Ngamatea East Swamp
354. The Ngamatea East Swamp is a very large intact wetland area, of around 300 hectares, which contains at least fifteen indigenous threatened plant species, including the sedge *carex strictissima* which is nationally endangered and the *ranunculus recens var*, which is 'at risk' and threatened.
355. The local expert panel found the Ngamatea East Swamp to have outstanding ecological function, noting the significant expanse of vegetation. Appendix 6 sets out the full findings of the local expert panel.
356. Based on this information, staff have placed the Ngamatea East Swamp on List 1, given it is the largest unmodified wetland in Hawkes Bay and contains high numbers of threatened indigenous plants.
357. Porangahau Estuary
358. The Porangahau Estuary is one of the few large estuaries in Hawke's Bay, and the only estuary in Hawke's Bay to contain the seagrass, *zostera muelleri*. Prior to 2019, the last record of seagrass in a Hawke's Bay estuary was nearly 4 decades ago.
359. *Zostera muelleri* is a native flowering marine plant that occurs in patches or meadows in estuaries or sheltered coastal bays. It provides habitat for many marine species and is an important part of healthy estuarine ecosystems.
360. The local expert panel found the Porangahau Estuary to have outstanding ecological function, noting it is the only known estuary in Hawke's Bay with seagrass present. Appendix 6 sets out the full findings of the local expert panel.
361. Based on this information, staff have placed the Porangahau Estuary on List 1, given it is the only estuary in Hawke's Bay to support *zostera muelleri*.

362. Te Whanganui a Orotū (Ahuriri Estuary)

363. The Ahuriri Estuary contains some native shore-line communities which are in a healthy state, and some substantial remnants of the wetlands that bordered the lagoon. Notwithstanding, it is highly modified and does not support any native plants or plant communities of importance or rarity. The area is described as being of 'moderate botanical interest' in reviewed literature.

364. The local expert panel's report does not discuss the native plant values associated with the Ahuriri Estuary. Appendix 6 sets out the full findings of the local expert panel.

365. Based on this information, staff have placed the Ahuriri Estuary on List 3. The wildlife values of the Ahuriri Estuary do not stand out when compared to the other water bodies in Table 14.

366. Lake Waikaremoana

367. Lake Waikaremoana is an exceptional lake ecosystem which is one of the best examples of diverse aquatic vegetation in a large, deep, clear lake in the North Island. It has the second best composition of submerged aquatic plants in Hawke's Bay with a total of twenty-two species of submerged plants recorded in the lake.

368. The lake has excellent indigenous turf communities with high native species diversity, with a native charophyte community forming extensive underwater meadows between 7 and 21 metres. Notably, the nationally rare *Nitella opaca* is present in the charophyte community.

369. NIWA survey results show Lake Waikaremoana as having the highest Native Condition Index in the region, measured at 86% in 2003, 85% in 2008 and 77% in 2013. The higher percentage score the healthier, deeper, and more diverse native community.

370. The local expert panel found Lake Waikaremoana to have outstanding ecological distinctiveness, specifically noting its exceptional lake ecosystem, numbers of submerged plants and its extremely good ecological condition. Appendix 6 sets out the full findings of the local expert panel.

371. Based on this information, staff have placed Lake Waikaremoana on List 1.

372. Lake Waikareiti

373. Lake Waikareiti is located in the pristine catchment of Te Urewera, approximately 4 km north of Lake Waikaremoana.

374. Lake Waikareiti has historically, had a high diversity of native plant species, with NIWA survey results showing Lake Waikareiti as having a Native Condition Index of 38% in 2005, with no invasive plants present. However, surveys in 2009 show the aquatic plant cover to have declined to less than 10% cover, with NIWA assigning Lake Waikareiti a Native Condition Index of 0%.

375. Since 2009, Lake Waikareiti has been classified as being in a non-vegetated condition. The associated report states this is an unexpected for a lake in a near pristine catchment and a follow up is recommended.

376. The local expert panel found Lake Waikareiti to be a pristine example of an unmodified upland lake, however its native plant values were not discussed directly in their report. Appendix 6 sets out the full findings of the local expert panel.

377. Based on this information, staff do not consider there is enough evidence to support an outstanding classification for native plant values at the Lake Waikareiti, and have placed it on List 3

378. Lake Whakakī

379. Historically, Whakakī Lake contained significant beds of native aquatic macrophytic plants and fringes of primarily native vegetation, including saltmarsh ribbonwood, rushes, sedges and wetland turfs.

380. In 2017, NIWA found Lake Whakakī to be in a degraded state with no submerged plants.

381. The local expert panel's report does not discuss the native plant values associated with Whakakī Lake. Appendix 6 sets out the full findings of the local expert panel.

382. Based on this information, staff do not consider there is enough evidence to support an outstanding classification for native plant values at the Lake Whakakī, and have placed it on List 3.

383. Lake Whatumā

384. The nationally threatened swamp nettle is the only known rare plant in the Lake Whatumā wetland. In 2005, the swamp nettle was flourishing and widespread and considered to be one of the best populations in Hawke's Bay, however the current population of swamp nettle is unknown.
385. In 2017, NIWA found Lake Whatumā to have predominantly native plants extending across the entire lake bottom, with some invasive plant species, indicating a healthy lake structure and function.
386. The local expert panel's report does not discuss the native plant values associated with Lake Whatumā. Appendix 6 sets out the full findings of the local expert panel.
387. Based on this information, staff have placed Lake Whatumā on List 3. The native plant values of Lake Whatumā do not stand out when compared to the other water bodies in Table 14.

388. Lake Rototuna and Lake Rotoroa (Kaweka Lakes)

389. Lake Rototuna and Lake Rotoroa are ecologically and botanically significant because of the large number of plant species and vegetation types in the surrounding area.
390. Lake Rototuna is currently the best example of a waterbody that still remains in an all-native vegetated state in the region. In 2017, NIWA found Lake Rototuna to have the best composition of submerged aquatic plants in Hawke's Bay.
391. The Lake has a well-developed native plant community, dominated by three species of native charophyte which forms 100% cover from the lake edge to a depth of around 8.1 m. There are several endangered and threatened plant species which grow above the lake littoral zone, including:
- The nationally endangered *pterostylis micromega* (a swamp greenhood orchid),
 - The nationally vulnerable *Amphibromus fluitans* (water brome), *Carex cirrhosa*, and *Spiranthes novae-zelandiae*,
 - The at risk *Deschampsia caespitosa*, and *Lobeliaionantha*,
 - One data deficient species (*Ranunculus macropus*) (swamp buttercup).
392. Lake Rotoroa is thought to contain similar submerged community to Lake Rototuna, with the addition of the endemic deep water wetland sedge, *Eleocharis sphacelata*, which is a regionally threatened species.
393. The local expert panel found Lake Rototuna and Lake Rotoroa to have outstanding native plant values and an outstanding ecological distinctiveness, specifically noting the 3 plant species *Amphibromus fluitans*, *Carex cirrhosa* and *pterostylis micromega*. Appendix 6 sets out the full findings of the local expert panel.
394. Based on the information, staff have placed Lake Rototuna and Lake Rotoroa on List 1, given Lake Rototuna supports the best composition of submerged aquatic plants in Hawke's Bay.

395. Putere lakes (Lakes Rotoroa, Rotonuiaha, and Rotongaio)

396. The Putere lakes are situated in northern Hawke's Bay near the town of Raupunga.
397. In 2017, NIWA found the Putere lakes to be in poor condition with limited aquatic native vegetation. All three lakes dominated by the invasive weed species, hornwort. At the time of the surveys, Lakes Rotonuiaha and Rotoroa were noted as having good water clarity.
398. The local expert panel's report does not discuss the native plant values associated with the Putere lakes. Appendix 6 sets out the full findings of the local expert panel.
399. Based on this information, staff do not consider there is enough evidence to support an outstanding classification for native plant values in the Putere lakes, and have placed them on List 3.

400. Upper Mohaka River

401. The upper Mohaka River catchment contains a number of notable plants, including the threatened *Pittosporum turneri*, the tussock *Chionochloa flavicans*, which is confined to small areas of the eastern North Island, and the calceolaria *Jovellana sinclairii*, which is thought to be the native herbaceous plant with the most restricted distribution in New Zealand.

402. In 1996, DOC identified the Mohaka River as meeting the Ramsar Sites Criteria, which identifies wetland of international importance, citing its special value for its endemic plant species particularly the threatened *Pittosporum turneri*, in the greater catchment area.
403. The local expert panel's report does not discuss the native plant values associated with upper Mohaka River. Appendix 6 sets out the full findings of the local expert panel.
404. While the Mohaka River catchment contains a number of notable native plant species, these are present in the greater catchment area, not the Mohaka River system itself. As such, staff do not consider there is enough evidence to support an outstanding classification for native plant values and have placed the upper Mohaka River on List 3.
405. Maungawhio Lagoon
406. The Maungawhio Lagoon is listed as a Significant Conservation Area in the Hawke's Bay Regional Coastal Environment Plan, which states the area has significant ecological, fauna and flora values.
407. For clarification, the significant flora values appear to be related to the Pukenui Beach sand dune system (not the Maungawhio lagoon itself) which contains some indigenous flora not found anywhere else in New Zealand.
408. The local expert panel found the Maungawhio Lagoon to have outstanding ecological function, specifically noting the unique flora on the dune system. Appendix 6 sets out the full findings of the local expert panel.
409. Based on this information, staff have placed the Maungawhio Lagoon on List 3. The flora values are directed related to the surrounding dune system, not the Maungawhio Lagoon itself.

Ecology: Aquatic macroinvertebrates

410. Hawke’s Bay’s rivers, lakes and estuaries are home to hundreds of tiny animals ranging in size from less than 1 mm long to over 10 cm long. These animals are called ‘macroinvertebrates’, meaning they have no backbones and can be seen without a magnifying glass or microscope.
411. Aquatic macroinvertebrates occupy a key place in aquatic ecosystems by converting leaves, algae and bacteria on the riverbed into food for fish and birds, keeping the river healthy and clean in the process. They also have an intrinsic biodiversity value as a species, with New Zealand’s macroinvertebrate fauna characterised by its high rate of endemism.
412. Macroinvertebrates provide a useful measure of water quality, habitat condition and overall health of a river. Sampling is routinely carried out in rivers across the region, with each river assigned a macroinvertebrate community index (MCI) score. Generally, the higher the MCI, the better the health of the macroinvertebrate community and the better the health of the river³².
413. A total of thirteen³³ of the forty two nominated water bodies are regularly sampled by HBRC staff. Table 16 sets out the MCI for each of these rivers for ease of reference.
414. This section does not contain an assessment on a water body by water body basis. Those rivers which contain high MCI scores are considered to have the healthiest macroinvertebrate community in the region.
415. To assist the RPC to determine if any of the water bodies contain macroinvertebrate communities which ‘stand out’ when compared to other water bodies within the region, staff have placed the water bodies in Table 16, onto Lists 1 to 3, with a corresponding colour code as set out in Table 15.

Table 15: Lists 1 – 3 - classification key and corresponding colour codes (Aquatic macroinvertebrates)

List	Colour code	Staff Findings
List 1	Green	MCI index > 125: River’s macroinvertebrate community health clearly stands out when compared to other water bodies in Table 16
List 2	Blue	MCI index 100 – 125: River’s macroinvertebrate community health is excellent, but does not stand out when compared to other water bodies in Table 16
List 3	Pink	MCI index > 100: River’s macroinvertebrate community health does not stand out when compared to other water bodies in Table 16

416. **Aquatic macroinvertebrates: Key findings**
417. The health of the macroinvertebrate communities in the Tutaekuri River, upper Mohaka River and Upper Ngaruroro River clearly stand out when compared to other water bodies in Table 16, and have been placed on List 1.
418. The macroinvertebrate communities of the Taruarau River, Waipunga River and Ruakituri River are excellent, but do not stand out when compared to other water bodies in Table 16, and have been placed on List 2.
419. The local expert panel’s report does not discuss the macroinvertebrates communities associated with water bodies in their final report. Appendix 6 sets out the full findings of the local expert panel.
420. As discussed in Paragraph 56, there is no set approach to the identification of outstanding waterbodies. Staff findings are for guidance only and one of many factors that the RPC may choose to take into account when making their decision.

³² The MCI indicates enrichment or pollution, responding to an interacting complex of environmental variables like habitat or flow condition over time. It is not an indicator for biodiversity.

³³ For clarification, only those rivers with MCI sample results are included in Table 16. Macroinvertebrate sampling is not routinely carried out by HBRC in all water bodies across Hawke’s Bay.

Table 16: Summary Table: Key features – aquatic macroinvertebrates

River	MCI ³⁴
Upper Ngaruroro River	130 at Kuripapango
	116 at Whanawhana 113 upstream of HB Dairies 110 downstream of HB Dairies 107.5 at Ohiti 103 at Chesterhope 97 at Motorway 96.5 at Fernhill
Mohaka River	129.5 Downstream of Ripia Rv
	128 Upstream of Taharua Rv
	125 At Willowflat 120 Downstream Taharua Rv
	117 At SH5 116 Downstream Waipunga Rv 102 at Raupunga
Tutaekuri River	128 at Lawrence Hut
	107 Upstream of Mangaone Rv 88 at Puketapu 86 Brookfields Bridge
Taruarau River	120.7
Waipunga River	119
Ruakituri River	115.7
Tukituki River	108 (State highway 50) 101 (State highway 2) 98 (Tamumu Bridge) 84 (Red bridge)
Waipawa River	113 (State highway 50) 111 (State highway 2)
Wairoa River	77 (Upstream of Wairoa Township)
Waikaretaheke River	117
Aropaoanui River	107
Porangahau River	76
	86 Brookfields Bridge
Waiau River	116
Mangahauanga Stream	No data
Te Hoe River	No data
Boundary Stream	No data
Karamu River	No data
Makirikiri River	No data
Waihua River	No data
Nuhaka River	No data

³⁴ MCI score is the 5 year median value (2009-2013)

Natural Character

421. The term natural character is used to describe the naturalness of environments and has both ecological and landscape connotations³⁵. Generally, the highest degree of natural character (the greatest naturalness) occurs where there is least modification to the ecosystems and landscape.
422. Natural character, includes natural elements, patterns, and processes but is not the same as natural features, landscapes or amenity values. The Environment Court has held that “natural” does not necessarily mean “endemic to New Zealand” or “pristine”.
423. All water bodies have natural character, it is the degree to which the natural character remains which makes it significant. For example, natural character occurs on a spectrum from a pristine water body surrounded by native forest, to a water body which has been modified for flood control.
424. Sixteen of the forty two candidate outstanding water bodies were identified as having important natural character values during the secondary assessments and local expert panel proceedings³⁶. Table 18 sets out a summary of the key features associated with each water body for ease of reference.
425. To assist the RPC to determine if any of the water bodies have natural character values which are clearly superior and ‘stand out’ when compared to other water bodies within the region, staff have placed the water bodies in Table 18, onto Lists 1 to 3, with an associated colour code as set out in Table 17, below.
426. The assessment and supporting reasons for each colour code and associated list classification is discussed in further detail, on a water body by water body basis, between paragraphs 433 and 531, below.

Table 17: Lists 1 – 3 - classification key and corresponding colour codes (Natural character)

List	Colour code	Staff Findings
List 1	Green	Natural character of the water body is clearly superior to others to the other water bodies in Table 18, and has been consistently identified as having outstanding natural character in a number of different publications.
List 2	Blue	Water body has high natural character but is similar to one or more water bodies in Table 18, and requires further consideration by the RPC for an outstanding status
List 3	Pink	Natural character of the water body does not stand out when compared to the other water bodies in Table 18 / or not enough information to support an outstanding status for natural character.

427. Staff findings should be read in conjunction with the local expert panel findings, who applied following assessment criteria to identify those water bodies in Hawke’s Bay which have outstanding natural character:
- *“A water body that is highly natural with little or no human modification, including to the flow, bed and riparian margins, water quality, flora and fauna, within a largely indigenous landscape”.*
428. The following section discusses the key values associated with each of the sixteen water body’s between paragraphs 433 and 531, below.
429. **Natural character: Key findings**
430. The upper Mohaka River, Ruakituri River, upper Ngaruroro River, Lake Waikaremoana, Ngamatea East Swamp and Lake Rotoroa and Lake Rototuna have natural character values which clearly stand out when compared to the other water bodies in Table 18, and have been placed in List 1 by Staff. Specifically:
- Lake Waikaremoana has an exceptional lake ecosystem and is considered to have similar characteristics to a pristine lake in the South Island. Lake Waikaremoana is in excellent ecological condition with a high number of native aquatic plant species, and is surrounded by pristine native forest and spectacular mountain ridges.

³⁵ Hawke’s Bay RiVAS assessment (Natural Character), p2.

³⁶ For clarification, only those water bodies identified as having important natural character values are included in Table 18. Not all 42 nominated water bodies are discussed in this section.

- The Ngamatea East Swamp is a 300 hectares intact wetland area, with no signs of human modification and a high number of threatened plant species
 - Lake Rotoroa and Lake Rototuna are in excellent ecological condition, surrounded by indigenous forest, with no signs of human modification. The lakes have excellent water quality and are highly natural, with a high number of plant species and vegetation types in the lakes and around the surrounding area.
 - The upper Ruakituri River is in highly natural state, with good water quality. The river flows through indigenous forest in its upper parts, with no human modification at all in the surrounding area.
 - The upper Mohaka River is in a highly natural state, with pristine water quality. The river flows through a variety of unmodified landscapes, from large native forest areas, to remote countryside and through spectacular gorges. The river is diverse and energetic in places flowing over some powerful rapids.
 - The upper Ngaruroro River is in excellent ecological condition, with pristine water quality. The upper river has the highest MCI score in the region. The river flows through a variety of unmodified landscapes, including indigenous forest, tussock and scrubland land and narrow rocky gorges.
431. The Taruarau River, was found to have excellent natural character values but similar to one or more water bodies in Table 18 and requires further consideration by the RPC for an outstanding status.
432. As discussed in Paragraph 56, there is no set approach to the identification of outstanding waterbodies. Staff findings are for guidance only, and one of many factors that the RPC may choose to take into account when making their decision.

Table 18: Summary Table: Key features - Natural Character

Water body	Ecological health	Protected natural area /area with own legal identify	Distinctive features	Publications identifying water body as outstanding natural character and/or characteristics
Upper Mohaka River (above Willowflat)	Excellent	Yes – Kaweka Forest Park	Near natural state Second highest MCI score in the region Excellent ecological condition Pristine water quality Flows through unmodified landscapes (indigenous forest, remote countryside and spectacular gorges) Powerful rapids	2019: Local expert panel - outstanding natural character 2016: HBRC water quality report: MCI - 129.5 & 128: pristine water quality upstream of Taharua River and MCI - 125 excellent water quality at Willowflat 2012: RiVAS – Nationally significant for natural character
Upper Ngaruroro River	Excellent	Yes – Kaweka Forest Park	Near natural state Highest MCI score in the region Excellent ecological condition Pristine water quality Flows through unmodified landscapes (indigenous forest, tussock and scrubland and narrow rocky gorges with vertical schist walls)	2019: Local expert panel - outstanding natural character 2016: HBRC water quality report: MCI - 130 2012: RiVAS – Nationally significant for natural character
Lake Waikaremoana	Excellent	Yes – Te Urewera	Exceptional lake ecosystem 22 native species of submerged plants Best example of diverse aquatic vegetation in a large, deep, clear lake in Hawke’s Bay Similar characteristics to a pristine lake in the South Island. Surrounded by indigenous forest and mountain ridges	2019: Local expert panel - outstanding natural character 2017: NIWA survey – LakeSPI index 78%: high ecological condition 2017: One of the best examples of diverse aquatic vegetation in a large, deep, clear lake in Hawke’s Bay and the North Island. 2008: NIWA survey – LakeSPI index 80%: excellent ecological condition 2003: NIWA survey – LakeSPI index 78% : excellent ecological condition
Ruakituri River	Excellent	No ³⁷	Near natural state Good water quality Surrounded by indigenous forest No human modifications at all in upper parts (i.e. no tracks or huts)	2019: Local expert panel - outstanding natural character 2012: RiVAS – Nationally significant for natural character
Lake Rotoroa and Lake Rototuna (Kaweka Lakes)		Yes – Kaweka Forest Park	Near natural state Highest LakeSPI score in the region Excellent ecological condition Pristine water quality Best example of a waterbody in the Hawke’s Bay Region in an all-native vegetated state. No invasive weeds High numbers of plant species and vegetation types in and around the lakes	2019: Local expert panel - outstanding natural character 2016: NIWA – best example of a water body in Hawke’s Bay that remains in an all vegetated state. 2007: NIWA survey: LakeSPI index 79%: excellent ecological condition

³⁷ Headwaters in Te Urewera but not within HBRC boundary.

Water body	Ecological health	Protected natural area /area with own legal identify	Distinctive features	Publications identifying water body as outstanding natural character and/or characteristics
Ngamatea East Swamp	Excellent	No	Near natural state 300 ha intact wetland, largest most intact wetland in Hawke's Bay Excellent ecological condition High numbers of threatened plant species	2019: Local expert panel - outstanding natural character 2018: DOC surveys and information – large intact wetland of 300 hectares + 15 threatened plants
Taruarau River	Excellent	No	Near natural state Excellent ecological condition Excellent water quality	2019: Local expert panel - outstanding natural character 2016: HBRC water quality report: MCI - 121 2012: RiVAS – Nationally significant for natural character
Lake Waikareiti	Unknown	Yes - Te Urewera	Surrounded by indigenous forest Limited human modifications (2 x huts, one track on western edge)	2019: Local expert panel - outstanding natural character values
Wairoa River	Poor	No	Te Reinga Falls	2019: RiVAS – Nationally significant for natural character
Te Hoe River	Unknown	No	Te Hoe gorge	2019: Local expert panel - outstanding natural character values
Tukituki River	Fair	No	Unmodified in its upper reaches Braided river	2012 RiVAS – Nationally significant for natural character
Waiau River	Excellent	Yes - Te Urewera	Near natural state Surrounded by indigenous forest in upper parts	2019: Local expert panel - outstanding natural character 2012 RiVAS – Nationally significant for natural character
Lake Whakakī	Poor	No	Remnant of a much larger wetland	
Ahuriri Estuary	Poor		Remnant of a much larger lagoon	
Lake Whatumā	Poor	No	Remnant of a much larger wetland	
Lower Ngaruroro River	Fair	No	Braided river	

433. **Discussion - natural character**

434. The following section provides a more detailed discussion on the natural character values associated with each of the water bodies set out in Table 18, above. Paragraphs 439 to 441, provide a brief overview of the Hawke's Bay RiVAS assessment for Natural Character to avoid repetition in this section.

435. A staff recommendation has been made under each discussion, specifically identifying whether the water body should be placed on Lists 1, 2 or 3 for its natural character values, to further assist the RPC in determining which water bodies are outstanding for the purposes of the NPSFM.

436. In accordance with the local expert panel's criteria for natural character, the following assessments focus on the extent of human modifications in the surrounding landscape and any modifications to the water body's ecosystem, flow regime, bed, riparian margins, water quality or flora and fauna.

437. Where known, the MCI or LakeSPI scores have been referred to in each subsection. As discussed between paragraphs 82 and 87, the higher the MCI or LakeSPI score the better the health of the water body or more pristine the water quality.

438. Further, those water bodies located with the Kaweka Forest Park or Te Urewera have been specifically identified, given that protected natural areas such as these have a very high degree of natural character.

439. **Hawke's Bay Natural Character RiVAS assessments**

440. In 2012, a RiVAS assessment of natural character was carried out in Hawke's Bay. The RiVAS assessment considered a total of 46 river reaches in the region for their natural character, classifying their natural character as high (nationally significant), moderate (regionally significant) or low (locally significant).

441. Of these 46 river reaches, the RiVAS assessment identified 14 as nationally significant, 20 as regionally significant and 12 as locally significant, for their natural character. This suggests that solely being identified as nationally significant or regionally significant in the RiVAS assessment is not enough to clearly demonstrate that the water body has natural character which is outstanding and clearly superior when compared to other water bodies in the region.

442. **Whakakī Lake**

443. Whakakī Lake is the last significant wetland of a much larger 6,000 hectare wetland landscape. The lake has undergone significant historical modifications through burning, clearance and drainage and only 10% of the original wetland remains.

444. During the 1950s an artificial outlet channel was installed through the dune system, emptying almost the entire lake volume, transforming the lake ecology.

445. The local expert panel's report does not discuss the natural character of the Whakakī Lake. Appendix 6 sets out the full findings of the local expert panel.

446. Based on this information, staff have placed the Whakakī Lake on List 3. The natural character of Whakakī Lake does not stand out when compared to the other water bodies in Table 18.

447. **Lake Whatumā**

448. Lake Whatumā has undergone significant modifications and the lake levels are artificially controlled via a weir. Very little of the original vegetation remains around the lake.

449. The local expert panel's report does not discuss the natural character of the Lake Whatumā. Appendix 6 sets out the full findings of the local expert panel.

450. Based on this information, staff have placed the Lake Whatumā on List 3. The natural character of Lake Whatumā does not stand out when compared to the other water bodies in Table 18.

451. **Te Whanganui a Orotū (Ahuriri Estuary)**

452. The Ahuriri Estuary is a remnant of a much larger lagoon. There have been major changes within the Ahuriri Estuary, which before the 1931 earthquake was predominately freshwater and approximately 3,800 hectares in size.

453. The estuary currently has an area of 470 hectares with much of its margin contained by man-made stop-banks. The Tutaekurī and Esk Rivers, which originally flowed into the estuary, have been diverted away. Pandora Pond

was artificially created when sediment was excavated in 1977 to provide fill for the cargo handling area in the Port of Napier.

454. The local expert panel's report does not discuss the natural character of the Ahuriri Estuary. Appendix 6 sets out the full findings of the local expert panel.
455. Based on this information, staff have placed the Ahuriri Estuary on List 3. The natural character of the Ahuriri Estuary does not stand out when compared to the other water bodies in Table 18.
456. Wairoa River
457. The Wairoa River begins at the Te Reinga Falls, flowing predominately through farmland then urban areas in its lower parts. The river mouth is highly modified and artificially opened on occasions to ease flooding.
458. The water quality of the Wairoa River has been classified as 'poor quality' with an MCI score of 79. No sampling of macroinvertebrates has occurred in the upper reaches.
459. In 2012, the Wairoa River (above Frasertown) was identified as nationally significant in the Hawke's Bay RiVAS assessments for natural character, along with 14 other reaches of river in Hawke's Bay. The assessment found the lower Wairoa River (below Frasertown) to have medium natural character.
460. The local expert panel's report does not discuss the natural character of the Wairoa River. Appendix 6 sets out the full findings of the local expert panel.
461. Based on this information, staff have placed the Wairoa River on List 3. The natural character of the Wairoa River does not stand out when compared to the other water bodies in Table 18.
462. Ngamatea East Swamp
463. The Ngamatea East Swamp is a very large intact wetland area, of around 300 hectares, which contains a high number of threatened plant species.
464. The local expert panel found the Ngamatea East Swamp to have outstanding natural character, noting its ecological values, expansive open landscape and expressive wetland drainage and vegetation patterns. Appendix 6 sets out the full findings of the local expert panel.
465. Based on this information, staff have placed the Ngamatea East Swamp on List 1, given it is the largest intact wetland in Hawke's Bay with a high number of threatened plant species
466. Lake Rototuna and Lake Rotoroa (Kaweka Lakes)
467. Lake Rototuna and Lake Rotoroa are situated in the Kaweka Forest Park, surrounded by indigenous vegetation, with no sign of human modifications. The lakes are ecologically significant because of the large number of plant species and vegetation types in the surrounding area.
468. In 2017, Lake Rototuna was categorised in excellent condition with a LakeSPI Index of 79% by NIWA. The high LakeSPI Index generated for this lake reflected the presence of a well-developed native plant community and the absence of any invasive weed species.
469. The local expert panel found Lake Rototuna and Lake Rotoroa to have an outstanding natural character values, specifically noting the lakes are in an unmodified state surrounded by indigenous forest and small wetlands.
470. Based on this information, staff have placed Lake Rototuna and Lake Rotoroa on List 1, given the lakes are in excellent ecological condition, surrounded by indigenous forest, with no signs of human modification.
471. Waiau River
472. The Waiau River flows through the native bush of Te Urewera, in its upper reaches, passing open farm land in its middle and lower reaches. The water quality of the Waiau River has been classified as of 'good quality' with an MCI score of 116.
473. In 2012, the upper Waiau River (above Owlio Stream) was identified as nationally significant in the Hawke's Bay RiVAS assessments for natural character, along with 14 other reaches of river in Hawke's Bay. The assessment found the lower Waiau River (below Owlio Stream) to have moderate natural character.

474. The local expert panel found the Waiau River (above Matuku Stream) to have an outstanding natural character, specifically noting it is nationally significant rating for natural character in the RiVAS assessments. Appendix 6 sets out the full findings of the local expert panel.
475. Based on this information, staff have placed the Waiau River on List 3. The natural character values of the Waiau River do not stand out when compared to the other water bodies in Table 18.
476. Tukituki River
477. The Tukituki River is largely unmodified in its upper reaches, with significant river control works occurring above Waipukarau and below Havelock North to assist with flood control.
478. The MCI scores for the Tukituki River indicate its water quality is 'fair' and 'good' in places, with mild and moderate pollution. Specifically, the MCI scores are: 108 (State Highway 50), 101 (State Highway 2), 98 (Tamumu Bridge) and 84 (Red Bridge).
479. In 2012, the Tukituki River (above State Highway 50) was identified as nationally significant in the Hawke's Bay RiVAS assessments for natural character, along with 14 other reaches of river in Hawke's Bay. The assessment found the middle reaches to have moderate natural character, and the lower reaches to have low natural character.
480. The local expert panel's report does not discuss the natural character values associated with Tukituki River. Appendix 6 sets out the full findings of the local expert panel.
481. Based on this information, staff have placed the Tukituki River on List 3. The natural character values of the Tukituki River do not stand out when compared to the other water bodies in Table 18.
482. Ruakituri River
483. The Ruakituri River is clean and clear as in its upper reaches and highly natural as it flows through thick bush and rugged, remote backcountry and through a number of steep gorges, past giant limestone cliffs, and finally over the 72 m Waitangi Falls, which mark the beginning of the river's middle reaches.
484. The upper reaches are a rugged wilderness zone, with no huts and tracks and the flow regime is highly natural with no modification to the flow pattern.
485. The middle section of the Ruakituri River is narrow with the surrounding area characterised by step hills covered with native bush and bluffs. In its lower reaches, the river flows through more modified landscapes, with farmland on either side.
486. The water quality of the Ruakituri River has been classified as of 'good quality' with an MCI score of 115.
487. In 2012, the Ruakituri River was identified as nationally significant in the Hawke's Bay RiVAS assessments for natural character, along with 14 other reaches of river in Hawke's Bay.
488. The local expert panel found the Ruakituri River to have outstanding natural character values, noting it is nationally recognised for exceptional scenic values. Appendix 6 sets out the full findings of the local expert panel.
489. Based on this information staff have placed the upper Ruakituri River on List 1. The river flows through indigenous forest in its upper parts, with no human modification at all in the surrounding area.
490. Taruarau River
491. The Taruarau River is in a near natural state with high ecological values, which flows through a variety of natural landscapes, from areas of rolling tussock country which are very barren and dry to rugged and isolated areas surrounded by scrubland. Pastoral farming occurs on around 10% of the catchment area.
492. The water quality in the Taruarau River is in an excellent state with an MCI score of 121.
493. In 2012, the Taruarau River was identified as nationally significant in the Hawke's Bay RiVAS assessments for natural character, along with 14 other reaches of river in Hawke's Bay. Specifically, the report states the Taruarau River had a high degree of natural character, owing to its very low level of modification.
494. The local expert panel found the Taruarau River to have outstanding natural character values, noting its highly impressive scenic values in a near natural state. Appendix 6 sets out the full findings of the local expert panel.

495. Based on this information staff have placed the Taruarau River on List 2, given that its natural character is similar to several water bodies in Table 18, and warrants further consideration by the RPC.
496. Upper Ngaruroro River (above Whanawhana)
497. The Ngaruroro River is in a highly natural state upstream of Kuripapango, with the highest MCI score in Hawke's Bay at 130, indicating its ecological condition is excellent and its water quality is pristine.
498. The upper River flows through a variety of landscapes running through a vast area of tussock and scrubland, and through narrow rocky gorges which contain numerous rapids. The landscape surrounding the gorge is native bush and scrub land with some forestry.
499. In 2012, the upper Ngaruroro River was identified as nationally significant in the Hawke's Bay RiVAS assessments for natural character, along with 14 other reaches of river in Hawke's Bay.
500. The local expert panel found the Ngaruroro River upstream of Kuripapango to have outstanding natural character, noting the river is widely recognised as being in a near natural state, with few development influences in the surrounding area, except forestry. Appendix 6 sets out the full findings of the local expert panel.
501. Based on this information staff have placed the upper Ngaruroro on List 1, given it is in excellent ecological condition, with pristine water quality flowing through a variety of unmodified landscapes.
502. Lower Ngaruroro River (below Whanawhana)
503. The braided river channel of the lower Ngaruroro River has been significantly modified for flood control works, with the lower parts of the river from Fernhill being diverted down its current path in 1935.
504. In 2012, the Hawke's Bay RiVAS assessments found the Ngaruroro River between Whanawhana and Maraekakaho to have 'moderate' natural character, with the remaining parts of the Ngaruroro River (below Maraekakaho) to have low natural character.
505. The MCI scores in the lower Ngaruroro River indicate its water quality is fair to good quality, with mild/moderate pollution. Specifically, MCI scores are 107 at Ohiti, 103 at Chesterhope and 95 at Fernhill.
506. The local expert panel's report does not discuss the natural character values associated with lower Ngaruroro River. Appendix 6 sets out the full findings of the local expert panel.
507. Based on this information staff have placed the lower Ngaruroro River on List 3. The natural character of the lower Ngaruroro River does not stand out when compared to the other water bodies in Table 18.
508. Te Hoe River
509. Very little information could be found discussing the natural character values of Te Hoe gorge. Further, the Hawke's Bay RiVAS assessments for natural character, did not include Te Hoe River.
510. The local expert panel found Te Hoe River to have outstanding natural character values, noting the outstanding scenic characteristics of Te Hoe gorge. Appendix 6 sets out the full findings of the local expert panel.
511. Based on this information, staff have placed Te Hoe River on List 3. Very little information could be found on the natural character of Te Hoe River.
512. Upper Mohaka River
513. The upper Mohaka River runs clean and clear through large native forest areas, in its upper parts, flowing through remote countryside with scrub covering the hills past the Taharua confluence to Pungahuru. The flow regime is highly natural with no modification to the flow pattern.
514. From Pungahuru, the upper Mohaka River is entrenched in spectacular gorges almost continuously down to Te Hoe. This section of river is diverse and energetic with large numbers of big boulders, rapids, chutes and plunge pools. There are some powerful rapids in the upper river, with a number of water falls and a horseshoe bend.
515. The upper Mohaka River is widely recognised as being in a near natural condition, and has some of the highest MCI scores in Hawke's Bay, indicating its ecological condition is excellent and its water quality is pristine. Specifically, MCI scores are 125 at Willowflat, 128 upstream of the Taharua River, and 129.5 below the Ripia

River. Even below the Taharua River confluence, where there is some localised degradation of water quality, the MCI score is still a high 120.

516. In 2012, the Mohaka River was identified as nationally significant in the Hawke's Bay RiVAS assessments for natural character, along with 14 rivers reaches in Hawke's Bay.
517. The local expert panel found the upper Mohaka River to have outstanding natural character values specifically noting the outstanding scenic characteristics in the gorge areas and the highest score for natural character in Hawke's Bay. Appendix 6 sets out the full findings of the local expert panel.
518. Based on this information, staff have placed the upper Mohaka River on List 1.
519. Lake Waikareiti
520. Lake Waikareiti is located 892 metres above sea level in the pristine catchment of *Te Urewera*, surrounded by indigenous native forest.
521. The area is highly natural, with a walking track on its western edge and two huts located at the northern and southern ends of the lake. There are no other human modifications in the area.
522. The ecological state is currently unknown. In 2005, Lake Waikareiti was found to be in a 'high quality' ecological condition with a LakeSPI score of 56%. However, in 2009 the aquatic plant cover in Lake Waikareiti declined significantly to less than 10%, and the LakeSPI score reduced to 0%. NIWA has recommended follow up investigations.
523. The local expert panel found Lake Waikareiti to have an outstanding natural character values, specifically noting it as being a pristine example of an unmodified upland lake. Appendix 6 sets out the full findings of the local expert panel.
524. Based on this information, staff have placed Lake Waikareiti on List 3. Despite being located in *Te Urewera*, very little information could be found about Lake Waikareiti itself.
525. Lake Waikaremoana
526. Lake Waikaremoana is a large clear sparkling blue lake situated in *Te Urewera* surrounded by pristine native forest and spectacular mountain ridges. The area is highly natural, however human modification is apparent with huts and tracks, located around the lake, albeit to a limited extent.
527. Lake Waikaremoana has an exceptional lake ecosystem and is considered to have similar characteristics to a pristine lake in the South Island. It has high native species diversity and little apparent impact from invasive pest plants, introduced fish, or land-use.
528. Sampling undertaken by NIWA in 2003, 2008 and 2013 shows the ecological condition of Lake Waikaremoana is relatively stable and in excellent condition, with a LakeSPI scores of 78%, 80% and 74%, respectively.
529. In 1929, Lake Waikaremoana was modified and its lake levels were artificially lowered by 5 metres for hydro-storage. Large flat areas of soft delta-sediment shorelines were exposed. The flow regime is not natural, with Genesis Energy artificially managing its lake levels in a manner which reflects natural lake level cycling.
530. The local expert panel found Lake Waikaremoana to have an outstanding natural character values noting it is a large lake surrounded by untouched native forest, with high natural character. Appendix 6 sets out the full findings of the local expert panel.
531. Based on this information, staff have placed Lake Waikaremoana on List 1. Despite the artificial lowering and management of lake its levels, its natural character values clearly stand out when compared to the other water bodies in Table 18.

Landscape / geological features

532. Hawke’s Bay contains a vast number of beautiful landscapes, geologically significant landforms and natural features that are highly valued by people who live in both Hawke’s Bay and other parts of New Zealand. This section discusses those landscapes which have a mixed vista of land and water.
533. ‘Landscape’ is a concept which includes the physical environment and people’s perception and appreciation of that environment. It is not restricted to the purely visual, and can include associative meanings for individuals, tāngata whenua and communities as a whole, meaning landscapes are viewed by people in a variety of ways.
534. Natural landforms and geological features can form an important part of the physical environment, with spectacular features such as mountain ranges, waterfalls and gorges and native bush areas giving people a sense of place and means of orienting themselves in the natural world.
535. Natural landforms and geological features can be included as part of a water body’s wider landscape value, or be outstanding in their own right for their natural science values, or both. For clarity, the water body must form a key component of the landscape or be critical to a geological feature, in order to be outstanding for the purposes of the NPSFM.
536. Twenty two of the forty two candidate outstanding water bodies were identified as having important landscape and/or geological values during the secondary assessments and local expert panel proceedings³⁸. Table 20 sets out a summary of the key landscape and geological features associated with each water body for ease of reference.
537. To assist the RPC to determine if any of the water bodies have landscape and/or geological values which are clearly superior and ‘stand out’ when compared to other water bodies within the region, staff have placed the water bodies in Table 20, onto Lists 1 to 3, with an associated colour code as set out in Table 19, below.
538. The assessment and supporting reasons for each colour code and associated list classification is discussed in further detail, on a waterbody by water body basis, between paragraphs 532 and 544, below.

Table 19: Lists 1 – 3 classification key and corresponding colour codes (landscape and geology)

List	Colour code	Staff Findings
List 1	Green	The water body contains landscape values and/or geological values which are clearly superior to other waterbodies in Table 20, and have been consistently identified as outstanding in a number of different publications.
List 2	Blue	The water body contains excellent landscape values and/or geological values which are similar to one or more water bodies in Table 20, and require further consideration by the RPC for an outstanding status.
List 3	Pink	The water body does not contain landscape values or geological features which stand out when compared to the other water bodies in Table 20 / OR not enough information to support an outstanding status.

539. Staff findings should be read in conjunction with the local expert panel findings, who applied the following assessment criteria to identify those water bodies in Hawke’s Bay which contain outstanding landscape values:
- *“A water body that contains a unique hydrological, geological or culturally significant feature and/or*
 - *A waterbody that is widely recognised at the regional level for its scenic values”.*
540. The following section discusses the key values associated with each of the 22 water body’s between paragraph 532 and 544, below.

³⁸ For clarification, only those water bodies identified as having important landscape and /or geological values are included in Table 20. Not all 42 nominated water bodies are discussed in this section.

541. **Landscape/geological values: Key findings**

542. The Mangahouanga Stream, Ahuriri Estuary, Lake Waikaremoana, upper Mohaka River, upper Ruakituri River and the upper Ngaruroro River have landscape and/or geology values which clearly stand out when compared to the other water bodies in Table 20, and have been placed on List 1 by staff. Specifically:
- The Mangahouanga Stream contains the only the record of terrestrial dinosaurs found in New Zealand, and is consistently recognised in publications as being of international importance.
 - Lake Waikaremoana is renowned for its stunning scenery and is often referred to as ‘the jewel in the crown’ of New Zealand landscapes. It is consistently recognised in publications as containing an impressive and remote natural environment which is visited by a high number of international tourists each year.
 - The upper Mohaka River is consistently recognised in publications as containing impressive and exceptional scenic values, particularly in the gorge areas. The River contains some powerful rapids and is diverse and energetic, passing through spectacular gorges and around a horseshoe bend.
 - The upper Ruakituri River is consistently recognised in publications as containing exceptional scenic values. In particular, the upper River is highly natural, flowing through indigenous native bush and past giant limestone cliffs and over the 72 m high Waitangi Falls.
 - The upper Ngaruroro River is in a highly natural state and has been consistently given impressive scenic ratings in past publications. The river has numerous rapids and passes through rocky gorges with vertical schist walls.
 - The Ahuriri Estuary is consistently recognised in publications as being of national importance for its tectonic processes and uplifted channel fossils.
543. Three other water bodies in Table 20 were found to have excellent landscape or geological feature values, but similar to one or more water bodies in Table 20, and require further consideration by the RPC. These water bodies are the Tukituki River, Taruarau River and Porangahau Estuary and have been placed on List 2.
544. As discussed in Paragraph 56, there is no set approach to the identification of outstanding waterbodies. Staff findings are for guidance only and one of many factors that the RPC may choose to take into account when making their decision.

Table 20: Summary Table: Key features - Landscape & Geology

Water body	Natural character	Geopreservation inventory importance rating A = International (5 features in HB) B = National (33 features in HB) C = Regional (90 features in HB)	Publications identifying water body as outstanding for landscape and/or geological values
Lake Waikaremoana	High	Class B – Nationally important: largest debris-dammed lake in the region	2019: Local expert panel: outstanding landscape values – largest debris dammed lake in the region 2018: Geopreservation inventory – nationally important 2004: Potential Water Body of National Importance - scenic values 2004: Potential Water Body of National Importance - geodiversity features 2000: One of the 10 great walks in New Zealand (premier tracks in the most impressive and remote natural environments in New Zealand)
Mangahouanga Stream	High	Class A – internationally important: contains the only record of terrestrial dinosaurs found in New Zealand	1980: Daily telegraph - Dinosaur bone found in Hawke’s Bay 1993: The New Zealand Geographic - The Hunt for New Zealand’s Dinosaurs 1994: Cretaceous Research Paper – A Late Cretaceous polar dinosaur fauna from New Zealand 1994: Joan Wiffen receives an honorary doctorate from Massey University for her achievements 1995: Joan Wiffen receives an appointment as Commander of the Order of the British Empire from the queen for her achievements 2000: Discovery Magazine - “Romancing the bone” how an amateur fossil hound unearthed dinosaur remains in a most unlikely place and rocked the word of palaeontology 2004: Joan Wiffen receives a Morris Skinner Award from the US-based Society of Vertebrate Palaeontology for outstanding and sustained contributions to scientific knowledge
Te Whanganui a Orotū (Ahuriri Estuary)	Low	Class B – nationally important: Ahuriri Lagoon 1931 uplift nationally important example of tectonic processes.	2019: Local expert panel: outstanding landscape values - 1931 uplift 2018: Napier City District Plan – significant landscape 2018: Geopreservation inventory – nationally important 2006: Significant Conservation Area - tectonic processes & uplifted channel fossils 2004: Potential Water Body of National Importance - geodiversity features
Upper Mohaka River (above Willowflat)	High	Class C – Regionally Important: excellent example of a horseshoe bend on a meandering river	2019: Local expert panel – outstanding landscape values 2012: RiVAS - nationally important for natural character 2004: Water conservation order – outstanding scenic characteristics of the Mokonui and Te Hoe gorge 1986: Governments List of Rivers and Lakes – Group One for recreational experiences in a diverse landscape 1984: Identified on Governments National Inventory of Wild and Scenic Rivers 1981: New Zealand Recreational River Survey – impressive scenic rating
Upper Ngaruroro River	High	Class C – Regionally Important: one of the best two gorges in Hawke’s Bay	2019: Local expert panel – outstanding landscape values 2012: RiVAS assessments – nationally significant for natural character 1981: New Zealand Recreational River Survey impressive scenic rating

Water body	Natural character	Geopreservation inventory importance rating A = International (5 features in HB) B = National (33 features in HB) C = Regional (90 features in HB)	Publications identifying water body as outstanding for landscape and/or geological values
			1979: 64 New Zealand Rivers - impressive scenic rating
Upper Ruakituri River	High	-	2019 Local expert panel – exceptional scenic values 2012 RiVAS assessments – nationally significant for natural character 1986: Governments List of Rivers and Lakes - Group one for its exceptional scenery 1981: New Zealand Recreational River Survey – exceptional scenic rating
Tukituki River	High	-	2019: Local expert panel – outstanding landscape values –an iconic Hawke’s Bay river landscape 2012: RiVAS assessments – nationally significant for natural character
Taruarau River	High	Class C – Regionally Important: one of the best two gorges in Hawke’s Bay	2019 Local expert panel – outstanding landscape values – Taruarau Gorge 2012 RiVAS assessments – nationally significant for natural character 1981 New Zealand Recreational River Survey – impressive scenic rating
Porangahau Estuary	High	Class C – regionally important: Largest barrier system in Hawkes Bay	2019: Local expert panel: outstanding landscape values - river mouth barrier system, and en echelon sand dunes and cross-cutting strand lines
Lake Poukawa	Low	Class B – nationally Important: Holocene swamp	2019 Local expert panel – outstanding landscape values – Holocene swamp 2004 Potential water body of national importance – Holocene Swamp
Morere Hot Springs	Low	Class C – Regionally important: best example of hot springs on the east coast of the North Island	2019: Local expert panel: outstanding landscape values – hot springs
Lake Waikareiti	-	Class C – Regionally Important: attractive 200 m beach of white pumice sand	2019 Local expert panel: outstanding landscape values – Lake Waikareiti Beach
Lower Ngaruroro River	Low	Class C – Regionally Important: best example of a braided river channel in the region	2019: Local expert panel – outstanding landscape values – braided river
Waipawa River	Medium	Class C – Regionally Important: one of the best examples of an alluvial terraces in the region	2019: Local expert panel – outstanding landscape values – alluvial terrace
Lake Whakakī (including Patangata, Te Paeroa and Wairau Lagoons)	Low	Class C – regionally Important: A series of five well defined coastal lagoons – the best in Hawke’s Bay	2019 Local expert panel – outstanding landscape values – best coastal wetland/lagoon complex in the region
Wairoa River	Low	Class B – nationally important: Te Reinga Cave system a major cave system in Pliocene limestone Class C – regionally Important: Te Reinga Falls a major waterfall over Pliocene sandstone and limestone	2018 NZ waterfalls website - Te Reinga Falls spectacular
Maungawhio Lagoon	High	Class C – regionally Important: - excellent example of a tidal lagoon	2019 Local expert panel – outstanding landscape values
Waipunga Falls	High	-	2019 Local expert panel – outstanding landscape values 2018 NZ Waterfalls website - Waipunga Falls charming views panel
Kaweka Lakes	High	-	2019: Local expert panel – outstanding landscape values

Water body	Natural character	Geopreservation inventory importance rating A = International (5 features in HB) B = National (33 features in HB) C = Regional (90 features in HB)	Publications identifying water body as outstanding for landscape and/or geological values
Shine Falls	-	Class C – regionally important: 85 m high spectacular falls. The most attractive waterfall in northern Hawke’s Bay.	2019: NZ Waterfalls website - Hawke's Bay's most spectacular waterfall
Tarawera Hot Pools	-	Class C – regionally important	

547. **Discussion – landscape /geological features**

548. Landscapes can be valued in a number of ways, and are often very subjective depending on the person who is perceiving or experiencing the area. This section does not attempt to re-assess the landscape and geological values associated with water bodies in Hawkes Bay.
549. In accordance with directions of the RPC, the findings in published literature have been used to determine which waterbodies contain landscape or geological values which clearly stand out when compared to others in the region. No new landscape or geological assessments have been carried out.
550. The following section provides a more detailed discussion on the landscape and geological values associated with each of the water bodies set out in Table 20, above. Paragraphs 552 to 554, below provide a brief overview of the Geopreservation Inventory to avoid repetition in the following section.
551. A staff recommendation has been made under each discussion, specifically identifying whether the water body should be placed on Lists 1, 2 or 3 for its landscape and/or geological values, to further assist the RPC in determining which water bodies are outstanding for the purposes of the NPSFM.
552. National Geopreservation Inventory
553. The New Zealand Geological Society has been publishing and refining a National Geopreservation Inventory since 1988. The inventory identifies and ranks geological and geomorphological features according to their relative significance classifying them as internationally important (Class A), nationally important (Class B) and regionally important (Class 3).
554. In total, the Geopreservation Inventory identifies 5 features in Hawke’s Bay as Class A (internationally significant) 33 features in Hawke’s Bay as Class B (nationally significant) and 90 features in Hawke’s Bay as Class C (regionally significant). This suggests that solely being identified as nationally important or regionally important is not enough to clearly demonstrate that the water body has geological or landscape features which are clearly superior when compared to others in the region.
555. Wairoa River
556. The Wairoa River begins at Te Reinga Falls which tumble down in stages and into a narrow channel, and marks the beginning of the Wairoa River. The NZ waterfalls website describes Te Reinga Falls as spectacular.
557. A short distance after the falls, the Wairoa River flattens out, flowing predominately through farmland, then urban areas until it meets the sea.
558. Te Reinga Cave system is a major cave system also located at the beginning of the Wairoa River. It consists of four cave segments with a total length of around 5 km and a depth of 140 m. It is the largest known cave system on the east coast.
559. The scenic values of the Wairoa River have been assessed in the past on several occasions, where in 1979 it was assigned an interesting³⁹ scenic rating, and in 1981 a moderate⁴⁰ rating for its scenic values. Te Reinga Falls were described as very scenic.
560. Te Reinga Cave system, is identified on the Geopreservation Inventory, as being Class B (nationally important) along with 32 other features in Hawke’s Bay.
561. Te Reinga Falls are identified on the Geopreservation Inventory, as being Class C (regionally important) along with 89 other features in Hawke’s Bay.
562. The local expert panel’s report does not discuss the landscape values associated with the Wairoa River. Appendix 6 sets out the full findings of the local expert panel.
563. Based on this information, staff have placed Wairoa River on List 3. The landscape and geological features associated with the Wairoa River do not stand out when compared to the other water bodies in Table 20.

³⁹ Scenic values graded on a five point scale: dull, ordinary, interesting, impressive, exceptional.

⁴⁰ Scenic values graded on a six point scale: dull, uninspiring, moderate, picturesque, impressive, exceptional.

564. Mangahouanga Stream (Dinosaur Stream)

565. The Mangahouanga Stream is located high in the Urewera Ranges, surrounded by a combination of private forestry and native forest areas. It is internationally renowned for its rich and diverse fossil concentrations, and the only site in New Zealand to contain significant dinosaur remains.
566. To date, a total of six separate species of dinosaurs, four of which are unique to New Zealand, have been found at this location. The site also contains a range of other marine and plant fossils, including New Zealand's oldest known fossil insect, and teeth from the first known southern hemisphere sawfish.
567. The fossils discovered in the Mangahouanga Stream prove the full range of dinosaurs lived in New Zealand after it split away from Gondwana in the early cretaceous period. Prior to these discoveries it was not thought dinosaurs lived in New Zealand.
568. The Mangahouanga Stream is recognised worldwide for these discoveries and is consistently identified in past publications as containing outstanding geological values.
569. The Mangahouanga Stream, is identified on the Geopreservation Inventory, as being Class A (internationally important) along with 4 other features in Hawke's Bay. The Inventory cites the river as the first, and to date the only, record of terrestrial dinosaurs found in New Zealand.
570. The local expert panel's report does not discuss the landscape values or geological features associated with the Mangahouanga Stream. Appendix 6 sets out the full findings of the local expert panel.
571. Based on this information, staff have placed the Mangahouanga Stream on List 1, given it contains the only the record of terrestrial dinosaurs found in New Zealand.

572. Maungawhio Lagoon

573. Maungawhio Lagoon is a salt water lagoon that joins to Oraka Beach on the Mahia peninsula. It has significant ecological values.
574. The Mahia peninsula tombolo⁴¹ is identified on the Geopreservation Inventory as Class B (nationally important, along with 32 other features in Hawke's Bay). For clarification, the Maungawhio Lagoon is not a key part of the landscape when viewing the tombolo.
575. The Maungawhio Lagoon is identified on the Geopreservation Inventory, as being Class C (regionally important) along with 89 other features in Hawke's Bay. The inventory cites the lagoon as being "*an excellent example of a tidal lagoon*".
576. The local expert panel found the Maungawhio Lagoon to have outstanding landscape values, specifically noting the lagoon is an excellent example of a tidal lagoon, and located near the tombolo.
577. Based on the information, staff have placed the Maungawhio Lagoon on List 3. The landscape and geological features of the Maungawhio Lagoon do not stand out when compared to the other water bodies in Table 20.

578. Lake Whakakī

579. Lake Whakakī is a coastal lagoon with a total area of around 600 hectares of combined lake, sand dune and swamp areas.
580. Whakakī Lake is part of a bigger wetland complex which includes the Ngamotu, Ohuia, Waihoratuna, Wairau, Te Paeroa, and Patangata lagoons. Collectively these wetlands are considered to be the best representative example of this coastal landscape type in the Hawke's Bay.
581. This group of wetlands are identified on the Geopreservation Inventory as being Class C (regionally important), along with 89 other features in Hawke's Bay. The Inventory cites these wetlands as being the best coastal lagoons in Hawke's Bay.
582. The local expert panel found Lake Whakakī to have outstanding landscape values, specifically noting that the area contains the best coastal wetland/lagoon complex in the region. Appendix 6 sets out the full findings of the local expert panel.

⁴¹ Mahia peninsula was once an island and the tombolo or sandbar connection built up to link it to the mainland at Opoutama. The tombolo is 4 km long and 3 km wide and one of the largest sand tombolos in New Zealand.

583. Based on this information reviewed, staff have placed Lake Whakakī on List 3. The landscape and geological features of the Lake Whakakī do not stand out when compared to the other water bodies in Table 20.
584. Lake Poukawa
585. Lake Poukawa is a large shallow lake, fringed with raupo and surrounded by farmland.
586. Lake Poukawa became a well-known paleontological site in 1956. Historically, Lake Poukawa had a species rich Pleistocene/Holocene waterfowl fauna, with more than 13,400 anatid bones (including a number of extinct bird fossils) unearthed at this site.
587. In 1986, Lake Poukawa was placed in 'Group Two' in the Governments list of rivers and lakes deserving protection for its scientific research value.
588. In 2004, the Ministry for the Environment identified Lake Poukawa as a potential water body of national importance for water dependent geodiversity and geothermal features, specifically as a Holocene swamp.
589. The Lake Poukawa Holocene Swamp is identified on the Geopreservation Inventory as being Class B (nationally important), along with 32 other features in Hawke's Bay.
590. The local expert panel found Lake Poukawa to have outstanding landscape values, specifically noting its value as a holocene swamp. Appendix 6 sets out the full findings of the local expert panel.
591. Based on this information, staff have placed Lake Poukawa on List 2, for further consideration by the RPC.
592. Lake Rototuna and Lake Rotoroa
593. Lake Rototuna and Lake Rotoroa are located in the Kaweka Forest Park, surrounding by indigenous native forest.
594. Very little information could be found on the landscape and geological values associated with the two lakes, and they do not feature on the New Zealand Geopreservation Inventory.
595. The local expert panel found Lake Rototuna and Lake Rotoroa to have outstanding landscape values, specifically noting they are widely recognised for their scenic qualities due to the pristine state of the greater catchment area. Appendix 6 sets out the full findings of the local expert panel.
596. Based on this information, staff have placed Lake Rototuna and Lake Rotoroa on List 3. The landscape and geological features associated with the two lakes do not stand out when compared to the other water bodies in Table 20.
597. Porangahau Estuary
598. The Porangahau Estuary is the largest and least modified estuary in Hawke's Bay. It has significant ecological values, and is the largest river mouth barrier system in Hawke's Bay.
599. The Porangahau River mouth barrier system is identified on the Geopreservation Inventory as being Class C (regionally important), along with 89 other features in Hawke's Bay. It is the largest barrier system in the region.
600. The Porangahau en echelon sand dunes⁴² and cross-cutting strand lines are identified on the Geopreservation inventory as being Class B (nationally significant), along with 32 other features in Hawke's Bay.
601. The local expert panel found the Porangahau Estuary to have outstanding landscape values, specifically noting the river mouth barrier system, sand dunes and cross-cutting strand lines. The local expert panel's report is attached in Appendix 6.
602. Based on this information, staff have placed the Porangahau Estuary on List 2, for further consideration by the RPC.
603. Waipawa River
604. The Waipawa River begins its journey as a very small steep stream, increasing in flow past the Makaroro River where it eventually becomes a large braided river system.

⁴² approximate parallel formation

605. The scenic values of the Waipawa River have been assessed in the past on several occasions, and in 1979 it was assigned an interesting⁴³ rating, and in 1981 a picturesque⁴⁴ rating for its scenic values.
606. In 2012, the Waipawa River was assessed as having ‘moderate’ natural character values in the Hawke’s Bay RiVAS assessments.
607. The Waipawa River alluvial terraces are identified on the Geopreservation Inventory as being Class C (regionally important), along with 89 other features in Hawke’s Bay. The inventory cites the alluvial terraces “*as one of best examples in the region*”.
608. The local expert panel found the Waipawa River to have outstanding landscape values, specifically noting the Waipawa River alluvial terraces. Appendix 6 sets out the full findings of the local expert panel.
609. Based on this information reviewed, staff have placed the Waipawa River on List 3. The landscape and geological features of the Waipawa River do not stand out when compared to the other water bodies in Table 20.
610. Tukituki River
611. The Tukituki River is a large braided river system that runs across the Ruataniwha Plains. Long lengths of the Tukituki River have been modified for flood control works.
612. The scenic values of the Tukituki River have been assessed in the past on several occasions. In 1979, it was assigned an interesting⁴⁵ rating in 64 New Zealand Rivers, and in 1981 it was assigned a picturesque⁴⁶ rating for its scenic values in the New Zealand Recreational River Study.
613. In 1986, the Tukituki River was placed on ‘Group Two’ on the Governments list of rivers and lakes deserving protection, for its scenic and recreation qualities. In 2012, the Tukituki River was identified as nationally significant in the Hawke’s Bay RiVAS assessments for natural character, along with 14 other reaches of river in Hawke’s Bay.
614. The Te Mata Peak Hog back, specifically its impressive limestone ridge, is identified on the Geopreservation Inventory, as being Class C (regionally important), along with 89 other features in Hawke’s Bay. For clarification, the Tukituki River itself does not feature on the Geopreservation Inventory.
615. The local expert panel found the Tukituki River to have outstanding landscape values, specifically noting the Tukituki River is an iconic Hawke’s Bay river landscape. Appendix 6 sets out the full findings of the local expert panel.
616. Based on this information, staff have placed the Tukituki River on List 2, for further consideration by the RPC.
617. Ruataniwha Aquifer
618. The Ruataniwha aquifer system has a strong hydraulic connection with the surface water bodies which flow across the Ruataniwha plains.
619. As stated earlier in this report, the Heretaunga and Ruataniwha aquifer systems are discussed together in a separate section between paragraphs 841 and 847, and are not included in Table 20.
620. Notwithstanding, the Ruataniwha aquifer system is briefly discussed here given the local expert panel found the Ruataniwha aquifer system to have outstanding landscape values, specifically noting its hydraulic connection to the Tukituki River system. Appendix 6 sets out the full findings of the local expert panel.
621. As discussed in paragraphs 47 and 48, a high number of water bodies are hydraulically connected to other water bodies including aquifer systems. Given that Plan Change 7 is looking to solely identify water bodies which contain an outstanding values in their own right, the contribution that the Ruataniwha aquifer makes to any outstanding value(s) in the Tukituki River would not make the aquifer system itself an OWB.
622. Notwithstanding, if the RPC identifies the Tukituki River as having an outstanding cultural, spiritual, recreation, landscape or ecology value, the contribution the aquifer system makes to the outstanding value(s) in the Tukituki River would be protected in future catchment based management plans.

⁴³ Scenic values graded on a five point scale: dull, ordinary, interesting, impressive, exceptional.

⁴⁴ Scenic values graded on a six point scale: dull, uninspiring, moderate, picturesque, impressive, exceptional.

⁴⁵ Scenic values graded on a five point scale: dull, ordinary, interesting, impressive, exceptional.

⁴⁶ Scenic values graded on a six point scale: dull, uninspiring, moderate, picturesque, impressive, exceptional.

623. Waipunga Falls

624. The Waipunga Falls are 40 m high tiered waterfalls located on the Waipunga River, approximately 35 km from Taupo.

625. The New Zealand Waterfalls websites describes the Waipunga Falls as a “*must see New Zealand Waterfall due to its easy access (visible from the car park) and its charming views*”.

626. The Waipunga Falls do not feature on the New Zealand Geopreservation Inventory.

627. The local expert panel found the Waipunga Falls to have outstanding landscape values, specifically noting the falls were of regional importance. Appendix 6 sets out the full findings of the local expert panel.

628. Based on this information, staff do not consider there is enough evidence to support an outstanding classification for landscape or geological values associated with the Waipunga Falls, and have placed it on List 3.

629. Shine Falls

630. Shine falls are a 58 m high waterfall located on Boundary Stream. The walk to the waterfall goes through the mixed lowland forest including kanuka, kawakawa, kowhai and titoki.

631. The New Zealand Waterfalls websites describes Shine Falls as “*Hawke’s Bay’s most spectacular waterfall*”.

632. Shine Falls is identified on the Geopreservation Inventory as being Class C (regionally important), along with 89 other features in Hawke’s Bay. The Inventory cites the falls as being “*the most attractive waterfall in northern Hawkes Bay*”.

633. The local expert panel’s report does not discuss the landscape values associated with Shine Falls. Appendix 6 sets out the full findings of the local expert panel.

634. Based on this information, staff do not consider there is enough evidence to support an outstanding classification for landscape or geological values associated with Shine Falls, and have placed it on List 3.

635. Ruakituri River

636. The Ruakituri River traverses through vastly different landscapes over its length. The Ruakituri River is clean and clear in its upper reaches as it flows through a number of steep gorges, past giant limestone cliffs, and over the Waitangi Falls which are 72m high and known as a spectacular scenic attraction.

637. The scenic values of the upper Ruakituri River is frequently described in literature as having exceptional scenic values, with the remaining parts of the river described as having more ‘moderate’ scenic values.

638. In 1981, the Ruakituri River (above Waitangi Falls) was given an exceptional scenic rating, and in 1986, it was placed in Group One of the Governments list of rivers and lakes deserving protection for its exceptional scenery.

639. In 2012, the Ruakituri River was identified as nationally significant in the Hawke’s Bay RiVAS assessments for natural character, along with 14 other reaches of river in Hawke’s Bay.

640. The local expert panel identifies the Ruakituri River as being nationally recognised for its exceptional scenic values. Appendix 6 sets out the full findings of the local expert panel.

641. Based on this information, staff have placed the upper Ruakituri River on list 1. The Ruakituri River is in a near natural state, flowing through unmodified landscapes in its upper parts, and is consistently recognised in publications as containing exceptional scenic values.

642. Taruarau River

643. The Taruarau River flows through a variety of natural landscapes, from areas of rolling tussock country, scrubland and pine forests to impressive gorges with rocky overhangs.

644. In 1981, the New Zealand Recreational River Survey assigned the scenic value of the Taruarau River an “impressive⁴⁷” rating. In 2012, the Taruarau River was identified as nationally significant in the Hawke’s Bay RiVAS assessments for natural character, along with 14 other reaches of river in Hawke’s Bay.

⁴⁷ Scenic values graded on a six point scale: dull, uninspiring, moderate, picturesque, impressive, exceptional.

645. The Taruarau gorge is identified on the Geopreservation Inventory as being Class C (regionally important), along with 89 other features in Hawke's Bay. The Inventory cites the Taruarau gorge as being "one of the best two gorges in Hawke's Bay".
646. The local expert panel found the Taruarau River to have outstanding landscape values, making special note of the Taruarau gorge. Appendix 6 sets out the full findings of the local expert panel.
647. Based on this information, staff have placed the Taruarau River on list 2 for further consideration by the RPC.
648. Upper Ngaruroro River
649. The upper Ngaruroro River flows through a variety of landscapes with the upper waters running through a vast areas of tussock and scrubland and through deep rocky gorges with vertical schist walls.
650. The Ngaruroro River is consistently given impressive scenic ratings in the publications. In 1979 and 1981, the upper river was given 'impressive'⁴⁸ scenic ratings in 64 New Zealand Rivers, and New Zealand Recreational River Survey.
651. In 1986, the Ngaruroro River was placed in 'Group Two' of the Governments list of rivers and lakes deserving protection, for its wild and scenic qualities. It was only excluded from Group One due to its close proximity to the Mohaka River.
652. In 2012, the upper Ngaruroro River was identified as nationally significant in the Hawke's Bay RiVAS assessments for natural character, along with 14 other reaches of river in Hawke's Bay.
653. Ngaruroro gorge is identified on the Geopreservation Inventory as being Class C (regionally important), along with 89 other features in Hawke's Bay. The Inventory cites the Ngaruroro gorge as being "one of the best two gorges in Hawke's Bay".
654. The local expert panel found the Ngaruroro River to have outstanding landscape values, making special note of the Ngaruroro gorge. Appendix 6 sets out the full findings of the local expert panel.
655. Based on this information, staff have placed the Ngaruroro River on list 1. The upper Ngaruroro River is in a near natural state and has been consistently given impressive scenic ratings in past publications.
656. Lower Ngaruroro River (below Whanawhana)
657. From Whanawhana, the Ngaruroro River opens to wide braided channel for around 40 km until it forms a single channel until it flows into the sea through the Waitangi Estuary.
658. The course of the Ngaruroro River has changed several times, originally flowing down what is now the Clive River. Notably in 1935, the Ngaruroro River was significantly modified for flood control works with stop banks constructed between Fernhill to Pakowhai and the main channel diverted down its current path.
659. In 2012, the Ngaruroro River was assessed as having 'moderate' and 'low' natural character values in the Hawke's Bay RiVAS assessments.
660. The braided river channel of the Ngaruroro River is identified on the Geopreservation Inventory as being Class C (regionally important), along with 89 other features in Hawke's Bay. The Inventory cites the braided channel of the Ngaruroro River as 'the *best example in the region*'.
661. The local expert panel found the lower Ngaruroro River to have outstanding landscape values, specifically noting its braided river channel. Appendix 6 sets out the full findings of the local expert panel.
662. Based on this information, staff have placed the lower Ngaruroro River on list 3. The lower Ngaruroro River does not contain landscape or geological values which stand out when compared to other water bodies in Table 20.
663. Upper Mohaka River
664. The upper Mohaka River is in a near natural state known for its impressive scenic qualities, passing through spectacular gorges and past several waterfalls that drop from impressive heights.
665. The river itself contains some powerful rapids and is diverse and energetic pass with large numbers of big boulders, rapids, chutes and plunge pools. The river passes through spectacular gorges and around a horseshoe bend.

⁴⁸ Scenic values graded on a five point scale: dull, ordinary, interesting, impressive, exceptional.

666. The Mohaka River has consistently been given impressive scenic ratings in past publications. In 1979 and 1981, the Mohaka River was given ‘impressive’⁴⁹ scenic ratings in 64 New Zealand Rivers, and New Zealand Recreational River Survey.
667. In 1984, the Mohaka River was the only Hawke’s Bay River to be identified on the Governments National Inventory of Wild and Scenic Rivers, and in 1986 the Mohaka River was placed on ‘Group One’ on the Governments list of rivers and lake deserving protection.
668. Notably, in 2004 a Water Conservation Order was placed over the Mohaka River identifying and protecting the outstanding scenic characteristics of the Mokonui gorge. In 2012, the Mohaka River was identified as nationally significant in the Hawke’s Bay RiVAS assessments for natural character, along with 14 other reaches of river in Hawke’s Bay.
669. The horseshoe bend on the Mohaka River is identified on the Geopreservation Inventory as being Class C (regionally important), along with 89 other features in Hawke’s Bay.
670. The local expert panel found the upper Mohaka River to have outstanding landscape values, specifically noting the horseshoe bend. Appendix 6 sets out the full findings of the local expert panel.
671. Based on this information, staff have placed the upper Mohaka River on List 1.
672. Lake Waikareiti
673. Lake Waikareiti is located in the pristine catchment of *Te Urewera*, surrounded by indigenous native forest. It has a white pumice sand beach which extends for approximately 200 m.
674. Lake Waikareiti’s beach is identified on the Geopreservation Inventory as being Class C (regionally important), along with 89 other features in Hawke’s Bay.
675. The local expert panel found Lake Waikareiti to have outstanding landscape values, specifically noting Lake Waikareiti’s white pumice beach. Appendix 6 sets out the full findings of the local expert panel.
676. Based on this information, staff have placed Lake Waikareiti on List 3. The landscape and geological values of the Lake Waikareiti do not stand out when compared to other water bodies in Table 20.
677. Lake Waikaremoana
678. Lake Waikaremoana is a large clear sparkling blue lake set amongst the indigenous native forest of *Te Urewera* which. It was created around 2,200 years ago when a wedge of sandstone blocked the course of the Waikaretaheke River.
679. Lake Waikaremoana is renowned for its stunning scenery and is often referred to as ‘the jewel in the crown’ of New Zealand landscapes. The Lake Waikaremoana Walk is classified as one of New Zealand’s 10 Great Walks, which are premier tracks scattered in the most impressive and remote natural environments across the country. A high number of international visitors visit the area each year.
680. In 2004, the Ministry for the Environment identified Lake Waikaremoana as a Potential Water Body of National Importance for its scenic values and geodiversity features
681. Lake Waikaremoana is identified on the Geopreservation Inventory as being Class B (nationally important), along with 32 other features in Hawke’s Bay. The Inventory cites Lake Waikaremoana as “*the largest debris dammed lake in the region*”.
682. The local expert panel found Lake Waikaremoana to have outstanding landscape values specifically noting it being the large debris dammed lake in the region. Appendix 6 sets out the full findings of the local expert panel.
683. Based on the information, staff have placed Lake Waikaremoana on List 1.
684. Morere Hot Springs
685. The Morere Hot Springs are heavily modified thermal hot and cold hot springs, which are piped to eight hot pools of varying temperatures and operated commercially. There is an admission cost to use the pools and reserve area, which are set amongst the native forest.

⁴⁹ Scenic values graded on a five point scale: dull, ordinary, interesting, impressive, exceptional.

686. The Morere Hot Springs are identified on the Geopreservation Inventory as being Class C (regionally important), along with 89 other features in Hawke's Bay. The Inventory cites the hot springs as the '*best hot springs on the east coast of the North Island*'. No other publications could be found which discuss the significance of the hot springs.
687. The local expert panel found the Morere Hot Springs to have outstanding landscape values. The local expert panel's report is attached in Appendix 6.
688. Based on this information staff have placed the Morere Hot Springs on List 3. Very little information could be found on the landscape and geological values of the Morere Hot Springs.
689. Tarawera Hot Pools
690. The Tarawera Hot Pools are located near the main highway between Napier and Taupo, set amongst indigenous native forest. The hot pools are free to use however, recent information suggests they are currently closed.
691. The Tarawera Hot Pools are identified on the Geopreservation Inventory as being Class C (regionally important), along with 89 other features in Hawke's Bay.
692. The local expert panel's report does not discuss the Tarawera Hot Pools. The local expert panel's report is attached in Appendix 6.
693. Based on this information staff have placed the Tarawera Hot Pools on List 3.
694. Te Whanganui a Orotū (Ahuriri Estuary)
695. The Ahuriri Estuary is located in an urban landscape situated directly alongside the city of Napier, adjacent to a number of industrial and urban areas. The estuary is identified in the Napier District Plan as possessing significant landscape values.
696. In 1931, a magnitude 7.8 earthquake hit Hawke's Bay instantly lifting the land by 1 - 2 metres and exposing about 1300 hectares of the original Ahuriri Lagoon. As a result, the area has been significantly studied for its tectonic processes.
697. In 2004, the Ahuriri Estuary was recognised as a Potential Water Body of National Importance for geodiversity features, and in 2006 it was listed as a Significant Conservation Area in the Hawke's Bay Regional Coastal Environment Plan for its uplifted channel fossils and tectonic processes.
698. The Ahuriri Estuary is currently identified on the Geopreservation Inventory as being Class B (nationally important), for its 1931 uplift, along with 32 other features in Hawke's Bay.
699. The local expert panel found the Ahuriri Estuary to have outstanding landscape values, specifically noting its 1931 earthquake uplift. The local expert panel's report is attached in Appendix 6.
700. Based on this information, staff have placed the Ahuriri Estuary on List 1. The Ahuriri Estuary is consistently recognised in publications as being of national importance for its tectonic processes and uplifted channel fossils.
701. Heretaunga Aquifer
702. The Heretaunga aquifer system has a strong hydraulic connection with the surface water bodies which flow across the Heretaunga Plains.
703. As stated earlier in this report, the Heretaunga and Ruataniwha aquifer systems are discussed together in a separate section between paragraphs 841 and 847, and are not included in Table 20.
704. Notwithstanding, the Heretaunga aquifer system is briefly discussed here given the local expert panel found the Heretaunga Aquifer to have outstanding landscape values, specifically noting that its hydrological features are unique to the region. The local expert panel's report is attached in Appendix 6.
705. As discussed in paragraphs 47 and 48, a high number of water bodies are hydraulically connected to other water bodies including aquifer systems. Given that Plan Change 7 is looking to solely identify water bodies which contain an outstanding values in their own right, the contribution the Heretaunga aquifer system makes to any outstanding value(s) in these surface water bodies does not make the aquifer system itself an OWB.
706. Notwithstanding, if the RPC identifies any water bodies on the Heretaunga Plains as containing an outstanding cultural, spiritual recreation, landscape or ecology value, the contribution the Heretaunga aquifer system makes to the outstanding value(s) would be protected in future catchment based management plans.

Recreation values

707. Hawke’s Bay has a number of water bodies known for their high quality trout fisheries and exceptional rafting and kayaking experiences, which are popular locally, nationally and internationally.
708. Ten of the forty two nominated water bodies were identified as containing significant recreation values during the secondary assessments and local expert panel proceedings⁵⁰. Table 22 sets out a summary of the key features associated with each water body for ease of reference.
709. To assist the RPC to determine if any of the water bodies contain recreation values which are clearly superior and ‘stand out’ when compared to other water bodies within the region, staff have placed the water bodies in Table 22, onto Lists 1 to 3, with a corresponding colour code as set out in Table 21, below.
710. The assessment and supporting reasons for each colour code and associated list classification is discussed in further detail, on a waterbody by waterbody basis, between paragraphs 724 and 800.

Table 21: Lists 1 – 3 classification key and corresponding colour codes (recreation)

List	Colour code	Staff Findings
List 1	Green	The water body has recreation values which are clearly superior to the other water bodies in Table 22, and has been consistently identified as outstanding in a number of different publications.
List 2	Blue	The water body contains recreation values which are of excellent quality but similar to one or more water bodies in Table 22, and requires further consideration by the RPC for an outstanding status.
List 3	Pink	The water body does not recreation values which stand out when compared to the other water bodies in Table 22 / OR not enough information to support an outstanding status

711. Staff findings should be read in conjunction with the local expert panel findings, who applied the following assessment criteria to identify those water bodies in Hawke’s Bay which contain an outstanding amenity/recreation value:
- *“A recreational experience that is exceptional in or on the water and/or*
 - *An exceptional location for angling or customary food gathering and/or*
 - *A unique historical or heritage site”.*
712. The following section discusses the key values associated with each of the ten water body’s between paragraphs 724 and 800.
713. **Recreation: Key findings**
714. The upper Ngaruroro River, upper Mohaka River, Ruakituri River and Lake Waikaremoana have been placed on List 1 by Staff. These water bodies all have recreation values which clearly stand out when compared to the other water bodies in Table 22, specifically:
- Lake Waikaremoana is renowned for its range of recreation activities which can take place in a remote natural environment with exceptional scenery. The lake is used all year round for various activities, and its recreation values are consistently recognised as outstanding in past publications. In 2004, it was found to be the third most popular waterbody in the country.
 - The upper Ngaruroro River is particularly valued for its angling and white water boating activities, which are consistently recognised as outstanding in past publications. The Ngaruroro headwaters fish well all season and provide a chance to catch trophy size fish in a near natural environment, and the Ngaruroro gorge is considered to be one of the kayaking runs in the North Island, despite being subject to low flows in the summer months.

⁵⁰ For clarification, only those water bodies with key recreational features are included in Table 22. Not all 42 nominated water bodies are discussed in this section.

- The upper Mohaka River is highly valued for its exceptional scenic beauty, which sets the scene for a range of top quality kayaking, rafting and fishing experiences, which can take place all year round. It has been widely recognised in past publications as a top quality trout fishery and for its exceptional rafting and kayaking experiences.
 - The Ruakituri River is known for its crystal clear water, spectacular scenery and its large population of trout which can reach trophy size. It has a high number of international visitors each year, and one of the most enjoyed rivers in the country for angling. The trout fishery is consistently identified as being outstanding in past publications.
715. The Taruarau River and Lower Ngaruroro River were found to have excellent recreation values but similar to one or more water bodies in Table 22. These water bodies have been placed on List 2 and require further consideration by the RPC for an outstanding status.
716. As discussed in paragraph 56, there is no set approach to the identification of outstanding waterbodies. Staff findings are for guidance only and one of many factors that the RPC may choose to take into account when making their decision.

Table 22: Summary Table: Key features - Recreation

Water body	Reliability	Key recreational uses	Distinctive features	Publications identifying water body as outstanding for recreation values
Lake Waikaremoana	Useable all year round	General recreation , , angling, kayaking, boating	Spectacular scenery Reliable/usable all year High usage Large variety of recreational experiences trophy trout	2019: Local expert panel: outstanding recreation values – trout fishing, kayaking and tramping 2004: WONI: Potential Water Body of National Importance – recreation and scenic values 2004 Lake Waikaremoana found to be third most popular water body in New Zealand for recreation. 2000: One of the 10 great walks in New Zealand (premier tracks in the most impressive and remote natural environments in New Zealand) 1982 Potentially nationally important for salmonid fishing
Upper Mohaka River (above Willowflat)	Useable all year round	Angling, kayaking, rafting , jet boating	Near natural state Spectacular scenery Reliable/usable all year Variety of fishing and rafting experiences High usage Trophy trout High numbers of large trout Advanced jet boating Grades 4 & 5 rapids	2019: Local expert panel – outstanding for water based recreation 2012: RiVAS - nationally significant for salmonid angling and white water kayaking 2004 WONI: Potential Water Body of National Importance – recreation and scenic values 2004: Water conservation order – outstanding scenic characteristics, trout fishery, rafting and kayaking 1994 NIWA: Category A headwater trout fishery 1986 Governments list of lakes and rivers - Group one for its trout fishery, wide range of recreational experiences, and diverse landscape 1984: Governments National Inventory of Wild and Scenic Rivers - Group one for its wide range of recreational experiences and diverse landscape 1984 National important recreation and scenic trout fishery 1981: New Zealand Recreational River Survey – impressive scenic rating (described as one of the most frequently used rivers in the country)
Ruakituri River	Subject to low flows during summer	Angling, kayaking	Spectacular scenery Near natural state Variety of fishing experiences High international usage Trophy trout Grade 2 and 3 rapids	2019 Local expert panel - outstanding recreation values trout fishing and kayaking 2013 National Angling Survey – the river was most enjoyed by anglers in the north island, third across New Zealand 2012 RiVAS assessments – nationally significant for salmonid angling and kayaking 1986: Governments list of lakes and rivers - Group one for its exceptional scenery, fishing, recreation & wilderness 1982 Ministry Agriculture & Fisheries – River of National Importance for wilderness and angling 1981: New Zealand Recreational River Survey – exceptional scenic rating, high recreational rating in the gorge

Water body	Reliability	Key recreational uses	Distinctive features	Publications identifying water body as outstanding for recreation values
Upper Ngaruroro River (above Whanawhana)	Subject to low flows during summer	Angling, kayaking Rafting, jet boating	Impressive scenery High trout numbers Trophy trout Variety of rapids (Grades 1 2, 3,4) Single and multi-day trips Advanced jet boating	2019: Local expert panel – outstanding recreation values trout fishing, kayaking 2012: RiVAS - nationally significant for salmonid angling and white water kayaking 2004: WONI: Potential Water Body of National Importance for recreation 1994 NIWA: Category A headwater trout fishery 1984 Nationally important wilderness river fishery 1982 Nationally important wilderness river fishery 1981: New Zealand Recreational River Survey -exceptional recreation and impressive scenic rating
Taruarau River	Subject to low flows during summer	Angling, kayaking	Impressive scenery Near natural state trophy trout High usage Grade 4 rapids	2019 Local expert panel – outstanding recreation values – angling 2013 National Angling Survey – River in top 3% of New Zealand Rivers most enjoyed by anglers 1994 NIWA: Category A headwater trout fishery
Lower Ngaruroro River (below Whanawhana)	Useable all year round	Jet boating, fishing , angling	Family jet boating on extensive braids with multiple channels	2019: Local expert panel – outstanding recreation values, jet boating and fishing (whitebait, flounder and mullet) 2004 WONI: Potential Water Body of National Importance for recreation
Wairoa River	Closed for contact recreation at times due to elevated bacteria concentrations	Angling, kayaking jet boating	Reliable all year round Easy jet boating water	2004 WONI: Potential Water Body of National Importance for recreation (whitebaiting)
Te Whanganui a Orotū (Ahuriri Estuary)	Closed for contact recreation at times due to elevated bacteria concentrations	General recreation	Close to Napier City Large variety of recreation experiences High usage	2019 Local expert panel: outstanding recreation values - only multi-sport facility of its kind in the region. 2004 WONI: Potential Water Body of National Importance – recreation (wetland of national importance to fisheries)
Tukituki River	Subject to low flows during summer Suffers from cyanobacteria mats at certain times of the year	Jet boating, angling	Canoeing, jet boating suitable for families Easy access Variety of fishing experiences High local usage Grade 1	2019: Local expert panel – outstanding recreation values – trout fishery, whitebait and smelt fishery 2012 RiVAS - nationally significant for salmonid angling
Wairoa River	Closed for contact recreation at times due to elevated bacteria concentrations	Angling, kayaking jet boating	Reliable all year round Easy jet boating water	2004 WONI: Potential Water Body of National Importance for recreation (whitebaiting)
Waipawa River	Suffers from cyanobacteria mats at certain times of the year	Jet boating, angling	Canoeing, jet boating Easy jet boating, suitable for families Fishes well all year round Easy access High catch rate	2019: Local expert panel – outstanding recreation values – angling 2012: RiVAS - nationally significant for salmonid angling

Water body	Reliability	Key recreational uses	Distinctive features	Publications identifying water body as outstanding for recreation values
			Grade 1	

Discussion - recreation

724. Recreationally, water bodies in Hawke's Bay are used in a number of different ways with their value depending on the person who is using the area. For example some people take their young children fishing and rely on the most convenient water bodies, while other seek out remote and scenic locations to fish.
725. This section does not attempt to re-assess the recreation values associated with water bodies in Hawkes Bay. In accordance with directions of the RPC, the findings in published literature have been used to help identify which waterbodies contain recreation values which clearly stand out compared to others in the region.
726. The following section provides a more detailed discussion on the recreation values associated with each of the water bodies set out in Table 22, above. Where known, discussions refer to the ecological condition of the water body and its reliability for the recreation use. In particular, high bacteria levels, excessive periphyton growth and low flows can affect the quality the recreational experience.
727. A staff recommendation has been made under each discussion, specifically identifying whether the water body should be placed on Lists 1, 2 or 3 for its recreation values, to further assist the RPC in determining which water bodies are outstanding for the purposes of the NPSFM.
728. Te Whanganui a Orotū (Ahuriri Estuary)
729. The Ahuriri Estuary is used for a high number of recreational activities, including swimming, boating, fishing, birdwatching, photography and food gathering. The surrounding area is also popular for walking, running and biking.
730. The water quality of the Ahuriri Estuary is fair to poor, meaning a number of the contact recreation activities can be compromised by the presence of elevated bacterial concentrations that have the potential to cause illness. The estuary was closed intermittently during 2018 and 2019 for swimming and boating activities.
731. In 2004, the Ahuriri Estuary was recognised as a Potential Water Body of National Importance for recreation, due to its national importance as a wetland for fisheries. The report does not discuss any other recreational activities which take place on the estuary.
732. The local expert panel found the Ahuriri Estuary to have outstanding recreation values, specifically noting it is the only multi-sport facility of its kind in the region. Appendix 6 sets out the full findings of the local expert panel.
733. Based on this information, staff have placed the Ahuriri Estuary on List 3. The Estuary is unsuitable for contact recreation activities at certain times of the year due to high bacteria levels.
734. Lake Waikaremoana
735. Lake Waikaremoana is nationally renowned for its spectacular scenery and its clear pristine water. It is popular for a range of activities including angling, swimming and boating, with a number of commercially run canoeing and kayaking trips in this area. The Lake Waikaremoana Track is one of the 10 Great Walks of New Zealand.
736. Lake Waikaremoana is particularly valued as a trout fishery, offering spectacular scenery and the chance to catch trophy sized trout. The lake is well stocked with both rainbow and brown trout and provides a range of fishing experiences from the shoreline or on boats.
737. The recreation values of Lake Waikaremoana have been discussed in a number of published documents, most notably in 2004 where it was found to be the third most popular waterbody in the country. Prior to this it was identified as being potentially nationally important as a salmonid fishery and for general recreation.
738. The local expert panel found Lake Waikaremoana to have outstanding recreation values, specifically noting the lake was the second most popular trout fishery in the region, provides for a range of recreation experiences, and particularly a unique experience for kayaking. Appendix 6 sets out the full findings of the local expert panel.
739. Based on this information, staff have placed Lake Waikaremoana on List 1.
740. Upper Mohaka River (above Willowflat)
741. The Mohaka River is widely recognised in New Zealand as a 'top quality wilderness trout fishery', and for its exceptional rafting and kayaking experiences. It contains a variety of water conditions for fishing and boating and is a highly used by people from within and outside of Hawke's Bay.

742. The upper Mohaka River is highly valued for its exceptional scenic beauty, which sets the scene for a range of top quality kayaking, rafting and fishing experiences. It is reliable and can be used at any time during the year due to its stable river flows. A number of commercial organisations operate in this area.
743. The Mohaka River is best known by paddlers for its technical Grade 4 and 5 rapids, particularly Te Hoe and Mokonui gorges, which are the best in Hawke’s Bay and have an international reputation. The upper Mohaka River contains a 55 km stretch of jet boating water, which required advanced skills and is not suitable for family boating.
744. The trout fishery in the Mohaka River is valued for it’s clear, cool waters and high numbers of large trout which can reach trophy size. The river contains around twice as many large fish as other rivers in the region. In 1994, NIWA identified the Mohaka River as a Category A headwater trout fishery.
745. The recreational activities associated with the Mohaka River have been discussed in a high number of published documents, where they are consistently described as outstanding, nationally important and exceptional. Notably, in 2004, a WCO was placed over the Mohaka River in recognition of its outstanding recreational and scenic characteristics.
746. The local expert panel found the upper Mohaka River to have outstanding recreation values, specifically noting its: trout fishery, whitewater boating opportunities, variety of experiences, reliability all year round, scenic values and its high level of use. Appendix 6 sets out the full findings of the local expert panel.
747. Based on this information staff have placed the upper Mohaka River on List 1.
748. Taruarau River
749. The main activities which take place on the Taruarau River are angling and kayaking. The river is very scenic with an impressive gorge.
750. The Taruarau River is known as a challenging whitewater run which is only suitable for experienced kayakers and rafters. In 1981, the Taruarau River was assigned a ‘low’⁵¹ rating for boating values, and in 2012, the Taruarau River was identified as moderately significant in the Hawke’s Bay RiVAS assessments for whitewater kayaking.
751. The Taruarau River is highly valued for trout fishing. The river fishes well all season and is highly used by anglers who live in Hawke’s Bay. The average weight of trout is around 1.5 kg, and some larger trophy trout are present. In 1994, The Taruarau River was identified by NIWA as a Category A headwater trout fishery.
752. In 2013, the National Angling Survey found the Taruarau River to be within the top 3% of New Zealand Rivers most enjoyed by anglers. Studies prior to this found the Taruarau River to be of either local or regional significance for angling.
753. The local expert panel found the Taruarau River to have outstanding recreation values, specifically noting its outstanding wilderness trout fishery. Appendix 6 sets out the full findings of the local expert panel.
754. Based on this information, staff have placed the Taruarau River on List 2. Its kayaking features are similar to several other water bodies in Table 22, and warrant further consideration by the RPC.
755. Upper Ngaruroro River (above Whanawhana)
756. The upper reaches of the Ngaruroro River are highly valued for angling and white water boating activities with several rafting companies operating in the area. Between Whanawhana and the Taruarau confluence the river is used by jet boats.
757. The upper Ngaruroro River is in a near natural state with impressive scenery. It offers a range of angling and boating experiences, however summer low flows can restrict recreational opportunities in the area.
758. The Ngaruroro headwaters fish well all season and provide a chance to catch trophy size fish in a near natural environment. In 1994, The Ngaruroro River was identified by NIWA as a Category A headwater trout fishery.
759. The upper Ngaruroro River is best known for its spectacular gorge scenery. It contains Grade 3 and 4 rapids and is considered to be one of the top 8 whitewater kayaking runs in the North Island.

⁵¹ Recreational values graded on a five point scale: insignificant, low, intermediate, high, exceptional

760. The recreational activities associated with the Ngaruroro River have been discussed in a high number of published documents, where they are generally described as outstanding, nationally important and exceptional. The exception to this is in 1986, where the Ngaruroro River was excluded from the top list due to its close proximity to the Mohaka River.
761. The local expert panel found the upper Ngaruroro River to have outstanding recreation values, specifically noting its trout fishery and kayaking opportunities. Appendix 6 sets out the full findings of the local expert panel.
762. Based on this information reviewed, staff have placed the upper Ngaruroro River on List 1.
763. Lower Ngaruroro River (below Whanawhana)
764. The braids of Ngaruroro River are highly valued for jet boating, and parts of the river near and around Waitangi Estuary are popular for whitebaiting.
765. In 2014, Jet Boating New Zealand (JBNZ) classified the Ngaruroro River as an easy 'Class 1' jet boating trip, suitable for beginners and family boating.
766. Jet Boating New Zealand has advised the braided reach of the Ngaruroro River is highly used, and is outstanding for its jet boating experience, particularly for its extensive braiding not seen anywhere else in the North Island.
767. In 2004, the Ngaruroro River was recognised as a Potential Water Body of National Importance for its recreation and whitebaiting values.
768. The local expert panel found the lower Ngaruroro River to have outstanding jet boating features between Whanawhana and the Fernhill Bridge, and outstanding fishing values in the Waitangi Estuary. Appendix 6 sets out the full findings of the local expert panel.
769. Feedback received from Jet Boating New Zealand on Plan Change 7, supports the lower Ngaruroro River being identified as an outstanding water body for its jet boating values. Appendix 5, contains a summary of the feedback received on Plan Change 7.
770. Based on this information staff have placed the lower Ngaruroro River on List 2, for further consideration by the RPC.
771. Ruakituri River
772. The Ruakituri River is an internationally renowned trout fishery known for its crystal clear water, spectacular scenery and large population of both brown and rainbow trout which can reach trophy size. It has a high number of national and international visitors each year.
773. The Ruakituri River's trout fishery has been discussed in a high number of published documents, where it is consistently described as outstanding, nationally important and exceptional. The 2012 Hawke's Bay RiVAS assessments found the river to be nationally significant for salmonid angling.
774. Notably, in 2013 the Ruakituri River was identified in the National Angling Survey as the river most enjoyed by anglers in the North Island, and the third most enjoyed river by anglers across New Zealand. A total of 16% of the annual angling on the river came from overseas visitors.
775. While angling is by far the most popular recreational activity on this river, it has been paddled by Hawke's Bay kayakers for some years who know it as a short, sharp challenging run. In 2012, the Hawke's Bay RiVAS assessments found the whitewater kayaking values within the gorge to be nationally significant.
776. The local expert panel found the Ruakituri River to have outstanding recreation values, specifically noting its trout fishery and kayaking opportunities. Appendix 6 sets out the full findings of the local expert panel.
777. Based on this information, staff have placed the Ruakituri River on List 1.
778. Waipawa River
779. The main recreational activities which take place on the Waipawa River are swimming, angling and boating. During summer cyanobacteria can grow, and parts of the river can dry up, severely impacting these recreational values.
780. The Waipawa River provides a 30 km stretch of easy jet boating and is canoeable from around 3 km above the Makaroro confluence. Jet boating New Zealand describes Waipawa River as a jetboating trip on a shingle,

braided river, which is suitable for family boating. In 1981, the Waipawa River was assigned an 'intermediate' rating for its recreation values and a 'picturesque' rating for its scenic values.

781. The Waipawa River is highly valued locally for its trout fishing. It fishes well throughout the year due to its water remaining much cooler than other rivers in this area, and contains trout which on average weigh 1.5 kg.
782. In 1984, the Waipawa River's trout fishery was identified as being of local importance, highly valued by the people who fish there. In 2012 parts of the Waipawa River were identified as nationally significant in the Hawke's Bay RiVAS assessments for salmonid angling.
783. The local expert panel found the Waipawa River to have an outstanding trout fishery. Appendix 6 sets out the full findings of the local expert panel.
784. Based on this information, staff have placed the Waipawa River on List 3. The recreation values of the Waipawa River, particularly for angling, do not stand out when compared to the other water bodies in Table 22.
785. Tukituki River
786. The Tukituki River is highly valued locally for its trout fishing, jet boating and canoeing values. However, these recreation values can be impacted during the warm summer months from the build-up of slime and algae.
787. The Tukituki River provides a 77 km stretch of easy jet boating water between the sea and the Highway 50 Bridge. In 2014, Jet boating New Zealand classified the Tukituki River as an easy 'Class 1' jetboating trip on a shingle, braided river, which is suitable for family boating.
788. Historically, the Tukituki was the most highly fished river in Hawke's Bay. However, in recent years usage has significantly declined, with the results of the national angling survey showing a decline of up to 50%. The angling values associated with the Tukituki River were described as being of regional importance in the 1980s.
789. In 2004, the Tukituki River was recognised as a Potential Water Body of National Importance for general recreation, whitebaiting and angling, and in 2012, the Hawke's Bay RiVAS assessments identified the Tukituki River as being nationally significant for salmonid angling.
790. In 1981, the Tukituki River was assigned an 'intermediate'⁵² rating for its canoeing and jet boating values and in 1986 it was placed in the 'Group Two'⁵³ category in the Governments Rivers and Lakes deserving protection, for its scenic and recreation values.
791. The local expert panel found the Tukituki River to have outstanding angling and fishing values. Appendix 6 sets out the full findings of the local expert panel.
792. Based on the information reviewed as part of Plan Change 7, staff have placed the Tukituki River on List 3. The recreational value of the Tukituki River, particularly for angling, do not stand out when compared to the other water bodies in Table 22. Further, the Tukituki River suffers from algae blooms at certain times of the year which can impact on recreation values.
793. Wairoa River
794. The Wairoa River is popular for a range of recreational activities such as angling, kayaking on the upper parts of the river, with jet boating, water skiing, waka ama, rowing, sailing, swimming and whitebaiting taking place on the lower river.
795. The water quality in the lower river section suffers from high levels of bacteria at certain times of the year and is unsafe for contact recreation purposes. This has a significant impact on the recreational values in this area.
796. The Wairoa River provides a 20 km stretch of easy jet boating water from the river mouth to Marumaru, with the most popular rafting and kayaking trip taking place from Te Reinga Falls down to Marumaru. In 1981, the Wairoa River was assigned an 'intermediate rating for its recreation values and 'moderate rating for its scenic values.

⁵² Recreational values graded on a five point scale: insignificant, low, intermediate, high, exceptional

⁵³ Group One = Excellent rivers or lakes containing an outstanding values and the very best examples. Group Two = Contains examples of water bodies whose values better represented by the rivers or lakes in group one.

797. 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. In 2012, the Wairoa River was identified as locally significant in the Hawke's Bay RiVAS assessments for salmonid angling.
798. In 2004, the Wairoa River was recognised as a Potential Water Body of National Importance for recreation, for whitebaiting.
799. The local expert panel's report does not discuss the recreation values associated with the Wairoa River. Appendix 6 sets out the full findings of the local expert panel.
800. Based on this information, staff have placed the Wairoa River on List 3. The Wairoa River is unsuitable for contact recreation activities at certain times of the year due to high bacteria levels.

Heretaunga & Ruataniwha Aquifer Systems

801. There are nine known productive aquifer systems⁵⁴ in Hawke's Bay, with the Heretaunga and Ruataniwha aquifer systems being the largest and of clear economic importance to the region.
802. This section discusses the key features associated with the Heretaunga and Ruataniwha aquifer systems and makes recommendations on whether any are outstanding for NPSFM purposes. A discussion on a feature by feature basis is set out between paragraphs 820 and 847 below. Table 23 sets out a summary of the key features of the aquifer systems, with associated staff findings for ease of reference.
803. While the NPSFM allows the inclusion of aquifers as outstanding water bodies, to date nationally, no aquifers have been identified as outstanding water bodies for the purpose of the NPSFM.
804. For context, three frequently asked questions on aquifer systems, the NPSFM and associated policy implications are discussed below.
805. **What is an aquifer system?**
806. An aquifer is a water-bearing layer of rock or sediment beneath the ground through which water can flow. An aquifer system typically refers to a collection of interconnected aquifers. They are inherently hard to delineate, even when there is extensive geological mapping and bore data.
807. All aquifer systems are living ecosystems home to various unseen ecological communities. The aquifer ecosystems itself, as well those surface water ecosystems connected to the aquifer, have intrinsic value, are biologically diverse, and provide important ecosystem functions, such as water purification and flood control.
808. **What values can make an aquifer system outstanding?**
809. In accordance with decisions of the RPC in 2017, the Heretaunga and Ruataniwha aquifer systems must contain a cultural, spiritual, recreation, landscape, natural character, or ecology value which is 'exceptional' or 'stands out' in some way. Economic and consumptive use values were deliberately excluded from consideration by the RPC.
810. Given that there are no recreation and landscape values directly associated with either aquifer system, the following discussion is restricted to the aquifer's ecology and natural characteristics. For clarification, the cultural and spiritual values associated with both aquifer systems are discussed in the cultural and spiritual values section.
811. **What are the policy implications of identifying an aquifer system as an OWB**
812. In accordance with the NPSFM, if a feature of the Ruataniwha or Heretaunga aquifer system is identified as 'outstanding', then the significant values of the aquifer system would need to be protected.
813. The policy implications of this are currently unknown, and would need to be worked through with the relevant catchment management groups. To date, there are no aquifer systems that have been identified as OWB for NPSFM purposes.
814. Notwithstanding, should an aquifer system be identified as an OWB, due to large information gaps, it is likely that more targeted investigations would need to take place, prior to determining how best to protect its significant values. Future investigations would need to be included in Council's work programme and would likely have significant cost and resourcing implications.
815. Staff recommend that the RPC give careful consideration to the NPSFM OWB provisions, particularly whether Plan Change 7 is the most appropriate tool to protect and manage aquifers in Hawke's Bay.
816. **Heretaunga and Ruataniwha aquifer systems: Key findings**
817. The Heretaunga and Ruataniwha plains aquifer systems are highly modified. Groundwater pumping has been occurring for over 100 years which has affected the natural flow patterns and interactions with surface water.

⁵⁴ Heretaunga, Ruataniwha, Mahia, Nuhaka, Wairoa, Esk, Poukawa, Papaiuki and Waipukurau/Waipawa.

818. Based on the information contained in the secondary assessments, staff do not consider there is sufficient information to warrant an outstanding classification for any of the features associated with the Heretaunga or Ruataniwha aquifer systems.
819. Implementing the NPSFM and amending key regional planning documents under the Resource Management Act requires good evidence-based decision-making. To date, no studies have been undertaken on either the Heretaunga or Ruataniwha aquifer system's natural character or the stygofauna and/or troglifauna populations within the aquifer systems themselves.

Table 23: Key features - Ruataniwha & Heretaunga Aquifer systems

Feature	Heretaunga Aquifer	Ruataniwha aquifer	Other aquifer systems in Hawke's Bay	Staff findings
Ecology				
Stygofauna	No studies – but short range endemics are believed to be wide spread and diverse.	No studies – but short range endemics are believed to be wide spread and diverse.	Limited studies – but short range endemics believed to be wide spread and diverse in New Zealand.	N/A - insufficient information exists to make a recommendation.
Troglofauna ⁵⁵	No studies – but no cave or karst systems meaning troglofauna unlikely to be present	No studies – but no cave or karst systems meaning troglofauna unlikely to be present	Studies indicate where cave or karst systems exist likely to be troglofauna	N/A - insufficient information exists to make a recommendation.
Hydrological features				
Surface water bodies hydraulically connected to the aquifer system	Strong hydraulic connection between the aquifer and the surface water bodies which flow across the plains	Strong hydraulic connection between the aquifer and the surface water bodies which flow across the plains	There is a strong hydraulic connection between the majority of aquifers and the surface water bodies which flow across them.	N/A - insufficient information exists to make a recommendation.
Aquifers systems	Comprises a number of smaller confined and unconfined aquifers systems	Comprises a relatively shallow, unconfined aquifer and several deeper confined aquifers	Due to New Zealand's geological past no two aquifers are the same.	N/A - insufficient information exists to make a recommendation.
Aquifer size	Approximately 510 km ² (including peripheral valley aquifers)	Approximately 260 km ² (including several deeper confined aquifers)	Aquifer systems are made up of many different layers and smaller aquifer systems. Note: Investigations often focus on the productive part of an aquifer system.	N/A - insufficient information exists to make a recommendation.
Natural state				
Natural state	Not in natural state.	Not in natural state.	Aquifers which are highly used for productive purposes are unlikely to be in their natural state. Aquifers which are unsuited to productive uses are more likely to be in their natural state. I.e. a natural saline aquifer.	N/A - insufficient information exists to make a recommendation.
Water quality				
Water quality - health and aesthetics	Majority of sites comply with the key chemical water quality parameters in the NZ drinking water standards Note: elevated concentrations at some sites of iron, manganese, ammoniacal-nitrogen, hardness and phosphorus, and <i>E.coli</i>	Majority of sites comply with the key chemical water quality parameters in the NZ drinking water standards. Note: Evaluated concentrations at some sites of: manganese and iron, nitrite-nitrogen (one site) and <i>E.coli</i> (one noncompliance)	Many aquifers across Hawke's Bay and New Zealand comply with the key chemical water quality parameters in the NZ drinking water standards	Water quality for the purposes of drinking is a consumptive use value and not within the scope of Plan Change 7.

⁵⁵ troglofauna are associated with caves and spaces above the water table, but still part of the aquifer system.

Feature	Heretaunga Aquifer	Ruatahiwaha aquifer	Other aquifer systems in Hawke's Bay	Staff findings
Water quality - ecosystem health	No studies have taken place looking into the standard of water quality required to protect the biodiversity value of the Heretaunga aquifer ecosystem	No studies have taken place looking into the standard of water quality required to protect the biodiversity value of the Ruatahiwaha aquifer ecosystem	The 'optimum' water quality for an aquifers ecosystem will differ throughout New Zealand.	N/A - insufficient information exists to make a recommendation.

Discussion - aquifers

820. The following section discusses the key features associated with the Ruataniwha or Heretaunga aquifer systems, with the exception of their cultural and spiritual values which are discussed in the cultural and spiritual values section of this report.
821. The information discussed in this section has been sourced from literature reviewed during the secondary assessment phase of this plan change. This section simply restates the information contained in literature. It does not attempt to re-assess the features of the aquifer systems and determine their importance. Staff do not have the expertise to do this.

Stygofauna

822. Stygofauna are aquatic animals which live in groundwater. They provide important ecosystem functions and have intrinsic value themselves.
823. Literature suggests that New Zealand's stygofauna is widespread and diverse. Due to New Zealand's geological past, stygofauna is also thought to be highly endemic as a result of the long term separation of habitats and populations.
824. To date, there have been no collections or investigations into the communities of stygofauna in the Ruataniwha or Heretaunga aquifer systems. However, literature indicates short-range endemics are likely to be present throughout both aquifer systems.
825. While staff acknowledge that the stygofauna present in both aquifer systems appear to be extremely important, given the lack of studies on the Stygofauna populations in Hawke's Bay, there is not enough supporting evidence for staff to make a recommendation on this feature.

Natural state

826. The term natural character is used to describe the naturalness of environments, with generally the highest degree of natural character (the greatest naturalness) occurring where there is least modification.
827. No studies to date have looked into the natural character associated with the Heretaunga and Ruataniwha aquifer systems. However, given that millions of cubic metres of water are extracted from the aquifers annually, and large areas of intensified land uses exist over both aquifer systems, staff think it is unlikely that either aquifer system will be in a highly natural state.
828. Notwithstanding, given the lack of studies on the natural character of the Heretaunga and Ruataniwha aquifer systems, there is not enough supporting evidence for staff to make a recommendation on this feature.

Aquifer size

829. Aquifer sizes are difficult to compare without a methodology and clearly defined scope, which states exactly what parts of the aquifer system are being measured and compared, and why the size of an aquifer makes it outstanding. For example, is it the size of the aquifer system, the composition of the aquifer system, the number or size of the groundwater dependant surface water bodies or their associated recreation uses, which make its size superior to other aquifer systems?
830. Aquifer systems are made up of a number of different interconnected layers. They are complex and hard to delineate. Further, aquifer systems sizes vary depending on what part of the aquifer system is being discussed and mapped. For example, the Heretaunga aquifer system has been broadly delineated as comprising of four principal aquifer systems⁵⁶.
831. Information reviewed during the secondary assessments assigned various sizes to the aquifer systems. For example, HBRC's website states the size of the Heretaunga and Ruataniwha aquifer systems are 460 km² and 800 km², respectively, with other publications placing the size of the Heretaunga at 510 km² and Ruataniwha aquifer 260 km².
832. As such, despite literature indicating that both aquifer systems are of impressive size there is not enough supporting evidence for staff to make a recommendation on this feature.

⁵⁶ Dravid 1997

Water quality - health and aesthetics

833. Water quality for the purposes of drinking is a consumptive use value. As discussed in Section 32, consumptive and economic use values are not within the scope of Plan Change 7. Drinking water will be considered during future catchment based plan changes.
834. Notwithstanding, the Council regularly monitors the water quality of the Heretaunga and Ruataniwha aquifer systems. Overall, most monitoring sites in the Heretaunga and Ruataniwha aquifer systems comply with the New Zealand drinking water standards (DWSNZ) for the key chemical water quality parameters. There are several exceptions which are referred to in the secondary assessments.

Water quality - aquifer ecosystem

835. To date, no monitoring or investigations have taken place looking into the standard of water quality required to protect the biodiversity value of the Heretaunga and Ruataniwha aquifer ecosystems. As such, it is unknown whether the aquifer's water quality is optimal for their ecosystems to thrive.
836. It cannot be assumed that just because the water quality within the aquifer systems generally complies with the NZDWS that it is suited to the aquifer's ecosystem. For example, some ecosystems have an extremely low tolerance and may be sensitive to small chemical changes. This means despite water quality meeting drinking water standards, a slight change to the water chemistry but still within the NZDWS, may have a detrimental effect on sensitive parts of the ecosystem.
837. Additionally, the 'optimum' water quality for an aquifer's ecosystem may not correlate at all with the NZDWS which has been developed to ensure water is safe for drinking, not for the requirements of the aquifer's ecosystem which will differ throughout New Zealand.
838. Based on this information, staff have concluded there is not enough supporting evidence to make a recommendation on this feature.

Groundwater age

839. Travel time of water through the aquifer varies. In deeper parts it can take decades to hundreds of years. Whereas in the unconfined section of the aquifer system water can be fast moving and in the order of hundreds of metres per day towards the coast.
840. Literature does not identify an optimal age for groundwater. As such, there is not enough supporting evidence for staff to make a recommendation on this feature.

Hydrogeology & interaction with surface water bodies

841. The hydrological characteristics of aquifer systems are difficult to compare without a methodology and clearly defined scope, which states what parts of an aquifer system are being assessed and why the hydrogeology features of an aquifer system make it outstanding. For example, is it the composition of the aquifer system which makes its hydrogeological features superior, or the number of connected surface water bodies, the volume of water or the length of the surface water bodies, or their associated recreation uses and ecology?
842. While, the Ruataniwha and Heretaunga aquifers are large systems which have a strong hydraulic connection with the surface water bodies that flow across them, as discussed in paragraph 829, they are complex and hard to delineate, with some parts of the aquifer system having a more direct 'hydrologic connection' with surface water bodies than others.
843. The local expert panel found the Heretaunga aquifer system to be outstanding for its landscape features, specifically noting the hydrological features of the aquifer are regionally unique. The local expert panel's report is attached in Appendix 6.
844. The local expert panel's report does not discuss the Ruataniwha aquifer system on a standalone basis, however when discussing the Tukituki River, the report notes that the Ruataniwha Aquifer is a distinctive hydrological feature that is integral to the Tukituki River.
845. For clarification, there is no assessment or comparative analysis contained within the local expert panel's report discussing why the Heretaunga aquifer system 'stands out' or is 'superior' to the Ruataniwha system or any other aquifer systems in the region for its hydrogeological features.

846. As such, despite the clear interaction between the groundwater and surface water bodies which flow over the Heretaunga and Ruataniwha Plains, there is not enough supporting evidence for staff to make a recommendation on this feature.
847. Additionally, during the literature review, no cases were found where an entire aquifer system was identified as an outstanding water body due to the support it provides to hydraulically connected surface water bodies. In all instances, the contribution the aquifer provides to any identified outstanding values is considered to be a supporting feature, as opposed to an outstanding water body itself.

Cultural and Spiritual values

848. Tāngata whenua have special cultural, spiritual, historical and traditional associations with freshwater. The relationship between tāngata whenua and freshwater is founded in whakapapa, which is the foundation for an inalienable relationship between Māori and freshwater that is recorded, celebrated and perpetuated across generations. Freshwater, the veins of Papatūānuku, is a taonga of paramount importance within te ao Māori. All waterbodies are important for spiritual, physical and customary reasons.
849. The Resource Management Act (RMA) recognises and provides, as a matter of national importance, for the relationship of Māori and their culture and traditions with their ancestral lands, water, sites, waahi tapu, and other taonga, alongside other provisions.
850. The draft OWB Plan Change sets up a proposed policy framework for those water bodies having cultural and spiritual values that warrant protection in terms of the NPSFM ‘outstanding’ requirements, without diminishing the importance of other waterbodies that are not labelled ‘outstanding’ or compromising the way in which these waterbodies are managed in the Regional Resource Management Plan (RRMP) and Coastal Environment Plan (RCEP).
851. This report discusses the cultural and spiritual values associated with the 42 water bodies in Tables 2 and 3⁵⁷, as identified in Table C1: Cultural Values Table⁵⁸, the secondary assessments (Appendix 4), the local expert panel findings (Appendix 6), and any feedback received throughout this process from iwi authorities and the general public (Appendix 5).

Background - candidate list of outstanding water bodies: cultural and spiritual values

852. In 2017, council staff co-designed an approach with the RPC tāngata whenua representatives to identify outstanding water bodies in the Hawke’s Bay region.
853. The first stage of this approach was to ensure the important cultural and spiritual values associated with waterbodies across the region were accurately recorded. Over 70 documents were reviewed including deeds of settlements, customary usage reports, statutory acknowledgements, Waitangi Tribunal reports, and supplied affidavits.
854. To assist with reporting, a pool of eight key values were identified by the RPC tangata whenua representatives which broadly reflect the most significant cultural values associated with water bodies. The key values, and their associated descriptions, are listed below:

Key Values	Description
Wāhi Tapu, Wāhi taonga	Sites of importance, including of historical events. This also includes where certain elements or taonga are, such as sites of burial, sacrifice and placement of stones
Wai Tapu	Sacred water, such as sites for baptism, healing or for preparing the dead for burial; or sites where water is taken for such purposes
Rohe Boundary	Water bodies marking territory boundaries
Battle site	Including sites where those killed from elsewhere are placed
Pa, kāinga	Kāinga /small family groups, including seasonal settlements and ahi kaa (caretakers)
Tauranga waka	Waka access and anchor sites
Mahinga kai, Pa tuna	Food, food catching devices, in situ food holding systems
Acknowledged in korero tuku iho, pepeha, whakatauki, waiata	Acknowledging gifts left by Io, the supreme creator of natural and physical resources, including water, rocks. Mahanga kai site, fish, birds, trees, and plants etc.

⁵⁷ The Regional Council and authors of these reports are aware there are numerous areas, including waterbodies, where two or more iwi groups have agreed shared interests and/or contested overlapping claims in Hawke’s Bay. The information presented in these reports is not intended to imply any exclusive rights over particular waterbodies for one or more iwi groups, nor does it confirm the validity of the claims of any group(s) over that water body. The information is solely for the purpose of recording important cultural and spiritual values identified by iwi groups in the region, sourced from existing published documents and feedback from iwi authorities.

⁵⁸ HBRC Publication Number 4978: Summary of cultural values associated with water bodies in Hawke’s Bay; 2018; Table C1: Cultural Values Table.

855. Through this process, 118 named waterbodies were identified as being of significance to iwi groups and a high level summary of the key values each treaty settlement entity has with a water body was recorded in a report titled *Summary of cultural values associated with water bodies in Hawke's Bay* (HBRC Publication Number 4978).
856. To ensure the cultural values summary was a thorough and accurate representation for each Treaty Settlement Entity⁵⁹, it was sent out to all Treaty Settlement Entities in Hawke's Bay for comments, prior to reporting back to the RPC.
857. In accordance with Stage 2 of the project approach, this information was presented back to the RPC with five options to assist with the selection of a list of candidate OWB for the cultural and spiritual value set. At a special hui in April 2018, the RPC tangata whenua representatives identified a list of 22 water bodies that were potentially outstanding for cultural and spiritual values. These were subsequently ratified at the May 2018 RPC meeting.
858. Staff undertook secondary assessments for each of the 22 candidate outstanding water bodies to assist RPC members to determine whether any of the values of the water bodies are outstanding for the purposes of the NPSFM.
859. Following completion of the secondary assessments, staff sought feedback from iwi authorities, territorial authorities, key stakeholder groups and the general public on Plan Change 7. Feedback from this process featured requests for an additional 20 water bodies to be identified as OWB, for all value sets, as part of Plan Change 7. The nominated OWB are set out in Table 3 and details of this engagement are contained in Appendix 5.
860. In early 2019, HBRC broadened feedback opportunities on outstanding water bodies (refer to Appendix 5) to include two further types of engagement: assessment of all candidate and nominated outstanding water bodies by a local expert panel and facilitation of a number of hui across the region.
861. The local expert panel met over two full-day workshops in February 2019, and completed their recommendations in April 2019 (attached as Appendix 6). Over March and April 2019, staff directly contacted all iwi authorities in the region via email, then telephone, inviting them to a sub-regional hui-a-iwi and/or to individually meet with Council staff.
862. Through this process, Council staff engaged with 10 iwi authorities through two sub-regional hui-a-iwi and a hui with an individual iwi. A hui with Te Taiwhenua o Tamatea is set for 13 May 2019, subsequent to the writing of this report. All notes from these meetings are included in Appendix 5.

Feedback - Local expert panel

863. The local expert panel made some preliminary and high level comments on the cultural and spiritual values associated with each of the water bodies in their report, using the following concepts:
- Wairuatanga Mauri, Mana , Tapu, Taonga tuku iho
 - Rangatiratanga Mana whenua – mana moana, Kaitiakitanga, Mahinga kai (as a place, action or practice)
 - Whakapapa O te whenua, O te wai , O te tangata, Ki uta ki tai
 - Mātauranga Māori Tikanga Māori knowledge systems , Traditional uses and values, Origins of cultural knowledge
 - Cultural Natural Character Spiritual condition, Mana o te wai, Connectivity between ground and surface water, Cleansing properties as water passes through the whenua, Spring / aquifer sources – water recharge systems
864. The concepts used by the local expert panel are holistic and multi-dimensional, enabling the resource to be considered in a range of different ways to ensure that overall, the outstanding value or use being assessed is able to be protected. These concepts generally align with the most significant cultural and spiritual values identified by the RPC in paragraph 854, above.

⁵⁹ Ngati Pāhauwera, Ngati Hineuru, Mana Ahuriri, Tatau Tatau o te Wairoa, Ngati Ruapani ki Waikaremoana, Maungaharuru Tangitū Trust, Heretaunga Tamatea, Ngati Tūwharetoa, Ngai Tūhoe, Ngāti Whare, Rongowhakaata, Ngāti Manawa, Ngati Kahungunu Iwi Inc, Ngāti Kahungunu ki Wairarapa Tāmaki nui-ā-rua, Rangitāne o Wairarapa, Rangitāne o Tāmaki nui a Rua, Ngāi Tāmanuhiri.

865. The local expert panel preliminary identified the following water bodies as having outstanding cultural and spiritual values, with the caveat that local hapū and marae would be better placed to assess all candidate water bodies:

- Heretaunga Aquifer
- Te Whanganui a Orotū (Ahuriri Estuary)
- Morere Hot Springs
- Lake Waikaremoana and Lake Waikareiti
- Upper Mohaka River (including Waipunga River and Te Hoe River)
- Ngaruroro River (including Taruarau River and Waitangi Estuary)
- Tukituki River (including Ruataniwha Aquifer, Waipawa River and Estuary)
- Lake Poukawa and Pekapeka Swamp
- Lake Whakakī
- Lake Whatumā
- Maungawhio Lagoon (including Lower Kopuraha River and Pukenui dune wetlands).

Feedback - Iwi authorities

866. Feedback received from iwi authorities reiterated that Māori place a very high value on water, regarding water as a taonga, or priceless treasure, left by tupuna /ancestors to sustain life, now and for the future. Freshwater bodies are the veins of Paptūānuku and just like the human body, when circulation or the veins are affected, that part of the tinana (body) will also be affected. From a te ao Māori perspective, no water body is more important than another and each water body has its own individual mauri or vital essence. The name given to each water body reflects its importance and reveals key values and attributes as understood by Māori.

867. Notwithstanding this significant issue, several iwi authorities recognised the need to work within the NPSFM framework with regard to outstanding water bodies and identified water bodies they believed to be 'outstanding' for cultural and spiritual values, for NPSFM purposes, within their rohe. They also considered that it would be unacceptable to have no water bodies identified as 'outstanding' from a cultural and spiritual perspective given the protection that applies with the 'outstanding' status, or to defer discussion of this matter to a later date.

Staff findings

868. Feedback received from iwi authorities is consistent with the findings from the 2017 Community Environment Fund: Outstanding Freshwater Body Project⁶⁰, which attempted to identify a set of criteria and thresholds that could be used to identify OWB for NPSFM purposes.

869. After initially attempting to identify a range of Mana Whenua values for OWB, the Outstanding Freshwater Body Project concluded that the identification of OWB for the cultural and spiritual value set has a number of challenges, particularly that the identification of individual water bodies is inconsistent with the view that all water bodies are important to Māori for spiritual, physical and customary reasons.

870. To assist the RPC to determine if any of the water bodies contain cultural or spiritual values which 'stand out' when compared to other water bodies in the region, staff have placed the water bodies in Table 25, onto Lists 1 – 5, which a corresponding colour code as set out in Table 24.

871. The following Lists 1 – 5 have been developed in order to simplify and understand findings from the various sources. Specifically, Table 25 summarises the following information on a water body by water body basis:

- The key values identified in the secondary assessments and Table C1: Cultural Values Table⁶¹,
- Feedback received from iwi authorities,
- The preliminary findings of the local expert panel.

⁶⁰ Undertaken by Hawke's Bay Regional Council in conjunction with MfE and Auckland Council.

⁶¹ HBRC Publication Number 4978: Summary of cultural values associated with water bodies in Hawke's Bay; 2018; Table C1: Cultural Values Table.

Table 24: Lists 1 – 5 classification key and corresponding colour codes (cultural and spiritual)

List	Colour code	Cultural and spiritual value sets
List 1	Green	The water body contains 5 or more key values in Table C1: Cultural Values Table ⁶² and is; - identified as containing outstanding cultural values during feedback by iwi authorities; and/or - preliminary identified by the local expert panel as containing outstanding cultural values.
List 2	Blue	The water body contains 3 - 4 key values in Table C1: Cultural Values Table ⁶⁰ and is; - identified as containing outstanding cultural values during feedback by iwi authorities; and/or - preliminary identified by the local expert panel as containing outstanding cultural values.
List 3	Pink	The water body contains 1 - 2 key values in Table C1: Cultural Values Table ⁶⁰ ; and/or - identified as containing outstanding cultural values during feedback by iwi authorities; and/or - preliminary identified by the local expert panel as containing outstanding cultural values.
List 4	Yellow	Water body: - iwi authority has advised that <u>all</u> water bodies are outstanding and have requested that no specific water body be identified as outstanding for cultural and spiritual values through Plan Change 7; or - iwi authority did not specifically identify the water body as containing outstanding cultural and spiritual values during feedback; or - iwi authority did not provide comments on Plan Change 7.
List 5	Purple	An iwi authority with cultural and spiritual linkages to the water body has specifically requested the water body not be identified as an outstanding water body in Plan Change 7.

872. The colour coding system used above indicates the range of known key cultural and spiritual values. It does not assess the relative merits of one water body against another, not does it attribute relative significance amongst the range of cultural and spiritual values.
873. The following section provides a more detailed description of the cultural and spiritual values associated with each water body in Table 25.
874. Principal selection option
875. As discussed in paragraph 56, there is no right or wrong approach to identify a list of outstanding water bodies. The selection options for all value sets are discussed in paragraphs 59 and 60. For ease of reference, the principal selection option for the cultural and spiritual value set is set out below.

Principal selection option – cultural and spiritual value set	
Option 1	Select water bodies which are clearly supported as containing cultural or spiritual values which ‘stand out’ when compared to the other water bodies in Tables 2 and 3; using: <ul style="list-style-type: none"> • the traditional knowledge of the RPC tāngata whenua representatives, • information in Table C1: Cultural Values Table⁶³ • information in the secondary assessments, • feedback from iwi authorities, • preliminary findings of the local expert panel.

876. With regard to Option 1 staff note:
- The knowledge base for the cultural and spiritual values of each water body is held by local hapu and marae;
 - Pre-notification consultation may be used as an opportunity to further refine the final draft list of outstanding water bodies, gather further information and refine how the ‘outstanding’ provisions should apply with respect to cultural and spiritual values;
 - There will be an opportunity to request further changes through formal submissions when Plan Change 7 is notified later this year.

⁶² HBRC Publication Number 4978: Summary of cultural values associated with water bodies in Hawke’s Bay; 2018; Table C1: Cultural Values Table.

⁶³ HBRC Publication Number 4978: Summary of cultural values associated with water bodies in Hawke’s Bay; 2018; Table C1: Cultural Values Table

Table 25: Summary Table - Cultural and Spiritual Values

Note 1: Refer to Table 24 for key to the colour coding

Water body	Key values in secondary assessments and Table C1: Cultural Values Table (Summary of Cultural Values associated with water bodies in Hawke's Bay)	Feedback from iwi authorities (2019)	Recommendations local expert panel (2019)
Lake Tūtira	Wāhi Tapu, Wāhi taonga Wai Tapu Acknowledged in korero tuku iho, pepeha, whakatauki, waiata Mahinga kai, Pa tuna Pa, kāinga Battle site	Lake Tūtira is of outstanding cultural significance to MTT and there is significant kōrero recorded supporting those values for Tūtira. MTT requested that staff also include values recorded in <i>Hapū Priorities for the Restoration of the Lake Tūtira Catchment</i> document (April 2018).	Cultural assessment recommended
Mohaka River (Upper - above Willowflat)	Wāhi Tapu, Wāhi taonga Wai Tapu Acknowledged in korero tuku iho, pepeha, whakatauki, waiata Mahinga kai, Pa tuna Pa, kāinga Battle site Rohe Boundary	The Mohaka catchment (including all rivers, tributaries, aquifers, estuaries and lakes) are outstanding to Te Rohe o Te Wairoa iwi. Iwi representatives recommended staff refer to relevant DOS and TSL for values information.	Outstanding cultural and spiritual values: Wairuatanga Whakapapa Cultural natural character Landscape
Ngaruroro River and Waitangi Estuary	Wāhi Tapu, Wāhi taonga Acknowledged in korero tuku iho, pepeha, whakatauki, waiata Pa, kāinga Rohe Boundary Mahinga kai, Pa tuna	Iwi authorities did not provide specific comment.	Outstanding cultural and spiritual values: Wairuatanga Nohoanga
Te Hoe River	Wāhi Tapu, Wāhi taonga Wai Tapu Mahinga kai, Pa tuna Pa, kāinga Rohe Boundary	Iwi authorities recommended staff refer to relevant DOS and TSL. Ngāti Hineuru.	Include with Upper Mohaka River as having outstanding water body values
Te Whanganui a Orotū (Ahuriri Estuary)	Wāhi Tapu, Wāhi taonga Wai Tapu Acknowledged in korero tuku iho, pepeha, whakatauki, waiata Tauranga waka Mahinga kai, Pa tuna Pa, kāinga Battle site	Some cultural values of Te Whanganui-a-Orotū discussed during tour of Ōtātara pā.	Outstanding cultural and spiritual values, including Rangatiratanga Whakapapa Kōhanga ika Kōhanga manu

Water body	Key values in secondary assessments and Table C1: Cultural Values Table (Summary of Cultural Values associated with water bodies in Hawke's Bay)	Feedback from iwi authorities (2019)	Recommendations local expert panel (2019)
Tukituki River and Estuary	Wāhi Tapu, Wāhi taonga Acknowledged in korero tuku iho, pepeha, whakatauki, waiata Pa, kāinga Mahinga kai, Pa tuna Rohe Boundary Battle site	Iwi authorities did not provide specific comment.	Outstanding cultural and spiritual values: Wairuatanga Whakapapa Mātauranga Māori Spiritual condition Cultural ecology
Tūtaekurī River	Wāhi Tapu, Wāhi taonga Acknowledged in korero tuku iho, pepeha, whakatauki, waiata Mahinga kai, Pa tuna Pa, kāinga Rohe Boundary Battle site	Some cultural values of the Tūtaekurī River discussed during tour of Ōtātara pā.	Cultural assessment recommended
Waikoau River/ Aropaoanui River	Wāhi Tapu, Wāhi taonga Acknowledged in korero tuku iho, pepeha, whakatauki, waiata Mahinga kai, Pa tuna Pa, kāinga Battle site	Refer to iwi comments on Lake Tūtira.	Cultural assessment recommended
Waipawa River	Wāhi Tapu, Wāhi taonga Acknowledged in korero tuku iho, pepeha, whakatauki, waiata Mahinga kai, Pa tuna Pa, kāinga Rohe Boundary	Iwi authorities did not provide specific comment.	Include with Tukituki River as having outstanding water body values
Waipunga River	Wāhi Tapu, Wāhi taonga Wai Tapu Pa, kāinga Mahinga kai, Pa tuna Rohe Boundary	The Mohaka catchment (including all rivers, tributaries, aquifers, estuaries and lakes) are outstanding to Te Rohe o Te Wairoa iwi. Iwi representatives recommended staff refer to relevant DOS and TSL for values information.	Include with Upper Mohaka River as having outstanding water body values
Mohaka River (Lower - below Willowflat)	Wāhi Tapu, Wāhi taonga Wai Tapu Acknowledged in korero tuku iho, pepeha, whakatauki, waiata Mahinga kai, Pa tuna Pa, kāinga Battle site Rohe Boundary	The Mohaka catchment (including all rivers, tributaries, aquifers, estuaries and lakes) are outstanding to Te Rohe o Te Wairoa iwi. Iwi representatives recommended staff refer to relevant DOS and TSL for values information.	Cultural assessment recommended

Water body	Key values in secondary assessments and Table C1: Cultural Values Table (Summary of Cultural Values associated with water bodies in Hawke's Bay)	Feedback from iwi authorities (2019)	Feedback from local expert panel (2019)
Lake Waikareiti	Wāhi Tapu, Wāhi taonga Mahinga kai, Pa tuna	Located within Te Urewera – Tūhoe have requested that Te Urewera be excluded from the OWB plan change. The Waikaretaheke catchment (including all rivers, tributaries, aquifers, estuaries and lakes) are outstanding to Te Rohe o Te Wairoa iwi. Iwi representatives recommended staff refer to relevant DOS and TSL for values information.	Outstanding cultural and spiritual values: Rangitiratanga Mahinga kai
Lake Waikaremoana	Wāhi Tapu, Wāhi taonga Wai Tapu Acknowledged in korero tuku iho, pepeha, whakatauki, waiata Mahinga kai, Pa tuna Pa, kāinga Battle site	Located within Te Urewera – Tūhoe requested that Te Urewera be excluded from the OWB plan change. The Waiau catchment (including all rivers, tributaries, aquifers, estuaries and lakes) are outstanding to Te Rohe o Te Wairoa iwi. Iwi representatives recommended staff refer to relevant DOS and TSL for values information.	Outstanding cultural and spiritual values: Wairuatanga Rangitiratanga Whakapapa Kōhanga ika Kōhanga manu
Heretaunga Aquifer	Wāhi Tapu, Wāhi taonga Acknowledged in korero tuku iho, pepeha, whakatauki, waiata Pa, kāinga	Some cultural values of the Heretaunga Aquifer discussed during tour of Ōtātara pā.	Outstanding cultural and spiritual values, including Wairuatanga Rangitiratanga Whakapapa Mātauranga Māori Cultural Natural Character
Lake Poukawa and Pekapeka Swamp	Wāhi Tapu, Wāhi taonga Mahinga kai, Pa tuna Pa, kāinga Rohe Boundary	Iwi authorities did not provide specific comment.	Outstanding cultural and spiritual values: Wairuatanga Rangitiratanga Whakapapa Spiritual condition
Lake Whatumā	Wāhi Tapu, Wāhi taonga Pa, kāinga Mahinga kai, Pa tuna	Iwi authorities did not provide specific comment.	Outstanding cultural and spiritual values: Whakapapa Mahinga kai
Nuhaka River	Wai Tapu Acknowledged in korero tuku iho, pepeha, whakatauki, waiata Mahinga kai, Pa tuna Pa, kāinga	The Nuhaka catchment (including all rivers, tributaries, aquifers, estuaries and lakes) are outstanding to Te Rohe o Te Wairoa iwi. Iwi representatives recommended staff refer to relevant DOS and TSL for values information.	Insufficient information available

Water body	Key values in secondary assessments and Table C1: Cultural Values Table (Summary of Cultural Values associated with water bodies in Hawke's Bay)	Feedback from iwi authorities (2019)	Feedback from local expert panel (2019)
Maungawhio Lagoon - estuary - Lower Kopuawhara River - Pukenui dune wetlands	Acknowledged in korero tuku iho, pepeha, whakatauki, waiata Mahinga kai, Pa tuna Pa, kāinga	The Kopuāwhara catchment (including all rivers, tributaries, aquifers, estuaries and lakes) are outstanding to Te Rohe o Te Wairoa iwi. Iwi representatives recommended staff refer to relevant DOS and TSL for values information.	Outstanding water body, but not for cultural and spiritual values
Porangahau Estuary	Wāhi Tapu, Wāhi taonga Mahinga kai, Pa tuna Pa, kāinga Rohe Boundary	Iwi authorities did not provide specific comment.	Outstanding cultural and spiritual values: Rangatiratanga Whakapapa Ecology
Ruakituri River	Wāhi Tapu, Wāhi taonga Acknowledged in korero tuku iho, pepeha, whakatauki, waiata Mahinga kai, Pa tuna	The Wairoa catchment (including all rivers, tributaries, aquifers, estuaries and lakes) are outstanding to Te Rohe o Te Wairoa iwi. Iwi representatives recommended staff refer to relevant DOS and TSL for values information.	Outstanding water body, but not for cultural and spiritual values
Waiau River	Wāhi Tapu, Wāhi taonga Mahinga kai, Pa tuna Rohe Boundary	The Waiau catchment (including all rivers, tributaries, aquifers, estuaries and lakes) are outstanding to Te Rohe o Te Wairoa iwi. Iwi representatives recommended staff refer to relevant DOS and TSL for values information.	Cultural assessment recommended
Waikaretaheke River	Acknowledged in korero tuku iho, pepeha, whakatauki, waiata Mahinga kai, Pa tuna Battle site	The Waiau catchment (including all rivers, tributaries, aquifers, estuaries and lakes) are outstanding to Te Rohe o Te Wairoa iwi. Iwi representatives recommended staff refer to relevant DOS and TSL for values information.	Not an outstanding water body
Wairoa River	Wāhi Tapu, Wāhi taonga Acknowledged in korero tuku iho, pepeha, whakatauki, waiata Mahinga kai, Pa tuna Pa, kāinga	The Wairoa catchment (including all rivers, tributaries, aquifers, estuaries and lakes) are outstanding to Te Rohe o Te Wairoa iwi. Iwi representatives recommended staff refer to relevant DOS and TSL for values information.	Cultural assessment recommended
Lake Whakakī - Te Paeroa Lagoon - Wairau Lagoon: interconnected wetland complex	Mahinga kai, Pa tuna	All waterbodies in Wairoa are outstanding to Te Rohe o Te Wairoa recommended staff refer to the relevant DOS and TSL for values information.	Outstanding cultural and spiritual values: Wairuatanga Rangatiratanga Mahinga kai Whakapapa

Water body	Key values in secondary assessments and Table C1: Cultural Values Table (Summary of Cultural Values associated with water bodies in Hawke's Bay)	Feedback from iwi authorities (2019)	Feedback from local expert panel (2019)
Morere Springs	Wāhi Tapu, Wāhi taonga Wai Tapu	The Nuhaka catchment (including all rivers, tributaries, aquifers, estuaries and lakes) are outstanding to Te Rohe o Te Wairoa iwi. Iwi representatives recommended staff refer to relevant DOS and TSL for values information.	Outstanding cultural and spiritual values: Whakapapa
Putere Lakes	Mahinga kai, Pa tuna	The Waiau catchment (including all rivers, tributaries, aquifers, estuaries and lakes) are outstanding to Te Rohe o Te Wairoa iwi.	Cultural assessment recommended
Ruataniwha Aquifer	Wāhi Tapu, Wāhi taonga	Iwi authorities did not provide specific comment.	Outstanding cultural and spiritual values, including Wairuatanga Rangatiratanga Mātauranga Māori
Boundary Stream, including Shine Falls	Wāhi Tapu, Wāhi taonga	Iwi authorities did not provide specific comment.	Not an outstanding water body
Karamu River	Pa, kāinga Mahinga kai, Pa tuna	Iwi authorities did not provide specific comment.	Cultural assessment recommended
Lake Rotoroa and Lake Rototuna (Kaweka Lakes)	-	Iwi authorities did not provide specific comment.	Outstanding water body, but not for cultural and spiritual values
Kaweka and Ruahine Ranges wetlands	-	The Mohaka catchment (including all rivers, tributaries, aquifers, estuaries and lakes) are outstanding to Te Rohe o Te Wairoa iwi.	Insufficient information available
Makirikiri River	Mahinga kai	Iwi authorities did not provide specific comment.	Cultural assessment recommended
Mangahouanga Stream	-	The Waiau catchment (including all rivers, tributaries, aquifers, estuaries and lakes) are outstanding to Te Rohe o Te Wairoa iwi.	Not an outstanding water body
Ngamatea East Swamp	Mahinga kai	Iwi authorities did not provide specific comment.	Outstanding water body, but not for cultural and spiritual values
Opoutama Swamp	-	The Kopuāwhara catchment (including all rivers, tributaries, aquifers, estuaries and lakes) are outstanding to Te Rohe o Te Wairoa iwi.	Cultural assessment recommended
Papakiri Stream	Mahinga kai, Pa tuna	Iwi authorities did not provide specific comment.	Not discussed in report

Water body	Key values in secondary assessments and Table C1: Cultural Values Table (Summary of Cultural Values associated with water bodies in Hawke's Bay)	Feedback from iwi authorities (2019)	Feedback from local expert panel (2019)
Porangahau/Tāurekaitai River	Wāhi Tapu, Wāhi taonga Mahinga kai, Pa tuna Pa, kāinga Rohe Boundary	Iwi authorities did not provide specific comment.	Cultural assessment recommended
Tarawera Hot Springs	Wāhi Tapu, Wāhi taonga	The Mohaka catchment (including all rivers, tributaries, aquifers, estuaries and lakes) are outstanding to Te Rohe o Te Wairoa iwi.	Cultural assessment recommended
Taruarau River	-	Iwi authorities did not provide specific comment.	Include within the Ngaruroro River as having outstanding water body values
Waihua River	Wāhi Tapu, Wāhi taonga Mahinga kai, Pa tuna Rohe Boundary	Iwi authorities did not provide specific comment.	Cultural assessment recommended

Discussion

877. The following section provides a more detailed discussion on the cultural and spiritual values associated with each of the water bodies set out in Table 25, with a specific focus on the pool of 8 key values below. These values were identified by the RPC tāngata whenua representatives in 2018 as broadly reflecting the most significant cultural values associated with waterbodies:

- Wāhi Tapu, Wāhi taonga
- Pa, kāinga
- Wai Tapu
- Tauranga waka
- Rohe Boundar
- Mahinga kai, Pa tuna
- Battle site
- Acknowledged in korero tuku iho, pepeha, whakatauki, waiata.

878. From a Māori worldview, isolating the values into categories can be problematic: many of the values are part of a narrative that doesn't fit neatly into prescribed categories. Documents on the cultural and spiritual values of water bodies in Hawke's Bay consistently describe waterways as being part of a wider cultural landscape that weaves people into a rich history of cultural and spiritual association with their environment.

879. In developing this proposed plan change, the intention is to gain an appreciation of the significance of cultural and spiritual values in some detail, yet retain a holistic perspective.

880. Table 25 sets out the known key values associated with each water body. It shows those water bodies that are known to be important for a variety of values; it does not assess the relative merits of one water body against another, nor does it attribute relative significance between different key values.

881. Heretaunga Aquifer

882. The Heretaunga Aquifer is a taonga of Ngāti Kahungunu and is part of Heretaunga Tamatea's traditional rohe. The importance of the aquifer is reflected in the whakatauki that represents Ngāti Kahungunu pride:

Heretaunga ararau; Heretaunga haukūnui; Heretaunga hāro te kāhu; Heretaunga takoto noa.

(Heretaunga of arcadian pathways; Heretaunga of life-giving dew; Heretaunga the beauty of which can only be appreciated by the eyes of a hawk in full flight; Heretaunga from whence the chiefs have departed and only we the servants remain⁶⁴).

883. The Heretaunga Aquifer was known by Ngāti Kahungunu as the Heretaunga Ararau Haukūnui, being a large water resource, represented in the many rivers, creeks, the small tributaries fed by underground springs, springs of water, swampy ground, swimming holes, rock pools and quick sands. These areas supported an abundant supply of fish and water fowl, a primary food resource.

884. Information reviewed indicates the water body contains the following key values:

- Wāhi Tapu, Wāhi taonga
- Pa, kāinga
- Acknowledged in korero tuku iho, pepeha, whakatauki, waiata.

885. The local expert panel found the Heretaunga Aquifer system to have known outstanding cultural and spiritual values, specifically noting Wairuatanga, Rangatiratanga, Whakapapa, Mātauranga Māori and Cultural Natural Character.

886. Some of the cultural values of the Heretaunga Aquifer were discussed during a tour of Ōtātara pā led by members of Ngāti Pārau, including whakatauki.

887. Based on the above information, staff have colour coded the Heretaunga Aquifer Blue.

888. Ruataniwha Aquifer

889. The Ruataniwha Aquifer is part of Heretaunga Tamatea's traditional rohe.

⁶⁴ <https://maungakorero.wordpress.com/2014/01/19/issue-24-kahuranaki/>

890. Information reviewed indicates the water body contains the following key values:

- Wāhi Tapu, Wāhi taonga.

891. The local expert panel found the Ruataniwha Aquifer system to have known outstanding cultural and spiritual values, specifically noting Wairuatanga, Rangatiratanga, Whakapapa, Mātauranga Māori and Cultural Natural Character. The panel recommended its inclusion with the Tukituki River because of the system connections between the two water bodies.

892. At the time of writing, iwi authorities had not provided any comment specific to the Ruataniwha Aquifer.

893. Based on the above information, staff have colour coded the Ruataniwha Aquifer Pink.

894. Te Whanganui-a-Orotū/Ahuriri Estuary

895. Three Treaty settlement entities have customary linkages to Te Whanganui-a-Orotū - Ahuriri Hapū, Ngāti Pāhauwera and Maungaharuru –Tangitū.

896. Te Whanganui-a-Orotū is a place of great cultural and spiritual significance to the Ahuriri Hapū. It is central to their existence and identity. It is named after the ancestor Te Orotū, who was a descendant of the great explorer and ancestor Māhu Tapoanui, who is the very beginning of the Ahuriri people.

897. Ahuriri hapū has a long history of settlement in Te Whanganui-a-Orotū; its significance is conveyed in song and story, reciting the names of ancestors, kaitiaki and events. It was the scene of many battles.

898. The area around Te Whanganui-a-Orotū was a very important source of food and was heavily populated. Consequently numerous sites of cultural, historic and archaeological significance are situated around what was its shoreline.

899. Information reviewed indicates the water body contains the following key values:

- Wāhi Tapu, Wāhi taonga
- Wai Tapu
- Battle site
- Pa, kāinga
- Tauranga waka
- Mahinga kai, Pa tuna
- Acknowledged in korero tuku iho, pepeha, whakatauki, waiata.

900. The local expert panel found the Ahuriri Estuary to have known outstanding cultural and spiritual values, specifically noting Rangatiratanga and Whakapapa.

901. Some of the cultural values associated with Te Whanganui-a-Orotū were discussed during a tour of Ōtātara pā led by Ngāti Pārau, including mahinga kai.

902. Based on the above information, staff have colour coded Te Whanganui-a-Orotū Green.

903. Porangahau River

904. The Porangahau River, also known locally to Māori as the Taurekaitai River, is a significant waterway for Heretaunga Tamatea, lying at the heart of their spiritual and physical wellbeing. On the southern bank of the river, Opiango stands, a peak sacred to Ngāti Pihere.

905. Information reviewed indicates the water body contains the following key values:

- Wāhi Tapu, Wāhi taonga
- Rohe Boundary
- Pa, kāinga
- Mahinga kai, Pa tuna.

906. The local expert panel considered that the lower Porangahau River, below the township bridge, should be included with the Porangahau Estuary as an outstanding water body, and that above the bridge, cultural assessment was needed.

907. At the time of writing this report, iwi authorities had not provided comment specific to the Porangahau River.

908. Based on the above information, staff have colour coded the Porangahau River (above the township bridge) Yellow.
909. Porangahau River Estuary
910. Ngāti Kahungunu Iwi Incorporated have commented that the Porangahau Estuary is a location of significance.
911. Heretaunga Tamatea have noted there are some 20 fishing sites between the township of Porangahau and the sea. There are vast shell middens in the dune system, and the first authenticated records of moa hunter occupation in the North Island are found here. The estuary continues to be an important source of flatfish, kahawai, eels and whitebait.
912. Information reviewed indicates the water body contains the following key values:
- Wāhi Tapu, Wāhi taonga
 - Rohe Boundary
 - Pa, kāinga
 - Mahinga kai, Pa tuna.
913. The local expert panel found the Porangahau Estuary, including the lower reaches of the river, to have known outstanding cultural and spiritual values, specifically for Rangitiratanga, Whakapapa and Ecology.
914. At the time of writing this report, iwi authorities had not provided comment specific to the Porangahau River.
915. Based on the above information, staff have colour coded the Porangahau Estuary (below the township bridge) Blue.
916. Morere Hot Springs
917. Morere Springs are within the Rohe o Te Wairoa and are located near Nuhaka. The name of these thermal springs means 'the waters of life which come into this world from the other world'.
918. Information reviewed indicates the water body contains the following key values:
- Wāhi Tapu, Wāhi taonga
 - Wai Tapu.
919. The local expert panel found the Morere Hot Springs to have known outstanding cultural and spiritual values, specifically noting Whakapapa, Ki uta ki tai and Mana o te wai.
920. Iwi authorities at the Wairoa sub-regional hui advised that all waterbodies, including springs, in the Nuhaka catchment have outstanding cultural and spiritual values. The Te Rohe o Te Wairoa Deed of Settlement notes that the springs were a source of natural healing waters, kiekie and other traditional materials used for weaving whariki (mats) and kete and traditional rongoā (medicine).
921. Based on the above information, staff have colour coded Morere Hot Springs Pink.
922. Waipunga River
923. Information reviewed indicates the water body contains the following key values:
- Wāhi Tapu, Wāhi taonga
 - Wai Tapu
 - Pa, kāinga
 - Mahinga kai, Pa tuna
 - Rohe Boundary
924. The local expert panel found the upper Mohaka River (including the Waipunga River) to have outstanding cultural and spiritual values.
925. Iwi authorities at the Wairoa sub-regional hui advised that all waterbodies in the Mohaka catchment (including all rivers, tributaries, aquifers, estuaries and lakes) are outstanding to Te Rohe o Te Wairoa iwi. Iwi representatives recommended staff refer to relevant DOS and TSL for values information.
926. Based on the above information, staff have colour coded the Waipunga River Green.
927. Tarawera/Waipunga Hot Springs

928. Ngāti Hineuru highly prized these hot springs, which are associated with the fault lines at Tarawera and are on the banks of the Waipunga River.
929. Information reviewed indicates the hot springs were used in particular for bathing, rongoa and cooking; and contained the following key values:
- Wāhi Tapu, Wāhi taonga.
930. The local expert panel found that the Tarawera Hot Springs needed cultural assessment.
931. Iwi authorities at the Wairoa sub-regional hui recommended that all waterbodies, including springs, in the Mohaka catchment have outstanding cultural and spiritual values. The Ngāti Hineuru Deed of Settlement notes that the springs were used for bathing, rongoā (medicine) and cooking.
932. Based on the above information, staff have colour coded Tarawera/Waipunga Hot springs Yellow.
933. Lake Tūtira
934. Lake Tūtira is a taonga of Ngāti Kurumōkihi. The physical and spiritual well-being of the hapū is closely linked to the well-being of the lake. It was celebrated as a place of sustenance to replenish one's mind, body and soul. The hapū have a whakatauāki (tribal proverb) about the lake, referring to Tūtira as 'ko te waiu o tatou tipuna' (the milk of our ancestors).
935. Lake Tūtira was a significant mahinga kai, famous for the best flavoured tuna (eel). Some rongoā (medicinal plants) are only found in or around Lake Tūtira. The lake has designated areas where ceremonies and rituals, such as tohi (baptisms) are carried out.
936. The Tūtira lakes, waterways and adjoining lands formed the central hub of a series of well-known and used tracks linking the hapū with Tangitū and Maungaharuru. As a prized taonga, many raids were made on Lake Tūtira, meaning that it was the scene of many battles.
937. Information reviewed indicates the water body contains the following key values:
- Wāhi Tapu, Wāhi taonga
 - Wai Tapu
 - Battle site
 - Pa, kāinga
 - Mahinga kai, Pa tuna
 - Acknowledged in korero tuku iho, pepeha, whakatauki, waiata.
938. The local expert panel recommended that Lake Tūtira needed cultural assessment.
939. Feedback received from Maungaharuru-Tangitu Trust supports Lake Tūtira being identified as an outstanding water body for the purposes of the NPSFM.
940. Based on the above information, staff have colour coded Lake Tūtira Green.
941. Papakiri Stream
942. The inlet to Lake Tūtira is Papakiri Stream (or Sandy Creek) and is also integral to the distinct identity and mana of the hapū. Its importance is due to its connection with Lake Tūtira and its reputation as an outstanding mahinga kai site.
943. It is said that in ancient times there was a very large wetland area comprising several hundred acres at the northern end of Lake Tūtira, and that the Papakiri Stream never flowed directly into the lake. Instead, the waters of the Papakiri Stream worked their way through the wetland, and then into the Mahiaruhe Stream (the outlet flowing from the lake).
944. Information reviewed indicates the water body contains the following key values:
- Mahinga kai, Pa tuna.
945. The local expert panel did not assess the Papakiri Stream.
946. Feedback from Maungaharuru-Tangitu Trust requested that, due to its connection to Lake Tutira, the Papakiri Stream be identified as an outstanding water body.
947. Based on the above information, staff have colour coded the Papakiri Stream Yellow.

948. Aropaoanui River/Waikoau River

949. The Aropaoanui River/Waikoau River originates at the tihi tapu (sacred peaks) of the central area of Maungaharuru, flowing through the Waikoau Conservation Area, joining the Mahiaruhe Stream at Lake Tūtira. From here it enters into the Aropaoanui valley where it is known as the Aropaoanui River.

950. Aropaoanui River/Waikoau River is one of the most significant awa in the takiwā (traditional area of the hapū). It links two of the most culturally and historically important areas of the hapū, being Tūtira and Aropaoanui.

951. Information reviewed indicates the water body contains the following key values:

- Wāhi Tapu, Wāhi taonga
- Battle site
- Pa, kāinga
- Mahinga kai, Pa tuna
- Acknowledged in korero tuku iho, pepeha, whakatauki, waiata.

952. The local expert panel did not find the Aropaoanui River to have known outstanding cultural and spiritual values, and did not assess the Waikoau River.

953. Feedback from Maungaharuru-Tangitu Trust requested that due to its connection to Lake Tutira that the Aropaoanui River/Waikoau River be identified as an outstanding water body.

954. Based on the above information, staff have colour coded the Aropaoanui River/Waikoau River Green.

955. Lake Waikaremoana

956. Lake Waikaremoana is significant to Tūhoe, Ngāti Ruapani and Ngāti Kahungunu. The waters are regarded as a taonga, and it is located within Te Urewera. Ngāti Tāmanuhiri also have ancestral and customary connections with the lake.

957. Translated, 'Waikaremoana' means 'the sea of rippling waters'. The story of the creation of Waikaremoana tells of Manu's daughter Haumapuhia, who, having been changed into a taniwha, desperately struggled to get to the sea before sunrise.

958. Numerous battles have occurred around the shores of the lake.

959. Information reviewed indicates the water body contains the following key values:

- Wāhi Tapu, Wāhi taonga
- Wai Tapu
- Battle site
- Pa, kāinga
- Mahinga kai, Pa tuna
- Acknowledged in korero tuku iho, pepeha, whakatauki, waiata.

960. The local expert panel found the Lake Waikaremoana to have known outstanding cultural and spiritual values, specifically noting Wairuatanga, Rangatiratanga, Whakapapa and Cultural Natural Character.

961. Tūhoe, as the tanata whenua (host) and kaitiaki (guardians) of Te Urewera have advised that the objectives of the OWB plan change do not apply in Te Urewera and that Lake Waikaremoana should be excluded from the OWB plan change.

962. Based on the information above, staff have colour coded Lake Waikaremoana Purple.

963. Lake Waikareiti

964. Lake Waikareiti is significant to Tūhoe and Ngāti Ruapani.

965. The lake sits just to the north of Lake Waikaremoana, but at a higher altitude. The waters are regarded as a taonga. Customary food sources are found around its shore.

966. Information reviewed indicates the water body contains the following key values:

- Wāhi Tapu, Wāhi taonga
- Mahinga kai, Pa tuna.

967. The local expert panel found that Lake Waikareiti was connected to Lake Waikaremoana, and that the two lakes should be considered together as an OWB for known outstanding cultural and spiritual values.
968. Tūhoe, as the tanata whenua (host) and kaitiaki (guardians) of Te Urewera have advised that the objectives of the OWB plan change do not apply in Te Urewera and that Lake Waikareiti should be excluded from the OWB plan change.
969. Based on the information above, staff have colour coded Lake Waikareiti Purple.
970. Ngamatea East Swamp
971. The Rangitikei District Plan identifies the Ngamatea East Swamp as being an Outstanding Natural Area, highly valued by Māori for the cleansing provided by the water catchment, storage and drainage processes, and as a possible food source. Spiritual essence derives from being a headwater system to the Rangitikei River.
972. Information reviewed indicates the water body contains the following key values:
- Mahinga kai
973. The local expert panel found the Ngamatea East Swamp to have no known outstanding cultural and spiritual values.
974. Iwi authorities did not provide any comment specific to Ngamatea East Swamp.
975. Based on the above information, staff have colour coded the Ngamatea East Swamp Yellow.
976. Lake Whatumā
977. Lake Whatumā is a source of plentiful kai and a taonga of great significance, lying at the heart of the cultural wellbeing, identity and culture of Heretaunga Tamatea.
978. The name ‘Whatumā’ refers to the discoverers of the lake who ate eels they found there until their hunger was satisfied.
979. It is particularly well known for eels, but also freshwater mussels, birds and raupo pollen, and its surrounds provide toitoi, patete and koareare.
980. Information reviewed indicates the water body contains the following key values:
- Wāhi Tapu, Wāhi taonga
 - Pa, kāinga
 - Mahinga kai, Pa tuna.
981. The local expert panel found that Lake Whatumā contained known outstanding cultural and spiritual values, specifically noting whakapapa and mahinga kai.
982. At the time of writing, iwi authorities had not provided any comment specific to Lake Whatumā.
983. Based on the above information, staff have colour coded Lake Whatumā Blue.
984. Lake Whakakī
985. Te Whakakī Lagoon is of spiritual and cultural significance to Ngato Kahukura, Ngati Kirituna and the hapū of Te Whakakī Nui-a Rua. It includes Te Paeroa and Waiarau Lagoons, which form part of the interconnected wetland complex.
986. Situated between Wairoa and Nuhaka, the lagoon is part of an extensive and unique coastal wetland. It provides habitat for several rare and iconic species, including eels, inanga and native aquatic macrophytic plants.
987. Its name is based on a word meaning ‘to fill’, referring to the lagoon. Until the early 1900s, lagoon waters only exited to the sea when floodwaters naturally overtopped the sandbar, or Ahikaa and tangata whenua opened the bar manually to facilitate subsidence of floodwaters.
988. Information reviewed indicates the water body contains the following key values:
- Mahinga kai, Pa tuna.
989. The local expert panel found that Lake Whakakī contained known outstanding cultural and spiritual values, specifically noting wairuatanga, rangitiratanga and mahinga kai.

990. Iwi authorities at the Wairoa sub-regional hui recommended that all waterbodies, including lakes and wetlands, in the Nuhaka catchment have outstanding cultural and spiritual values. The lake and surrounding lagoons are particularly important for mahinga kai, kāinga pā and there are many important historical sites around the area.
991. Based on the above information, staff have colour coded Lake Whakakī Pink.
992. Mangahouanga Stream
993. Mangahouanga Stream is a tributary of the Te Hoe River, and is within the catchment of the Mohaka River.
994. Since the 1980s, a large number of fossil marine and terrestrial vertebrates have been found in boulders here, making the stream an important locality for Late Cretaceous fossil records, for New Zealand.
995. The local expert panel considered that these fossils did not have any known outstanding cultural and spiritual values for water bodies.
996. Iwi authorities at the Wairoa sub-regional hui recommended that all waterbodies, including all tributaries, in the Mohaka catchment have outstanding cultural and spiritual values.
997. Based on the above information, staff have colour coded Mangahouanga Stream Yellow.
998. Ruakituri River
999. The Ruakituri River has a particular cultural, spiritual, historical and traditional association with Te Rohe o Wairoa.
1000. According to tradition, the Ruakituri and Hangaroa Rivers (which form the Wairoa River below their confluence) were formed when kin taniwha Ruamano and Hinekorako heard the sound of the sea, and heeding its call, they decided to race to the sea, each taking a separate route by way of the two rivers.
1001. Information reviewed indicates the water body contains the following key values:
- Wāhi Tapu, Wāhi taonga
 - Mahinga kai, Pa tuna
 - Acknowledged in korero tuku iho, pepeha, whakatauki, waiata.
1002. The local expert panel found that Ruakituri River did not have any known outstanding cultural and spiritual values, and needed cultural assessment.
1003. Iwi authorities at the Wairoa sub-regional hui recommended that all waterbodies, including all tributaries, in the Wairoa catchment have outstanding cultural and spiritual values. The Te Rohe o Te Wairoa Deed of Settlement notes the above origin story of the river.
1004. Based on the above information, staff have colour coded the Ruakituri River Blue.
1005. Taruarau River
1006. The Taruarau River is a major tributary of the Ngaruroro River.
1007. The local expert panel found that the Taruarau River contained known outstanding cultural values, specifically noting Wairuatanga and Whakapapa, and that it should be managed as an Outstanding Water Body along with the Ngaruroro River.
1008. At the time of writing, iwi authorities had not provided any comment specific to the Taruarau River.
1009. Based on the above information, staff have colour coded the Taruarau River Yellow.
1010. Tukituki River and Estuary
1011. The Tukituki River is significant for Heretaunga Tamatea, lying at the heart of their spiritual and physical wellbeing. It is also significant to Ngāti Kahungunu Iwi Incorporated. It is a tupuna awa (ancestral river), integral to the web of whakapapa connections shared by the different hapu along its banks.
1012. The story telling of the river's creation begins with two taniwha living in a lake on the Ruataniwha Plains. When a boy fell into the lake, the two taniwha fought for the prey, in the process destroying the landscape and creating breaks in the hills which resulted in channels draining the lake away, one of which was the Tukituki River, the other being the Waipawa.
1013. There is evidence of at least 7-8 centuries of occupation by Maori, making this area one of the earliest settled. The river was traditionally used as a highway connecting whanau to their whanau, to their gardens, to trade links, to

their pā sites, to wāhi tapu and to their wāji tupuna. Much of the river was navigable for canoes over winter, and it was the main transport route through Heretaunga. The river mouth was renowned for the abundance of fish species, including kahawai, patiki, kanae, kataha, kokopu, inanga and tuna.

1014. Information reviewed indicates the water body contains the following key values:

- Wāhi Tapu, Wāhi taonga
- Rohe Boundary
- Battle site
- Pa, kāinga
- Mahinga kai, Pa tuna
- Acknowledged in korero tuku iho, pepeha, whakatauki, waiata.

1015. The local expert panel found that the Tukituki River contained known outstanding cultural and spiritual values, specifically noting Wairuatanga, Rangatiratanga, Mātaurangi Māori, Whakapapa and ecology from a cultural perspective.

1016. At the time of writing, iwi authorities had not provided any comment specific to the Tukituki River or Estuary.

1017. Based on the information above, staff have colour coded the Tukituki River Green.

1018. Waipawa River

1019. The Waipawa River is significant for Heretaunga Tamatea.

1020. The story telling of the river's creation begins with two taniwha living in a lake on the Ruataniwha Plains. When a boy fell into the lake, the two taniwha fought for the prey, in the process destroying the landscape and creating breaks in the hills which resulted in channels draining the lake away, one of which was the Waipawa River, the other being the Tukituki.

1021. The Waipawa is significant as a boundary, for its resources and for the access inland that it provided. Resources included tuna, pātiki, fresh water koura, water cress and inanga.

1022. Information reviewed indicates the water body contains the following key values:

- Wāhi Tapu, Wāhi taonga
- Rohe Boundary
- Pa, kāinga
- Mahinga kai, Pa tuna
- Acknowledged in korero tuku iho, pepeha, whakatauki, waiata

1023. The local expert panel found that the Waipawa River contained known outstanding cultural and spiritual values, specifically noting Mātauranga Māori, Spiritual connection and ecology from a cultural perspective.

1024. At the time of writing, iwi authorities had not provided any comment specific to the Waipawa River.

1025. Based on the information above, staff have colour coded the Waipawa River Green.

1026. Waihua River

1027. The Waihua River is significant to Ngāti Pāhauwera as taonga and the mauri of their spiritual and material wellbeing and as a traditional boundary.

1028. The river is important, both culturally and commercially, including for mahinga kai, with important fishing and eeling spots, as well as shellfish beds.

1029. Information reviewed indicates the water body contains the following key values:

- Wāhi Tapu, Wāhi taonga
- Rohe Boundary
- Mahinga kai, Pa tuna.

1030. The local expert panel found that the Waihua River needed further cultural assessment.

1031. At the time of writing, iwi authorities had not provided any comment specific to the Waihua River.

1032. Based on the information above, staff have colour coded the Waihua River Yellow.

1033. Nuhaka River

1034. The Nuhaka River is significant for Te Rohe o Te Wairoa.

1035. The Nuhaka begins in the Whareata Range, passing through Whiorau where it joins the Tunanui Stream and flows out to sea.

1036. There are numerous significant riverside sites that form the lifeblood of Rakaipaaka, including for baptism and burial. A kaitiaki, in the form of a large white flounder, protects the traditional inanga site at Papanui.

1037. Information reviewed indicates the water body contains the following key values:

- Wai Tapu
- Pa, kāinga
- Mahinga kai, Pa tuna
- Acknowledged in korero tuku iho, pepeha, whakatauki, waiata.

1038. The local expert panel found that the Nuhaka River needed further cultural assessment

1039. Iwi authorities at the Wairoa sub-regional hui recommended that all waterbodies, including all tributaries, in the Wairoa catchment have outstanding cultural and spiritual values. The Te Rohe o Te Wairoa Deed of Settlement notes that the river is of particular significance to Ngāti Rakaipaaka for the reasons noted above.

1040. Based on the information above, staff have colour coded the Nuhaka River Blue.

1041. Wairoa River

1042. The Wairoa River is of spiritual significance to the iwi and hapū of Te Rohe o Te Wairoa. The river is regarded as tapu, bound by rituals and traditions which stem from gods and belong to the ancestors.

1043. The river starts at Te Reinga Falls, which are associated with Hinekorako and Ruamano, taniwha carried to Aotearoa on the Takitimu waka. The Wairoa River mouth is associated with two taniwha engaged in an ongoing struggle between Tapuwae and Te Maaha.

1044. It is said that the Takitimu waka came up the Wairoa River and landed at Makeakea Stream.

1045. The river acted as a major avenue for trading and commerce, with a number of pā close by. It was an important source of food, including inanga (whitebait), mohoa (flounder), kanae (mullet) and tuna (eel)

1046. Information reviewed indicates the water body contains the following key values:

- Wāhi Tapu, Wāhi taonga
- Pa, kāinga
- Mahinga kai, Pa tuna
- Acknowledged in korero tuku iho, pepeha, whakatauki, waiata.

1047. The local expert panel found that the Wairoa River needed further cultural assessment.

1048. Iwi authorities at the Wairoa sub-regional hui recommended that all waterbodies, including all tributaries, in the Wairoa catchment have outstanding cultural and spiritual values. The Te Rohe o Te Wairoa Deed of Settlement notes that the river is of particular significance for the reasons noted above and because it was used as a major avenue for trading and commerce by iwi and hapū.

1049. Based on the information above, staff have colour coded the Wairoa River Blue.

1050. Waikaretaheke River

1051. The Waikaretaheke River is of spiritual significance to the iwi and hapu of Te Rohe o Te Wairoa, and for Ngāti Ruapuni ki Waikaremoana.

1052. The creation story for the river is linked with the taniwha, Haumapuhia, and the creation of Lake Waikaremoana. It is the longest river within the rohe of Ngāti Ruapuni.

1053. Traditionally, this river was an important source of tuna (eels), korokoro and inanga (whitebait), and was also used for transportation by Ngāti Kahungunu.

1054. Information reviewed indicates the water body contains the following key values:

- Battle site
- Mahinga kai, Pa tuna
- Acknowledged in korero tuku iho, pepeha, whakatauki, waiata.

1055. The local expert panel found that the Waikaretaheke River needed cultural assessment.

1056. Iwi authorities at the Wairoa sub-regional hui recommended that all waterbodies, including all tributaries, in the Wairoa catchment have outstanding cultural and spiritual values. The Te Rohe o Te Wairoa Deed of Settlement notes that the river is of particular significance for the reasons listed above.

1057. Based on the information above, staff have colour coded the Waikaretaheke River Blue.

1058. Karamū Stream

1059. The Karamū Stream has particular cultural, spiritual, historical and traditional associations with Heretaunga Tamatea. It is one of the four main waterbodies in Te Matau a Māui Tikitiki-a-Taranga, Hawke's Bay.

1060. The stream begins at Poukawa, and travels through Havelock North and the Karamū area to join the Clive River at Pakowhai. It was once the main channel of the Ngaruroro River, but following a major flood in 1867 the Ngaruroro changed its course to its current course, leaving behind a smaller flow, named the Karamū in reference to the Karamū trees which grew in abundance in this area.

1061. It has been an important freshwater fishery, and Maori have a long history of occupation and travel on and around the stream.

1062. Information reviewed indicates the water body contains the following key values:

- Pa, kāinga
- Mahinga kai, Pa tuna

1063. The local expert panel found that the Karamū Stream needed further cultural assessment.

1064. At the time of writing, iwi authorities had not provided any comment specific to the Karamū Stream.

1065. Based on the information above, staff have colour coded the Karamū Stream Yellow.

1066. Makirikiri Stream

1067. The Makirikiri Stream is culturally significant to the people of Te Rongo a Tahu Marae. It is a tributary of the Porangahau Stream, near Takapau, and within the Tukituki catchment. Historically, tuna (eels) and koura provided important sources of food.

1068. Information reviewed indicates the water body contains the following key value:

- Mahinga kai

1069. The local expert panel found that the Makirikiri Stream needed further cultural assessment.

1070. At the time of writing, iwi authorities had not provided any comment specific to the Makirikiri Stream.

1071. Based on the above information, staff have colour coded the Makirikiri Stream Yellow.

1072. Tūtaekurī River

1073. The Tūtaekurī River is one of the four main waterbodies in Te Matau a Māui Tikitiki-a-Taranga, Hawke's Bay. It is of importance to Heretaunga Tamatea, Mana Ahuriri and Ngāti Kuhungunu, who all share significant ancestral, spiritual and physical links with the river. It forms part of the rohe boundary between Heretaunga and Ahuriri.

1074. The river takes its name from an incident about 400 years ago when a group of people from Wairoa who had travelled south to Porangahau seeking food, but found none, were on their return trip. Hikawera fed these starving wanderers at Te Umukuri (named for the ovens that cooked the dogs), killing 70 of his dogs and then disposing of their offal in the river (hence the river's name). The river was re-named the Tūtaekurī in honour of this event.

1075. Prior to the 1931 Napier earthquake, the Tūtaekurī River flowed into the southern end of Te Whanganui o Oretū/Ahuriri Estuary. It now flows into the ocean just to the north of the Ngaruroro River. The river's ancient pathway to the estuary has been channelised beside Riverbend Road and Douglas McLean Avenue.

1076. The river provided a major transport route into Mokai Patea (Taihape) and beyond. River resources included inanga (whitebait), ngaore, kakahi and, from raupo (flax) plants, koareare and pungapung.

1077. Information reviewed indicates the water body contains the following key values:

- Wāhi Tapu, Wāhi taonga
- Rohe Boundary
- Battle site
- Pa, kāinga
- Mahinga kai, Pa tuna
- Acknowledged in korero tuku iho, pepeha, whakatauki, waiata.

1078. The local expert panel found that the Tūtaekurī River needed further cultural assessment.

1079. Some of the cultural values associated with Te Whanganui-a-Orotū were discussed during a tour of Ōtātara pā led by Ngāti Pārau, particularly the significance of manaakitangi related to the origin of the river's name.

1080. Based on the information above, staff have colour coded the Tūtaekurī River Green.

1081. Waiau River

1082. The Waiau River has spiritual significance for Te Rohe o Te Wairoa, Ngāti Pāhauwera and Ngāti Ruapuni ki Waikaremoana. The river forms part of the traditional boundary of Ngāti Pāhauwera.

1083. The river adjoins a wāhi tapu site which is significant as being the place where Tamaterangi collected hangi stones after his defeat at Opuku.

1084. The river provides a valuable source of water, food, transport and trade. It was particularly significant as a transport route from Waikaremoana to Te Moananui a Kiwa (the Pacific Ocean).

1085. Information reviewed indicates the water body contains the following key values:

- Wāhi Tapu, Wāhi taonga
- Rohe Boundary
- Mahinga kai, Pa tuna.

1086. The local expert panel found that the Waiau River above the Matuku Stream confluence was outstanding, but not for known cultural and spiritual values, and that further cultural assessment was needed.

1087. Iwi authorities at the Wairoa sub-regional hui recommended that all waterbodies, including all tributaries, in the Wairoa catchment have outstanding cultural and spiritual values. The Te Rohe o Te Wairoa Deed of Settlement notes that the river is of particular significance for the reasons listed above.

1088. Based on the above information, staff have colour coded the Waiau River Blue.

1089. Te Hoe River

1090. Te Hoe River has a particular cultural, spiritual, historical and traditional association with Ngāti Hineuru and Ngāti Pāhauwera.

1091. A tributary of the Mohaka River, Te Hoe River is a traditional boundary marker for Ngāti Hineuru. A number of significant sites are located along the length of the river, including a pa site at Ngatapa and wāhi tapu sites by the confluence of the Te Hoe and Mohaka.

1092. The river provided drinking water, was a source for spiritual cleansing and was considered to have healing properties. Hangi stones were gathered from this river, and it has abundant fish species, including tuna (eel), trout and the koura.

1093. Information reviewed indicates the water body contains the following key values:

- Wāhi Tapu, Wāhi taonga
- Wai Tapu
- Rohe Boundary
- Pa, kāinga
- Mahinga kai, Pa tuna.

1094. The local expert panel found that the whole Mohaka system (including Te Hoe River) was outstanding for known cultural and spiritual values, and that it should be managed as an Outstanding Water Body along with the Upper Mohaka River above Willowflat.

1095. Iwi authorities at the Wairoa sub-regional hui recommended that all waterbodies, including all tributaries, in the Wairoa catchment have outstanding cultural and spiritual values. The Te Rohe o Te Wairoa Deed of Settlement notes that the river is of particular significance for the reasons listed above and is included in pepeha.

1096. Based on the above information, staff have colour coded the Te Hoe River Green.

1097. Opoutama Swamp

1098. Opoutama Swamp, located at the northern end of Hawke's Bay, is a freshwater swamp beside, but not connected to, Maungawhio Lagoon.

1099. The local expert panel found that further cultural assessment was needed for the Opoutama Swamp.

1100. Iwi authorities at the Wairoa sub-regional hui recommended that all waterbodies, including all tributaries, in the Kopuāwhara catchment have outstanding cultural and spiritual values.

1101. Based on the above information, staff have colour coded Opoutama Swamp Yellow.

1102. Putere Lakes

1103. Putere Lakes, including Lakes Rotongaio, Rotoroa and Rotonuiaha are located near the Waiau River and are important to Ngāti Pāhauwera. Part of the lake beds are vested with Ngāti Pāhauwera.

1104. Information reviewed indicates the water body contains the following key values:

- Mahinga kai, Pa tuna.

1105. The local expert panel found that further cultural assessment was needed for the Putere Lakes.

1106. Iwi authorities at the Wairoa sub-regional hui recommended that all waterbodies, including all tributaries of the Waiau catchment have outstanding cultural and spiritual values.

1107. Based on the above information, staff have colour coded Putere Lakes Pink.

1108. Lake Rotoroa and Lake Rototuna (Kaweka Lakes)

1109. Lake Rotoroa and Lake Rototuna are located in the headwaters of the Ngaruroro catchment.

1110. The local expert panel found that further cultural assessment was needed for Lake Rotoroa and Lake Rototuna.

1111. At the time of writing, iwi authorities had not provided any comment specific to Lake Rotoroa and Lake Rototuna.

1112. Based on the above information, staff have colour coded Lake Rotoroa and Lake Rototuna Yellow.

1113. Lake Poukawa and Pekapeka Swamp

1114. Lake Poukawa is important to Heretaunga Tamatea, lying at the heart of their spiritual and cultural wellbeing.

1115. Prior to draining, Lake Poukawa was a large lake and raupo wetland covering between 3,000 and 4,000 acres, depending on seasonal waters.

1116. The lake was an important food source, and was particularly known for tuna (eels). There were a number of significant battles in the vicinity.

1117. Information reviewed indicates the water body contains the following key values:

- Wāhi Tapu, Wāhi taonga
- Battle site
- Pa, kāinga
- Mahinga kai, Pa tuna.

1118. The local expert panel found that Lake Poukawa and Pekapeka Swamp included known outstanding cultural and spiritual values, specifically for wairuatanga, rangatiratanga, mahinga kai, whakapapa, and spiritual condition.

1119. At the time of writing, iwi authorities had not provided any comment specific to the Putere Lakes.

1120. Based on the above information, staff have colour coded Lake Poukawa and Pekapeka Swamp Blue.

1121. Kaweka and Ruahine Ranges wetlands

1122. The local expert panel found that there was insufficient information to assess these wetlands for and outstanding values.

1123. At the time of writing, iwi authorities had not provided any comment specific to the Kaweka and Ruahine Ranges wetlands.

1124. Based on the above information, staff have colour coded the Kaweka and Ruahine Ranges Wetlands Yellow.

1125. Boundary Stream, including Shine Falls

1126. Boundary Stream and Shine Falls are integral to the distinct identity and mana of Maungaharuru-Tangitū, and are located within the Boundary Stream Scenic Reserve.

1127. Information reviewed indicates the water body contains the following key values:

- Wāhi Tapu, Wāhi taonga.

1128. The local expert panel found that further cultural assessment was needed.

1129. At the time of writing, iwi authorities had not provided any comment specific to Boundary Stream or Shine Falls.

1130. Based on the above information, staff have colour coded Boundary Stream and Shine Falls Yellow.

1131. Mohaka River

1132. The Mohaka River is significant to Ngāti Pāhauwera, Ngāti Hineuru, Mana Ahuriri and Ngāti Tūwharetoa.

1133. The river is taonga, an integral part of tribal identity for Pāhauwera. The various hapu have a number of riverside settlements, and the Mohaka is a rohe boundary for Mana Ahuriri and Hineuru.

1134. Pāhauwera and Tūwharetoa shared a pact for the use of the Mohaka in relation to the coastal areas and the hinterland, enabling coastal dwellers to move inland when coastal resources were scarce, and vice versa. The river was a key transport route between the inland hills and mountains and the sea.

1135. Resources include hangi stones, drinking water, water for spiritual cleansing and healing. A range of fisheries were supported, with kahawai being the most celebrated.

1136. The Water Conservation Order (WCO) report for the Mohaka River recognised the whole river system has outstanding spiritual and cultural values, however, the lower Mohaka was later removed from the WCO by request of Ngāti Pāhauwera.

1137. Three taniwha live in the river – Maree, Popoia and Paikea.

1138. Information reviewed indicates the water body contains the following key values:

- Wāhi Tapu, Wāhi taonga
- Wai Tapu
- Rohe Boundary
- Battle site
- Pa, kāinga
- Mahinga kai, Pa tuna
- Acknowledged in korero tuku iho, pepeha, whakatauki, waiata.

1139. The local expert panel found that the Upper Mohaka contained known outstanding cultural and spiritual values, specifically wairuatanga, whakapapa, cultural natural character and landscape. They found that a cultural assessment was needed for the Lower Mohaka (below Willowflat).

1140. Ngāti Pāhauwera has requested that the Lower Mohaka River (below Willowflat) is not identified as an Outstanding Water Body.

1141. Iwi authorities at the Wairoa sub-regional hui advised that the Mohaka has outstanding cultural and spiritual values. The Ngāti Hineuru Deed of Settlement notes that the river is of particular significance for the reasons listed above.

1142. Based on the above information, staff have colour coded the Upper Mohaka River (above Willowflat) Green, and the Lower Mohaka River (below Willowflat) Purple.

1143. Maungawhio Lagoon

1144. Maungawhio Lagoon is a salt water lagoon that joins Oraka Beach, by the Mahia Peninsula, and is a site of significance to Te Rohe o Te Wairoa and Ngāti Kahungunu Iwi Inc.

1145. The name 'Maungawhio' means 'the whistling, howling hills' and refers to the strong winds which pass over the lagoon. It was here that the Takitimu waka arrived at Mahia and became stuck. Ruawharo, the tohunga of Takitimu, left the waka here, assisting it to continue with its journey saying 'Mahia nga mahi mai I Tawhiti'.

1146. It is considered to have high conservation and cultural values, and supports a variety of birdlife and mahinga kai.

1147. Information reviewed indicates the water body contains the following key values:

- Pa, kāinga
- Mahinga kai, Pa tuna
- Acknowledged in korero tuku iho, pepeha, whakatauki, waiata.

1148. The local expert panel found that the water body was outstanding, but not for cultural and spiritual reasons. A cultural assessment is needed.

1149. Iwi authorities at the Wairoa sub-regional hui recommended that all waterbodies, including all tributaries, in the Kopuāwhara catchment have outstanding cultural and spiritual values. The Te Rohe o Te Wairoa Deed of Settlement notes that the river is of particular significance for the reasons listed above.

1150. Based on the above information, staff have colour coded Maungawhio Lagoon Blue.

1151. Ngaruroro River and Waitangi Wetland

1152. The Ngaruroro River is one of the four main waterbodies in Te Matau a Māui-Tikitiki-a-Taranga (Hawke's Bay), and is significant to Heretaunga Tamatea, Mana Ahuriri, and Ngāti Tūwharetoa.

1153. The river takes its name from an incident in which a dog belonging to the ancient deity Mahu startled some small fish, known as upokororo (the now extinct grayling). As the shoal of fish dashed away, they caused ngauru (small ripples) in the water.

1154. The headwaters are largely in their natural state, and are commonly expressed as being at the heart of the Kaimanawa Ranges. The river is an important source of recharge for the Heretaunga Aquifer.

1155. The river forms a natural highway from coast to mountains and there are many settlements and sites of significance along its banks. It provides significant food resources, including kahawai, kanae, inanga (whitebait), ngāore (smelt), pātiki (black flounder), tuna (eel), karinga aruhe (edible fern roots), wai tahere, rākau tutu, hīnaki and rauwiri. The Waitangi Estuary is considered to have a significant cultural fishery by Ngāti Kahungunu Iwi Inc.

1156. Information reviewed indicates the water body contains the following key values:

- Wāhi Tapu, Wāhi taonga
- Rohe Boundary
- Pa, kāinga
- Mahinga kai, Pa tuna
- Acknowledged in korero tuku iho, pepeha, whakatauki, waiata.

1157. The local expert panel found that the water body contained known outstanding cultural and spiritual values, specifically noting wairuatanga, whakapapa, rangatiratanga and ki uta ki tai.

1158. At the time of writing, iwi authorities had not provided any comment specific to the Ngaruroro River or Waitangi Estuary.

1159. Based on the above information, staff have colour coded Ngaruroro River Green.