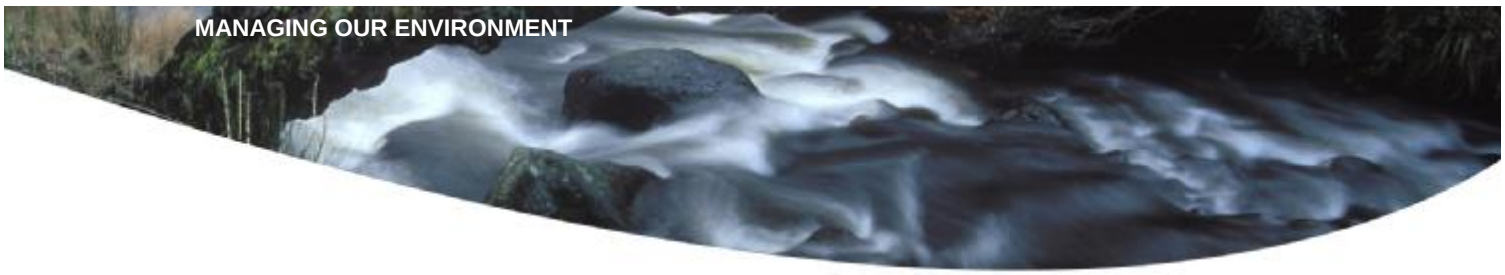


Identifying Community Values to Guide Water Management in the Manawatu-Wanganui Region : Technical Report to Support Policy Development

horizons regional council

one plan
MOTE ITI MOTE RAHI

Identifying Community Values to Guide Water Management in the Manawatu-Wanganui Region : Technical Report to Support Policy Development

April 2007

Authors
Dr. Olivier Ausseil
Senior Scientist – Water Quality

Maree Clark
Research Associate

Externally Reviewed by
Dr. John Quinn
Principal Scientist – River Ecosystems
Programme Leader - Restoration of Aquatic Ecosystems
NIWA

Dr. Russell Death
Senior Lecturer
Institute of natural Resources - Ecology
Massey University

Graham Sevicke-Jones
Manager Environmental Science
Hawkes Bay Regional Council

Internally Reviewed and Approved by
Alistair Beveridge
Manager, Water Quality and Biodiversity

Acknowledgements to
Peter Taylor – Fish and Game;
Bettina Anderson – Pukeko Blue; and
Kate McArthur, James Lambie, Alistair Beveridge - Horizons

April 2007
ISBN: 1-877413-76-3
Report No: 2007/EXT/786

CONTACT	**24hr Freephone 0508 800 800**		**help@horizons.govt.nz**		**www.horizons.govt.nz**
SERVICE CENTRES	**Kairanga** Cnr Rongotea & Kairanga-Bunnythorpe Rds Palmerston North **Marton** Cnr Hammond & Hair Sts **Taumarunui** 34 Maata Street **Woodville** Cnr Vogel (SH2) & Tay Sts	**REGIONAL HOUSES**	**Palmerston North** 11-15 Victoria Avenue **Wanganui** 181 Guyton Street	**DEPOTS**	**Levin** 11 Bruce Road **Taihape** Torere Road Ohotu
POSTAL ADDRESS	Horizons Regional Council, Private Bag 11025, Manawatu Mail Centre, Palmerston North 4442 | **F** 06 9522 929				

EXECUTIVE SUMMARY

Horizons Regional Council is currently developing a new combined Regional Plan/ Regional Policy Statement: the One Plan. This Plan will propose an improved water and catchment management regime for the Manawatu-Wanganui Region.

A key goal for this new regime will be to ensure the values our regional community places on our rivers and lakes are maintained or improved.

This report presents the recommendations of the Science Team to support the development of the waterbody values framework in the One Plan.

A total of 23 different values, applying to all or parts of the Region's rivers and lakes and their margins have been identified, and classed into four groups:

- the Ecosystem Values group includes five individual values recognising the intrinsic value of freshwater and coastal ecosystems for the living communities and natural processes they sustain;
- the Recreational and Cultural Values group includes nine individual values, associated with the spiritual and cultural values and the recreational (ie. non-consumptive or non-commercial) use of the waterbodies;
- the Consumptive Use Values group refers to the value of abstracted surface water in supporting the regional communities (eg. community water supply) and economy (ie. irrigation). It includes four individual values; and
- the Social and Economic Values Group includes five individual values identifying that rivers and their margins provide services and uses that support and protect the regional communities and assets.

For each individual value, this report provides:

- a definition, that equates to a management objective; and
- a recommendation as to where in the Region the value should apply.

The process used to determine the set of values recommended in this report was largely based on robust scientific information and intensive community and stakeholder consultation. However, it is expected the more complete consultation process following the notification of the One Plan will allow a better understanding of community and stakeholder aspirations, and may lead to the refinement/changes of a number of values.

The potential for some of these values to conflict is reasonably high, even more so as the "Consumptive Use values" and the "Social and Economic Values" groups are directly associated with activities that can threaten other values. This report simply identifies the different values, it does not rank the values nor does it try to pre-empt future conflicts between activities and values.

Rather, this report and the recommended values for the One Plan aim to provide a framework for the different parties involved in the management or use of a natural resource to work together and to help the decision-makers reach balanced decisions.

To guide the incorporation of the values framework in the One Plan, three points summarise the philosophy of the values framework as developed and presented in this report:

- the pool of values that have been identified to be associated with a given waterbody should constitute the management objective for this waterbody (ie. one value by itself should not become the overruling management objective for a waterbody);
- activities should be managed in a way that avoids, remedies or mitigates adverse effects on any of the waterbody's values; and
- there may be cases where all waterbody values may not be able to be protected or reinstated fully, because of the social or economic cost incurred. In this case, the values framework can provide the basis for debate and decision-making.

It is recommended the One Plan incorporates the values framework defined in this report and translates it into a number of policies relating to managing the activities that may impact on the water resource. Particularly, water quality standards, water allocation limits and best management practices are being developed to protect the values defined in this report.

FOREWORD

There are two key planks to the One Plan. The first is to ensure that we have solid science sitting behind the policy we have developed. That science comes as a consequence of experience over time, thorough internal review and ample opportunity for the external science community to peer review and challenge our thinking.

The second plank is the values based approach which is at the heart of the One Plan. With our community, the goal over these past few years has been to find common ground around the way in which we should utilise the natural resources surrounding us. Whether the places in the Region the community comes together for a swim on a hot afternoon, a key migration route for the Koaro or use of the water resource by our Region's irrigators, we have identified those values, mapped them and provided a framework for reconciling them in this report.

It is a credit to those scientists involved in this project.

Greg Carlyon
GROUP MANAGER REGIONAL PLANNING AND REGULATORY

CONTENTS

Tables:

Figures:

Maps:

1. Introduction – What do we value our rivers and lakes for?

This technical report is part of a planned technical series that presents the results of several key streams of research being undertaken by the Science Team at Horizons Regional Council in response to a critical policy-driven question:

How can we improve on the current water resource management regime in our Region?

The need to enhance the Region's current water management regime is being largely driven by:

1. the regional community's desire to improve the health of our waterways (Horizons Community Plan 2006); and
2. the need to manage increasing pressures on the water resource resulting from economic growth and agricultural intensification, leading to increased water demand and non-point source pollution.

Horizons Regional Council is currently developing a new combined Regional Plan/Regional Policy Statement: the One Plan. This Plan will propose a new, improved water and catchment management regime for the Manawatu-Wanganui Region.

A key goal for this new regime will be to ensure the values our regional community places on our rivers and lakes are maintained or improved.

The first step in the process is to clearly identify what these values are, and where they apply. The process under way is largely based on robust scientific information and intensive community and stakeholder consultation. It is hoped this process will allow for a greater robustness and a better input from the regional community into what will in effect become this Council's water and catchment management objectives.

This report presents the authors' recommendations for the development and inclusion of the waterbody values framework into the One Plan. It is recommended the One Plan incorporates the waterbody values defined in this report and translates them into a number of policies relating to :

- water quality (eg. water quality standards),;
- water allocation (eg. allocation limits and minimum flows);
- aquatic habitat (eg. standards for river works); and
- land management (eg. farm nutrient budgeting).

The first section of this report presents the planning context, proposed approach and scope of this work.

The second section presents the proposed list of river and lake values for the Region. It then defines each value, and details where it applies, as well as the technical and consultation work undertaken to reach this point.

The third section provides the recommended schedules corresponding to each value for inclusion in the One Plan.

To ensure the methodologies used throughout the process were robust, this report was reviewed by a technical peer review panel comprising experts from the National Institute of Water and Atmosphere (NIWA), Massey University, and other Regional Councils (details on the back of the front cover page).

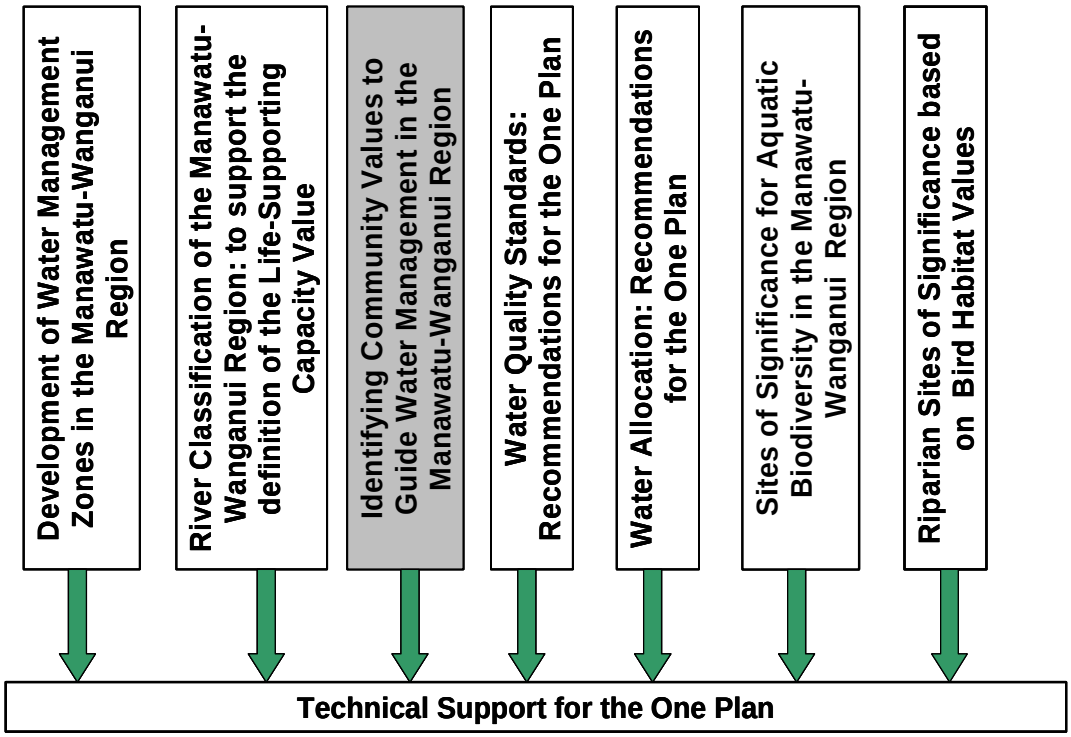


Figure 1: Overview of the proposed water management regime for the One Plan, and Structure of Technical Report series to support policy development

2. Planning Context

2.1 National Water Management Framework

The Resource Management Act (1991) (RMA) sets out a statutory framework and hierarchy of Conservation Orders, Policy Statements, Plans and Resource Consents used in the management of freshwater (Figure 2).

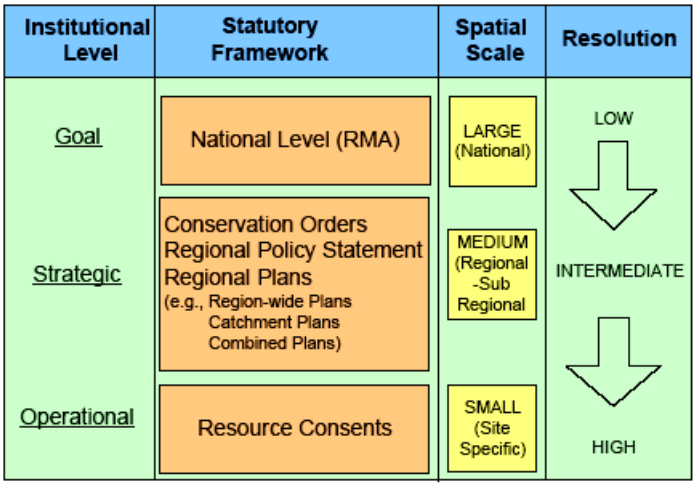


Figure 2: RMA Statutory Framework for Freshwater Management.

Source: Quality Planning Website www.qualityplanning.org.nz.

Section 65 of the Act allows a Regional Council to prepare a regional plan for the whole or parts of its Region. Such a plan must give effect to:

- National Policy Statements and must not be inconsistent with the Regional Policy Statement (RPS) or any other Regional Plans (Note: the One Plan is a combined RPS and Regional plan for all natural and physical resources of the Manawatu-Wanganui Region); and
- RMA provisions for regional water quality plans (sections 63-70).

In accordance with the RMA, these planning provisions must guide the sustainable management of the Region's surface water; allowing for reasonable use of the resource whilst safeguarding its life-supporting capacity and avoiding, remedying or mitigating any adverse effect or use.

2.1.1 Waterbody values in the RMA (1991)

Section 69(1) of the RMA sets out that Regional Councils may:

"provide in a plan that certain waters are to be managed for [certain] purposes".

In Schedule 3 of the RMA, 11 water classes are specified, based on management purposes, and a suite of narrative water quality standards associated with each one are defined (Table 1).

Table 1: Water quality classes as defined in Schedule 3 of the RMA (1991).

Class	Management Purpose
AE	Aquatic Ecosystem
F	Fishery
FS	Fish Spawning
SG	Gathering Or Cultivation Of Shellfish For Human Consumption
CR	Contact Recreation
WS	Water Supply
I	Irrigation
IA	Industrial Abstraction
NS	Managed In Its Natural State
A	Aesthetic
C	Cultural

In addition to these 11 values, Sections 70 (f) and 107(f) require the Regional Council to be satisfied that permitted activity and consented discharge permits do not cause:
"the rendering of freshwater unsuitable for consumption by farm animals".

2.1.2 Waterbody values in the National Water Conservation Orders

There are two **National Conservation Orders** that apply in the Region, covering the Upper and Middle Rangitikei and Manganui o te Ao Rivers. The specific values these orders seek to protect are: Aesthetic (scenic), Trout Fishery, and Wildlife (blue duck) Habitat.

The Hautapu, Mangatainoka and Makuri Rivers are covered by **Local Conservation Notices**. These notices were replaced by policies in the current RPS, as detailed in Section 2.2.1 of this report.

2.2 Current Regional Water Management Framework

Of Horizons Regional Council's current suite of seven planning documents, six contain provisions relating to the management of water and aquatic habitat:

- the Regional Policy Statement (1998) – (RPS);
- Oroua Catchment Water Allocation and River Flows Regional Plan (1997) – (OCWA);
- Manawatu Catchment Water Quality Regional Plan (1998) – (MCWQ);
- Regional Plan for Beds of Rivers and Lakes and Associated Activities (2001) – (BRL) ;
- Regional Coastal Plan (2002) – (RCP); and
- Land and Water Regional Plan (2003) – (LWRP).

Horizons has identified the need to streamline and improve its current water management policy which is spread across these planning documents. Due to piecemeal development through time, current policy does not present a cohesive or comprehensive management strategy, or provide the level of certainty for consent holders regarding the constraints on resource use that Horizons would like to deliver.

The new One Plan aims to rectify this situation, providing a comprehensive approach to water management aimed at retaining current policy that is working well and introducing new policy aimed at effectively reducing the non-point source (NPS) pollution contributions to the Region's waterways and providing a defensible water allocation framework.

2.2.1 Waterbody values in the current Regional Policy Statement (RPS)

The current RPS contains a number of objectives, policies and methods that recognise specific values associated with a number of the Region's streams, rivers and lakes. In particular, Chapter 7.1 briefly describes the Region's waterbodies and their most prominent values. Most relevant to this regional values exercise are the following RPS provisions:

RPS Objectives:

Objective 15: "*to preserve the natural character of lakes, rivers and wetlands and their margins and protect their ecological, cultural, intrinsic and amenity values from inappropriate subdivision, use and development*"

RPS Policies:

Policy 8.3: *"To protect, from inappropriate subdivision, use and development, the specified values associated with the following features which are both outstanding and regionally significant: […]"* Twenty seven natural sites and their values, including 17 rivers, lakes and wetlands are identified. A number of values are directly relevant to the management of waterbodies and their margins, including: **Recreational** and **Scenic** values, **Ecological** value/**Wildlife Habitat** (fish and birds), **Significance to Tangata Whenua** and **Trout Fisheries**.

Policies 11.1, 11.5 and 11.6 recognise that rivers and marine waters should be exempt from significant health risk for swimmers and shellfish gatherers:

- Policy 11.1: *"To promote water quality of all rivers in the Region to be at least suitable for **contact recreation** when below half their median flows", [by 2013]*
- Policy 11.5: *"To promote coastal water quality to be at least suitable for **contact recreation** on bathing beaches and estuaries in the Region within 15 years [by 2013]. The focus for this will be on reducing bacterial contamination in rivers, streams and coastal waters"*
- Policy 11.6: *"To promote coastal water quality suitable for **shellfish harvesting** in parts of the coastal marine area, where shellfish gathering is an established practice, within 15 years [by 2013]. The focus for this will be on reducing bacterial contamination in rivers, streams and coastal waters."*

RPS Methods:

RPS methods give effect to the above policies (eg. method 11.9), but also provide for the input of stakeholders and the general community into determining the values of the Region's waterbodies (methods 15.2, 15.4 and 20.2).

Method 11.9: *"Where appropriate, classify coastal waters in the Regional Coastal Plan and aim to provide within 15 years water quality suitable for:*

a. ***contact recreation*** *on bathing beaches and estuaries in the Region; and*

b. ***shellfish harvesting*** *in parts of the coastal marine area where shellfish gathering is an established practice.*
(See also: Sections 26.3.2, The Coastal Environment, Methods 20.1 and 20.2)

Method 15.2: *"Seek public input in identifying other water bodies meriting protection, and consider these individually according to above criteria."*

Method 15.4: *"Request the Department of Conservation, Fish and Game Councils, Iwi and other appropriate agencies and interested parties to help identify the attributes and values of lakes, rivers and wetlands that may merit protection."*

Method 20.2: "*Classify coastal waters in appropriate parts of the Region and aim to have coastal water quality suitable for* ***contact recreation*** *and* ***shellfish gathering*** *within 15 years."*

2.2.2 Waterbody values in the current Regional Plans

2.2.2.1 Manawatu Catchment Water Quality Regional Plan (MCWQ)

The MCWQ uses water classes derived from the Act and defines water quality standards for each class. The classes and associated standards are additive (ie. a water can belong to several classes, in which case the standards of all classes apply).

An initial **General Class** applies to all natural and artificial surface watercourses.

The **Contact Recreation Class** applies to all natural surface waterways (rivers and streams) except a few heavily modified streams and drains.

A **Fishery** (F) class applies to parts of the Manawatu, Mangatainoka and Makuri Rivers. This class recognises the regionally significant trout fishery values of these rivers.

The **Fish Spawning** (FS) class applies to a number of clearly defined (ie. use of map references) stream sections. This class relates to trout spawning areas only (ie. not to native fish spawning).

The **Natural State** (NS) class applies to all streams or rivers within the Tararua and Ruahine Forest Park, with the exception of rivers dammed for electricity production (eg. Mangahao River).

Annex 6 of the MCWQ defines in detail the catchments, rivers (or sections thereof) covered by each class.

2.2.2.2 Land and Water Regional Plan (LWRP)

Appendix 6 of the current LWRP defines a list of waterbodies with important habitats and species and lakes of outstanding to moderately high SSBI[1] ranking. The values identified in the plan that are relevant to water quality and aquatic habitat management are:

- **Whitebait Fishery/Inanga Spawning**;
- **Trout**; and
- **Fish Spawning**.

2.2.2.3 Regional Plan for Beds of Rivers and Lakes and Associated Activities (BRL)

The BRL generally recognises Ecological, Amenity and Cultural values in all rivers and lakes. The Plan also identifies that gravel extraction and structures in the beds of rivers can compromise river channel and banks stability, thus affecting the integrity of existing infrastructure and flood protection structures.

The BRL also specifically identifies river reaches with Important Trout Habitat (BRL Appendix 4), Inanga Spawning sites (BRL Appendix 5), significant lakes and wetlands (BRL Appendix 6), and the location of important native birds within the Region (BRL Appendix 7).

2.3 Current Regional Water Management Framework

2.3.1 Overall Approach – A New Water Management Regime

2.3.2 Our Broad Community Aspirations and Strategic Directions

The Manawatu-Wanganui regional community has identified, via the Community Outcome process (Horizons Community Plan 2006), a series of broad aspirations for:

Water Quality:

- Environmental – river health and aquatic ecosystems are sustained;
- Economic – clean and healthy water for the Region's cities, farms and agricultural business.; and
- Social/Cultural – maintenance of, and access to, clean healthy water for recreation and to build a sense of pride in the Region's rivers.

Water Quantity:

- Environmental – river systems are sustained;
- Economic – maintain enough water to meet the needs of agriculture, business and industry; and
- Social/Cultural – access to sufficient water for drinking and for recreational and cultural activities.

Flood Protection:

- Environmental – the Region's native habitat is not compromised by flood protection works;
- Economic – business, industry and agricultural production continue during flood events; and flood protection is affordable; and

[1] Special Sites of Biological Importance

- Social/Cultural - people feel safe from the threats of floods.

Habitat protection:

- Environmental – native plants, animals and ecosystems and processes are maintained and protected;
- Economic – agriculture and forestry can co-exist with native habitat in the Region; and
- Social/Cultural - a sense of living natural heritage is maintained for the Region.

Coastal Environment:

- Environmental – coastal landscape, habitat and waters are protected and enhanced;
- Economic – coastal recreation and development opportunities are maintained; and
- Social/Cultural - people and communities can access and enjoy coastal recreation activities within a natural coastal environment.

Groundwater:

- Environmental – maintain clean and sufficient groundwater for the Region;
- Economic – reliable groundwater for agriculture, horticulture and industry; and
- Social/Cultural – access to clean and healthy drinking water.

Land Management:

- Environmental – sustainable management of the Region's land and soil resources;
- Economic – economic sustainability for the Region's agricultural and horticultural industries; and
- Social/ Cultural - enable the Region's rural communities to survive and flourish.

Horizon's Community Plan is a statutory document under the Local Government Act, setting the Council's directions (outcomes) for the next 10 years. **The values framework presented in this document aims at giving effect to these broad aspirations by translating them into specific values at specific locations within the Region**. These values will in turn constitute the basis (goals) for the new water and aquatic habitat management regime to be developed.

2.3.3 Proposed Process

To address the gaps and deficiencies identified in the current planning tools, the step-wise process shown in Figure 3 is being used to develop a robust water management regime.

It is important to note that in developing the new water management framework, a number of steps in the process were completed at a regional scale (eg. definition of the management zones, values and standards), with the final management plan step to be conducted at the catchment scale.

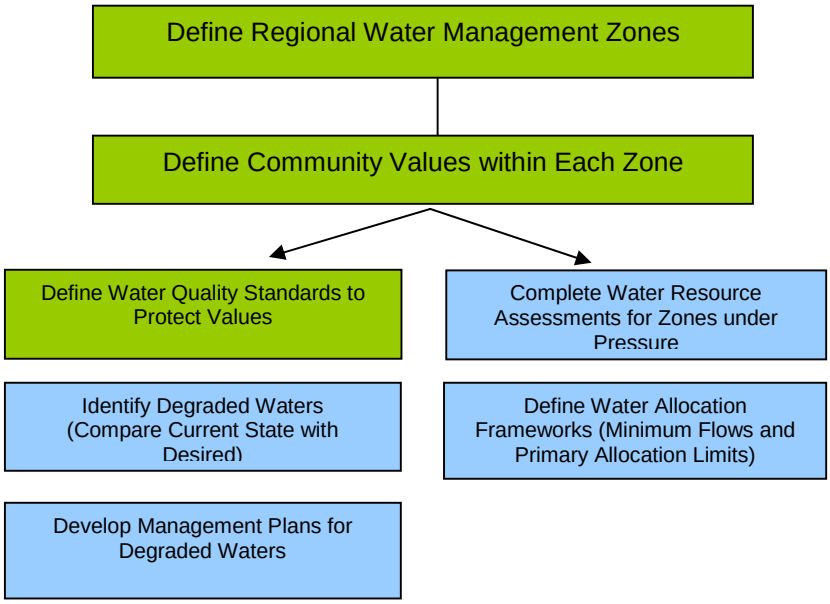


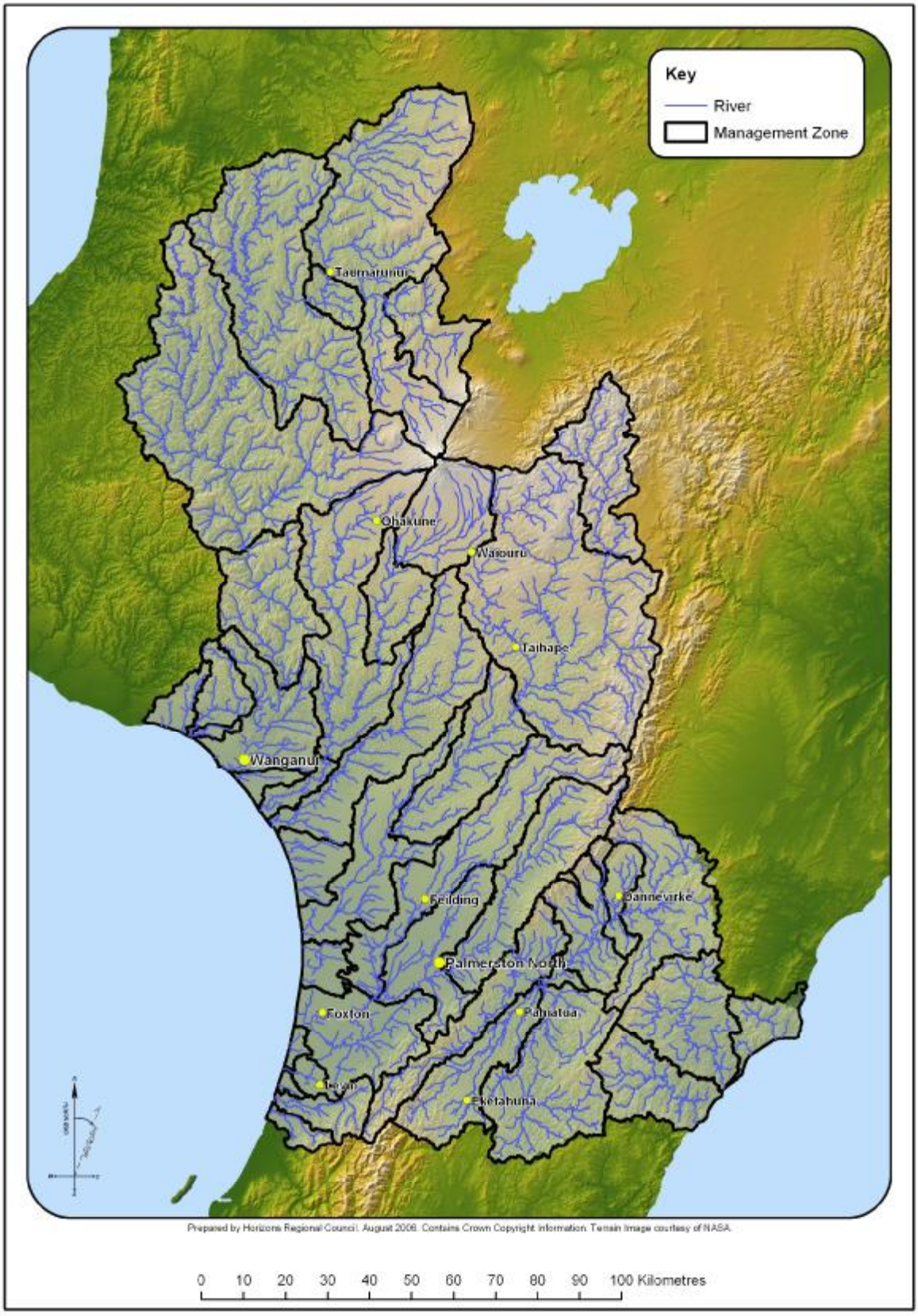
Figure 3: Flowchart of the process used to define a new water management regime for the Manawatu-Wanganui Region. *Note: Green denotes projects undertaken at the regional scale and blue those undertaken at the catchment/zone scale.*

2.3.3.1 Step 1: Definition of Water Management Zones

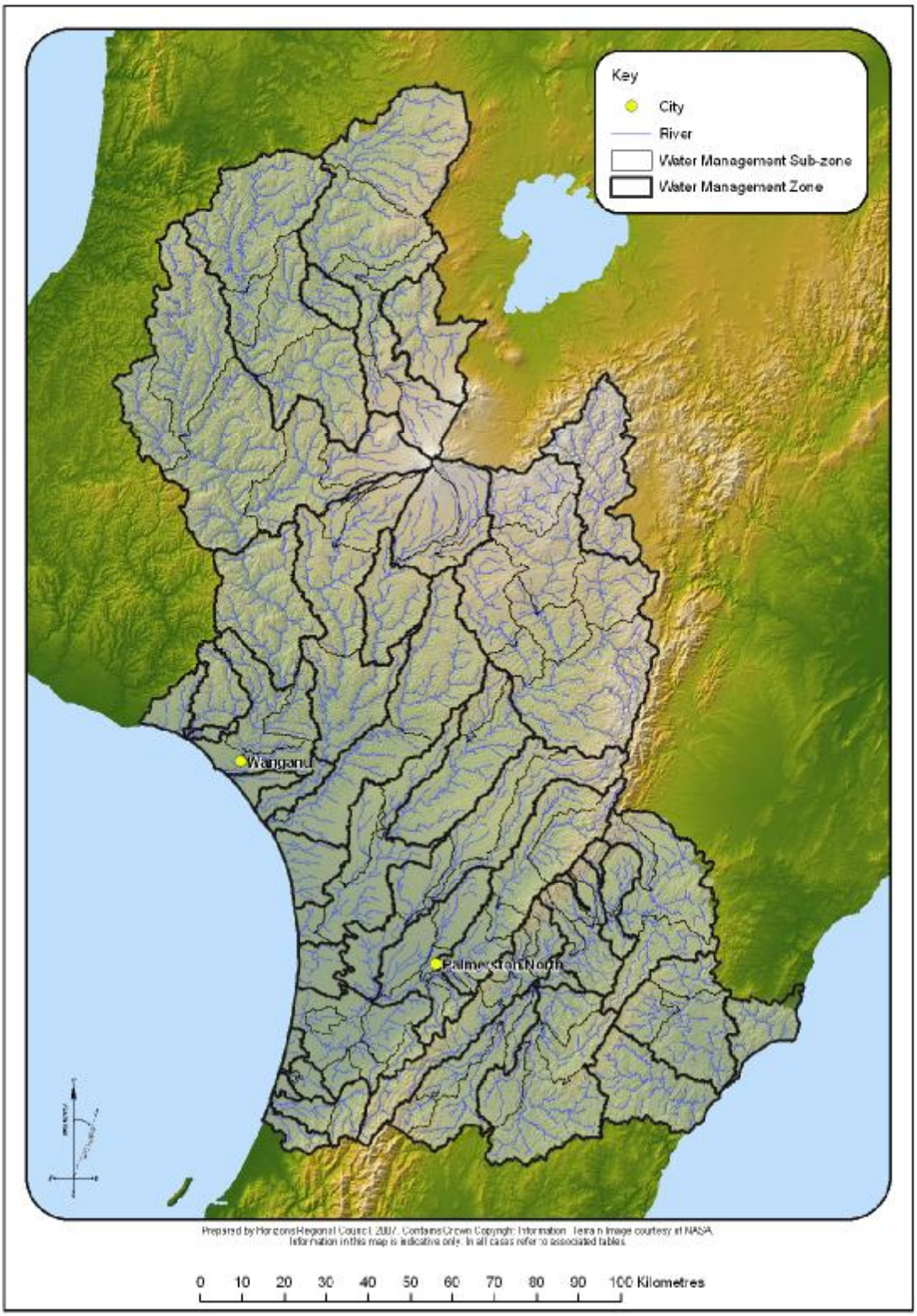
Water management zones (WMZs) are the fundamental geographic units in the integrated water management regime being developed by Horizons. The spatial framework provided by the WMZs will allow Horizons to implement integrated surface water quantity and quality and catchment management policies at the catchment or sub-catchment scale. The possibility of bringing the management of the groundwater resource into this framework is also being explored.

Horizons' desire to make use of this type of spatial framework recognises that different rivers and lakes have different environmental values and resource uses, and have different capacities to yield flow and assimilate contaminants – all of which are controlled by the catchment's physical characteristics and location.

The definition of Water Management Zones is the subject of a separate technical report (McArthur *et al.* 2007a). The outline of the Region's Water Management zones and sub-zones is presented in Map 1 and Map 2.



Map 1: Water Management Zones



Map 2: Water Management Sub-zones

2.3.3.2 Step 2: Definition of Community Values and Management Objectives for each Water Management Zone

Environmental values aim to reflect the community's aspirations for the waterways in our Region. They define what Horizons must look to protect when managing water allocation, water quality and activities on land and in the beds of rivers and lakes. Determination of these values must accurately reflect, via consultation, stakeholder and community aspirations. It is noted that this approach (ie. setting values and seeking public input) is very consistent with the provisions of the current RPS (refer to Section 2.2.1 of this report).

The identification of the Values is the subject of this technical report. It contains two steps, as set out in chapters 3 and 4 of this document:

- § define a set of values potentially associated with a waterbody; and
- § define where each value should apply (ie. what value(s) is associated to each waterbody).

2.3.3.3 Step 3: Translation of Community Values into Policy and Standards

It is anticipated the One Plan will use the community values defined in this report as overarching management goal for the Region's rivers and catchments. Once defined, the values should be translated into policies that seek to protect each value to a satisfactory level. To cover the different aspects of water, river and aquatic biodiversity, policies should be included in the relevant One Plan chapter, including:

- § the Water chapter to cover both water quality and water allocation;
- § the activities in Beds of Rivers and Lakes (BRL) chapter;
- § the Living Heritage chapter, in relation to both biodiversity and landscape protection;
- § the Land chapter for catchment management; and
- § the Coast chapter.

It is recommended the One Plan includes:

- § **standards** that define the environmental bottom line beyond which values will be lost or compromised. In other words, the standards will define the bounds within which an activity can occur without compromising the values. They will represent the **regulatory** translation of the values into policies; and
- § **non regulatory methods**, including riparian management in priority catchment, incentives for restoration work, education, support of community initiatives. Like any other environmental management agency, Horizons Regional Council has limited resources, and needs to prioritise its activities. It is recommended that the waterbody values will be a key component of the prioritisation process through which Horizons future environmental managements programmes will run.

The current policy framework contains a number of values or management objectives. However there are not always very clear links between the values and the policies or rules. Further, the information that supports the policies is

not always clearly identified. This report is part of a process that will allow a clearer link between the values and the policies, and a clearer identification and recording of the technical information and the consultation process having led to the decisions made in the One Plan.

2.4 Scope of this report

This "Values Project" seeks to collate and develop a robust and accepted suite of community values that define, for each of the rivers in our Region, what they will be managed for.

This report presents the authors' recommendations for the inclusion of the values framework into the One Plan. These recommendations particularly include a detailed definition of each value and where it should apply. It also presents the information and process used to reach these recommendations.

Although a number of stakeholders and members of the public have already provided input and feedback into the values presented in this report, it is acknowledged that the consultation process to this point may be incomplete, and the values framework identified in this report is a recommended **initial position** for the development of the One Plan. It is envisaged that with the notification of the One Plan in May 2007, refinement of the values set and where they apply will occur in partnership with stakeholders and community groups, and the final waterbody values that will be defined in the One Plan may differ sensibly from those presented in this report.

This report does not define the detail of the new policy and rules that will be ultimately required in the One Plan, as this will be completed by the policy drafting team. This report only documents part of the overall approach (refer Section 2.3.3), and readers are encouraged to also read the other technical reports that precede and follow this one in the series of technical reports to support the One Plan development.

2.4.1 Process

In the development of the current suite of planning documents (particularly the MCWQ) extensive consultation has been undertaken to define the purposes for which waterbodies are to be managed. Experience gained from the resource consent process and, where applicable, direct consultation with organisations that have a statutory responsibility in the management of that specific resource/value, have highlighted some gaps in the recognition of these values. All of this was combined to define the values set in this document.

The use of a WMZ spatial framework recognises that different rivers and lakes in the Region have different environmental values and resource uses, and have different capacities to assimilate contaminants, all of which depend largely on physical characteristics and location. An initial list of values/uses and their proposed geographical extent was defined from the available information and this was used to define the community values (or management objectives) within each WMZ (Table 8).

Where a community value was directly related to the responsibilities of some of Horizons' main stakeholders (eg. Trout Fishery (TF) with Fish and Game,

whitebait fisheries with DoC), their input was sought, and is reported in the appropriate subsection.

2.4.2 Principles

The approach taken in this Values Project reflects the wider principles Horizons seeks to apply when developing sustainable management regimes for the Region's water resources. This broad approach aims to be:

- objective – ie. equitable to both the environment and resource users;
- precautionary – in recognition of the limitations in the current level of knowledge about our water resources;
- accessible – in terms of the key outcomes sought by the communities of interest;
- scientifically based and subject to external peer review;
- legally defendable; and
- consistent in its application across catchments and user groups.

2.4.3 Quality Assurance (QA) process

The different tables (Appendices 1 and 2) and maps presented in this report that represent the recommendations for the One Plan, contain literally thousands of names and map references. To ensure correctness, accuracy and consistency, a quality assurance process was developed and implemented. Each step in the process was undertaken by a different person.

- Step 1: the original table and shapefile were created. The shapefile is the geospatial database that contains the base information for the map.
- Step 2: the table was checked for spelling and consistency between the water management zones, river names and map references.
- Step 3: the shapefile was checked for spelling and consistency between the water management zones, river names and map references.
- Source use.
- Step 4: the table and shapefile were cross-checked to ensure consistency between the two (ie. that the sites identified in the table corresponded to the sites in the shapefile/map and vice-versa).

3. Proposed list of waterbody values

The definition of the values framework followed two steps: define an initial set of values potentially associated with waterbodies, then define which waterbodies each value applies to. This chapter documents the first step of the process.

3.1 Recommended list of regional waterbody values

This Values Project seeks to give effect to Section 69 of the RMA, by defining a number of management purposes (referred to throughout this report as "Community Values") and determining where they should apply in the Region. The 11 management purposes defined in the Third Schedule of the Act (Table 1) were used as a basis for specific value definition.

However there were a number of values associated with the Region's waterways and current or likely future water use, that were either not catered for, or needed modification. In particular, the addition of a number of ecological, cultural and recreational values, as well as a number of values relating to water use and social and economic use of the waterbodies and their margins, is recommended.

It is noted that Section 69(2) of the RMA allows Regional Councils to define new classes of water when the classes defined in Schedule 3 are not adequate or appropriate. The recommended additions and modifications are therefore well within the bounds defined by the RMA. Table 2 below summarises the modifications brought to the RMA Schedule 3 water classes and the recommended additions.

For clarity, the proposed set of Values was grouped under a series of broad overarching values that encapsulate the main reasons twhy waterbodies are valued within our communities, i.e for:

- Freshwater and Coastal Ecosystems;
- Recreational and Cultural Values;
- Consumptive uses of Water; and
- Social/Economic Use.

Each individual value is identified for the purpose of developing policies around one or several of the following areas of resource management:

- water quality;
- water allocation;
- activities in the beds of rivers and lakes;
- land;
- biodiversity; and
- coastal area.

Table 3 summarises how the four overarching values group individual values, and offers an indication of which sections of the One Plan will contain policies giving effect to these values.

The next section of this report (Chapter 3) looks in detail into each individual value, proposes a definition and defines where it is recommended the value should apply.

Table 2: RMA Schedule 3 values ("Management purposes"), and modifications and additions recommended to the list of waterbody values for the One Plan.

Value		Recommendation
RMA Schedule 3 Management purposes		
AE	Aquatic Ecosystem	Split into: - Sites of Significance – Aquatic - Sites of Significance – Riparian - Life-Supporting Capacity - Native Fish spawning
F	Fishery	Split into Native Fishery and Trout Fishery
FS	Fish Spawning	Split into Native Fish Spawning and Trout Spawning
SG	Shellfish Gathering	Keep
CR	Contact Recreation	Keep
WS	Water Supply	Keep
I	Irrigation	Keep
IA	Industrial Abstraction	Keep
NS	Natural State	Keep
A	Aesthetic	Keep
C	Cultural	Translate into: - Life-Supporting Capacity - Mauri - Native Fisheries - Native Fish spawning - Sites of significance- Aquatic - Sites of significance- Riparian - Sites of significance- Cultural
Recommended additions		
LSC	Life-Supporting Capacity	Add to the list of values
NFS	Native Fish Spawning	
TS	Trout Spawning	
NF	Native Fishery	
TF	Trout Fishery	
SW	Stock Water	
SOS-A	Sites of significance - Aquatic	
SOS-R	Sites of significance - Riparian	
SOS-C	Sites of significance - Cultural	
M	Mauri	
Am	Amenity	
CAP	Capacity to Assimilate Pollution	
EI	Existing Infrastructure	
D	Drainage	
FC	Flood and Erosion Control	
GE	Gravel Extraction	

Table 3: Community waterbody values as proposed for the Manawatu-Wanganui Region and links to One Plan policies that will give effect to the values.

Overarching Value Groupings	Individual values		Translated into policies in One Plan Chapters				
			Water Quality	Water Allocation	BRL	Living Heritage	Coastal
Ecosystem Values	NS	Natural State	ü	ü	ü	ü	
	LSC	Life-Supporting Capacity	ü	ü	ü		ü
	SOS-A	Sites of Significance-Aquatic	ü	ü	ü	ü	ü
	SOS-R	Sites of Significance-Riparian			ü	ü	ü
	NFS	Native Fish Spawning	ü	ü	ü	ü	ü
Recreational and Cultural Values	CR	Contact Recreation	ü	ü	ü		ü
	Am	Amenity			ü		
	NF	Native Fishery	ü	ü	ü	ü	ü
	Mau	Mauri	ü	ü	ü	ü	ü
	SG	Shellfish Gathering	ü				ü
	SOS-C	Sites of Significance-Cultural	ü	ü	ü	ü	ü
	TF	Trout Fishery	ü	ü	ü		
	TS	Trout Spawning	ü	ü	ü		
	AT	Aesthetics	ü	ü	ü	ü	ü
Consumptive Use Values	WS	Water Supply	ü	ü	ü		
	IA	Industrial Abstraction	ü	ü	ü		
	I	Irrigation	ü	ü	ü		
	S	Stockwater	ü	ü	ü		
Social/Economic Values	CAP	Capacity to Assimilate Pollution	ü	ü			ü
	FC	Flood Control			ü		
	EI	Existing Infrastructure			ü		
	D	Drainage			ü		
	GE	Gravel Extraction			ü		

4. Recommended Community Values Associated with Waterbodies in the Manawatu-Wanganui Region

4.1 Introduction

This chapter outlines, under each value heading:

- a definition for each community value. The definition is worded as a management goal or vision for the waterbody associated with the value. All the values and their definitions are summarised in Table 8;
- the reasons for its selection; and
- criteria, maps and schedules detailing the proposed extent of each value. Maps are presented in the main report body. Appendix 1 summarises the values applying inside each water management zone and sub-zone in the Region, and **Appendix 2** contains the schedules attached to each value recommended for inclusion in the One Plan.

4.2 Value Group: Ecosystem Values

The "Ecosystem Values" group recognises the intrinsic value of freshwater and coastal ecosystems for the living communities and natural processes they sustain. It contains five individual values:

- Natural State (NS),
- Life-Supporting Capacity (LSC)
- Sites of Significance – Aquatic (SoS-A)
- Sites of Significance – Riparian (SoS-R)
- Native Fish Spawning

At first glance, some of these values may seem to overlap with each other. However, each value is distinct from the others, either by:

- recognising distinct components of the ecosystem (eg. SoS-Aquatic relates to aquatic species, while SoS-Riparian relates to river margin and estuary species); or
- applying to different areas (eg. LSC applies to all natural waterbodies while SoS applies to identified sites); or
- recognising a different level of protection required (eg. Natural State applies to pristine ecosystems, while LSC seeks to protect ecosystem "good health").

Some overlapping is inevitable, but it is anticipated that, as much as practicable, the policies and standards giving effect to the values will be merged into one set for each river reach, and then amalgamated for each management zone or sub-zone.

4.2.1 Natural State (NS) Value

4.2.1.1 Definition / Management Goal

"The waterbody is maintained in its natural state"

4.2.1.2 Reason for selection

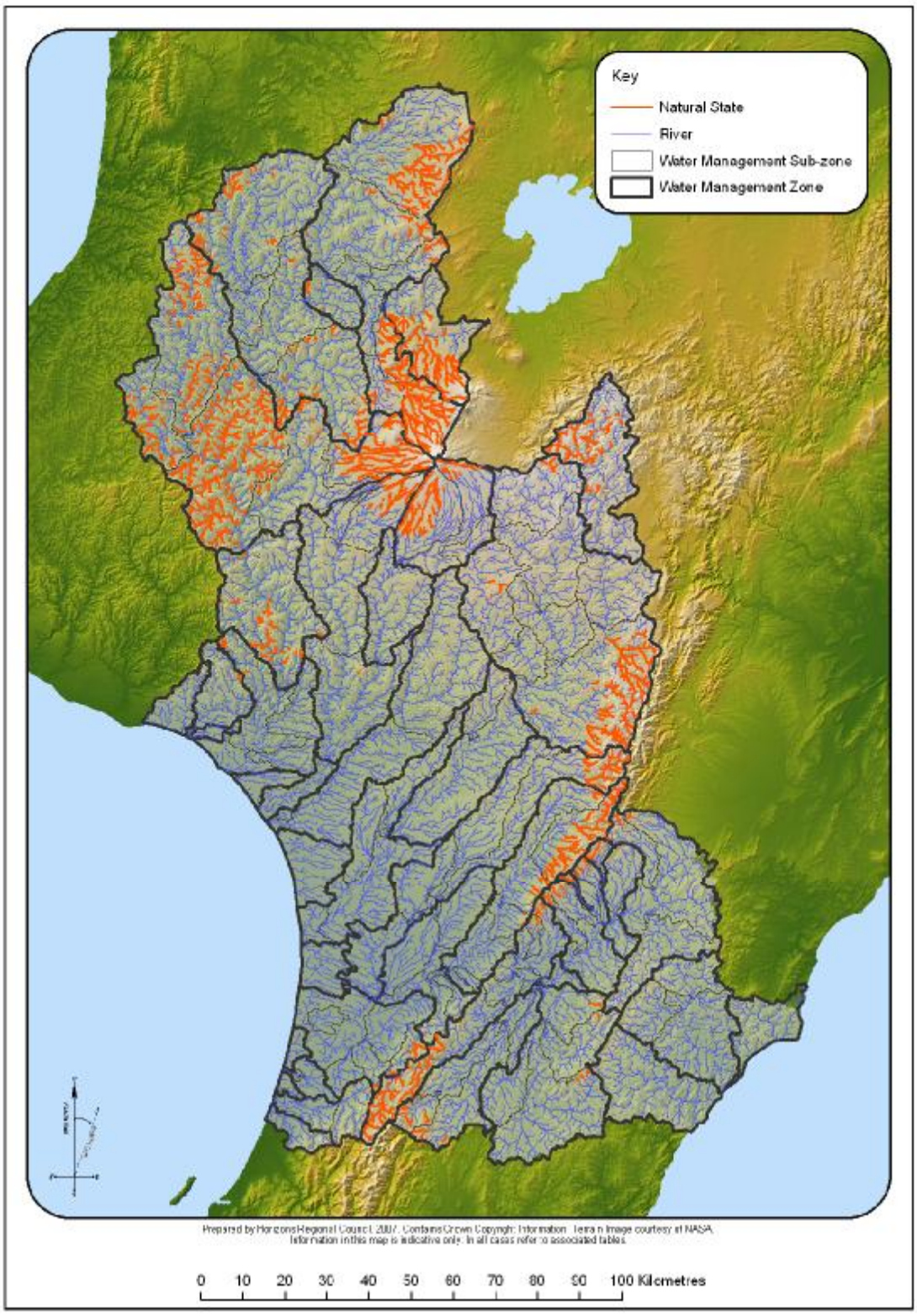
This value is directly applied from the RMA Schedule 3. It seeks to recognise and protect the waterbodies currently in, or close to, their natural state.

4.2.1.3 Proposed waterbodies for the recognition of the NS Value

All sections of rivers that have sources in, and flow in, the Public Conservation Land, with the exception of those where damming or diversion have significantly affected the natural state of the water (Table 4). Map 3 shows the river reaches where the recognition of the NS value is recommended.

Table 4: Waterbodies within public conservation land excluded from the Natural State value

Management Zone	Sub-zone	River/Stream Name	Description
Upper Gorge	Upper and Lower Mangahao	Mangahao River	From confluence with the Manawatu River at approx NZMS 260 T24:496-892 to the top of the Upper Dam at approx NZMS 260 S24:191-608
Coastal Manawatu	Upper and Lower Tokomaru	Tokomaru River	From confluence with the Manawatu River at approx NZMS 260 S24:132-727 to top of the Tokomaru No.3 Reservoir at approx NZMS 260 S25:203-654
	Mangaore	Mangaore Stream	From confluence with the Manawatu River at approx NZMS 260 S24:116-to Source



Map 3: Recommended waterbodies for recognition of the Natural State Value.

4.2.2 Life Supporting Capacity (LSC) Value

4.2.2.1 Definition Management Goal

The waterbodies support healthy aquatic life and ecosystems.

This value specifically recognises the requirements of native aquatic ecosystems, including, but not restricted to, fish and aquatic macroinvertebrates, in terms of:

- water quality;
- water quantity and flows; and
- habitat quality.

The underlying philosophy of this value is **recognising the need to safeguard the life-supporting capacity of the waterbodies to a satisfactory (ie. healthy) level**. **It is not intended to support or justify a return to a pristine or natural state**. It is recommended the policies and standards giving effect to this value in different sections of the One Plan reflect this philosophy, and define the benchmark against which aquatic ecosystem health will be assessed.

4.2.2.2 Reason for selection

Recognising the LSC value in the Region's waterbodies gives direct effect to the purpose of Section 5 of the RMA:

"to promote the sustainable management of natural and physical resources" while "safeguarding the life-supporting capacity of air, water, soil and ecosystems".

Extensive community consultation conducted in 2005 as part of Horizons' 2006-2016 Community Plan and One Plan development processes identified three key aspirations for each community outcome. The key environmental goals were identified as:

- for water quality: *"River health and aquatic ecosystems are sustained";*
- for water quantity "*River ecosystems are sustained*";
- for flood protection: "*The Region's native habitat is not compromised by flood protection works*";
- for habitat protection: "*Native plants, animals and ecosystems and processes are maintained and protected*"; and
- for coastal environment: "*Coastal landscape, habitats and waters are protected and enhanced*".

The recognition of the LSC value, and the policies it will be translated into in different chapters of the One Plan, directly contributes to meeting these environmental goals.

4.2.2.3 Proposed Waterbodies for the recognition of the Life-Supporting Capacity value in freshwater environments.

It is recommended the Life-Supporting Capacity value applies to every natural waterbody in the Region.

4.2.2.4 The different categories of LSC

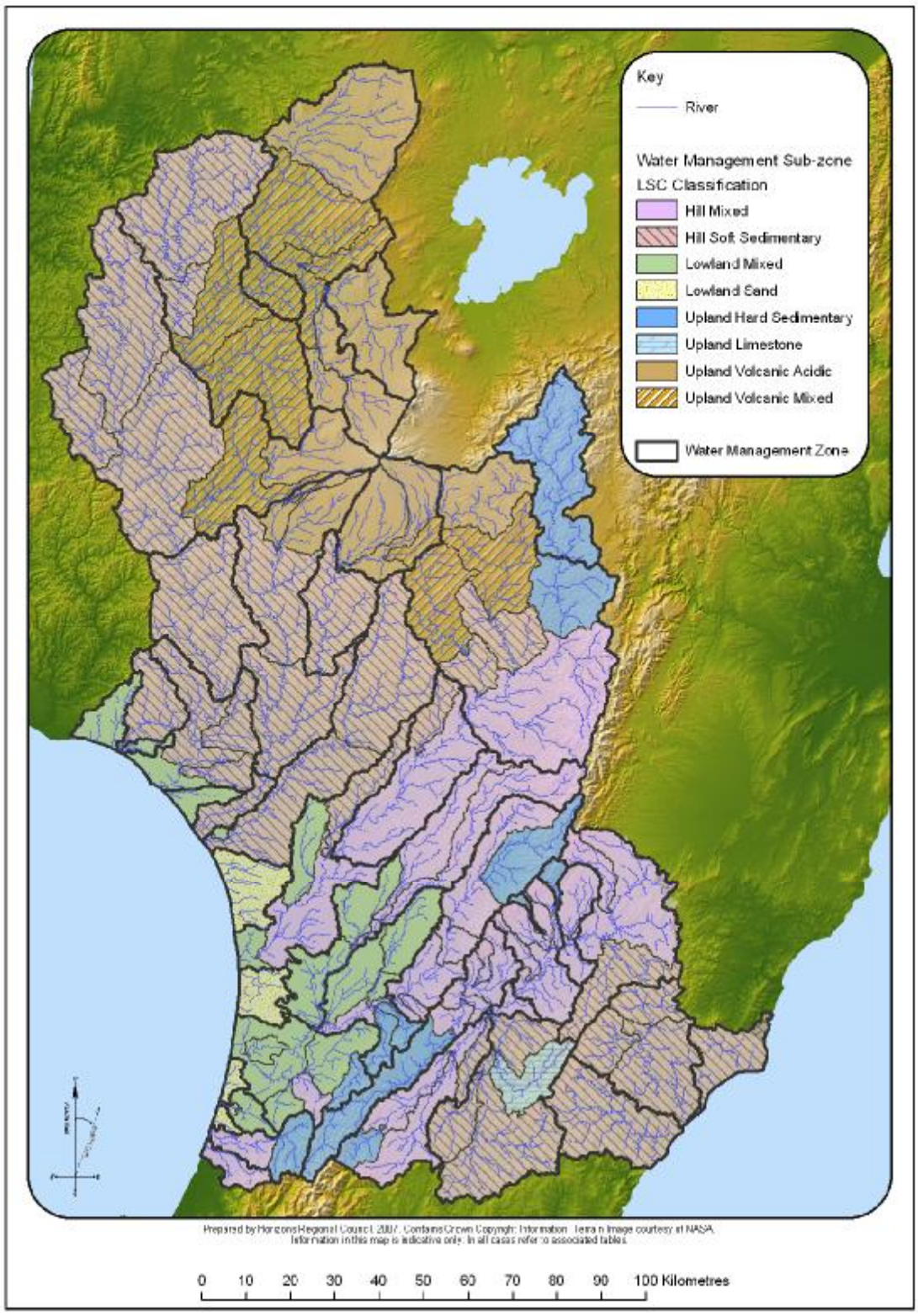
Aquatic ecosystems are highly variable across the Region: a stream flowing on Mt Ruapehu's slopes, and the aquatic communities it supports, are naturally very different from a stream flowing in the Manawatu lowland plains.

To account for this variability, a classification exercise, using a corrected and modified version of the Rivers Environment Classification (REC) as a base tool, has been undertaken. The process is detailed in Ausseil and Clark (2007a)[2] and has resulted in each management zone being classified in one of the following eight river ecosystem categories.

- **Upland - hard sedimentary (UHS):** most streams flowing down the Tararua, Ruahine and Kaimanawa Ranges;
- **Upland Limestone (ULi):** the Makuri catchment;
- **Upland - volcanic acidic (UVA):** most central plateau streams and rivers;
- **Upland Volcanic-Mixed (UVM):** rivers flowing on volcanic soils deposited over soft sedimentary rocks, eg. Ongarue, Hautapu and Retaruke Rivers;
- **Hill country - soft sedimentary (HSS):** hill country streams and rivers flowing on soft sedimentary (eg. mudstone) rock. A large proportion of the Region's hill country watercourses fall into this category;
- **Hill country mixed geology (HM):** Hill country streams and rivers with gravel/ cobble bed. Their catchment contains a mixture of different geologies, including alluvium, loess, soft- and hard-sedimentary. The Upper Manawatu is a typical example of this category;
- **Lowland - mixed geology (LM):** Lowland streams with catchments containing a mixture of geologies typical of the Region's lowlands, including alluvium, loess and sand; and
- **Lowland Sand (LS):** Sand country areas of the West Coast plains. These management zones also contain most coastal dune lakes.

In addition to these eight river ecosystem types, the coastal waters in the coastal marine area are classified as **Coastal Marine (CM),** and the lake waters are classified **Lake (L).**

[2] The river classification report is appended in **Error! Reference source not found.** of this report.



Map 4: Life-Supporting Capacity classification by water management sub-zone

4.2.3 Sites of Significance- Aquatic (SoS-A)

4.2.3.1 Definition / Management Goal

"Sites of significance for native aquatic biodiversity are maintained"

This value seeks to identify sites (defined as river reaches) of significance for the maintenance of aquatic biodiversity in the Region.

4.2.3.2 Reason for selection

The recognition of sites of significance for aquatic biodiversity is a direct translation of the RMA Third Schedule AE (Aquatic Ecosystems) management objective.

Aquatic biodiversity encompasses aquatic habitat and the species they support, but also riparian habitat.

It is anticipated the "aquatic" and "riparian" sites and the policies and methods developed to manage them will generally be distinct. For this reason two distinct values are recommended: Sites of Significance for aquatic biodiversity (SOS-A) and for riparian biodiversity (SOS-R).

4.2.3.3 Proposed waterbodies for the recognition of the SOS-A Value

A team of Massey University and Horizons scientists[3] were tasked with identifying the sites of significance for aquatic biodiversity. The information currently available on freshwater species, communities and habitat is sparse and does not allow identification of all significant sites in the Region with certainty. However there is relatively good information on a site and species specific basis. For this reason the **recommended approach is to develop criteria that will define whether a site is significant** or not.

Sites where sufficient information is available can be clearly identified. In the future, other sites can be tested against the criteria on a case per case basis when new information becomes available, eg. in the case of a resource consent application for a proposed activity, or as a result of Horizons monitoring programmes.

The following paragraphs summarise the approach taken for the development of the SOS-A criteria and the identification of a recommended list of SOS-A sites for inclusion in the One Plan. Further details and complementary work may be found in a separate report (McArthur *et al.*, 2007b).

a) Criteria for defining SOS-A sites

The significant aquatic biodiversity values of a stream or river reach can be associated with:

- the presence of one or more species that rare or threatened at a national or regional level; or

[3] Dr Russell Death, Massey University and Mrs Kate McArthur and Dr. Olivier Ausseil, Horizons Regional Council.

- § the presence of unusually rich living communities ('biodiversity hotspots); or
- § the presence of a rare or threatened habitat.

Rare and threatened species

Of the 18 native fish species found in the Horizons Region, eight are considered to be nationally or regionally rare or threatened (Table 5). For the purpose of defining Sites of Aquatic Significance, the whio, or blue duck should be treated as an aquatic species due to its habitat requirements and position in the food chain (the blue duck feeds mostly on aquatic macroinvertebrates). The whio is currently classified as 'Acutely threatened – Nationally endangered' by the Department of Conservation (Hitchmough *et al.*, 2007).

Table 5: Recommended list of regionally or nationally rare or threatened species for definition of the Sites of Significance – Aquatic. National Classification is from Hitchmough *et al.*,2007; Regional classification is justified in Appendix 3. * Records in New Zealand National Freshwater Fish Database – all Manawatu-Wanganui records since 1991

Species	Justification
blue duck / whio (*Hymenolaimus malachorhynchos*)	Nationally endangered and regionally threatened – approximate population 2500
giant kokopu (*Galaxias argenteus*)	Nationally chronically threatened and regionally threatened (1 record *)
dwarf Galaxias (*Galaxias divergens*)	Nationally chronically threatened and regionally threatened (26 records*)
brown mudfish (*Neochanna apoda*)	Nationally chronically threatened and regionally threatened (20 records*)
lamprey (*Geotria australis*)	Nationally at risk and regionally threatened (7 records*)
shortjawed kokopu (*Galaxias postvectis*)	Nationally at risk and regionally threatened (45 records*)
redfinned bully (*Gobiomorphus huttoni*)	Regionally rare (68 records*)
koaro (*Galaxias brevipinnis)*	Regionally rare (35 records*)
banded kokopu (*Galaxias fasciatus*)	Regionally rare (17 records*)

Biodiversity 'hotspots'

Predictive models, such as AUSRIVAS, in which site data is compared with regionally relevant reference conditions and reported using a standard index , can be used to assess a site species diversity in a broader national or regional context (ANZECC, 2000). The Massey University Ecology Department has developed two such predictive modelling tools to provide an assessment of the freshwater fish and invertebrate community richness at any given river or stream site in the Horizons Region (Joy and Death, 2002; Joy and Death 2003). Comparing the number of fish or invertebrate species actually found at a site with the species number predicted by the model provides an assessment of the community richness. An "observed/expected" (O/E) ratio greater than 1 indicates that more species than predicted were found, indicating a potential biodiversity hotspot (ANZECC, 2000; Wright 1995).

Rare or threatened freshwater habitats

Research into freshwater fish community patterns in New Zealand has found higher diversity and abundance in lowland waterways (<150m above sea level) (Jowett and Richardson, 1996). The lowland floodplains and coastal flat land in the Manawatu-Wanganui Region have been highly modified for agricultural production flood management and urban development, and have been found to have particularly poor fish communities (Phillips and Joy, 2002; Tonkin and Death, 2004).

Many rare and threatened fish species, which rely on access to the sea as part of their life cycle, are not able to find suitable habitat within heavily modified reaches. Thus lowland rivers and stream with unmodified instream habitat, instream cover, reasonable water quality and forested riparian margins can be considered rare and threatened habitat types regionally. Further work is required to identify remaining habitats for protection within the regional landscape and to prioritise restoration programmes on lowland aquatic habitats for biodiversity gains.

Table 6: Recommended criteria for the determination of the Sites of Significance – Aquatic

Criteria for sites of significance for aquatic biodiversity	
Contains any of the following species (currently used)	- Giant kokopu (*Galaxias argenteus*) - Banded kokopu (*Galaxias fasciatus*) - Brown mudfish (*Neochanna apoda*) - Shortjaw kokopu (*Galaxias postvectis*) - Dwarf galaxias (*Galaxias divergens*) - Lamprey (*Geotria australis*) - Blue Duck (*Hymenolaimus malachorhynchos)* - Redfin Bully (*Gobiomorphus huttoni*) - Koaro (*Galaxias brevipinnis*)
Has an O/E ratio equal or above (proposed for future study)	1.1
Has an aquatic habitat (proposed for future study)	Rare, threatened or at risk

b) Recommended list of SOS-A sites

Rare and threatened species

Records from the New Zealand National Freshwater Fish Database (NFFDB) were used to identify sites where one or more of the species listed in Table 6 were known to occur. The Database holds over 3,300 records of observations of fish in the Horizons Region, dating as far back as 1918. To reflect the current situation, only recent records should ideally be used. However, a large number of sites have not been monitored in the last 10 to 15 years. Unless dramatic changes in water quality or aquatic habitat have occurred since, there is no reason why a species present at a site 15 years ago or less should have disappeared. Thus, it was considered that using records 15 years of age or less would provide an adequate balance between the need to use only recent records and the fact that very recent records are relatively scarce in the

Region. Accordingly, records post 1991 (892 records) were used to determine the list of sites of significance.

It is noted that older records could still be relevant but will require validation. This has been identified as a research need, and Horizons "Aquatic Biodiversity" programme will investigate 10 sites per year for the next 10 years.

Each record in the NFFDB is recorded as a geographical point. In order to provide a buffer zone of suitable habitat around each site of significance, it is recommended the SOS-A value includes a 20 m riparian margin from both bank edges and is extended to whichever is the shortest of:

- 2 km upstream and downstream of the recorded site; or
- downstream to the nearest major confluence (ie. the SOS-A value in a small stream would only extend downstream to its confluence with a larger stream/river where the habitat characteristics may be very different); or
- to the source of the waterway if the reach ends at a 'Natural State' boundary; or
- small extensions to the 2 km buffer zone have also been made to link ecologically relevant habitats together to a reach of river classified as natural state or to the sea.

Brown mudfish predominantly lives in wetlands, which will be managed under a different regime than rivers and streams. The wetlands where brown mudfish is known to occur are individually identified in this report (Map 5). Recommendations relating to their management/protection may be found in (Maseyk, 2007).

Biodiversity 'hotspots'

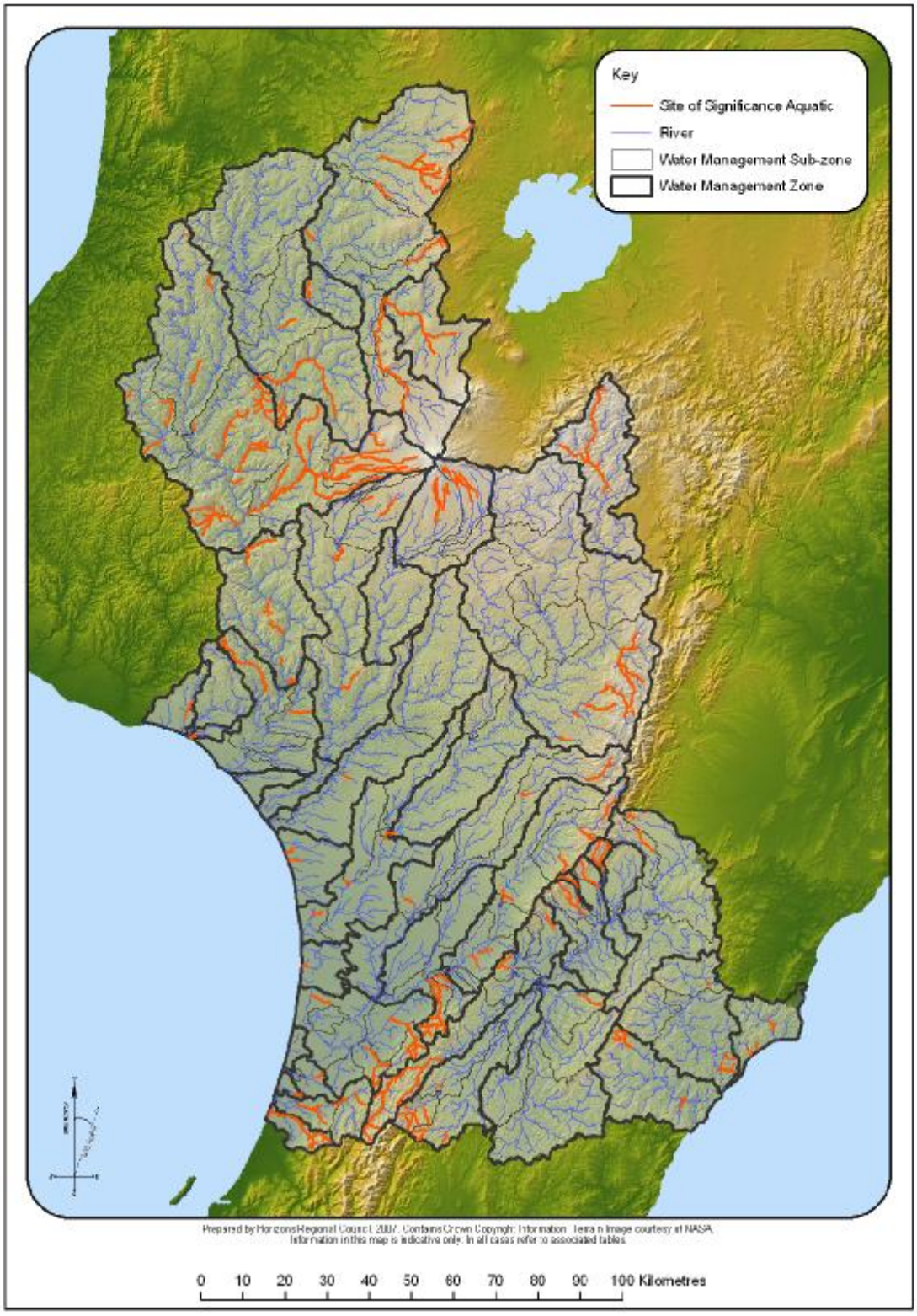
The predictive models developed by Massey University can indicate potential biodiversity hotspots, or at least highly diverse fish communities. However they do not currently provide enough certainty and are not currently available in a format allowing direct Council or public use. For this reason, the recommended list of SOS-A sites does not include the biodiversity hotspots predicted by Massey University O/E models.

Further development and validation of these models has been identified as a research need, and funding has recently been sought and obtained for the redevelopment of the Massey University macroinvertebrate predictive model to a more robust tool for direct use by council staff. One of the most effective future uses of the predictive model for fish communities will be linking suitable habitats between known sites of significance to enable better connectivity along river corridors for rare and threatened species. Further work is needed before the model is applied in this way.

Rare or threatened freshwater habitats

The level of information and research currently available does not allow development of a complete list of rare and threatened aquatic habitat. This has been identified as a research need and will be addressed by Horizons research and monitoring programme.

The recommended list of sites of significance for aquatic biodiversity is shown in Map 5 and detailed in Appendix 2, Table 2.



Map 5: Recommended sites for the recognition of the Sites of Significance for Aquatic biodiversity (SOS-A Value).

4.2.4 Sites of Significance - Riparian (SoS-R)

4.2.4.1 Definition / Management Goal

"The sites of significance for riparian native biodiversity are maintained"

This value seeks to identify and maintain sites (defined as river reaches and their margins) of special significance for the maintenance of native riparian biodiversity in the Region.

This value specifically relates to river riparian biodiversity. It does not cover wetlands' and lakes' margins of significance, as they are identified through the Rare/threatened/at Risk terrestrial habitats Values. It does cover estuarine wetlands by virtue of these being river-bed habitats.

4.2.4.2 Reason for selection

The reason for this value is explained in section 4.2.3.2 of this report.

4.2.4.3 Proposed waterbodies for the recognition of the SOS-R Value

The identification of the sites of significance for riparian biodiversity has been the subject of a separate technical report produced by Horizons' Science Team, and the reader should refer to Lambie (2007) for more details.

The present focus of riparian sites of significance is on aquatic birds that have critical riparian habitat requirements. The following criteria were applied to the selection of these bird species:

- the species is native or endemic and has specific or obligate habitat requirements that tend to be associated with riparian zones; and
- the species is not so abundant that it would lead to all riparian margins as being identified as significant; and
- the species is listed in one of the acutely or chronically threatened categories (per Hitchmough, 2002); or
- the species is easily recognised and by protecting habitats for this species, the habitat of less recognisable, vagrant, migratory, or rare species are protected; orthe species only breeds in the Horizons Region.

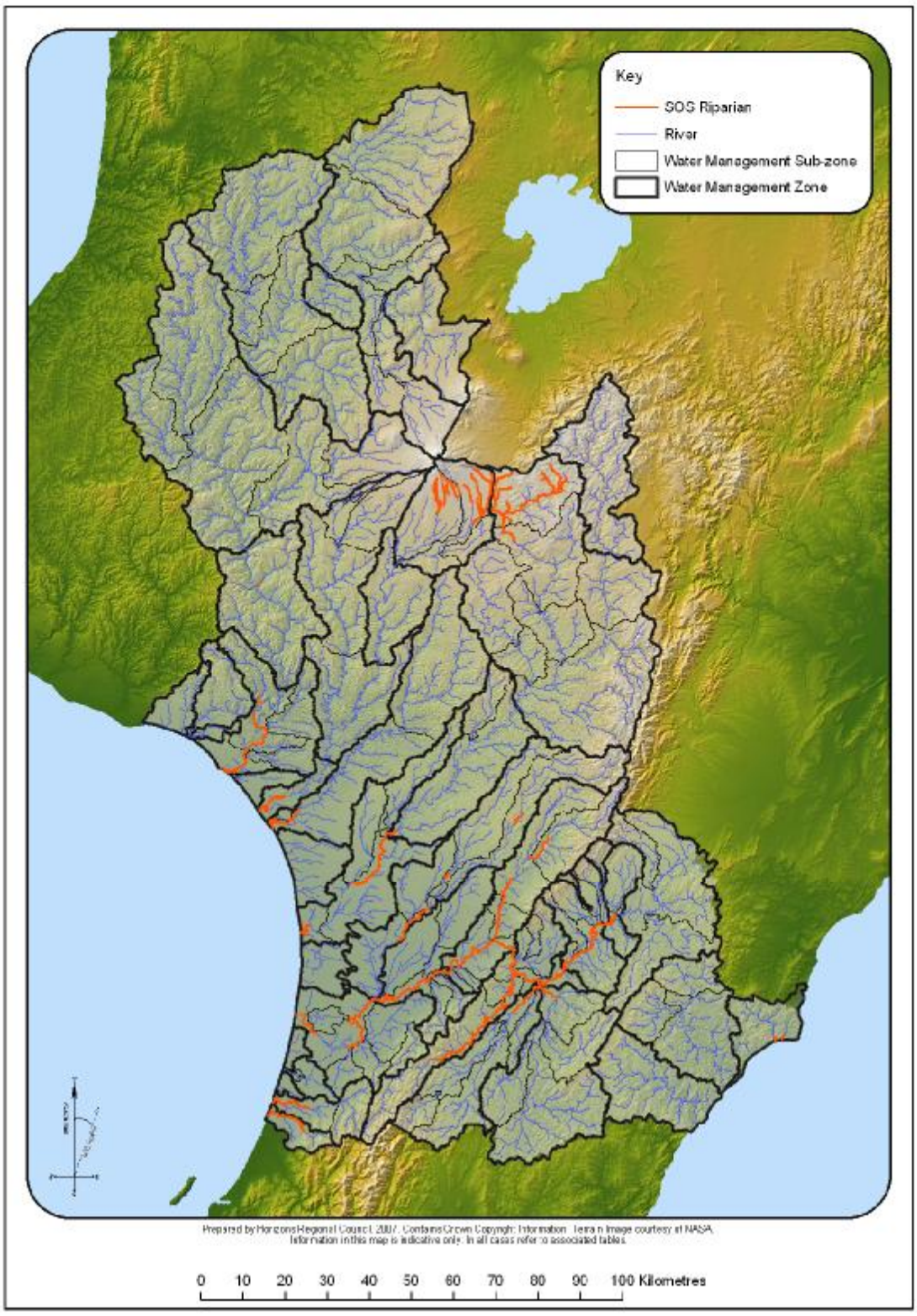
The indicator species having critical riparian habitat requirements and justification for inclusion are identified in Table 7.

The river sites/reaches proposed for the recognition of the SOS-R value are shown in Map 6 and detailed in Appendix 2/Table 3.

Table 7: Recommended list of indicator species for the identification of SOS-R sites

Species		Justification for inclusion[4]	Critical Habitat Requirements
Common name	Scientific name		
Wrybill, Ngutuparore	*Anarhynchus frontalis*	Nationally vulnerable - circa 5000 birds. Endemic. Easily recognised. Habitat requirements overlap other wader species.	Silty to sandy feeding areas in and around estuaries/river mouths. Roosting beaches.
Royal spoonbill, Kotuku-ngutupapa	*Platalea regia*	Charismatic. Small numbers on the increase – circa 610 birds in 1995. Easily recognised. Habitat requirements overlap most migratory and vagrant waders.	Tidal mudflats. Will roost in trees, although this is not obligatory.
Banded Dotterel, Tuturiwhatu	*Charadrius bicinctus*	Gradual decline – circa 50,000 birds mainly in the South Island. Only breed in NZ. Easily recognised and already grounded in Horizons policy.	Shingle areas on river margins and sandy areas near river mouths. Inland birds generally move to the coast for winter roost.
Black-fronted dotterel	*Charadrius melanops*	Nationally uncommon - circa 300 birds in the Manawatu. Easily recognised and already grounded in Horizons policy.	Shingle river beds and sandy areas near river mouths. Generally stay on the rivers all year round.
Nankeen night heron, Rufous night heron	*Nycticorax caledonicus*	The Whanganui River population (estimated between 15 to 30 birds) is believed to be the only self-introduced breeding population in New Zealand.	Nest in low-lying and dense woody vegetation cover within convenient flying distance of water. Roost in similar vegetation during the day and feed by the river after dusk.

[4] Threat status classification per Hitchmough 2002



Map 6: Proposed river sites/reaches for the recognition of the Sites of Significance for Riparian biodiversity (SOS-R) Value

4.2.5 Native Fish Spawning (NFS)

4.2.5.1 Definition / Management Goal

Waterbodies sustain healthy native fish spawning and fry development

This value specifically refers to native fish species that use spawning habitats distinct from their adult habitat. It aims to identify such spawning habitats and recognise their importance in supporting healthy native fish populations.

4.2.5.2 Reason for selection

This value is a direct application of the FS (Fish Spawning) class in the Third Schedule of the Act, specifically referring to native fish species.

Sustainable native fish populations and native fisheries require good juvenile recruitment. Many native fish species do not spawn in their adult habitat but undertake seasonal migration to reach their spawning grounds. This value specifically aims to protect the suitability of these habitats for native fish spawning.

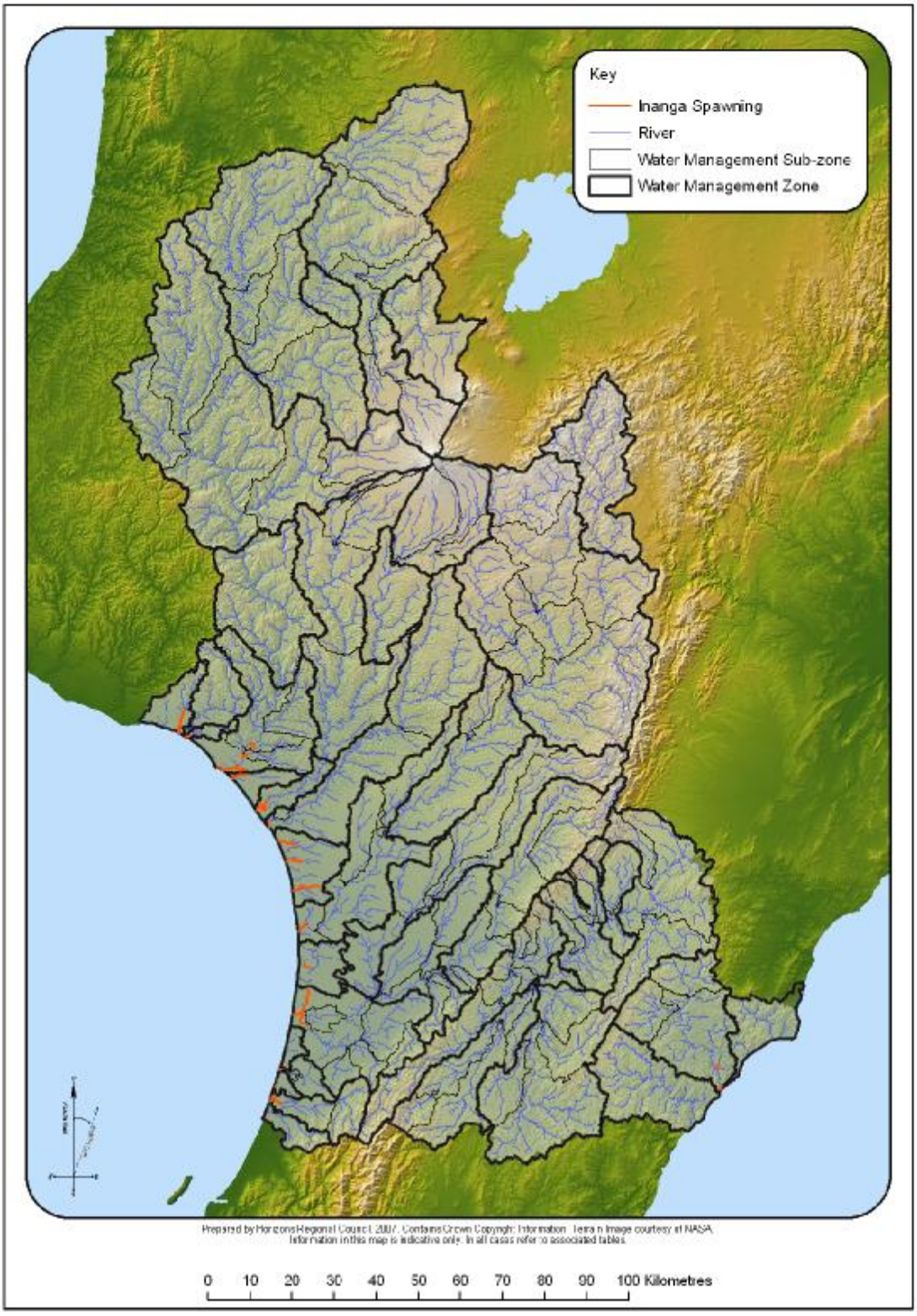
4.2.5.3 Proposed waterbodies for the recognition of the Native Fish Spawning value

A number of Inanga spawning sites are identified in the Land and Water Regional Plan, the Beds of Lakes and Rivers Regional Plan, and the Code of Practice for Drain Maintenance Works. This list was compiled, mapped and used as a base for consultation with the Department of Conservation and Massey University. Only a limited number of modifications from the original list were required after this consultation process (**Error! Reference source not found.**).

The recommended site list is reported in Appendix 2/Table 4 and represented in Map 7.

The location of other native fish spawning sites have not been identified, largely due to gaps in the knowledge of some fish species spawning habitat and the lack of environmental monitoring data.

It is recommended the definition of the value include other native fish species, and significant native fish spawning sites may be identified later through additional information brought in during the consultation process, future research, or on a case-by-case basis in response to consent applications.



Map 7: Recommended sites for the recognition of the NFS value (Inanga spawning)

4.3 Value Group: Recreational and Cultural Values

The "Cultural and Recreational Values" group recognizes the non-commercial values and uses of the waterbodies and their margins. Nine individual values have been identified in this group:

- Contact Recreation (CR),
- Amenity (Am)
- Native Fishery (NF)
- Mauri (M)
- Shellfish Gathering (SG)
- Sites of Significance – Cultural (SoS-C)
- Trout Fishery (TF)
- Trout Spawning (TS)
- Aesthetics (A)

4.3.1 Contact Recreation (CR) Value

4.3.1.1 Definition / Management Goal

"The waterbody is suitable for contact recreation"

The 2000 ANZECC guidelines define three categories of recreational activities, based on the frequency and intensity of body contact with the water:

- the activities in which the user comes into frequent direct contact with water, such as swimming and waterskiing (Primary Contact);
- the activities that generally have less-frequent body contact with the water, such as boating and fishing (Secondary Contact),; and
- activities occurring in close proximity to the waterbody but that do not involve direct contact with the water, such as walking (Visual Use).

4.3.1.2 Reason for selection

This value gives directly effect to the RMA Schedule 3 Contact Recreation Management Purpose. It is also widely recognised in the current regional policy framework, in both the Regional Policy Statement and Regional Plans.

Swimming, or the ability to swim in clean, safe water is also one of the waterbody values most commonly recognised by the general public.

4.3.1.3 Proposed waterbodies for the recognition of the Contact Recreation value

Horizons Regional Council's Regional Policy Statement (RPS) recognises the contact recreation value in all rivers and coastal waters of the Region, through:

- Policy 11.1: *"water quality of all the rivers in the Region to be at least suitable for contact recreation when below half their median flow, within 15 years [by 2013]".*

- Policy 11.5: "*[…] to promote coastal water quality to be at least suitable for contact recreation on bathing beaches and estuaries in the Region within 15 years [by 2013*]".

The level of waterbody use by recreational users and the nature of recreational activities (primary *vs.* secondary contact) depends largely on the season and river flow/clarity. These considerations will be reflected by flow- and season-dependent water quality standards (Ausseil and Clark 2007b).

While Horizons' current policies recognise the contact recreation water quality standards should be met in all rivers and lakes in the Region, some sites with easy public access support a particularly regular contact recreation use. These sites are identified in the following section (4.3.2) in relation to the Amenity Value.

It is also noted that RPS Policy 11.1 recognises that some rivers may be excluded from the CR classification following a cost benefit analysis and public consultation process. In the recommended new regime, waterbodies not meeting the standards relating to the Contact Recreation value will be identified in the List of Degraded Waters (Ausseil and Clark 2007b).The recommended approach is to develop and implement a Management Plan aimed at identifying regulatory and non-regulatory solutions to improve water quality. Where the cost of identified solutions is too high to be borne by the local community, alternative funding solutions including regional or national funding should be sought. We therefore recommend the suppression of the provisions of Policy 11.1 going forward.

In line with Horizons' existing policy approach and the above considerations, it is recommended that the CR value be recognised in all of the Region's natural waterbodies, including streams, rivers, lakes and coastal waters.

4.3.2 Amenity (A) Value

4.3.2.1 Definition / Management goal

"The amenity values of the waterbodies and their margins are maintained and improved"

This value refers to recreational use of streams, rivers and lakes and their margins for a number of activities such as walking, swimming, fishing, hunting, or passive use (eg. simply looking at the river from a bridge). The amenity value as defined here encompasses considerations relating to easy and safe public access to and along, and visual aspect of, the waterbody and its margins.

4.3.2.2 Reason for selection

The amenity value as defined in this report recognises the importance of recreational use of the rivers and their margins, by complementing a number of other individual values in the Recreational and Cultural values group.

Section 6(d) of the Act states that the maintenance and enhancement of public access to and along the coastal marine area is a matter of national

importance. Horizons RPS Objective 18 is "To maintain and enhance public access to and along rivers and lakes."

It is also noted that the provision of public access along the margins of lakes and rivers has recently attracted a lot of interest at a national level. A national Access Commission was set up in 2005 and may make national recommendations in the future.

4.3.2.3 Proposed waterbodies for the recognition of the Amenity Value

It is recommended the amenity value be recognised

- **along the whole CMA; and,**
- **along the margins of rivers and lakes where public access is currently legally available and an established practice.**

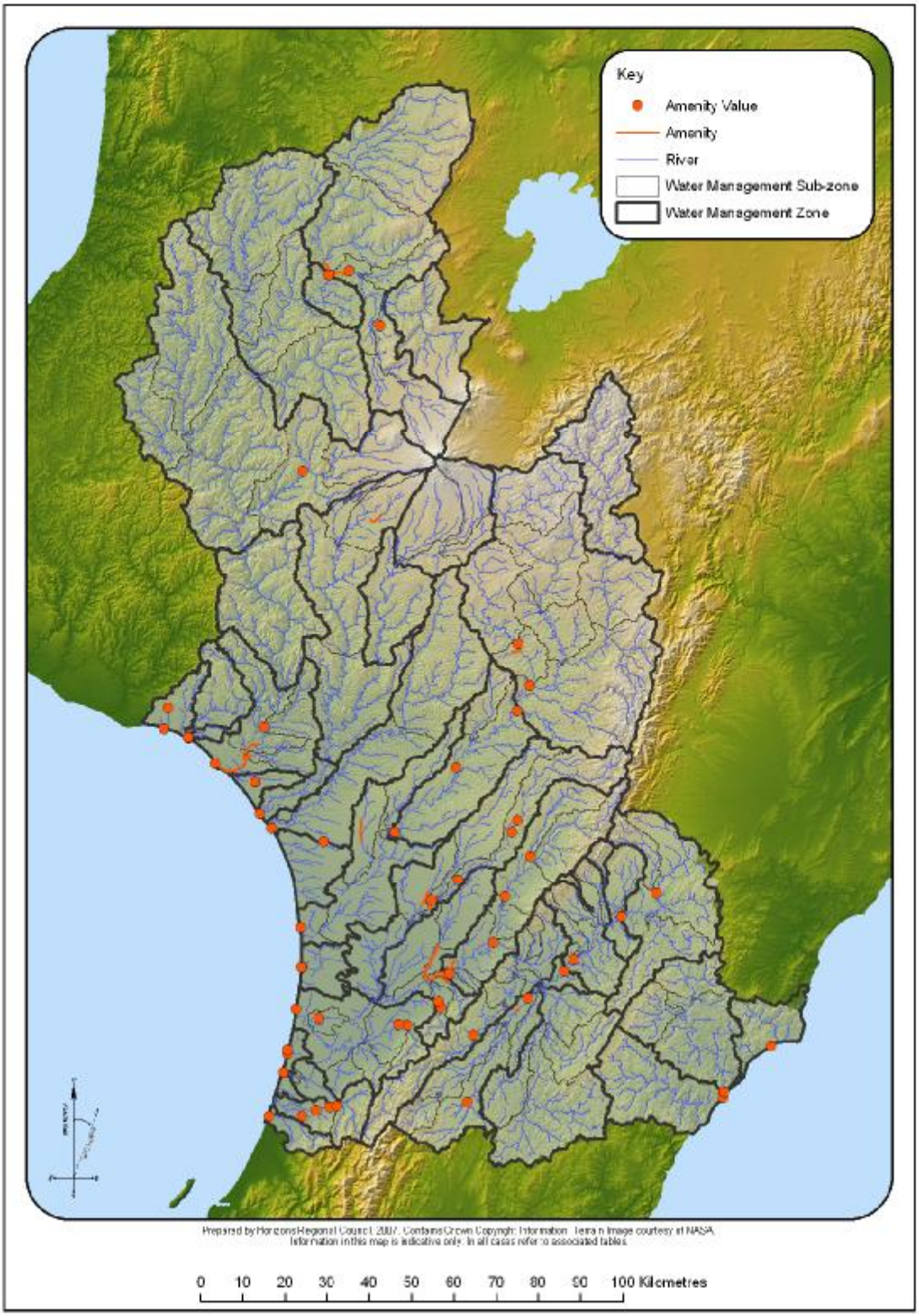
Although a comprehensive inventory of the river and lake reaches having legal public access has not been completed, a number of sites supporting regular public use have been identified.

A project aiming at identifying sites supporting frequent public contact recreation use was undertaken by Horizons in partnership with the relevant District and City Councils in 2004 prior to commencing Horizons' swimming site monitoring programme. Sixty sites and their level of public use were identified. River reaches within the main cities and towns also support intensive public access and use. These sites and reaches are identified in Map 8 and Appendix 2 / Table 5.

As per a number of other values, and due to the level of available information, an exhaustive list of sites relevant to this value cannot be prepared at the time of writing this report. It is recommended the amenity value is recognised at all sites identified in Map 8 and Appendix 2/Table 5.

With regard to potential additional sites:

- the consultation process following the notification of the One Plan may allow new information to be incorporated; and
- it is expected activities potentially affecting the amenity value are likely to require a resource consent. The level of public use and the effects of the activities on the amenity value should be able to be addressed through the Resource Consent process.



Map 8: Proposed sites for recognition of the Amenity (Am) value.

4.3.3 Native Fishery (NF) Value

4.3.3.1 Definition/Management Goal

Waterbodies sustain populations of native fish that can be harvested in a sustainable manner

For the purpose of this definition, “fish” includes true fin-fishes (eg. eel, inanga, kokopu), lamprey and koura.

Five significant native fisheries have been identified: the tuna (eel), inanga, koura, lamprey and whitebait fisheries.

4.3.3.2 Reason for selection

This value is a direct application of the RMA Schedule 3 Fishery (F) class, specifically referring to native fish species. It recognises the cultural and recreational importance of the native fisheries.

4.3.3.3 Proposed waterbodies for the recognition of the Native Fishery value

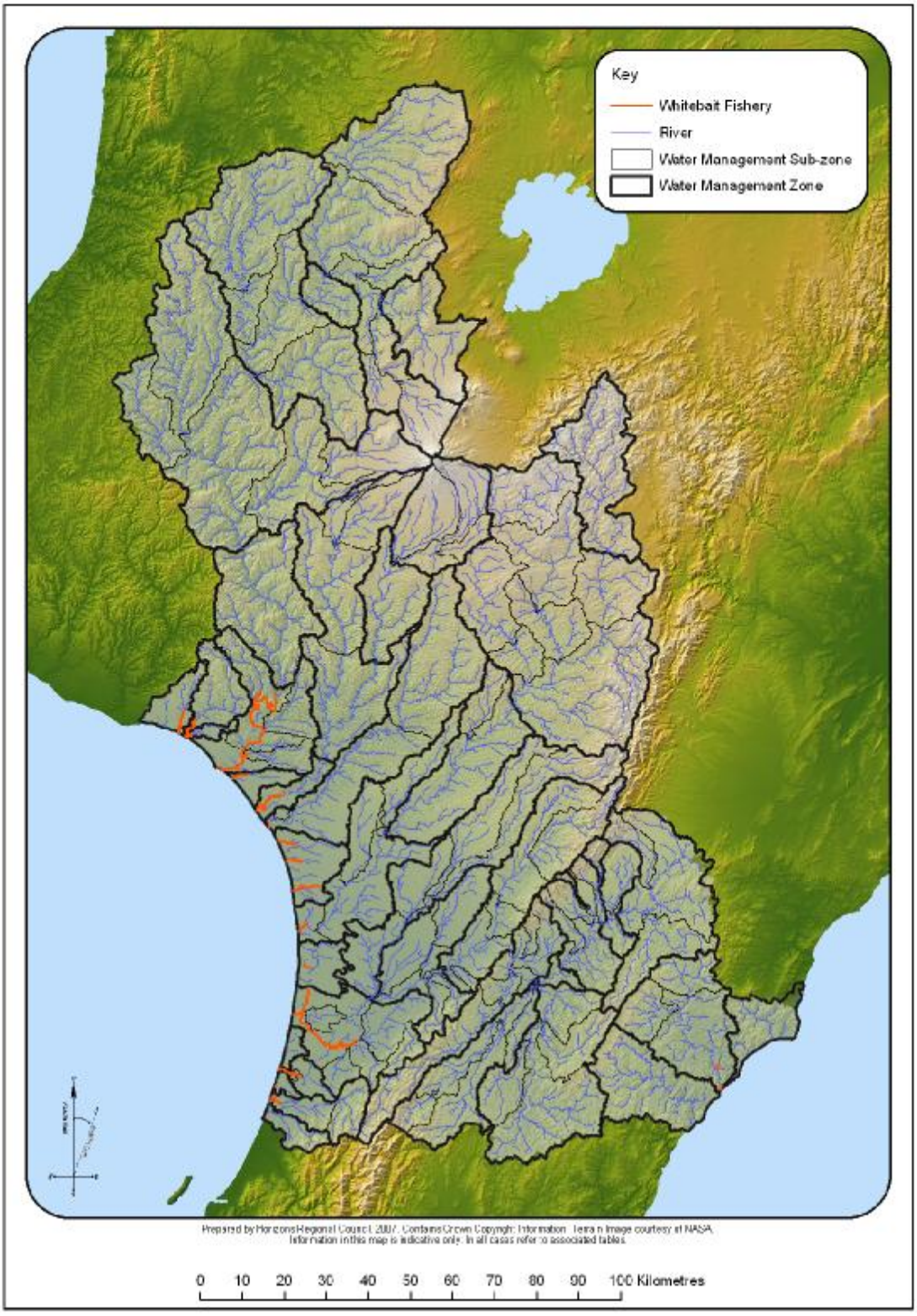
The current Regional Plans and the Code of Practice for Drainage Works identify a number of sites/river reaches with whitebait fishery values.

An information gathering and consultation exercise was undertaken to verify the validity of these sites and identify any gaps, as reported in Appendix 6.

Map 9 and Appendix 2/Table 6 summarise the recommendations for the One Plan Draft.

The location of other native fisheries have not been able to be identified at this stage, mostly due to an initial reluctance by the wider community to share information on “secret spots”.

It is recommended that despite this limited information, the Native Fishery Value should still include the five native fisheries, tuna (eel), inanga, lamprey, koura and whitebait. The whitebait fisheries can be positively identified, and other significant native fishery sites may be identified through the Plan consultation/notification process, or on a case-by-case basis in response to resource consent applications.



Map 9: Recommended sites for recognition of the Native Fishery (NF) value.

4.3.4 Mauri Value

4.3.4.1 Definition / Management Goal

"The Mauri of the waterbodies is maintained"

Mauri is the "life force" or spiritual presence of a river, closely related to its life-supporting capacity, aesthetic quality, and degree of naturalness (Jowett and Mosley, 2004).

4.3.4.2 Reason for selection

In the Māori world-view, water is believed to contain Mauri (life essence) that links the physical and spiritual elements and connects water to every other part of the natural world. Maintaining water quality in the best possible condition, so that the freshwater ecosystems are healthy, is an issue of major concerns for Maori.

The Mauri value of the water is intrinsically linked with a number of other values in this proposed values framework. In particular, the Life-Supporting Capacity recognises the need for healthy aquatic ecosystems. Other considerations or activities are also important for the conservation of Mauri of the waterbodies (eg. the mixing of waterbodies and the discharge of human sewage to water). The Mauri value as identified in this report seeks to ensure all these considerations are incorporated in the management of the natural resources in this Region.

4.3.4.3 Proposed waterbodies for the recognition of the Mauri Value

Our recommendation is that the Mauri value should be recognised in every natural waterbody in the Region.

4.3.5 Shellfish Gathering (SG) Value

4.3.5.1 Definition / Management Goal

The waterbodies are suitable for shellfish harvesting

For the purpose of this definition, "shellfish" include aquatic shellfish such as mussel, pipi, cockles, tuatua and paua. It does not include crustaceans eg. crayfish.

4.3.5.2 Reason for selection

This value recognises the recreational, cultural and economic importance of the shellfish fisheries in both the Region's East and West coasts.

Shellfish Gathering is one of the 11 RMA Third Schedule classes. It is recognised in the current regional policy framework, particularly in the Regional Policy Statement (Policy 11.3) and Regional Coastal Plan (Policy

5.3[5]). In effect, these Policies classify as "shellfish gathering" the areas of the coastal marine area currently used for public shellfish gathering.

4.5.3.3 Proposed waterbodies for the recognition of the Shellfish Gathering value

Horizons Regional Council's Regional Policy Statement (RPS) policy 11.6 sets the goal of *"coastal water quality suitable for shellfish harvesting in parts of the coastal marine area where shellfish gathering is an established practice, within 15 years [by 2013]".*

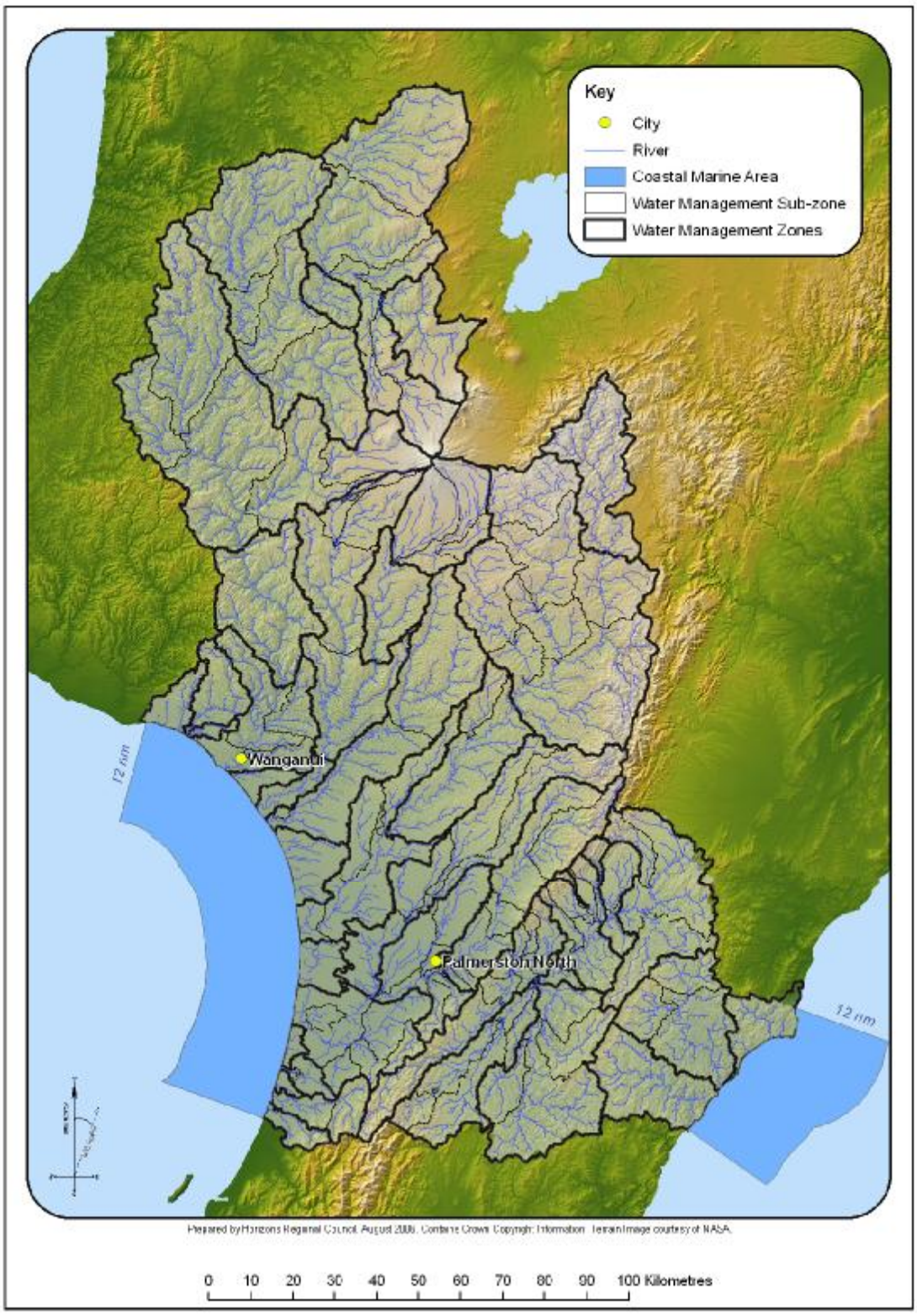
The Regional Coastal Plan classifies as PPH (Protection of Public Health) the coastal Marine area to 500 m seaward of the line of mean high water springs, except the area between the Whanganui and the Whangaehu estuaries.

While shellfish gathering is concentrated on parts of the coast that are easily accessed, it is an established fact that the practice occurs on most, if not all, parts of both the Region's East and West Coasts.

In line with Horizons' existing policy approach and above considerations, it is recommended that the Shellfish Gathering (SG) value be recognised in all of the Region's Coastal Marine Area waters (Map 10).

It is noted that freshwater mussel harvesting is known to occur or have occurred in some freshwater bodies, eg. Lake Horowhenua. At this stage, it is proposed to classify only the coastal waters for the SG value, but it is hoped the consultation process will help assess the need for recognising the SG value in some of the Region's freshwater bodies.

[5] " T*o classify coastal water quality for the purpose of protecting public health in the coastal marine area, in those areas used for public bathing and shellfish gathering to 500 m seaward of the mean high water springs mark".*



Map 10: Recommended waters for recognition of the Shellfish Gathering (SG) value.

4.3.6 Sites of Significance-Cultural (SoS-C) Value

4.3.6.1 Definition

"The Sites of Special Significance for cultural value are protected"

This value seeks to protect sites of special significance for cultural, spiritual or historical reasons. It includes, but is not limited to, waahi tapu (places or features that have particular significance for Maori people).

4.3.6.2 Reason for selection

The RMA makes specific reference to the need to consider Maori values in managing natural resources (Sections 6(e), 7(a) and 8).

Sites that are particularly important for cultural, spiritual or historical reasons can be impacted upon by a range of activities that Regional Councils have a duty to manage, including earthworks, riverworks, discharges and damming and diversions of watercourses. This value seeks to recognise the importance of these sites, and ensure their protection is considered when allowing activities at or near these sites.

4.3.6.3 Proposed waterbodies for the recognition of the SOS-C Value

At this stage, the sites of significance for cultural, spiritual or historical value have not been identified in detail. It is recommended the One Plan policies allow for the identification of such sites during the Plan consultation and notification process, and later during the resource consent process.

4.3.7 Trout Fishery (TF) Value

4.3.7.1 Definition / Management Objective

The waterbody sustains healthy rainbow and/or brown trout fisheries

This value seeks to identify significant trout fisheries in the Region.

Maintaining or protecting this value includes providing for the water quality and habitat requirements of trout and those of its main food sources – largely invertebrates; but also considerations relating to the recreational aspect of the fishery.

This value refers to adult rainbow and/or brown trout. The spawning and juvenile requirements of the trout fisheries are provided for by the Trout spawning (TS) value.

4.3.7.2 Reason for selection

Section 7(h) of the RMA requires that:
"all persons exercising functions and powers under it […] shall have particular regard to […] the protection of the habitat of trout and salmon".

National Water Conservation Orders and the current regional policy framework also largely recognise this value and identify a number of rivers with significant trout fisheries (section 2).

4.3.7.3 Proposed waterbodies for the recognition of the Trout Fishery (TF) value

Map 11 shows the reaches of rivers where the "Fishery" value is currently recognised in existing national or regional policy documents (National Water Conservation Orders, Local Water Conservation Notices, Regional Policy Statement and Regional Plans).

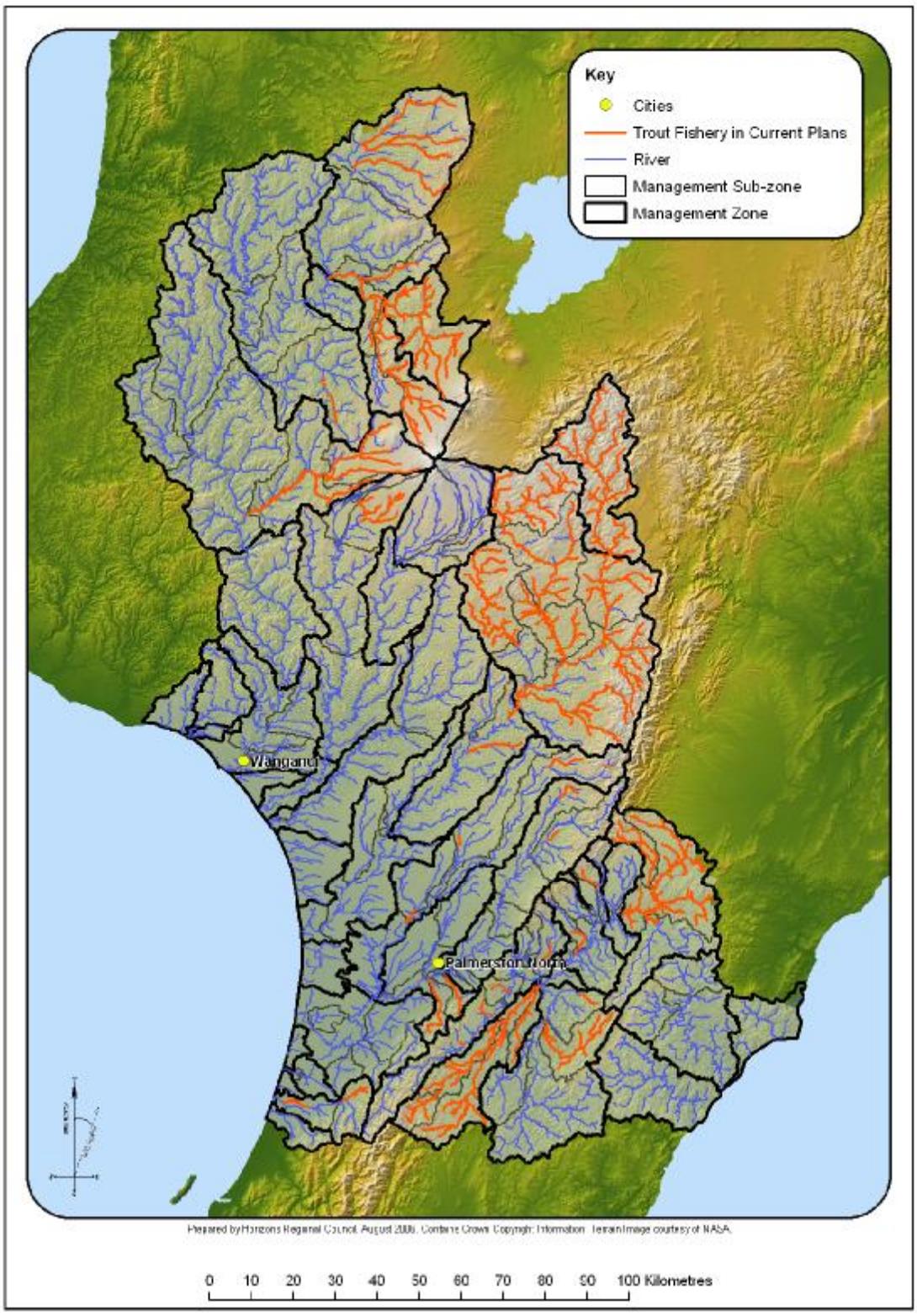
Three Fish and Game Councils (Wellington, Taranaki and Waikato) share the responsibility of the trout fisheries management in the Manawatu-Wanganui Region. Consultation was undertaken with Wellington Fish and Game Council staff, who also coordinated feedback from Taranaki and Waikato Fish and Game Councils, over the location of significant trout fisheries within the Horizons Region. As a result, a scoring system was developed, based on parameters such as angler use, fish quality and angler satisfaction. Map 12 shows the resulting classification.

To recognise the difference between outstanding, internationally renowned trout fisheries, such as the Upper Rangitikei River, and locally significant fisheries such as the Ohau River, the following three trout fishery categories are recommended for the One Plan:

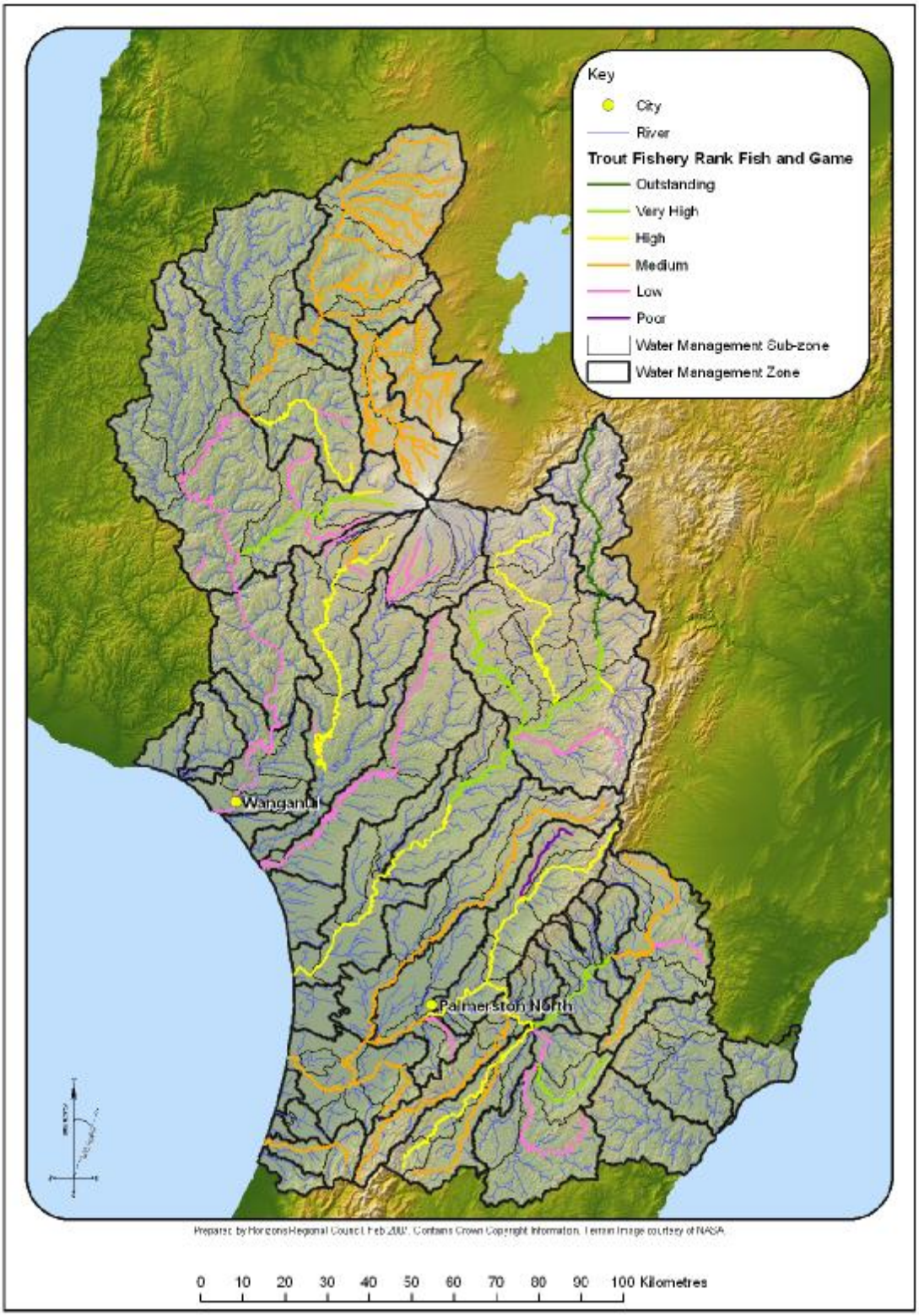
- Outstanding, nationally significant Trout Fisheries (TF1): river reaches covered by a National Water Conservation Order. These include the Upper and Middle Rangitikei River, and parts of the Manganui o te Ao River catchments,
- Regionally significant Trout Fisheries (TF2): river reaches covered by a Local Water Conservation Notice and or have heavy angler use (Hautapu, Mangatainoka and Makuri Rivers) and some of their tributaries (Upper Manawatu).
- Other significant trout fisheries (TF3): all other recognised trout fisheries.

In accordance with the general methodology, the TF value will be translated into water quality, water allocation and BRL policies and standards (Table 3). Where relevant, the recognition of several classes of fisheries will yield several sets of standards, providing different levels of protection for the value (eg. maintain water quality within the "optimum" *vs*. "tolerance" range) (Ausseil & Clark, 2007b).

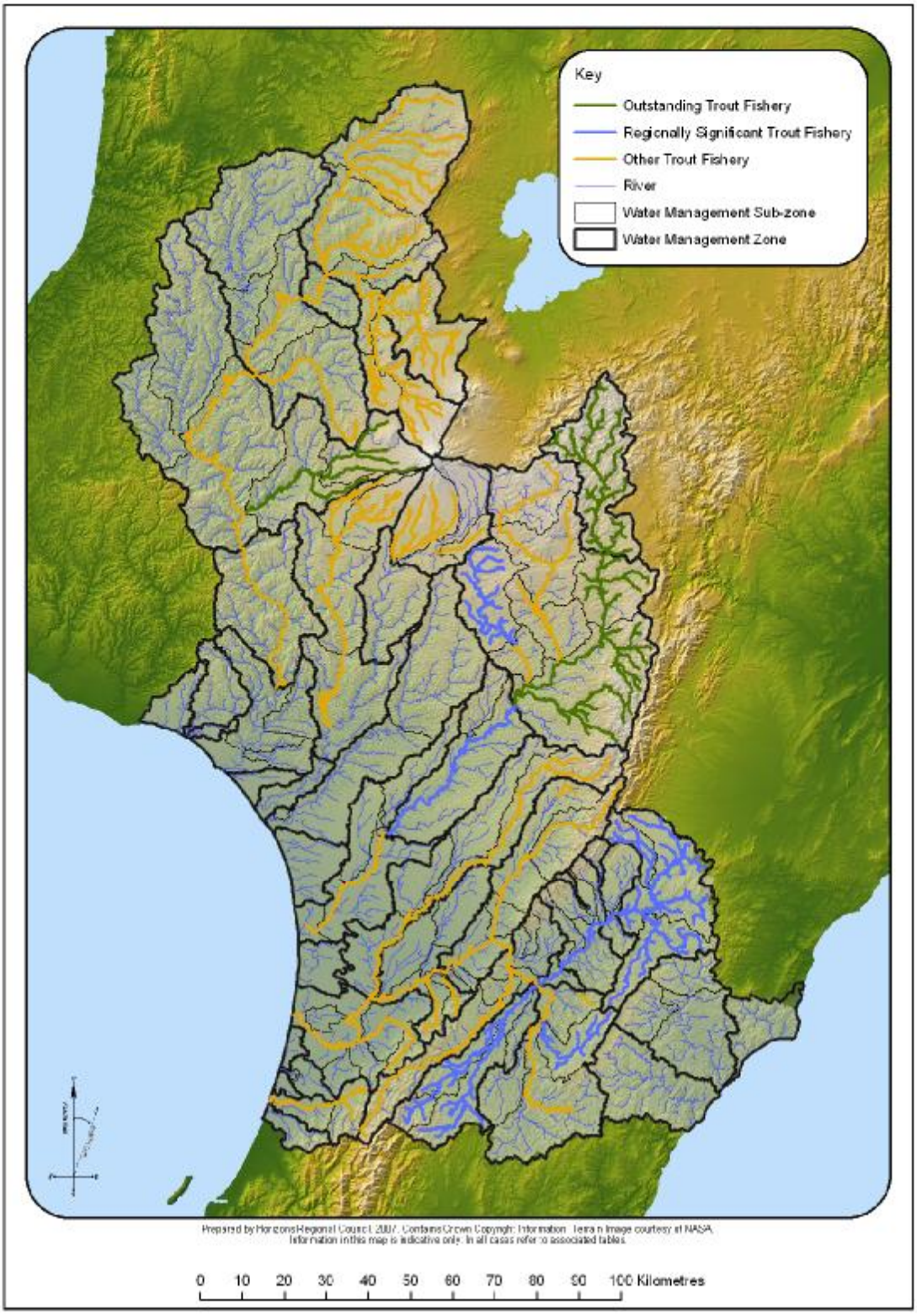
Map 13 and Appendix 2/Table 7 summarises the recommended Trout Fishery classification.



Map 11: Trout fisheries currently recognised in National Water Conservation Orders and Regional Policy in the Manawatu-Wanganui Region



Map 12: Trout fisheries in the Manawatu-Wanganui Region as identified by Fish & Game.



Map 13: Recommended river reaches for the recognition of the Trout Fishery (TF) value in the Manawatu -Wanganui Region.

4.3.8 Trout Spawning (TS) Value

4.3.8.1 Definition / Management Goal

"The waterbody meets the requirements of rainbow and brown trout spawning and larval and fry development"

4.3.8.2 Reason for selection

To meet the requirements of Section 7(h) of the RMA, the Regional Council must have regard to the habitats of trout at different life stages: the Trout Fishery value recognises and identifies the adult trout habitat, while the Trout Spawning value specifically applies to streams where significant spawning occurs. This distinction is made necessary by the fact that trout usually spawn in tributaries that are too small to sustain year-round adult trout populations. These tributaries would not be identified as significant fisheries, but their contribution to maintaining or enhancing a quality trout fishery is paramount.

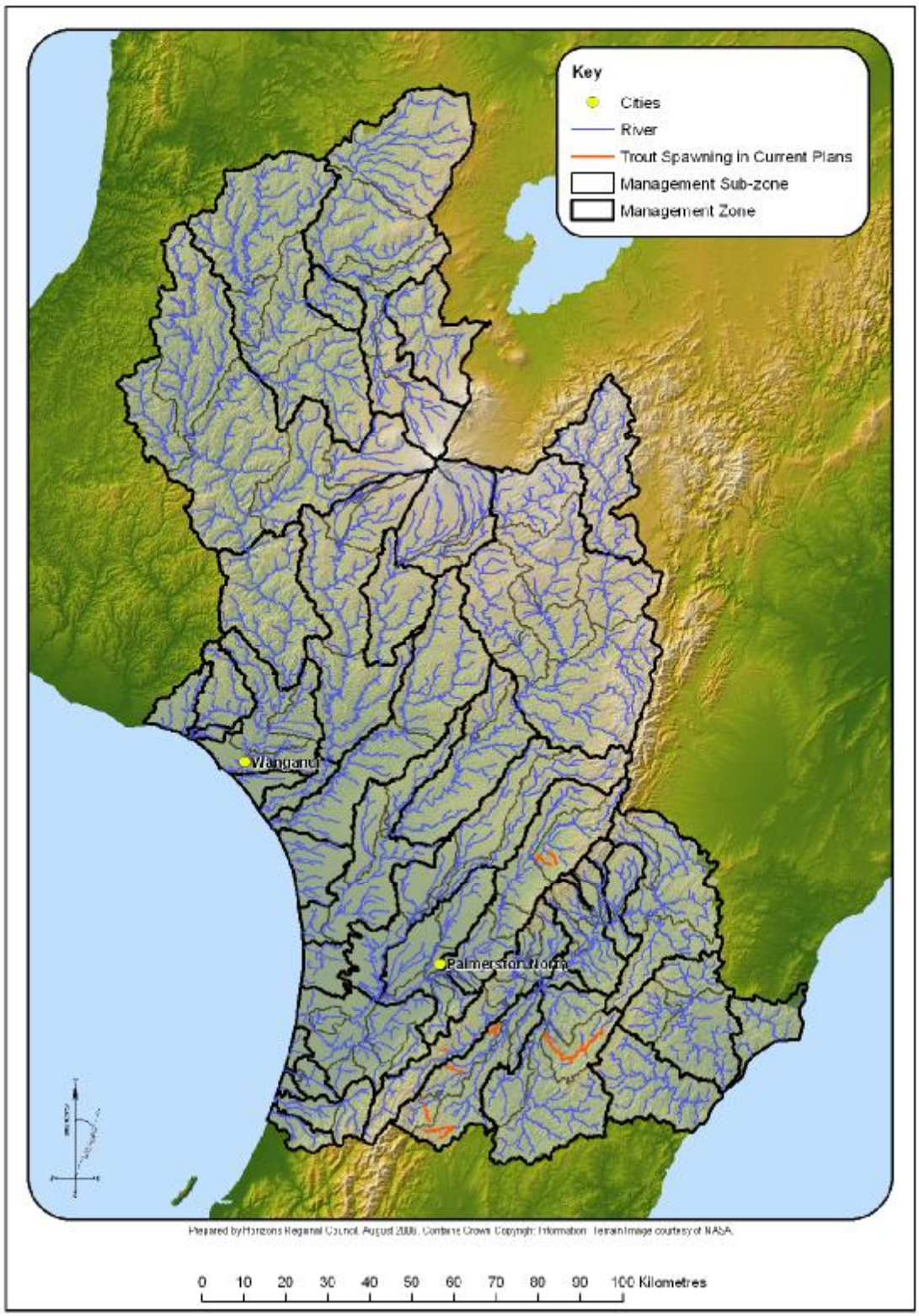
4.3.8.3 Proposed waterbodies for the recognition of the Trout Spawning value

Map 14 shows the reaches of rivers where the Trout Spawning value is currently recognised in the existing suite of national or regional policy documents (National Water Conservation Orders, Local Water Conservation Notices, Regional Policy Statement, Regional Plans).

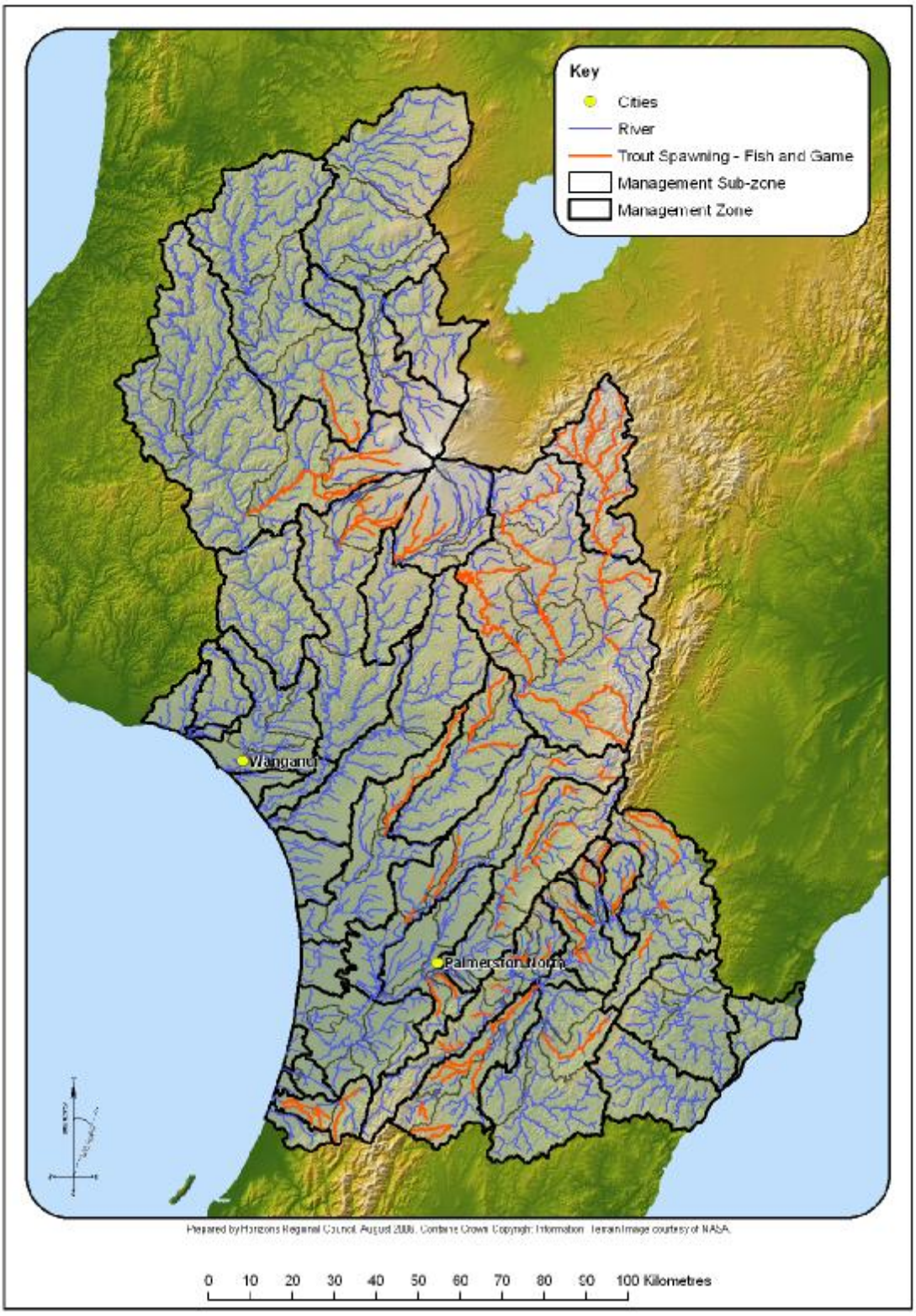
As was done for the Trout Fishery value, direct consultation was undertaken with the Wellington Fish and Game Council staff who coordinated feedback from Taranaki and Waikato Fish & Game Councils. Map 15 summarises the feedback received from Fish and Game on the location of significant trout spawning in the Horizons Region.

As per a number of other values, the current level of information allowed positive identification of a number, but not all, of trout spawning streams. It is recommended the One Plan provides for the recognition of this value in additional areas when new information becomes available, or on a case-by-case basis in response to resource consent applications.

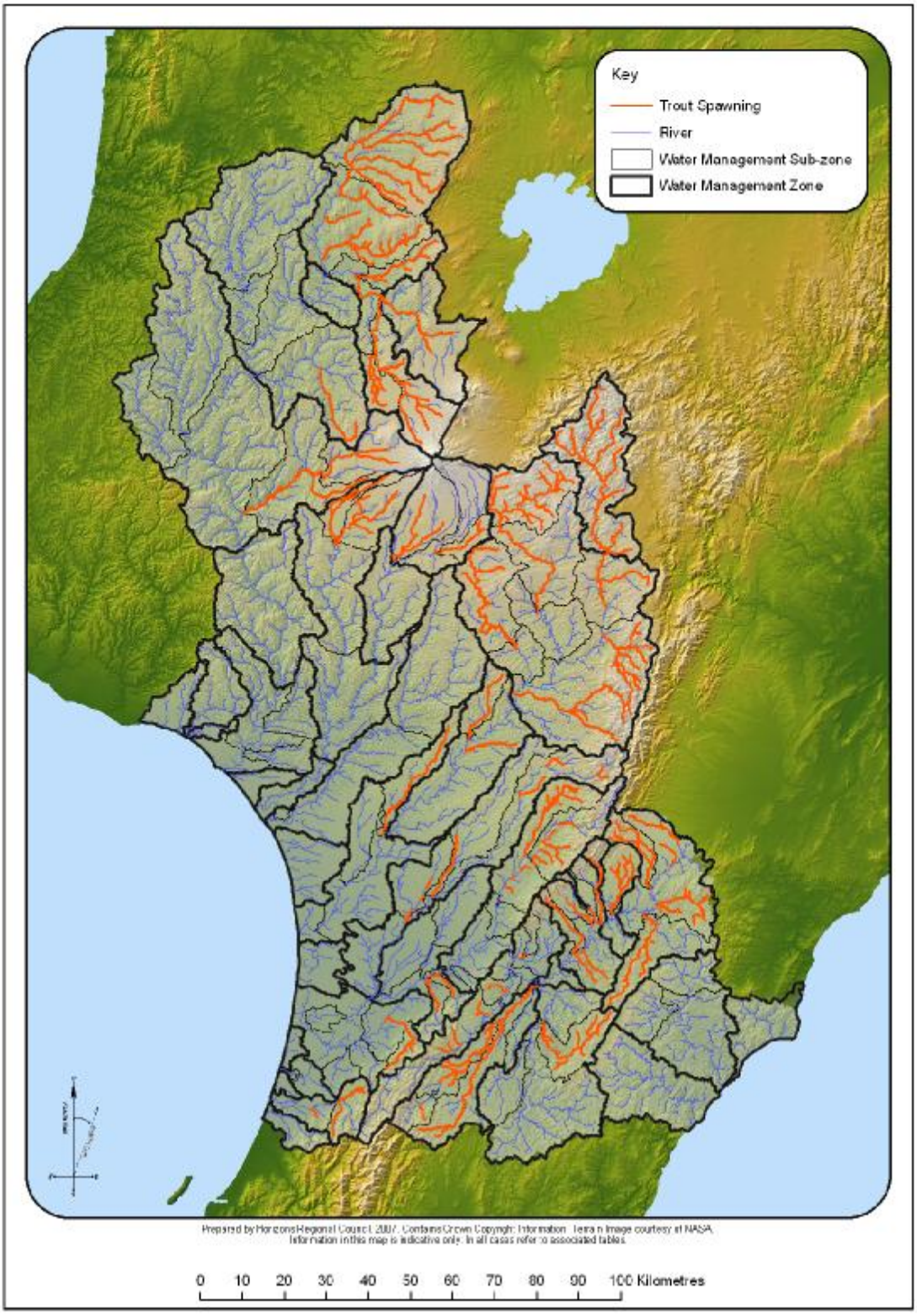
Map 16 and Appendix 2/Table 8 present the recommended Trout Fishery classification.



Map 14: Trout spawning areas currently recognised in National Water Conservation Orders, Regional Policy Statement and Regional Plans in the Manawatu-Wanganui Region



Map 15: Trout Spawning areas in the Manawatu-Wanganui Region as identified by Fish & Game



Map 16: Recommended sites for recognition of the Trout Spawning (TS) value in the Manawatu-Wanganui Region

4.3.9 Aesthetic (A) Value

4.3.9.1 Definition / Management Goal

"The aesthetic values of the waterbody and its margins are maintained"

This value specifically refers to the regionally significant aesthetic and landscape values of lakes and rivers and their margins, and the coastal environment.

4.3.9.2 Reason for selection

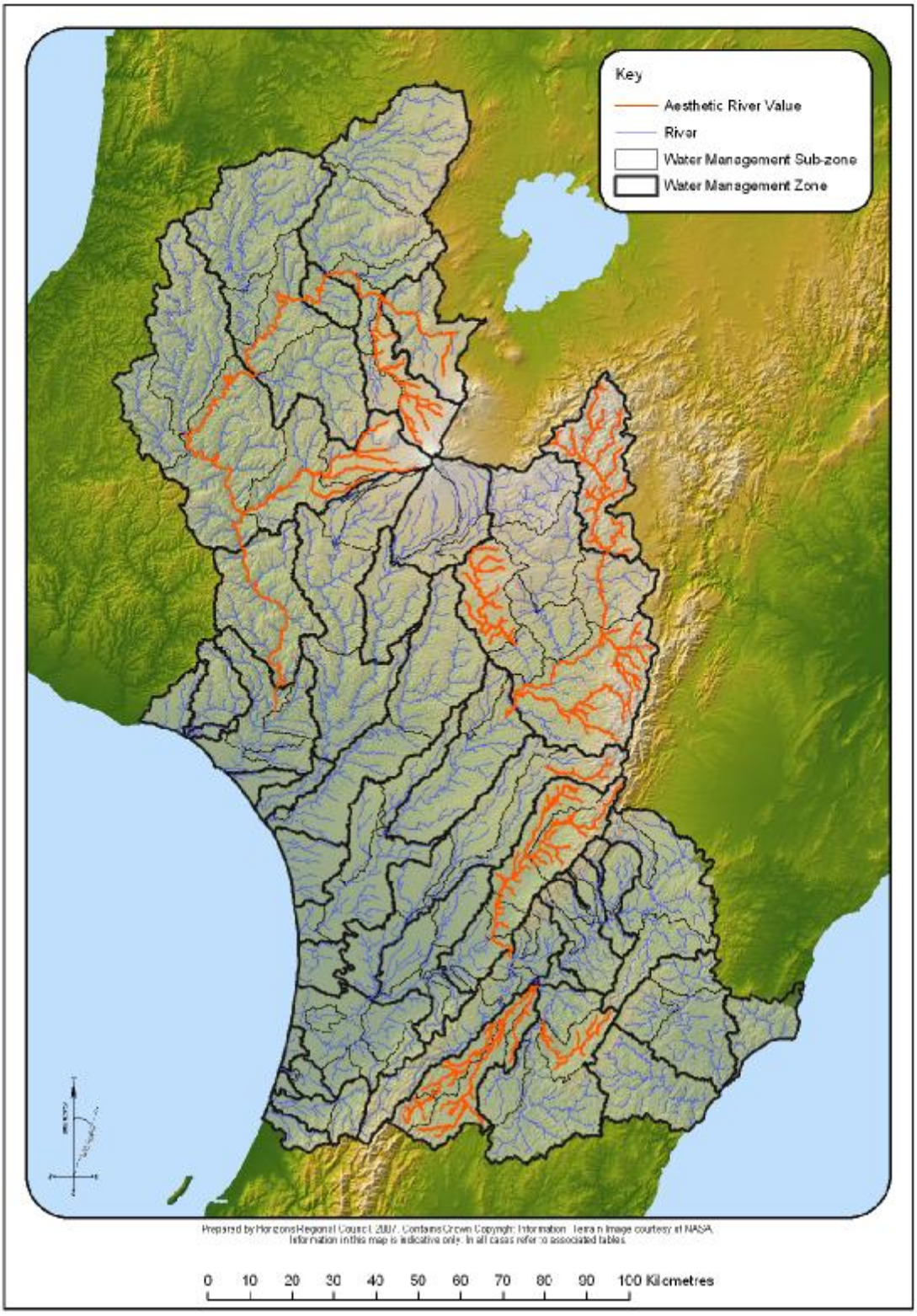
Aesthetics is one of the 11 RMA Schedule 3 classes. Both of the Region's National Water Conservation Orders (Rangitikei and Manganui o te Ao) refer to "wild and scenic characteristics". The aesthetic value of rivers, lakes and the coast are also widely recognised in regional policy documents.

4.3.9.3 Proposed waterbodies for the recognition of the Aesthetic value

It is recognised that all natural rivers and lakes have some aesthetic value, and this aspect should always be part of the considerations when an activity potentially affecting the visual aspect of a waterbody is considered.

It is also recognised that some places will hold aesthetic values of special significance for all or part of the community. Some of these places are currently identified in the existing suite of National and Regional Policy documents.

It is recommended the Aesthetic value be associated with the streams, rivers and their margins that have significant landscape, aesthetic or scenic value. These sites are identified in Map 17 and Appendix 2/Table 9.



Map 17: Recommended Sites for Recognition of the Aesthetic Value

4.4 Value group: Consumptive Water Uses

This group of values refer to consumptive uses of water. These uses are key in supporting communities (community water supply) and the regional economy (irrigation, industrial use). Regardless of other considerations, particularly potential or actual conflict with Ecosystem or Recreational and Cultural Values, the water must meet certain characteristics (ie. be of certain quality and quantity) to provide for these consumptive uses.

It is recommended the consumptive use of water be included in the One Plan values framework, to ensure these uses, or the ability to carry out these uses will not be significantly adversely affected by activities such as discharges or water abstractions. The recognition of these values does not mean however that consumptive uses of water should or will always be allowed, as all values of a waterbody, including ecosystem, recreational and cultural values, must also be considered, and the effects of activities on these values must be avoided, remedied or mitigated.

Four Consumptive Water Use values have been identified:

- (drinking) Water supply (WS)
- Irrigation (I)
- Industrial Abstraction (IA)
- Stock Water (SW)

4.4.1 Water Supply (WS) Value

4.4.1.1 Definition / Management Goal

The suitability of the waterbody as a raw drinking water source is maintained or improved

Raw drinking water source means the water can be treated to a drinking standard with conventional methods and /or existing infrastructure.

4.4.1.2 Reason for selection

Water supply is one of the 11 management purposes set out in the RMA Schedule 3. The Ministry for the Environment is also working on a National Environmental Standard relating to this value.

4.4.1.3 Proposed waterbodies for the recognition of the WS value

In the current suite of Regional Plans, only the Manawatu Catchment Plan identifies some[6] waterbodies used as source for community drinking water supply.

All surface water takes drawing 15 m^3/day or more require a resource consent, thus allowing for easy identification of the main water takes for community water supply in the Region. They are identified in Map 18 and Appendix 2/Table 10.

[6] Some major community water supply sources, eg. the Mangapapa Stream, from which the Woodville water supply is drawn, are not classified as WS in the MCWQRP.

The National Environmental Standard for raw drinking water sources was expected to be promulgated in late 2006. Although the final document has not been released at the time of writing, the draft documents indicate that the standards will apply to all or part of the catchment above a community water supply intake.

As an interim position, it is therefore recommended the WS value is applied to **all river catchments upstream of a community water supply**. These catchments are identified in Map 18 and Appendix 2/Table 10.

4.4.2 Industrial Abstraction (IA) Value

4.4.2.1 Definition / Management Objective

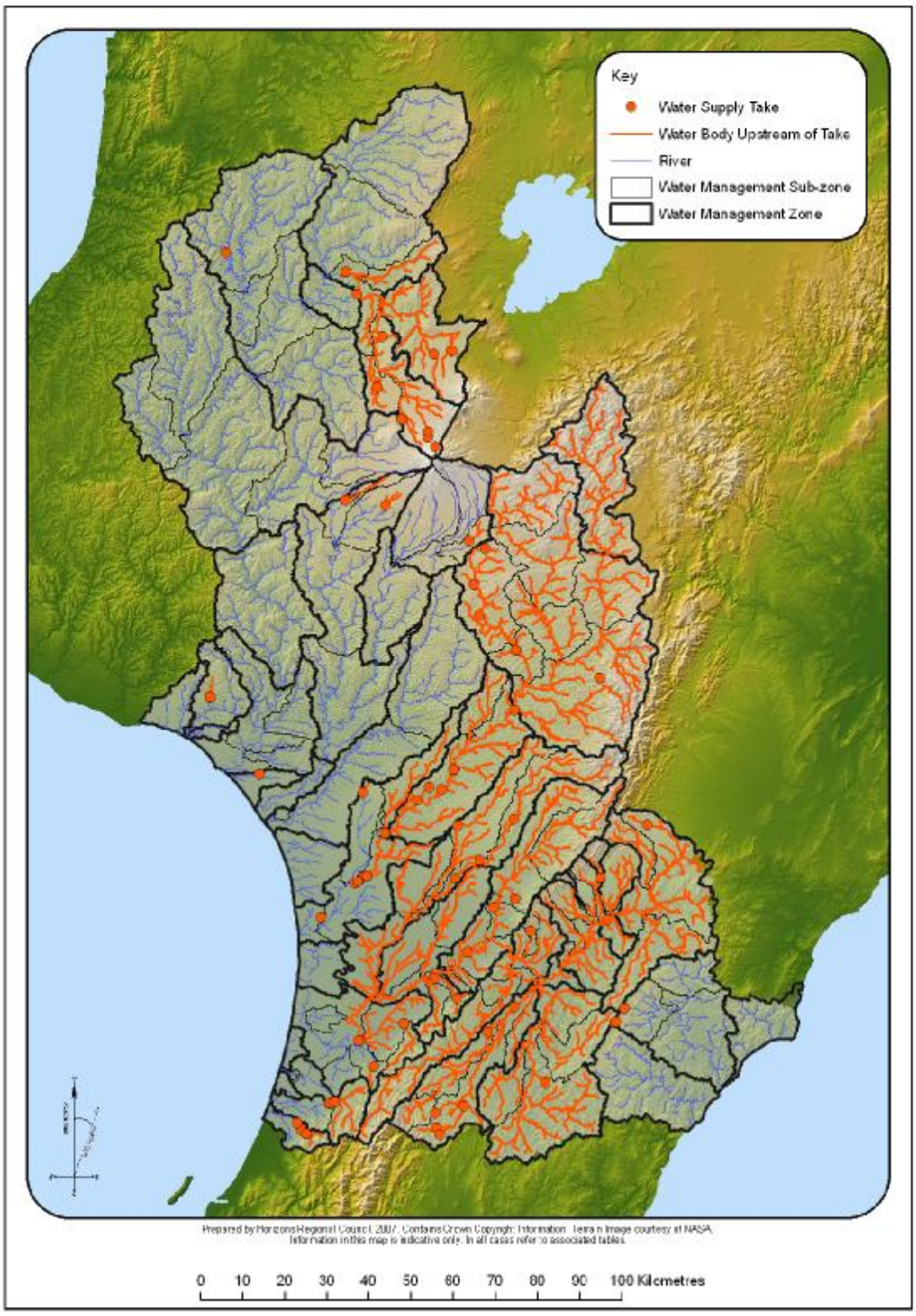
"The suitability of the water as a water source for industrial abstraction is maintained or improved"

4.4.2.2 Reason for selection

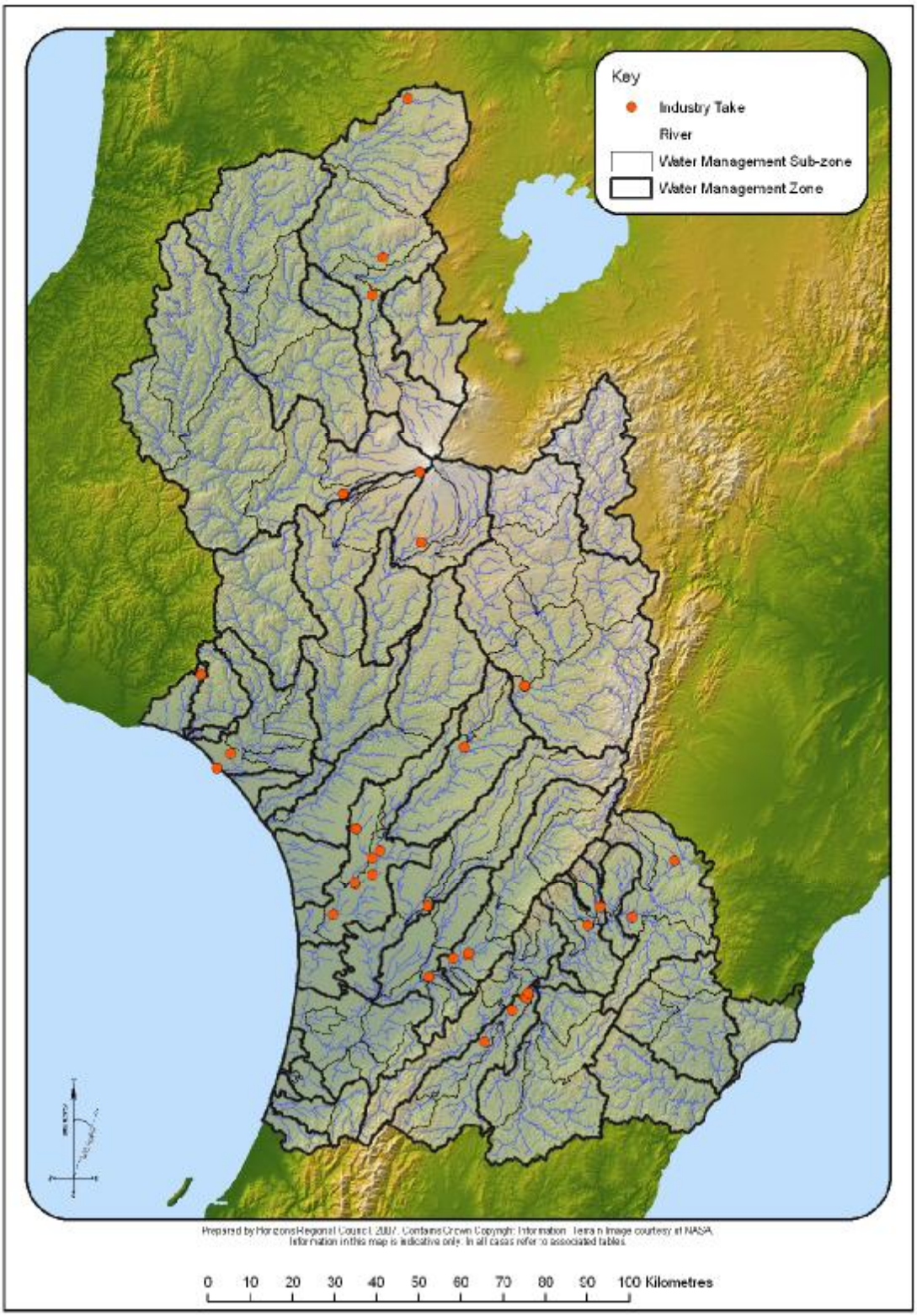
Industrial Abstraction is one of the 11 management objectives set out in the Third Schedule of the Act. The water quality has to meet certain standards for some industrial uses. Recognising the Industrial Abstraction value will help manage activities that would potentially have a detrimental effect on the availability and quality of a waterbody currently or potentially used as a source of water for industrial abstraction.

4.4.2.3 Proposed waterbodies for the recognition of the Industrial Abstraction value

It is recommended the Industrial abstraction value be recognised in **all waterbodies in the Region, except those classified as Natural State** (NS).
To provide some background information, Map 19 and Appendix 2/
Table 11 present the current consented industrial surface water takes in the Region.



Map 18: Current consented water takes for community water supply, and recommended river reaches for the recognition of the Water Supply (WS) value.



Map 19: Current consented water takes for the Industrial Abstraction (IA) value.

4.4.3 Irrigation (I) Value

4.4.3.1 Definition / Management Goal

The waterbody is suitable as a water source for irrigation

4.4.3.2 Reason for selection

Irrigation is one of the 11 management objectives set out in the Third Schedule of the Act. The water quality has to meet certain standards for irrigation. Recognising the Irrigation value will help manage activities that would potentially have a detrimental effect on the availability and quality of a waterbody currently or potentially used as a source of water for irrigation.

4.4.3.3 Proposed waterbodies for the recognition of the Irrigation value

It is recommended the Irrigation value be recognised in **all waterbodies in the Region, except those classified as Natural State** (NS).

To provide some background information, Map 20 and Appendix 2/Table 12 present the current consented agricultural surface water takes in the Region.

4.4.4 Stockwater Supply (SW) Value

4.4.4.1 Definition

The waterbody is suitable as a supply of drinking water for livestock

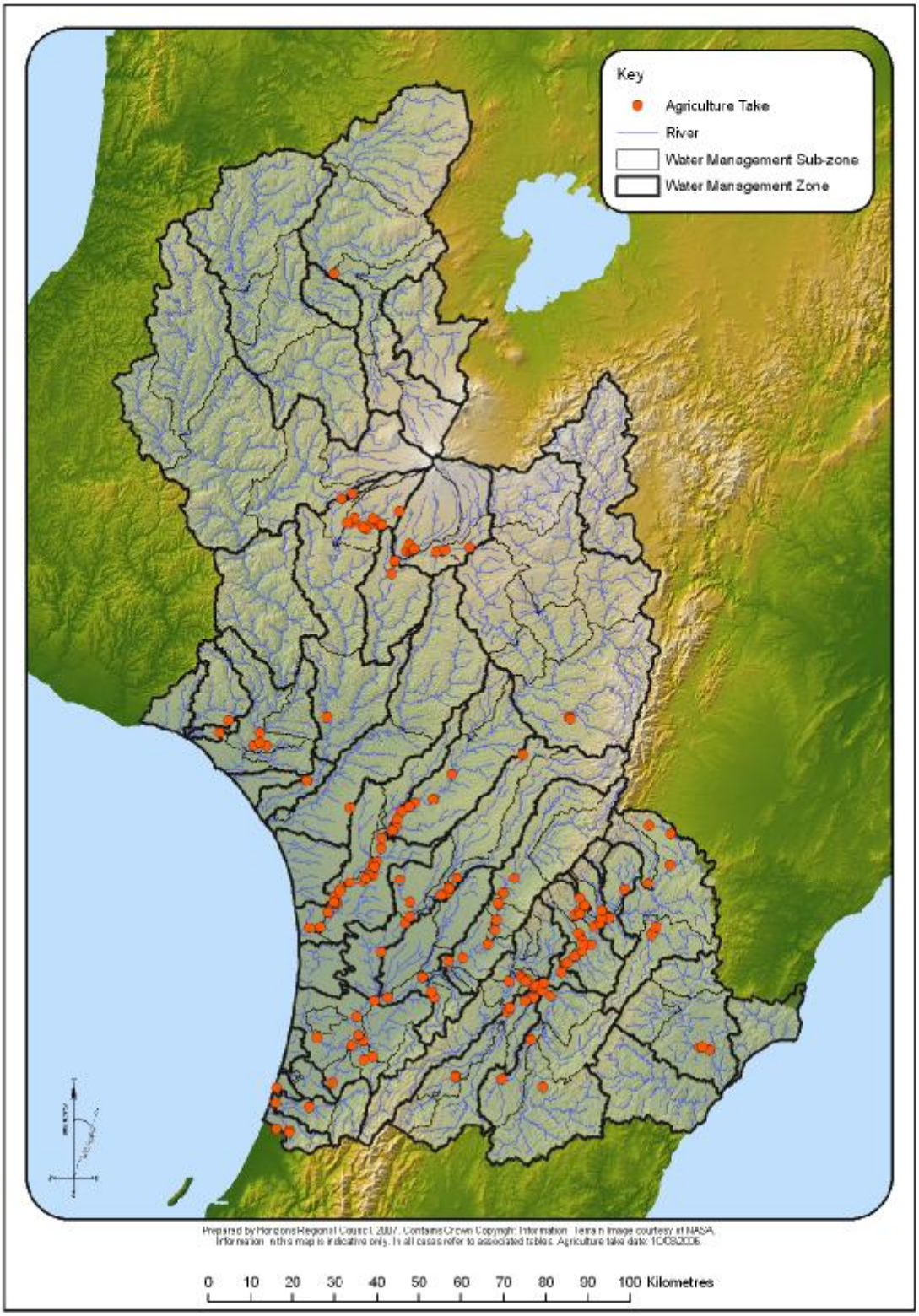
4.4.4.2 Reason for selection

Although the use of water for livestock drinking is not mentioned in the Third Schedule of the Act, Sections 70 (f) and 107(f) require the Regional Council to be satisfied that permitted activity and consented discharge permits do not cause:
"the rendering of freshwater unsuitable for consumption by farm animals".

Access to safe water for stock drinking is a basic requirement of any form of livestock farming, and the SW value recognises the economic and animal welfare values of the water to the livestock farming sector.

4.4.4.3 Proposed waterbodies for the recognition of the Stockwater value

It is recommended the Stockwater (SW) value be recognised in **all natural and artificial waterbodies in the Region.**



Map 20: Current consented surface water takes for Agriculture

4.5 Value group: Social and Economic Values

The Social and Economic Values group includes five individual values which recognise that rivers and their margins provide services and uses that support and protect the regional communities and assets:

- Capacity to Assimilate Pollution (CAP)
- Flood and Erosion Control (FC)
- Drainage (D)
- Existing Infrastructure (EI)
- Gravel Extraction (GE)

Recognising the Social and Economic Values seeks to ensure that a range of activities is managed in a way that avoids, remedies, or mitigate potential negative effect on these values. For example, gravel extraction as an activity can, if not properly managed, compromise a number of values, such as Flood Control, or Existing Infrastructure.

The Social and Economic values as defined and identified in this report are closely associated with, but distinct from activities. As for the consumptive use of water values, the recognition of the social and economic values does not mean however that related activities (eg. extracting gravel, discharging wastewater) should or will be granted without conditions, as all values of a waterbody, including ecosystem, recreational and cultural values, must be considered. The philosophy of the values framework as developed in this report, and the recommendations for the One Plan development, is that all activities must be managed in a way that avoids, remedy or mitigate any adverse effects on all of the waterbody's values.

4.5.1 Capacity to Assimilate Pollution (CAP) Value

4.5.1.1 Definition / Management Goal

"The capacity of a waterbody to assimilate pollution is not exceeded"

The capacity to assimilate pollution of a waterbody is defined as being the amount of contaminant a waterbody can receive without compromising any other value, ie. without breaching the water quality standards in force.

4.5.1.2 Reason for selection

This value recognises that the capacity of a waterbody to convey and assimilate waste is currently used and provides a valuable service to the community. The recognition of all the other values, particularly the Ecosystem, Recreational and Cultural and Consumptive Use values also means that the waterbodies have a finite capacity to assimilate waste.

Recognising that waterbodies do have a capacity to assimilate some pollution allows definition of a limit (a total capacity) which cannot be exceeded without compromising the other waterbody values. The total capacity can then be shared between the different users/dischargers. This concept constitutes the basis for the TAP (Total Allocatable Pollution) framework recommended for the One Plan (Roygard, 2007).

4.5.1.3 Proposed waterbodies for the recognition of the Capacity to Assimilate Pollution (CAP) value

By definition, the rivers classified as Natural State (NS) should not receive any discharges of contaminants that would cause a change in water quality. As a result, it is recommended the One Plan policies make discharges into NS rivers a prohibited or non complying activity. The CAP value should therefore not be recognised in NS waters.

It is noted that the National Water Conservation Orders applying to rivers in the Region do not specifically prohibit discharges into the rivers, but set out a number of numerical and narrative standards a discharge would have to comply with. As a result, the CAP value may be associated with rivers covered by NWCOs.

It is recommended the CAP value is recognised in all waterbodies in the Region, except those classified as Natural State (NS).

4.5.2 Flood/Erosion Control (FC) Value

4.5.2.1 Definition / Management Goal

"The integrity of existing flood and river bank erosion protection structures shall not be compromised"

4.5.2.2 Reason for selection

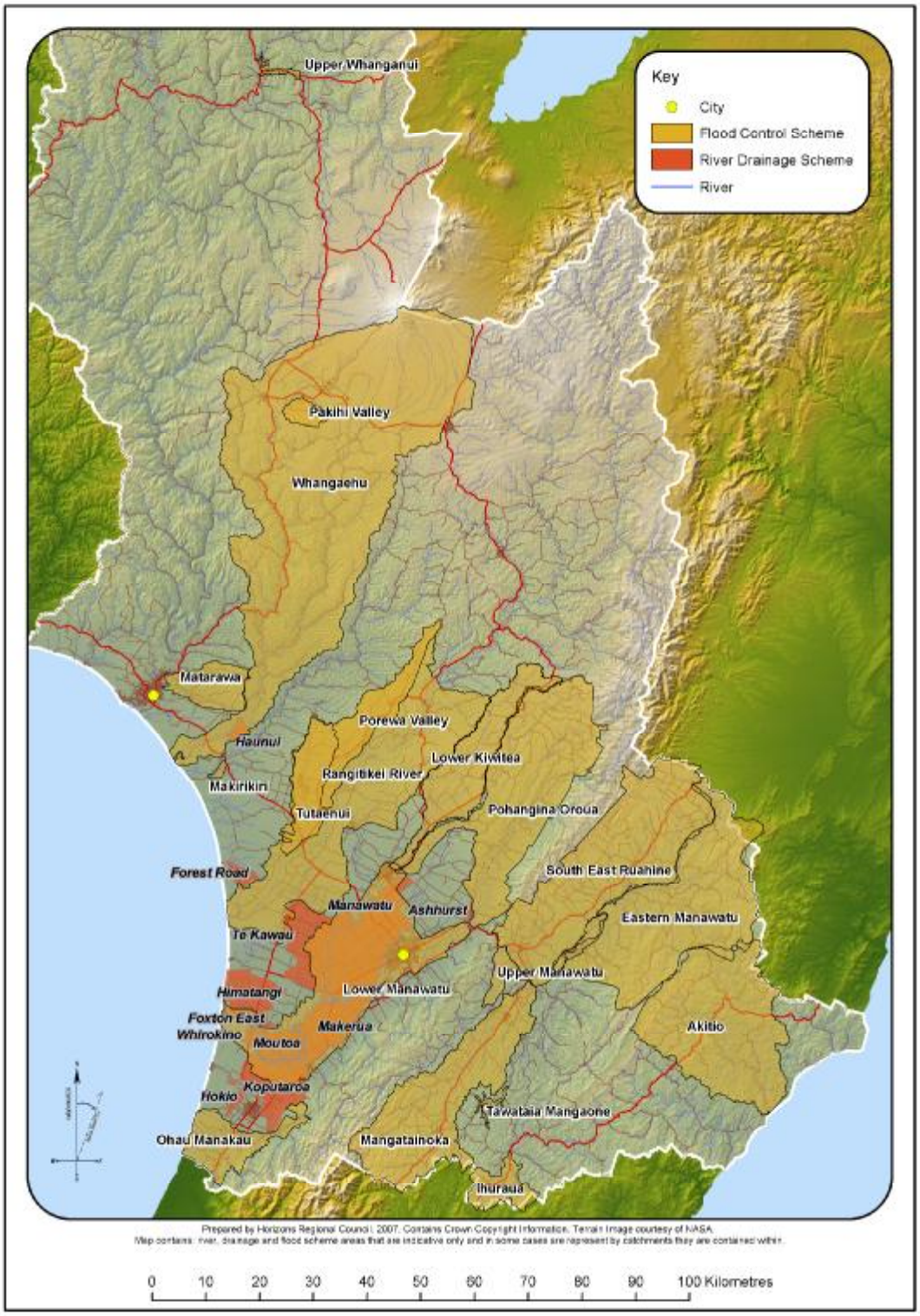
The flood and erosion control schemes protect the communities and their assets from flood and erosion damage, and allow business, industry and agricultural production to continue during flood events; and protect assets, infrastructure and productive farmland from flood and erosion damage.

By recognising this value, the Regional Council gives a clear indication that the adverse effects of any activity on existing flood and erosion control structures will need to be avoided, remedied or mitigated.

However, and as per the other social/cultural values, it is recommended the activities relating to the building or maintenance of flood or erosion protection structures are also undertaken in a way that adequately avoids, remedies or mitigates any adverse effects on the values associated with the waterbody.

4.5.2.3 Proposed waterbodies for the recognition of the Flood/Erosion Control value

It is recommended the Flood Control value be applied to all existing flood and erosion protection scheme areas (Map 21).



Map 21: Extent of current Flood control and drainage schemes managed by Horizons Regional Council

4.5.3 Drainage (D) Value

4.5.3.1 Definition / Management Goal

"The integrity of existing drainage structures shall not be compromised"

4.5.3.2 Reason for selection

The value of drainage schemes lies with their contribution to the regional economy, particularly by maintaining productive farmland.

However, and as per the other social/cultural values, it is recommended the activities relating to the building or maintenance of drainage schemes should also be undertaken in a way that adequately avoids, remedies or mitigates any adverse effects on the values associated with the waterbody.

4.5.3.3 Proposed waterbodies for the recognition of the Drainage value

It is recommended the Drainage Value be applied to all existing current drainage scheme areas (Map 21).

4.5.4 Existing Infrastructure (EI) Value

4.5.4.1 Definition

"The integrity of existing infrastructure shall not be compromised"

Existing infrastructure includes roads, bridges, stopbanks.

4.5.4.2 Reason for selection

This value recognises the value of, and need for, existing infrastructure. The adverse effects of any activity on existing infrastructure will need to be avoided, remedied or mitigated.

However, and as per the other social/cultural values, it is recommended the activities relating to the building or maintenance of infrastructure in or close to the beds of rivers and lakes should also be undertaken in a way that adequately avoids, remedies or mitigates any adverse effects on the values associated with the waterbody.

4.5.4.3 Proposed waterbodies for the recognition of the Existing Infrastructure value

The location of existing infrastructure such as roads and bridges is usually public knowledge, and each piece of infrastructure does not need to be identified in this report. Further, the activities that have the potential to threaten the integrity of existing infrastructure are likely to require a resource consent. The resource consent process will allow for a clear identification of the infrastructure potentially at risk, and will ensure the effects of the activities are adequately avoided, remedied or mitigated.

4.5.5 Gravel Extraction (GE) Value

4.5.5.1 Definition / Management Goal

"The Gravel Extraction capacity of a waterbody is not exceeded"

Gravel extraction capacity of a river can be defined as being the amount of gravel that can be sustainably extracted, ie. without depleting the stocks, causing degradation in adjacent river reaches and/or compromising bed stability or infrastructure.

4.5.5.2 Reason for selection

This value recognises the value of the gravel resource for the regional economy. Gravel stocks replenish themselves over time, but only at a certain rate, and over-extraction can compromise a number of ecosystem and social and economic values.

Gravel extraction as an activity also has the potential to have adverse effects on a number of other values and must be undertaken in a way that adequately avoids, remedies or mitigates any adverse effects on the values associated with the waterbody.

4.5.5.3 Proposed waterbodies for the recognition of the Gravel Extraction value

It is recommended the Gravel extraction value be recognised in all waterbodies in the Region, except those classified as Natural State (NS) and the waterbodies covered by National Water Conservation Orders.

Table 8: Summary of the proposed list of values associated with the waterbodies in the Manawatu-Wanganui Region, and proposed criteria for waterbody classification. Note: the values are presented in no specific order

Value Group	Individual values		Management Goal	Where it applies
Ecosystem Values	NS	Natural State	The waterbody is maintained in its natural state	Conservation Land
	LSC	Life-Supporting capacity	The waterbody supports healthy aquatic life / ecosystems	All natural waterbodies (10 classes)
	SOS-A	Sites of Significance - Aquatic	Sites of significance for native aquatic biodiversity are maintained or improved	Criteria + Specified sites/reaches
	SOS-R	Sites of Significance - Riparian	Sites of significance for native riparian biodiversity are maintained or improved	Specified sites/reaches
	NFS	Native Fish Spawning	The waterbody sustains healthy native fish spawning and fry development	Specified sites/reaches
Recreational and Cultural Values	CR	Contact recreation	The waterbody is suitable for contact recreation	All natural waterbodies
	Am	Amenity	The amenity values of the waterbodies and their margins are maintained or improved	Coastal Marine Area + Specified sites/reaches
	NF	Native Fishery	The waterbody sustains populations of native fish that can be harvested in a sustainable manner	Specified sites/reaches
	M	Mauri	The Mauri of the waterbody is maintained or improved	All natural waterbodies
	SG	Shellfish Gathering	The waterbody is suitable for shellfish harvesting	Coastal waters (CMA)
	SOS-C	Sites of significance - Cultural	Sites of significance for cultural values are maintained	To be defined
	TF	Trout Fishery	The waterbody sustains healthy rainbow and/or brown trout fisheries.	Specified zones/reaches (3 categories)
	TS	Trout Spawning	The waterbody meets the requirements of rainbow and brown trout spawning and larval and fry development	Specified sites/reaches
	Ae	Aesthetics	The aesthetic values of the waterbody and its margins are maintained or improved	Specified sites/reaches
Water Use	WS	Water Supply	The waterbody is suitable as a raw drinking water source for human consumption	Catchments above surface water takes for community water supply
	IA	Industrial Abstraction	The waterbody is suitable as a water source for industrial abstraction	All natural waterbodies except those classified as NS and those covered by NWCO

	I	Irrigation	The waterbody is suitable as a water source for irrigation.	All waterbodies except those classified as NS and those covered by NWCO
	SW	Stockwater	The waterbody is suitable as a supply of drinking water for livestock.	All waterbodies including artificial
SocialEconomic Values	CAP	Capacity to Assimilate Pollution	The capacity of a waterbody to assimilate pollution is not exceeded	All natural waterbodies except NS
	FC	Flood Control	The integrity of existing flood and river bank erosion protection structures is not compromised	Existing flood/erosion control schemes
	D	Drainage	The integrity of existing drainage structures shall not be compromised	Existing drainage schemes
	EI	Existing Infrastructure	The integrity of existing infrastructure shall not be compromised	Drainage scheme areas
	GE	Gravel Extraction	The Gravel Extraction capacity of a waterbody is not exceeded	All waterbodies except NS and NWCO

5. Summary and Recommendations

This report recommends a values framework for the future management of the waterbodies of the Manawatu-Wanganui Region *via* the One Plan. It should be regarded as a starting point for discussions, and it is expected the consultation process preceding and following the Plan notification may lead to some refinement of the definition of some values and a better understanding of community and stakeholder aspirations.

Each value was identified wherever it was known to occur. However, the current level of information and knowledge does not always allow the identification of all relevant sites for each value. It is hoped additional information will be brought in during the One Plan notification and consultation process. A number of knowledge gaps have also been identified, and research or monitoring projects will be undertaken to address them.

It is therefore recommended the One Plan policies allow for some flexibility in the values framework, to incorporate new information when it becomes available and/or on a case-per case basis during the resource consent process.

This report identifies 23 individual values, applying to all or parts of the Region's waterbodies. The potential for some of these values to conflict is reasonably high, even more so as the "Consumptive Use values" and the "Social and Economic values" groups are directly associated with activities that can threaten other values. This report simply identifies the different values; it does not rank the values nor does it try to pre-empt on future conflicts between activities and values.
Rather, this report and the recommended values for the One Plan provide a framework for the different parties involved in the management or use of a natural resource to work together, and help the decision-makers reach balanced decisions.

In preparing the values framework, the following three guiding principles were adopted:

- The pool of values associated with a given waterbody constitutes the management objective for this waterbody (ie. one value by itself should not become the overriding management objective for a waterbody);
- Activities must be managed in a way that avoids, remedies or mitigates adverse effects on any of the waterbody's values,
- There may be some cases where all waterbody values may not be able to be protected or reinstated fully. In this case, the values framework can provide the basis for debate, negotiation and decision making.

The waterbody values defined in this report are one important step in the water management regime recommended for the One Plan. It is recommended the values framework is incorporated into the One Plan and translated into policies. Particularly, water quality standards, water allocation limits and best management practices should be developed to maintain and protect the waterbody values recommended in this report.

References

1. **ANZECC. (2000)**. Australia and New Zealand Guidelines for Fresh and Marine Water Quality. *Australian and New Zealand Environment and Conservation Council. Agriculture and Resource Management Council of Australia and New Zealand. ISBN 09578245 0 5.*
2. **Ausseil O. and Clark M. (2007a)**. River classification of the Manawatu-Wanganui Region to support the definition of the life-supporting capacity value. *Horizons Regional Council Report N. 2007/EXT/791. ISBN: 1-877413-79-8.*
3. **Ausseil O. and Clark M. (2007b)**. Recommended Water Quality Standards for the Manawatu-Wanganui Region. Technical report to support policy development. *Horizons Regional Council Report (Draft May 2007).*
4. **Horizons Regional Council. (1998a)**. Oroua Catchment Water Allocation and River Flows Regional Plan. *Report N. 97/EXT/272. ISBN 0/909021-73-2.*
5. **Horizons Regional Council. (1998a)**. Regional Policy Statement. *Report N. 98/EXT/324. ISBN 1/877221-06-6.*
6. **Horizons Regional Council. (1998b)**. Manawatu Catchment Water Quality Regional Plan. *Report N. 98/EXT/331 ISBN 1/877221-10-4.*
7. **Horizons Regional Council. (2001)**. Regional Plan for beds of rivers and lakes and associated activities. *Report N. 21/EXT/441. ISBN 1-877277-08-8.*
8. **Horizons Regional Council. (2002)**. Regional Coastal Plan (Changes 1 and 2). *Report N. 2003/EXT/559. ISBN 1/8773120-22-0*
9. **Horizons Regional Council. (2003). Land and Water Regional Plan.** *Report N. 2004/EXT/608. ISBN 1-877310-56-5.*
10. **Hichmough R. (comp.). (2002)**. New Zealand Threat classification system lists - 2002. *Threatened species occasional publication 23, 210p*. *Department of Conservation, Wellington, New Zealand ISBN. 0-478-22316-6.*
11. **Hichmough R., Bull L. and Cromarty P. (comp.). (2007)**. New Zealand Threat classification system lists - 2005. *Threatened species occasional publication 24*. *Department of Conservation, Wellington, New Zealand.*
12. **Jowett I.G. and Richardson J. (2006)**. Distribution and abundance of freshwater fish in New Zealand rivers. *New Zealand Journal of Marine and Freshwater Research. 30: 239-255.*
13. **Jowett I.G. and Mosley P. (2004)**. Analysis of instream values. *In Freshwaters of New Zealand, New Zealand Hydrological Society and New Zealand Limnological Society. ISBN 0-476-00708-9.*
14. **Joy M.K. and Death R.G. (2002)**. Predictive modelling of freshwater fish as a biomonitoring tool in New Zealand. *Prepared for Horizons Regional Council. Horizons Report N. 2002/INT/192.*
15. **Joy M.K. and Death R.G. (2003)**. Biological assessment of rivers in the Manawatu-Wanganui Region of New Zealand using a predictive macroinvertebrate model. *New Zealand Journal of Marine and Freshwater Research 33: 367-379.*
16. **Lambie J. (2007)**. Sites of significance for riparian biodiversity based on habitat values of selected bird species. *Technical report to support policy development. Horizons Regional Council Report N. 2007/EXT/782. ISBN 1-877413-72-0.*

17. **Ledein E., Ausseil O. and Roygard J. (2007)**. Identifying point source and non point source contributions to nutrient loadings in waterways in three catchments in the Manawatu-Wanganui Region. *Horizons Regional Council Report N. 2007/EXT/771. ISBN 1-877413-65-8.*
18. **Maseyk F.J.F. (2007)**. Identifying the need for the protection of terrestrial biodiversity within the Manawatu-Wanganui Region. Technical report to support policy development. *Horizons Regional Council Report No: 2007/EXT/790*
19. **McArthur K., Roygard J., Ausseil O. and Clark M. (2007a)**. Development of Water Management Zones in the Manawatu-Wanganui Region*. Horizons Regional Council Report N. 2006/EXT/733. ISBN 1-877413-47-X*
20. **McArthur K., Clark M. and McGehan J. (2007b)**. Sites of significance for aquatic biodiversity in the Manawatu-Wanganui Region. *Horizons Regional Council Report (Draft May 2007).*
21. **Molloy J., Bell B., Clout M., de Lange P., Gibbs G., Given D., Norton D., Smith N. and Stephens T. (2002)**. Classifying species according to threat of extinction. A system for New Zealand. *Threatened species occasional publication 22, 26p. Department of Conservation, Wellington, New Zealand ISBN. 0-47822318-8.*
22. **Phillips J. R. and Joy M. (2002)**. State of the Environment report Native fish in the Manawatu-Wanganui Region. *Horizons Regional Council Report N. 2002/EXT/489. ISBN 1-877277-54-1.*
23. **Quinn J. and Hickey, C. (1993)**. Effects of sewage waste stabilisation lagoon effluent on stream Invertebrates. *Aquatic Ecosystem Health 2: 205 –219.*
24. **Roygard J. (2007)**. A framework for managing non-point source and point source nutrient contributions to water quality. Technical Report to Support Policy Development. *Horizons Regional Council Draft May 2007.*
25. **Snelder T.; Biggs B., Weatherhead M. and Niven K. (2002)**. New Zealand River Environment Classification. A Guide to concepts and use. *NIWA Project MFE02505. Prepared for the Ministry for the Environment.*
26. **Snelder T., Biggs B. and Weatherhead M. (2004)**. New Zealand River Environment Classification User Guide. *Ministry for the Environment and Niwa*.
27. **Tonkin J. and Death R.G. (2004)**. Freshwater fish survey of the lowland Manawatu-Wanganui Region. *Massey University – report prepared for Horizons Regional Council.*
28. **Wright J.F. (1995)**. Development and use of a system for predicting the macroinvertebrate fauna in flowing waters. *Australian Journal of Ecology. 20: 181-197.*

Appendix 1

Table D - 1: Values by Zone in the Manawatu-Wanganui Region

Legend:

Table Headings: WQS: Water Quality Standard; LSC: Life Supporting Capacity; CR: Contact Recreation; Am: Amenity; SG: Shellfish Gathering; Mau: Mauri; TF: Trout Fishery; SW: Stock water; NS: Natural State; SoS-Aq: Sites of Significance for Aquatic biodiversity; SoS-R: Sites of Significance for Riparian biodiversity; Ae: Aesthetics; NFS: Native Fish Spawning; NF: Native Fishery; SoS-C: Sites of Significance for Cultural value; TS: Trout Spawning; CAP: Capacity to Assimilate Pollution; WS: Water Supply; IA: Industrial Abstraction; I: Irrigation.

Key for LSC Classes: UHS: Upland Hard Sedimentary, UVA: Upland Volcanic Acidic, UVM: Upland Volcanic Mixed, Uli: Upland Limestone, HM: Hill Mixed, LM: Lowland Mixed, LS: Lowland Sand

Key for Fishery Classes: I: Outstanding, II: Regionally Significant, III: Other Trout Fishery

Management Zone	Sub-zone	Description*	Zone-wide Values							Site / Reach Specific Values											
			LSC	CR	Am	SG	Mau	TF	SW	NS	SoS Aq	SoS R	Ae	NFS	NF	SoS C	TS	CAP	WS	IA	I
Upper Manawatu (Mana_1)	Upper Manawatu (Mana_1a)	Manawatu River - source to Weber Road (U23:751 027)	HM	ü	ü		ü	II	ü	ü	ü						ü	ü	ü	ü	ü
	Mangatewainui (Mana_1b)	Mangatewainui River - source to Manawatu confluence (U23:829 086)	HM	ü			ü	II	ü	ü	ü						ü	ü	ü		ü
	Mangatoro (Mana_1c)	Mangatoro Stream - source to Manawatu confluence (U23:810 027)	HSS	ü			ü	II	ü	ü							ü	ü	ü		ü
Weber-Tamaki (Mana_2)	Weber-Tamaki (Mana_2a)	Manawatu River - Weber Road to Tamaki confluence	HM	ü			ü	II	ü			ü						ü	ü		ü
	Mangatera (Mana_2b)	Mangatera Stream - source to Manawatu confluence (U23:737 025)	HM	ü			ü		ü								ü	ü	ü		ü
Upper Tamaki (Mana_3)	Upper Tamaki	Tamaki River - source to water supply weir (U23:709 111)	UHS	ü			ü		ü	ü	ü						ü	ü	ü		
Upper Kumeti (Mana_4)	Upper Kumeti	Kumeti Stream - source to Te Rehunga flow recorder (T23:663 052)	UHS	ü			ü		ü	ü	ü							ü	ü		ü

* Includes all inflowing tributaries and catchment area unless otherwise specified.

Management Zone	Sub-zone	Description*	Zone-wide Values							Site / Reach Specific Values											
			LSC	CR	Am	SG	Mau	TF	SW	NS	SoS Aq	SoS R	Ae	NFS	NF	SoS C	TS	CAP	WS	IA	I
Tamaki-Hopelands (Mana_5)	Tamaki-Hopelands (Mana_5a)	Manawatu River - Tamaki confluence to Hopelands (T24: 616 899)	HM	ü			ü	II	ü			ü					ü	ü	ü	ü	ü
	Lower Tamaki (Mana_5b)	Tamaki River - Water supply weir to Manawatu confluence (U23:709 002)	HM	ü			ü		ü	ü	ü						ü	ü	ü	ü	
	Lower Kumeti (Mana_5c)	Kumeti Stream - Te Rehunga to Manawatu confluence (U23:701 006)	HM	ü			ü		ü	ü							ü	ü	ü		ü
	Oruakeretaki (Mana_5d)	Oruakeretaki Stream - source to Manawatu confluence (T23:690 000)	HM	ü			ü		ü	ü	ü						ü	ü	ü		ü
	Raparapawai (Mana_5e)	Raparapawai Stream - source to Manawatu confluence (T24:643 932)	HM	ü			ü		ü	ü							ü	ü	ü		ü
Hopelands-Tiraumea (Mana_6)	Hopelands-Tiraumea	Manawatu River - Hopelands to Tiraumea confluence (Ngawapurua) (T24:553 870)	HM	ü	ü		ü	II	ü			ü						ü	ü		ü
Tiraumea (Mana_7)	Upper Tiraumea (Mana_7a)	Tiraumea River - source to Ngaturi confluence (T24:578 780)	HSS	ü			ü	III	ü	ü								ü	ü		ü
	Lower Tiraumea (Mana_7b)	Tiraumea River - Ngaturi confluence to Manawatu confluence (T24:555 870)	HSS	ü			ü	III	ü	ü	ü	ü						ü	ü		ü
	Mangaone River (Mana_7c)	Mangaone River - source to Tiraumea confluence (T24:541 730)	HSS	ü			ü		ü	ü								ü	ü		ü
	Makuri (Mana_7d)	Makuri River - source to Tiraumea confluence (T24:568 771)	ULi	ü			ü	II	ü	ü			ü				ü	ü	ü		
Mangatainoka (Mana_8)	Upper Mangatainoka (Mana_8a)	Source to Larsons Road	UHS	ü			ü	II	ü	ü	ü		ü				ü	ü	ü		
	Middle Mangatainoka (Mana_8b)	Larsons Road to downstream Makakahi confluence	HM	ü			ü	II	ü	ü	ü		ü				ü	ü	ü	ü	ü
	Lower Mangatainoka (Mana_8c)	Makakahi confluence to Tiraumea confluence	HM	ü	ü		ü	II	ü			ü	ü				ü	ü	ü	ü	ü
	Makakahi (Mana_8d)	Makakahi River - source to Mangatainoka confluence	HM	ü	ü		ü	II	ü	ü	ü		ü				ü	ü	ü		
	Mangaramarama (Mana_8e)	Mangaramarama Creek - source to Mangatainoka confluence (T24:557 844)	HSS	ü			ü		ü				ü					ü	ü		ü
Upper Gorge (Mana_9)	Upper Gorge (Mana_9a)	Manawatu River – Tiraumea confluence to Upper Gorge flow recorder (T24:494 933)	HM	ü			ü	III	ü	ü	ü	ü	ü					ü	ü		ü

Management Zone	Sub-zone	Description*	Zone-wide Values							Site / Reach Specific Values											
			LSC	CR	Am	SG	Mau	TF	SW	NS	SoS Aq	SoS R	Ae	NFS	NF	SoS C	TS	CAP	WS	IA	I
	Mangapapa (Mana_9b)	Mangapapa Stream - source to Mangaatua confluence (T24:515 922)	HM	ü			ü		ü	ü							ü	ü	ü		
	Mangaatua (Mana_9c)	Mangaatua Stream - source to Manawatu confluence (T24:496 925)	HM	ü			ü		ü	ü	ü							ü	ü		
	Upper Mangahao (Mana_9d)	Mangahao River - source to Ballance (T24:468 818)	UHS	ü	ü		ü	III	ü	ü		ü					ü	ü	ü		
	Lower Mangahao (Mana_9e)	Mangahao River - Ballance to Manawatu confluence (T24:496 891)	HM	ü			ü	III	ü		ü	ü					ü	ü	ü		ü
Middle Manawatu (Mana_10)	Middle Manawatu (Mana_10a)	Manawatu River - Upper Gorge to Teacher's College (T24:331 892)	HM	ü	ü		ü	III	ü		ü	ü						ü	ü	ü	ü
	Upper Pohangina (Mana_10b)	Pohangina River - source to Totara Reserve (T23:534 167)	UHS	ü			ü	III	ü	ü	ü	ü	ü				ü	ü	ü		
	Middle Pohangina (Mana_10c)	Pohangina River – Totara Reserve to Mais Reach (T23:467 053)	HM	ü	ü		ü	III	ü	ü	ü	ü	ü				ü	ü	ü		ü
	Lower Pohangina (Mana_10d)	Pohangina River - Mais Reach to Manawatu confluence (T24:450 966)	HM	ü			ü	III	ü	ü	ü	ü	ü					ü	ü		ü
	Aokautere (Mana_10e)	Aokautere Stream - source to Manawatu confluence (T24:349 899)	HM	ü			ü		ü									ü	ü		
Lower Manawatu (Mana_11)	Lower Manawatu (Mana_11a)	Manawatu River – Teacher's College to Oroua confluence (S24:167 826)	HM	ü	ü		ü	III	ü			ü						ü	ü	ü	ü
	Turitea (Mana_11b)	Turitea Stream - source to Manawatu confluence (T24:304 881)	UHS	ü	ü		ü	III	ü		ü						ü	ü	ü		
	Kahuterawa (Mana_11c)	Kahuterawa Stream - source to Manawatu confluence (S24:292 876)	UHS	ü	ü		ü	III	ü	ü	ü						ü	ü	ü		ü
	Upper Mangaone Stream (Mana_11d)	Mangaone Stream - source to Milson Line (T24:311 953)	LM	ü			ü		ü									ü	ü		
	Lower Mangaone Stream (Mana_11e)	Mangaone Stream - Milson Line to Manawatu confluence (S24:283 872)	LM	ü	ü		ü		ü									ü	ü		ü
	Main Drain (Mana_11f)	Main Drain catchment to Manawatu confluence (including Taonui Stream) (S24:181 836)	LM	ü			ü		ü		ü							ü	ü		
Oroua (Mana_12)	Upper Oroua (Mana_12a)	Oroua River - source to Almadale (T23:365 113)	HM	ü	ü		ü	III	ü	ü	ü	ü	ü				ü	ü	ü		ü

Management Zone	Sub-zone	Description*	Zone-wide Values							Site / Reach Specific Values											
			LSC	CR	Am	SG	Mau	TF	SW	NS	SoS Aq	SoS R	Ae	NFS	NF	SoS C	TS	CAP	WS	IA	I
	Middle Oroua (Mana_12b)	Oroua River – Almadale to Awahuri Bridge (S23:243 002)	HM	ü	ü		ü	III	ü			ü						ü	ü	ü	
	Lower Oroua (Mana_12c)	Oroua River - Awahuri Bridge to Manawatu confluence (S24:167 826)	LM	ü			ü	III	ü			ü						ü	ü		ü
	Kiwitea (Mana_12d)	Kiwitea Stream - source to Oroua confluence (T23:309 066)	HM	ü	ü		ü		ü	ü		ü					ü	ü	ü		ü
	Makino (Mana_12e)	Makino Stream - source to Oroua confluence (S23:243 004)	LM	ü	ü		ü	III	ü		ü						ü	ü	ü		ü
Coastal Manawatu (Mana_13)	Coastal Manawatu (Mana_13a)	Manawatu River - Oroua confluence to mouth (S24:977 788)	LM	ü	ü		ü	III	ü		ü	ü		ü	ü			ü	ü		ü
	Upper Tokomaru (Mana_13b)	Tokomaru River - source to Horseshoe Bend (S24:241 768)	UHS	ü			ü	III	ü	ü	ü						ü	ü	ü		
	Lower Tokomaru (Mana_13c)	Tokomaru River - Horseshoe Bend to Manawatu confluence (S24:134 727)	LM	ü	ü		ü	III	ü		ü						ü	ü	ü		ü
	Mangaore (Mana_13d)	Mangaore River - source to Manawatu confluence (S24:123 717)	HM	ü			ü		ü	ü	ü							ü	ü		ü
	Koputaroa (Mana_13e)	Koputaroa Stream - source to Manawatu confluence (S24:106 708)	LM	ü			ü		ü		ü							ü			ü
	Foxton Loop (Mana_13f)	Manawatu at SH1 to downstream limit of Whirikino Cut (S24:010 769)	LM	ü	ü		ü		ü									ü			
Upper Rangitikei (Rang_1)	Upper Rangitikei	Rangitikei River - source to Makahikatoa Stream (U21:726 888)	UHS	ü			ü	I	ü	ü	ü		ü				ü	ü	ü		
Middle Rangitikei (Rang_2)	Middle Rangitikei (Rang_2a)	Rangitikei River - Makahikatoa Stream to Pukeokahu (U21:713 708)	UHS	ü			ü	I	ü				ü				ü	ü	ü		
	Pukeokahu – Mangaweka (Rang_2b)	Rangitikei main stem – Pukeokahu to Mangaweka (T22:504 513)	HM	ü	ü		ü	I	ü	ü	ü		ü				ü	ü	ü	ü	ü
	Upper Moawhango (Rang_2c)	Moawhango River - source to Moawhango Dam (T20:469 960)	UVA	ü			ü	III	ü	ü		ü					ü	ü	ü		
	Middle Moawhango (Rang_2d)	Moawhango Dam to Moawhango Township (T21:557 745)	UVM	ü			ü	III	ü			ü					ü	ü	ü		
	Lower Moawhango (Rang_2e)	Moawhango Township to Rangitikei confluence (T21:609 623)	HSS	ü			ü	III	ü	ü								ü	ü		
	Upper Hautapu (Rang_2f)	Hautapu River - source to Taihape (T21:506 670)	UVM	ü	ü		ü	II	ü	ü			ü				ü	ü	ü		

Management Zone	Sub-zone	Description*	Zone-wide Values							Site / Reach Specific Values											
			LSC	CR	Am	SG	Mau	TF	SW	NS	SoS Aq	SoS R	Ae	NFS	NF	SoS C	TS	CAP	WS	IA	I
	Lower Hautapu (Rang_2g	Hautapu River - Taihape to Rangitikei confluence (T22:529 574)	HSS	ü	ü		ü	III	ü	ü							ü	ü	ü		
Lower Rangitikei (Rang_3)	Lower Rangitikei (Rang_3a)	Rangitikei River - Mangaweka to Onepuhi (S23: 201 222)	HM	ü	ü		ü	II	ü		ü	ü	ü				ü	ü	ü	ü	ü
	Makohine (Rang_3b)	Makohine Stream - source to Rangitikei confluence (T22:400 443)	HSS	ü			ü		ü								ü	ü	ü		
Coastal Rangitikei (Rang_4)	Coastal Rangitikei (Rang_4a)	Rangitikei - Onepuhi to McKelvies (S24:033 985)	HM	ü			ü	III	ü		ü	ü						ü	ü	ü	ü
	Tidal Rangitikei (Rang_4b)	Rangitikei - McKelvies to mouth (S24:991 984)	LM	ü	ü		ü	III	ü	ü		ü		ü	ü			ü	ü		ü
	Porewa (Rang_4c)	Porewa Stream - source to Rangitikei confluence (S23:190 212)	HSS	ü			ü		ü								ü	ü	ü		
	Tutaenui (Rang_4d)	Tutaenui Stream - source to Rangitikei confluence (S23:101 095)	LM	ü	ü		ü		ü		ü							ü	ü	ü	ü
Upper Whanganui (Whai_1)	Upper Whanganui	Whanganui River - source to Whakapapa confluence (S19: 189 499)	UVA	ü			ü	III	ü	ü	ü		ü				ü	ü	ü		
Cherry Grove (Whai_2)	Cherry Grove (Whai_2a)	Whanganui River - Whakapapa confluence to Cherry Grove (S18:057 545)	UVM	ü	ü		ü	III	ü		ü		ü				ü	ü	ü	ü	ü
	Upper Whakapapa (Whai_2b)	Whakapapa River - source to Footbridge (S19: 226 293)	UVA	ü			ü	III	ü	ü	ü		ü				ü	ü	ü		
	Lower Whakapapa (Whai_2c)	Whakapapa River - Footbridge to Whanganui confluence (S19: 189 499)	UVA	ü	ü		ü	III	ü	ü	ü		ü				ü	ü	ü		
	Piopiotea (Whai_2d)	Piopiotea Stream - source to Whakapapa confluence (S19:174 356)	UVA	ü			ü	III	ü	ü							ü	ü	ü		
	Pungapunga (Whai_2e)	Pungapunga River - source to Whanganui confluence (S18:124 546)	UVM	ü			ü	III	ü	ü	ü						ü	ü			
	Upper Ongarue (Whai_2f)	Ongarue River - source to Waihuka Stream confluence (S18:108 785)	UVA	ü			ü	III	ü	ü	ü						ü	ü		ü	
	Lower Ongarue (Whai_2g)	Ongarue River – Waihuka Stream to Whanganui confluence (S18:056 547)	UVM	ü	ü		ü	III	ü	ü	ü						ü	ü		ü	

Management Zone	Sub-zone	Description*	Zone-wide Values							Site / Reach Specific Values											
			LSC	CR	Am	SG	Mau	TF	SW	NS	SoS Aq	SoS R	Ae	NFS	NF	SoS C	TS	CAP	WS	IA	I
Te Maire (Whai_3)	Te Maire	Whanganui River - Cherry Grove to Te Maire (S19: 998 490)	UVM	ü			ü	III	ü	ü	ü		ü					ü			
Middle Whanganui (Whai_4)	Middle Whanganui (Whai_4a)	Whanganui River - Te Maire to Retaruke confluence (Wades Landing/Whakahoro) (R19: 886 306)	UVM	ü			ü	III	ü	ü	ü		ü					ü			
	Upper Ohura (Whai_4b)	Ohura River - source to Tokorima (R18: 863 521)	HSS	ü			ü		ü	ü								ü	ü		
	Lower Ohura (Whai_4c)	Ohura River - Tokorima to Whanganui confluence (R19:887 386)	HSS	ü			ü		ü	ü								ü			
	Retaruke (Whai_4d)	Retaruke River - source to Whanganui confluence (R19:890 309)	UVM	ü			ü	III	ü	ü	ü						ü	ü			
Pipiriki (Whai_5)	Pipiriki (Whai_5a)	Whanganui River - Retaruke confluence to Pipiriki (R21: 859 897)	HSS	ü			ü	III	ü	ü	ü		ü					ü			
	Tangarakau (Whai_5b)	Tangarakau River - source to Whanganui confluence (R20:714 175)	HSS	ü			ü		ü	ü	ü							ü			
	Whangamomona (Whai_5c)	Whangamomona River - source to Whanganui confluence (R20:731 130)	HSS	ü			ü		ü	ü	ü							ü			
	Upper Manganui o te Ao (Whai_5d)	Manganui o te Ao River - source to Hoihenga Road (S20:047 077)	UVA	ü			ü	I	ü	ü	ü		ü				ü	ü			
	Lower Manganui o te Ao (Whai_5e)	Manganui o te Ao - Hoihenga Road to Whanganui confluence (R20:861 979)	UVM	ü	ü		ü	I	ü	ü	ü		ü				ü	ü		ü	
Paetawa (Whai_6)	Paetawa	Whanganui River - Pipiriki to Paetawa (S22: 937 566)	HSS	ü			ü	III	ü	ü	ü	ü	ü					ü			
Lower Whanganui (Whai_7)	Lower Whanganui (Whai_7a)	Whanganui River - Paetawa to Aramoho Bridge (R22:858 420)	HSS	ü	ü		ü		ü	ü	ü	ü	ü	ü	ü			ü			ü
	Coastal Whanganui (Whai_7b)	Whanganui River - Aramoho Bridge to mouth (R22:797 328)	LM	ü	ü		ü		ü			ü		ü	ü			ü		ü	
	Upokongaro (Whai_7c)	Upokongaro River - source to Whanganui confluence (S22:908 463)	HSS	ü			ü		ü		ü							ü			
	Matarawa (Whai_7d)	Matarawa River - source to Whanganui confluence (R22:857 403)	HSS	ü	ü		ü		ü					ü	ü			ü			
Upper Whangaehu	Upper Whangaehu (Whau_1a)	Whangaehu - source to Karioi (S21: 218 864)	UVA	ü			ü		ü	ü	ü	ü						ü			

Management Zone	Sub-zone	Description*	Zone-wide Values							Site / Reach Specific Values											
			LSC	CR	Am	SG	Mau	TF	SW	NS	SoS Aq	SoS R	Ae	NFS	NF	SoS C	TS	CAP	WS	IA	I
(Whau_1)	Waitangi (Whau_1b)	Waitangi Stream – source to Whangaehu confluence (T21:316 888)	UVM	ü			ü	III	ü								ü	ü	ü		ü
	Tokiahuru (Whau_1c)	Tokiahuru Stream - source to Whangaehu confluence (S21:219 865)	UVA	ü			ü	III	ü	ü	ü	ü					ü	ü		ü	ü
Middle Whangaehu (Whau_2)	Middle Whangaehu	Whangaehu River - Karioi to Aranui (S21: 175 627)	HSS	ü			ü		ü									ü			ü
Lower Whangaehu (Whau_3)	Lower Whangaehu (Whau_3a)	Whangaehu River - Aranui to Kauangaroa (S22:045 397) (includes Mangawhero from Raupiu Road to Whangaehu confluence)	HSS	ü			ü	III	ü	ü	ü							ü			ü
	Upper Makotuku (Whau_3b)	Makotuku River - source to Water Supply Weir (S20: 103 011)	UVA	ü			ü	III	ü	ü							ü	ü	ü		
	Lower Makotuku (Whau_3c)	Makotuku River - Water Supply Weir to Mangawhero confluence (S20:080 903)	UVA	ü			ü	III	ü	ü							ü	ü			ü
	Upper Mangawhero (Whau_3d)	Mangawhero River - source to Makotuku confluence(S20:080 903)	UVA	ü	ü		ü	III	ü	ü	ü						ü	ü	ü	ü	ü
	Lower Mangawhero (Whau_3e)	Mangawhero River - Makotuku confluence to Raupiu Road (S21:099 646)	HSS	ü			ü	III	ü		ü							ü			
Coastal Whangaehu (Whau_4)	Coastal Whangaehu	Whangaehu River - Kauangaroa to mouth (R23:890 275)	HSS	ü	ü		ü		ü			ü		ü	ü			ü			ü
Turakina (Tura_1)	Upper Turakina (Tura_1a)	Turakina River - source to Otairi (S22: 236 471)	HSS	ü			ü		ü	ü	ü							ü			
	Lower Turakina (Tura_1b)	Turakina River - Otaire to mouth (S23:924 231)	HSS	ü	ü		ü		ü			ü		ü	ü			ü			
	Ratana (Tura_1c)	Lakes Waipu and Oraekomiko and all surrounding catchment area	LM	ü			ü		ü									ü			
Ohau (Ohau_1)	Upper Ohau (Ohau_1a)	Ohau River - source to Rongomatane (S25:072 577)	UHS	ü			ü	III	ü		ü						ü	ü	ü		
	Lower Ohau (Ohau_ba)	Ohau River - Rongomatane to mouth (S25:918 578)	HM	ü	ü		ü	III	ü		ü	ü		ü	ü		ü	ü	ü		ü

Management Zone	Sub-zone	Description*	Zone-wide Values							Site / Reach Specific Values											
			LSC	CR	Am	SG	Mau	TF	SW	NS	SoS Aq	SoS R	Ae	NFS	NF	SoS C	TS	CAP	WS	IA	I
Owahanga (Owha_1)	Owahanga	Owahanga River - source to mouth (U25:932 532)	HSS	ü			ü		ü		ü							ü			
East Coast (East_1)	East Coast	Wainui, Tautane and Waimata – whole catchments from source to mouth	HSS	ü	ü		ü		ü		ü	ü						ü			
Akitio (Akit_1)	Upper Akitio (Akit_1a)	Akitio River - source to Weber Road (U24: 919 832)	HSS	ü			ü		ü		ü							ü			
	Lower Akitio (Akit_1b)	Akitio River - Weber Road to mouth (U25:992 610)	HSS	ü	ü		ü		ü		ü			ü	ü			ü			ü
	Waihi (Akit_1c)	Waihi Stream - source to Akitio confluence (U24:895 801)	HSS	ü			ü		ü									ü	ü		
Northern Coastal (West_1)	Northern Coastal	All coastal catchments and dune lakes between Kai Iwi and Waitotara catchments	LM	ü	ü		ü		ü		ü			ü	ü			ü		ü	
Kai Iwi (West_2)	Kai Iwi	Kai Iwi Stream - source to mouth (R23:723 449)	HSS	ü	ü		ü		ü	ü				ü	ü			ü	ü		ü
Mowhanau (West_3)	Mowhanau	Mowhanau Stream - source to mouth (R22:725 447)	LM	ü	ü		ü		ü		ü			ü	ü			ü			ü
Kaitoke Lakes (West_4)	Kaitoke Lakes	Lakes Kaitoke, Pauri, Wiritoa, Kohata and all surrounding catchment area	LM	ü	ü		ü		ü					ü	ü			ü	ü		
Southern Wanganui Lakes (West_5)	Southern Wanganui Lakes	Lakes Vipan, Heaton, Bernard, William, Herbert, Hickson, Alice, Koitiata, Dudding and all surrounding catchment area	LS	ü	ü		ü		ü		ü			ü	ü			ü			
Northern Manawatu Lakes (West_6)	Northern Manawatu Lakes	All lakes and lagoons between Coastal Rangitikei and Coastal Manawatu and all surrounding catchment area	LS	ü	ü		ü		ü		ü			ü	ü			ü			
Waitarere (West_7)	Waitarere	All lakes and lagoons between Coastal Manawatu and Lake Horowhenua catchment and all surrounding catchment area	LS	ü	ü		ü		ü									ü			

Management Zone	Sub-zone	Description*	Zone-wide Values							Site / Reach Specific Values											
			LSC	CR	Am	SG	Mau	TF	SW	NS	SoS Aq	SoS R	Ae	NFS	NF	SoS C	TS	CAP	WS	IA	I
Lake Papaitonga (West_8)	Lake Papaitonga	Lake Papaitonga catchment	LS	ü			ü		ü		ü			ü	ü			ü			ü
Waikawa (West_9)	Waikawa	Waikawa Stream - source to mouth (S25:908 548)	HM	ü	ü		ü		ü		ü	ü						ü	ü		ü
Lake Horowhenua (Hoki_1)	Lake Horowhenua (Hoki_1a)	Whole lake catchment above Hokio Stream outlet	LM	ü			ü		ü		ü							ü			
	Hokio (Hoki_1b)	Hokio Stream downstream of Lake Horowhenua outlet	LS	ü	ü		ü		ü					ü	ü			ü			
Coastal Marine Area	Coastal Marine Area – West Coast (West Coast)	Coastal Marine Area – West Coast	Sea	ü	ü	ü	ü							ü	ü			ü			
	Coastal Marine Area – East Coast (East Coast)	Coastal Marine Area – East	Sea	ü	ü	ü	ü							ü	ü			ü			

Tables recommended for inclusion in Schedule D of the One Plan

Table 1: Recommended schedule for the Life-Supporting Capacity Value

Management Zone	Sub-zone	Description*	Life-Supporting Capacity Classification
Upper Manawatu	Upper Manawatu	Manawatu River - source to Weber Road (U23:751 027)	HM
	Mangatewainui	Mangatewainui River - source to Manawatu confluence (U23:829 086)	HM
	Mangatoro	Mangatoro Stream - source to Manawatu confluence (U23:810 027)	HSS
Weber-Tamaki	Weber-Tamaki	Manawatu River - Weber Road to Tamaki confluence	HM
	Mangatera	Mangatera Stream - source to Manawatu confluence (U23:737 025)	HM
Upper Tamaki	Upper Tamaki	Tamaki River - source to Water Supply Weir (U23:709 111)	UHS
Upper Kumeti	Upper Kumeti	Kumeti Stream - source to Te Rehunga flow recorder (T23:663 052)	UHS
Tamaki-Hopelands	Tamaki-Hopelands	Manawatu River - Tamaki confluence to Hopelands (T24: 616 899)	HM
	Lower Tamaki	Tamaki River - Water Supply Weir to Manawatu confluence (U23:709 002)	HM
	Lower Kumeti	Kumeti Stream - Te Rehunga to Manawatu confluence (U23:701 006)	HM
	Oruakeretaki	Oruakeretaki Stream - source to Manawatu confluence (T23:690 000)	HM
	Raparapawai	Raparapawai Stream - source to Manawatu confluence (T24:643 932)	HM
Hopelands-Tiraumea	Hopelands-Tiraumea	Manawatu River - Hopelands to Tiraumea confluence (Ngawapurua) (T24:553 870)	HM
Tiraumea	Upper Tiraumea	Tiraumea River - source to Ngaturi confluence (T24:578 780)	HSS
	Lower Tiraumea	Tiraumea River - Ngaturi confluence to Manawatu confluence (T24:555 870)	HSS
	Mangaone River	Mangaone River - source to Tiraumea confluence (T24:541 730)	HSS
	Makuri	Makuri River - source to Tiraumea confluence (T24:568 771)	ULi
Mangatainoka	Upper Mangatainoka	Source to Larsons Road	UHS
	Middle Mangatainoka	Larsons Road to downstream Makakahi confluence	HM
	Lower Mangatainoka	Makakahi confluence to Tiraumea confluence	HM
	Makakahi	Makakahi River - source to Mangatainoka confluence	HM
	Mangaramarama	Mangaramarama Creek - source to Mangatainoka confluence (T24:557 844)	HSS
Upper Gorge	Upper Gorge	Manawatu River – Tiraumea confluence to Upper Gorge flow recorder (T24:494 933)	HM
	Mangapapa	Mangapapa Stream - source to Mangaatua confluence (T24:515 922)	HM
	Mangaatua	Mangaatua Stream - source to Manawatu confluence (T24:496 925)	HM

* Includes all inflowing tributaries and catchment area unless otherwise specified.

Management Zone	Sub-zone	Description*	Life-Supporting Capacity Classification
	Upper Mangahao	Mangahao River - source to Ballance (T24:468 818)	UHS
	Lower Mangahao	Mangahao River - Ballance to Manawatu confluence (T24:496 891)	HM
Middle Manawatu	Middle Manawatu	Manawatu River - Upper Gorge to Teacher's College (T24:331 892)	HM
	Upper Pohangina	Pohangina River - source to Totara Reserve (T23:534 167)	UHS
	Middle Pohangina	Pohangina River – Totara Reserve to Mais Reach (T23:467 053)	HM
	Lower Pohangina	Pohangina River - Mais Reach to Manawatu confluence (T24:450 966)	HM
	Aokautere	Aokautere Stream - source to Manawatu confluence (T24:349 899)	HM
Lower Manawatu	Lower Manawatu	Manawatu River – Teacher's College to Oroua confluence (S24:167 826)	HM
	Turitea	Turitea Stream - source to Manawatu confluence (T24:304 881)	UHS
	Kahuterawa	Kahuterawa Stream - source to Manawatu confluence (S24:292 876)	UHS
	Upper Mangaone Stream	Mangaone Stream - source to Milson Line (T24:311 953)	LM
	Lower Mangaone Stream	Mangaone Stream - Milson Line to Manawatu confluence (S24:283 872)	LM
	Main Drain	Main Drain catchment to Manawatu confluence (including Taonui Stream) (S24:181 836)	LM
Oroua	Upper Oroua	Oroua River - source to Almadale (T23:365 113)	HM
	Middle Oroua	Oroua River – Almadale to Awahuri Bridge (S23:243 002)	HM
	Lower Oroua	Oroua River - Awahuri Bridge to Manawatu confluence (S24:167 826)	LM
	Kiwitea	Kiwitea Stream - source to Oroua confluence (T23:309 066)	HM
	Makino	Makino Stream - source to Oroua confluence (S23:243 004)	LM
Coastal Manawatu	Coastal Manawatu	Manawatu River - Oroua confluence to mouth (S24:977 788)	LM
	Upper Tokomaru	Tokomaru River - source to Horseshoe Bend (S24:241 768)	UHS
	Lower Tokomaru	Tokomaru River - Horseshoe Bend to Manawatu confluence (S24:134 727)	LM
	Mangaore	Mangaore River - source to Manawatu confluence (S24:123 717)	HM
	Koputaroa	Koputaroa Stream - source to Manawatu confluence (S24:106 708)	LM
	Foxton Loop	Manawatu at SH1 to downstream limit of Whirikino Cut (S24:010 769)	LM
Upper Rangitikei	Upper Rangitikei	Rangitikei River - source to Makahikatoa Stream (U21:726 888)	UHS
Middle Rangitikei	Middle Rangitikei	Rangitikei River - Makahikatoa Stream to Pukeokahu (U21:713 708)	UHS
	Pukeokahu - Mangaweka	Rangitikei main stem – Pukeokahu to Mangaweka (T22:504 513)	HM
	Upper Moawhango	Moawhango River - source to Moawhango Dam (T20:469 960)	UVA

Management Zone	Sub-zone	Description*	Life-Supporting Capacity Classification
	Middle Moawhango	Moawhango Dam to Moawhango Township (T21:557 745)	UVM
	Lower Moawhango	Moawhango Township to Rangitikei confluence (T21:609 623)	HSS
	Upper Hautapu	Hautapu River - source to Taihape (T21:506 670)	UVM
	Lower Hautapu	Hautapu River - Taihape to Rangitikei confluence (T22:529 574)	HSS
Lower Rangitikei	Lower Rangitikei	Rangitikei River - Mangaweka to Onepuhi (S23: 201 222)	HM
	Makohine	Makohine Stream - source to Rangitikei confluence (T22:400 443)	HSS
Coastal Rangitikei	Coastal Rangitikei	Rangitikei - Onepuhi to McKelvies (S24:033 985)	HM
	Tidal Rangitikei	Rangitikei - McKelvies to mouth (S24:991 984)	LM
	Porewa	Porewa Stream - source to Rangitikei confluence (S23:190 212)	HSS
	Tutaenui	Tutaenui Stream - source to Rangitikei confluence (S23:101 095)	LM
Upper Whanganui	Upper Whanganui	Whanganui River - source to Whakapapa confluence (S19: 189 499)	UVA
Cherry Grove	Cherry Grove	Whanganui River - Whakapapa confluence to Cherry Grove (S18:057 545)	UVM
	Upper Whakapapa	Whakapapa River - source to Footbridge (S19: 226 293)	UVA
	Lower Whakapapa	Whakapapa River - Footbridge to Whanganui confluence (S19: 189 499)	UVA
	Piopiotea	Piopiotea Stream - source to Whakapapa confluence (S19:174 356)	UVA
	Pungapunga	Pungapunga River - source to Whanganui confluence (S18:124 546)	UVM
	Upper Ongarue	Ongarue River - source to Waihuka Stream confluence (S18:108 785)	UVA
	Lower Ongarue	Ongarue River – Waihuka Stream to Whanganui confluence (S18:056 547)	UVM
Te Maire	Te Maire	Whanganui River - Cherry Grove to Te Maire (S19: 998 490)	UVM
Middle Whanganui	Middle Whanganui	Whanganui River - Te Maire to Retaruke confluence (Wades Landing/Whakahoro) (R19: 886 306)	UVM
	Upper Ohura	Ohura River - source to Tokorima (R18: 863 521)	HSS
	Lower Ohura	Ohura River - Tokorima to Whanganui confluence (R19:887 386)	HSS
	Retaruke	Retaruke River - source to Whanganui confluence (R19:890 309)	UVM
Pipiriki	Pipiriki	Whanganui River - Retaruke confluence to Pipiriki (R21: 859 897)	HSS
	Tangarakau	Tangarakau River - source to Whanganui confluence (R20:714 175)	HSS
	Whangamomona	Whangamomona River - source to Whanganui confluence (R20:731 130)	HSS
	Upper Manganui o te Ao	Manganui o te Ao River - source to Hoihenga Road (S20:047 077)	UVA
	Lower Manganui o te Ao	Manganui o te Ao - Hoihenga Road to Whanganui confluence (R20:861 979)	UVM
Paetawa	Paetawa	Whanganui River - Pipiriki to Paetawa (S22: 937 566)	HSS

Management Zone	Sub-zone	Description*	Life-Supporting Capacity Classification
Lower Whanganui	Lower Whanganui	Whanganui River - Paetawa to Aramoho Bridge (R22:858 420)	HSS
	Coastal Whanganui	Whanganui River - Aramoho Bridge to mouth (R22:797 328)	LM
	Upokongaro	Upokongaro River - source to Whanganui confluence (S22:908 463)	HSS
	Matarawa	Matarawa River - source to Whanganui confluence (R22:857 403)	HSS
Upper Whangaehu	Upper Whangaehu	Whangaehu - source to Karioi (S21: 218 864)	UVA
	Waitangi	Waitangi Stream – source to Whangaehu confluence (T21:316 888)	UVM
	Tokiahuru	Tokiahuru Stream - source to Whangaehu confluence (S21:219 865)	UVA
Middle Whangaehu	Middle Whangaehu	Whangaehu River - Karioi to Aranui (S21: 175 627)	HSS
Lower Whangaehu	Lower Whangaehu	Whangaehu River - Aranui to Kauangaroa (S22:045 397) (includes Mangawhero from Raupiu Road to Whangaehu confluence)	HSS
	Upper Makotuku	Makotuku River - source to Water Supply Weir (S20: 103 011)	UVA
	Lower Makotuku	Makotuku River - Water supply weir to Mangawhero confluence (S20:080 903)	UVA
	Upper Mangawhero	Mangawhero River - source to Makotuku confluence(S20:080 903)	UVA
	Lower Mangawhero	Mangawhero River - Makotuku confluence to Raupiu Road (S21:099 646)	HSS
Coastal Whangaehu	Coastal Whangaehu	Whangaehu River - Kauangaroa to mouth (R23:890 275)	HSS
Turakina	Upper Turakina	Turakina River - source to Otairi (S22: 236 471)	HSS
	Lower Turakina	Turakina River - Otaire to mouth (S23:924 231)	HSS
	Ratana	Lakes Waipu and Oraekomiko and all surrounding catchment area	LM
Ohau	Upper Ohau	Ohau River - source to Rongomatane (S25:072 577)	UHS
	Lower Ohau	Ohau River - Rongomatane to mouth (S25:918 578)	HM
Owahanga	Owahanga	Owahanga River - source to mouth (U25:932 532)	HSS
East Coast	East Coast	Wainui, Tautane and Waimata – whole catchments from source to mouth	HSS
Akitio	Upper Akitio	Akitio River - source to Weber Road (U24: 919 832)	HSS
	Lower Akitio	Akitio River - Weber Road to mouth (U25:992 610)	HSS
	Waihi	Waihi Stream - source to Akitio confluence (U24:895 801)	HSS
Northern Coastal	Northern Coastal	All coastal catchments and dune lakes between Kai Iwi and Waitotara catchments	LM
Kai Iwi	Kai Iwi	Kai Iwi Stream - source to mouth (R23:723 449)	HSS
Mowhanau	Mowhanau	Mowhanau Stream - source to mouth (R22:725 447)	LM
Kaitoke Lakes	Kaitoke Lakes	Lakes Kaitoke, Pauri, Wiritoa, Kohata and all surrounding catchment area	LM

Management Zone	Sub-zone	Description*	Life-Supporting Capacity Classification
Southern Wanganui Lakes	Southern Wanganui Lakes	Lakes Vipan, Heaton, Bernard, William, Herbert, Hickson, Alice, Koitiata, Dudding and all surrounding catchment area	LS
Northern Manawatu Lakes	Northern Manawatu Lakes	All lakes and lagoons between Coastal Rangitikei and Coastal Manawatu and all surrounding catchment area	LS
Waitarere	Waitarere	All lakes and lagoons between Coastal Manawatu and Lake Horowhenua catchment and all surrounding catchment area	LS
Lake Papaitonga	Lake Papaitonga	Lake Papaitonga catchment	LS
Waikawa	Waikawa	Waikawa Stream - source to mouth (S25:908 548)	HM
Lake Horowhenua	Lake Horowhenua	Whole lake catchment above Hokio Stream outlet	LM
	Hokio	Hokio Stream downstream of Lake Horowhenua outlet	LS

Table 2: Recommended schedule for the Sites of Significance for Aquatic Biodiversity (SOS-A)

Management Zone	Sub-zone	Site	Species	Map Ref
Upper Manawatu	Upper Manawatu	Manawatu River and tributaries	koaro and dwarf galaxias	From the confluence with the Manawatu River at approx NZMS 260 U23:780-258 to source
	Mangatewainui	Mangatewainui River	dwarf galaxias	From approx NZMS 260 U23:828-177 to U23:785-231
Upper Tamaki	Upper Tamaki	Tamaki River including East and West Branches	dwarf galaxias	From approx NZMS 260 U23:710-131 to source
Upper Kumeti	Upper Kumeti	Kumeti/Mangapuaka Stream	dwarf galaxias	From approx NZMS 260 T23:646-091 to source
Tamaki – Hopelands	Lower Tamaki	Rokaiwhana Stream	dwarf galaxias	From the confluence with the Tamaki River at approx NZMS 260 T23:697-091 to source
	Oruakeretaki	Mangapukakakahu Stream	dwarf galaxias	From the confluence with the Oruakeretaki River at approx NZMS 260 T23:666-023 to source
		Oruakeretaki Stream	dwarf galaxias	From approx NZMS 260 T23:642-045 to T23:618-067
		Oruakeretaki tributary	dwarf galaxias	From the confluence with the Oruakeretaki Stream at approx NZMS 260 T23:628-058 to source
Tiraumea	Lower Tiraumea	Makairo Stream	shortjaw kokopu and koaro	From approx NZMS 260 T24:655-833 to source
Mangatainoka	Upper Mangatainoka	Mangatainoka tributary	shortjaw kokopu and koaro	From the confluence with the Mangatainoka River at approx NZMS 260 S25:249-535 to source
		Ngamaia Stream tributary	koaro	From the confluence with the Ngamaia Stream at approx NZMS 260 S25:243-568 to source
		Mangatainoka River	shortjaw kokopu and koaro	From approx NZMS 260 S25:262-562 to source
		Mangatainoka tributary	shortjaw kokopu	From the confluence with the Mangatainoka River at NZMS 260 S25:252-555 to source
		Rawnsley Stream	shortjaw kokopu	From the confluence with the Mangatainoka River at approx NZMS 260 S25:259-555 to source
		Makotukutuku Stream	shortjaw kokopu	From the confluence with the Mangatainoka River at approx NZMS 260 S25:279-576 to source

	Middle Mangatainoka	Tramway Creek	dwarf galaxias	From the confluence with the Mangatainoka River at approx NZMS 260 T25:326-625 to source
	Makakahi	Bruce Stream tributary	shortjaw Kokopu	From the confluence with the Bruce Stream at approx NZMS 260 T25:332-510 to source
		Makakahi River tributary	shortjaw Kokopu	From the confluence with the Makakahi River from approx NZMS 260 S25:286-514 to source
		Makakahi River	shortjaw Kokopu	From the confluence with a tributary at approx NZMS 260 S25:286-514 to source
Upper Gorge	Upper Gorge	Manawatu River tributary	redfin bully	From the confluence with the Manawatu River at approx NZMS 260 T24:486-899 to source
		Manawatu River tributary	redfin bully	From the confluence with the Manawatu River at approx NZMS 260 T24:490-928 to source
	Mangaatua	Mangaatua Stream	shortjaw kokopu	From approx NZMS 260 T24:590-992 To approx NZMS 260 T23:574-023
	Lower Mangahao	Mangahao tributary	dwarf galaxias	From the confluence with the Mangahao River at approx NZMS260 S25:150-532 to source
		Mangahao River	dwarf galaxias and shortjaw kokopu	From approx NZMS 260 T25:324-679 To source
		Roaring Creek	dwarf galaxias	From the confluence with the Mangahao River at approx NZMS 260 S25:190-606 to source
		Ngapuketurua Stream	banded kokopu and shortjaw kokopu	From the confluence with the Mangahao River at approx NZMS 260 S25:278-660 to source
Middle Manawatu	Middle Manawatu	Manawatu River tributary	lamprey	From the confluence with the Manawatu River at approx NZMS 260 T24:410-937 to T24:444-940
		Manawatu River tributary	lamprey	From the confluence with the Manawatu River at approx NZMS 260 T24:392-929 to T24:413-902
	Upper Pohangina	Pohangina tributary	koaro	From the confluence with the Pohangina River at approx NZMS 260 T23:652-233 to source
		Pohangina River	whio	From NZMS 260 U23:705-256 to approx NZMS 260 U23:708-303
		Makawakawa Stream tributary	koaro	From approx NZMS 260 T23:606-173 to source

	Middle Pohangina	Pohangina River	Koaro	From approx NZMS 260 T23:468-058 to NZMS 260 T23:469-086
		Waitokanui Stream	redfin bully	From the confluence with the Pohangina River at approx NZMS 260 T23:474-069 to source
	Lower Pohangina	Ashhurst Domain	brown mudfish	At approx NZMS 260 T24:446-967 to NZMS 260 T24:444-940
Lower Manawatu	Turitea	Turitea Stream	Lamprey	From the confluence with the Manawatu River at approx NZMS 260 T24:302-880 to approx NZMS 260 T24:341-866
	Kahuterawa	Kahuterawa Stream and tributaries	banded kokopu, shortjaw kokopu and redfin bully	From the confluence with the Manawatu River at approx NZMS 260 S24:293-870 to source
	Main Drain	Unnamed Wetland	brown mudfish	At approx NZMS 260 S24:223-877
Oroua	Upper Oroua	Mangapikopiko Stream	banded kokopu	From the confluence with the Oroua River at NZMS 260 T22:515-307 to approx T22:538-317
		Oroua River	banded kokopu	From approx NZMS 260 T22:667-349 to source
	Makino	Mangaone West Stream	redfin bully	From approx NZMS 260 S23:258-050 to approx NMZS 260 S23:236-064
Coastal Manawatu	Coastal Manawatu	Round Bush Scenic Reserve and tributary	brown mudfish	From approx NZMS 260 S24:013-835 to source at approx S24:058-819
	Upper Tokomaru	Tokomaru River tributary	redfin bully, koaro and banded kokopu	From the confluence with the Tokomaru River at approx NZMS 260 S24:243-705 to source
		Tokomaru River tributary	redfin bully, koaro and banded kokopu	From the confluence with the Tokomaru River at approx NZMS 260 S24:255-720 to source
		Tokomaru River tributary	redfin bully, koaro and banded kokopu	From the confluence with the Tokomaru River at approx NZMS 260 S24:259-734 to source
	Upper and Lower Tokomaru	Tokomaru River	redfin bully koaro and banded kokopu	From approx NZMS 260 S24:198-776 To approx S25:240-698
	Lower Tokomaru	Makuera Swamp Wildlife Management Reserve	brown mudfish	At approx NZMS 260 S24:190-760
	Mangaore	Mangaore Stream	shortjaw kokopu, redfin bully and koaro	From approx NZMS 260 S24:142-711 to source at approx S24:177-635

		Mangatangi Stream	shortjaw kokopu, redfin bully and koaro	From the confluence with the Mangaore Stream at approx NZMS 260 S25:173-670 to source
		Mangaore Stream tributary	koaro	From the confluence with the Mangaore Stream at approx NZMS 260 S25:161-648 To source
	Koputaroa	Perawitis Wetland	brown mudfish	At approx NZMS 260 S25:094-688 and S25:095-688
Upper Rangitikei	Upper Rangitikei	Rangitikei River	whio	From approx NZMS 260 U20:707-031 to approx NZMS 260 U19:716-274
		Mangamarie River	whio	From the confluence with the Rangitikei River at approx NZMS 260 T20:691-090 to approx NZMS 260 T20:699-102
		Otamatenui Stream	whio	From the confluence with the Rangitikei River at approx NZMS 260 T20:672-107 to approx NZMS 260 T20:603-146
Middle Rangitikei	Pukeokahu - Mangaweka	Mangatera River	whio	From the confluence with the Maropea River at approx NZMS 260 U21:749-655 to Lake Colenso at approx U21:781-660
		Waiokotore Stream	whio	From the confluence with the Mangatera River at approx NZMS 260 U21:770-659 to U21: 789-697
		Maropea River	whio	From the confluence with the Mangatera River at approx NZMS 260 U21:749-655 to U22:803-580
		Kawhatau River	whio	From the confluence with the Hikurangi Stream at approx NZMS 260 U22:700-557 to approx U22:760-499
		Waikakamaka River	whio	From the confluence with the Maropea River at approx NZMS 260 U21:748-622 to approx U22:782-502
		Porangaki River	dwarf galaxias and redfin bully	From the confluence with the Mangakukeke Stream at approx NZMS 260 T22:635- 507 to approx T22:651-499
		Hikurangi Stream	dwarf galaxias	From the confluence with the Kawhatau River at approx NZMS 260 T22:661-530 to source

		Mangawhahariki River	shortjaw kokopu	From approx NZMS 260 T22:602-449 to approx NZMS 260 T22:632-444
Lower Rangitikei and Coastal Rangitikei	Lower Rangitikei and Coastal Rangitikei	Rangitikei River	redfin bully	From approx NZMS 260 S23:184-206 to approx S23:210-222
Coastal Rangitikei	Tutaenui	Tutaenui Stream tributary	brown mudfish	From the confluence with the Tutaenui Stream at approx NZMS 260 S23:104-104 to source
	Coastal Rangitikei	Forest Road Wetland	giant kokopu	From approx NZMS 260 S23:016-028 to approx S23:040-034
Upper Whanganui	Upper Whanganui	Mangatepopo Stream	whio	From the confluence with the Whanganui River at approx NZMS 260 S19:289-405 to T19:308-360
Upper Whanganui and Cherry Grove	Upper Whanganui and Cherry Grove	Whanganui River	whio	From the confluence with the Whakapapa River at approx NZMS 260 S19:188-495 to source
Cherry Grove	Upper and Lower Whakapapa	Whakapapa River and Whakapapiti Stream	whio	From the confluence with the Whanganui River at approx NZMS 260 S19:188-495 to approx S19:237-224 (SH47 Bridge)
	Pungapunga	Pungapunga River	whio	From approx NZMS 260 S18:291-612 to source
		Pungapunga River	koaro	From approx NZMS 260 S18:234-573 to source
	Upper Ongarue	Ongarue River and tributaries	whio	From NZMS 260 T17:314-864 to source
		Mangatukutuku Stream	whio	NZMS 260 S18:166-770 to S18:204-729
		Maramataha River	whio	From NZMS 260 S17:176-825 to source
		Piropiro Stream	whio	From the confluence with the Maramataha River at approx NZMS 260 S17:251-804 to source
		Paupangonui Stream	whio	From the confluence with the Piropiro River at approx NZMS 260 S17:265-819 to source
		Totara Stream	whio	From the confluence with the Maramataha River at approx NZMS 260 S18:271-796 to source
		Unnamed Maramataha River tributary	whio	From the confluence with the Maramataha River at approx NZMS 260 S18:273-793 to source
	Lower Ongarue	Opotiki Stream	shortjaw kokopu	From approx NZMS 260 S18:022-633 To source

Te Maire	Te Maire	Motutara stream	shortjaw kokopu	From the confluence with the Whanganui River at approx NZMS 260 S19:000-488 to source
Middle Whanganui	Middle Whanganui	Whanganui River tributary	shortjaw kokopu	From the confluence with the Whanganui River at approx NZMS 260 S19:939-422 to source
	Retaruke	Retaruke River	whio	From the confluence with the Whanganui River from approx NZMS 260 R19:890-309 to approx NZMS 260 S19:072-213
		Horomea Stream	whio	From approx NZMS 260 S19:947-252 to source
		Morinui Stream	whio	From approx NZMS 260 S19:954-233 to source
Pipiriki	Pipiriki	Mangapurua Stream and tributaries	whio	From approx NZMS 260 R20:800-117 to source
		Mangatiti Stream and tributaries	whio	From approx NZMS 260 R20:832-079 to source
		Kaiwhakauka Stream	whio	From approx NZMS 260 R19:878-305 to source
		Puketapu Stream	redfin bully	From the confluence with the Whanganui River at approx NZMS 260 R20:737-180 to source
		Whanganui River tributary	redfin bully	From the confluence with the Whanganui River at approx NZMS 260 R20:793-115 to source
		Puwawa Stream	redfin bully	From the confluence with the Whanganui River at approx NZMS 260 R20:819-058 to source
		Mangaio Stream and tributaries	whio and redfin bully	From the confluence with the Whanganui River at approx NZMS 260 R20:839-955 to source
	Tangarakau	Waitaanga Stream tributary	redfin bully	From the confluence with the Waitaanga Stream at approx R18:710-645 to source
		Heao Stream	shortjaw kokopu and koaro	From approx NZMS 260 R18:781-513 to source
		Mangarae Stream	banded kokopu	From the confluence with the Mangarae Stream at approx NZMS 260 R19:732-302 to source
		Mangarae Stream tributary	banded kokopu	From approx NZMS 260 R19:728-288 to source
	Whangamomona	Tirohanga Stream	shortjaw kokopu	From the confluence with the Whangamomona River at approx NZMS 260 R20:658-157 to source

		Awahou Stream	shortjaw kokopu	From the confluence with the Marangae Stream at approx NZMS 260 R19:587-277 to source
		Kuri Stream	shortjaw kokopu	From approx NZMS 260 R20:666-190 to source
	Upper Manganui o te Ao	Mangaturuturu River and tributaries	banded kokopu and whio	From the confluence with the Manganui o te Ao River at approx NZMS 260 S20:056-067 to source
		Mangaturuturu River tributary	koaro	From the confluence with the Mangaturuturu River at approx NZMS 260 S20:161-083 to source
		Manganui o te Ao River tributary	whio	From the confluence with the Manganui o te Ao River at approx NZMS 260 S20:068-099 to source
		Manganui o te Ao River	koaro	From approx NZMS 260 S20:067-085 to source
		Makomiko Stream	koaro	From the confluence with the Waimarino Stream at approx NZMS 260 S20:153-168 to source
		Makatote River	koaro and whio	From the confluence with the Manganui o te Ao River at approx NZMS 260 S20:128-119 to source
	Upper and Lower Manganui o te Ao	Manganui o te Ao River	whio	From approx NZMS 260 R20:861-980 to source
	Lower Manganui o te Ao	Orautoha	whio	From the confluence with Manganui o te Ao at approx NZMS 260 S20:027-067 to source
		Ruatiti Stream	whio and shortjaw kokopu	From the confluence with Manganui o te Ao at approx NZMS 260 S20:993-080 to source
		Makino Stream tributary	shortjaw kokopu and koaro	From approx NZMS 260 S20:011-130 to source
		Ohangaia Stream	redfin bully	From the confluence with the Manganui o te Ao River at approx NZMS 260 S20:919-021 to source
Paetawa	Paetawa	Kaukore Stream	shortjaw kokopu, redfin bully, koaro	From the confluence with the Whanganui River at approx NZMS 260 R21:859-894 to source
		Whanganui River	redfin bully	From approx NZMS 260 R21:861-858 to approx NZMS 260 R21:861-892
		Riripo Stream	redfin bully	From the confluence with the Whanganui River at approx NZMS 260 S21:915-777 to source

		Otuporiki Stream	redfin bully	From the confluence with the Whanganui River at approx NZMS 260 S21:950-696 to source
		Taupiri Stream	redfin bully	From the confluence with the Whanganui River at approx NZMS 260 S21:942-624 to source
		Whauteihi Stream	bluegill bully	From the confluence with Whanganui River at approx NZMS 260 S22:959-577 to source
Lower Whanganui	Lower Whanganui	Kauarapaoa Stream	redfin bully	From approx NZMS 260 S22:900-558 to source
	Upokongaro	Mongotai Stream	lamprey	From the confluence with the Upokongaro Stream at approx NZMS 260 S22:958-511 to source
Upper Whangaehu	Upper Whangaehu	Unnamed tributary of the Whangaehu River	whio	From approx NZMS 260 T20:410-019 to source
		Makahikatoa Stream and tributaries	whio	From approx NZMS 260 T20:396-008 to source
		Wahianoa Stream	whio	From approx NZMS 260 T20:365-039 to source
	Tokiahuru	Unnamed tributary of the Tokiahuru stream	whio	From NZMS 260 T20:341-027 to source
		Unnamed tributary of the Unuunuakapuateariki Stream	whio	From NZMS 260 T20:329-989 to source
		Unuunuakapuateariki Stream and tributaries	whio	From NZMS 260 T20:312-960 to source
Lower Whangaehu	Lower Whangaehu	Taukoro Stream	koaro	From the confluence with the Mangawhero River at approx NZMS 260 S22:083-566 to source
	Upper Mangawhero	Mangawhero River	whio	From NZMS 260 S20:179-978 (Ohakune) to source
		Taonui Stream	whio	From NZMS 260 S20:135-009 to S20:160-021
	Lower Mangawhero	Mangawhero River	whio	From NZMS 260 S21:067-875 to S20:080-903
Turakina	Upper Turakina	Turakina River tributary	redfin bully	From the confluence with the Turakina River at approx NZMS 260 S22:090-361 to approx S22:104-350
Ohau	Upper Ohau	Waiti Stream	redfin bully	From the confluence with the Ohau River at approx NZMS 260 S25:118-604 to source
	Upper and Lower Ohau	Ohau River	redfin bully, bluegill bully and banded kokopu	From approx NZMS 260 S25:061-575 to approx NZMS 260 S25:098-588
	Lower Ohau	Ohau River	redfin bully	From approx S25:982-578 to approx S25:039-574

		Makorokio Stream	redfin bully, lamprey and shortjaw kokopu	From the confluence with the Ohau River at approx NZMS 260 S25:018-563 to source
Owahanga	Owahanga	Owahanga River	redfin bully	From approx NZMS 260 U25:902-585 to approx NZMS 260 U25:889-568
		Pongaroa River	redfin bully and shortjaw kokopu	From approx NZMS 260 U24:778-708 to source
East Coast	East Coast	Waimata River	redfin bully	From River Mouth at approx NZMS 260 U25:058-691 to approx NZMS 260 U24:051-710
		Papuka Stream	redfin bully	From River Mouth at approx NZMS 260 U24:076-705 to approx NZMS 260 U24:072-723
		Wainui River	redfin bully	From approx NZMS 260 V24:112-752 to approx NZMS 260 V24:102-771
Akitio	Upper Akitio	Akitio River tributary	banded kokopu	From the confluence with the Akitio River at approx NZMS 260 U24:955-866 to source
	Lower Akitio	Middle Creek	redfin bully and banded kokopu	From the confluence with the Akitio River at approx NZMS 260 U25:986-654 to source
		Wakawaihine Stream	redfin bully	From the confluence with the Akitio River at approx NZMS 260 U25:985-657 to approx NZMS 260 U25:990-677
		Wakawaihine Stream tributary	redfin bully	From approx NZMS 260 U25:998-696 to source
Northern Coastal	Northern Coastal	Okehu Stream	redfin bully	From approx NZMS 260 R22:713-495 to approx R22:731-531
Mowhanau	Mowhanau	Mowhanau Stream	redfin bully	From River Mouth at approx NZMS 260 R22:726-448 to approx R22:743-462
Southern Wanganui Lakes	Southern Wanganui Lakes	Unnamed Stream Santoft Forest	banded kokopu	From River Mouth at approx NZMS 260 S23:954-173 to Lake Koitiata at approx S23:973-185
		Waimahora Stream	banded kokopu	From river mouth at approx NZMS 260 S23:961-153 to approx S23:989-154
Northern Manawatu Lakes	Northern Manawatu Lakes	Kaikokopu Stream	redfin bully	From river mouth at approx NZMS 260 S24:992-905 to approx S24:009-902
Lake Papaitonga	Lake Papaitonga	Lake Papaitonga	brown mudfish	Lake Papaitonga Wetland at approx NZMS 260 S25:991-600

		Lake Papaitonga and tributaries	banded kokopu	From the confluence with Lake Papaitonga and Waiwiri Stream at approx NZMS 260 S25:977-600 to source
Waikawa	Waikawa	Panatewaewae Stream	koaro	From the confluence with the Waikawa Stream at approx NZMS 260 S25:017-498 to source
		Waikawa Stream	shortjaw kokopu and redfin bully	Waikawa Stream Mainstem from mouth to source
Lake Horowhenua	Lake Horowhenua	Patiki Stream	giant kokopu	From the confluence with Lake Horowhenua at approx NZMS 260 S25:019-642 to source

Table 3: Recommended schedule for the Sites of Significance for Riparian Biodiversity (SOS-R)

Management Zone	Sub-zone	River	Description	Riparian Habitat Value
Manawatu Weber to Tamaki	Weber-Tamaki	Manawatu River	From approx NZMS 260 U23:708-003 To approx U23: 737-025 (confluence with Mangatera Stream)	Gravel and Sand (Dotterel)
Manawatu Tamaki to Hopelands	Tamaki-Hopelands	Manawatu River	From approx NZMS 260 T24:614-897 to approx U23:708-003	Gravel and Sand (Dotterel)
Hopelands to Tiraumea	Hopelands-Tiraumea	Manawatu River	From the confluence with the Tiraumea River at approx NZMS 260 T24:553-871 to approx T24:614-897	Gravel and Sand (Dotterel)
Tiraumea	Lower Tiraumea	Tiraumea River	From the confluence with the Manawatu River at approx NZMS 260 T24:553-871 to the confluence with the Makairo Stream at approxT24:597-831	Gravel and Sand (Dotterel)
Mangatainoka	Lower Mangatainoka	Mangatainoka River	From the confluence with the Tiraumea River at approx NZMS 260 T24:557-856 to approx T24:495-786.	Gravel and Sand (Dotterel)
Upper Gorge	Upper Gorge	Mangahao River	From the Manawatu Gorge at approx NZMS 260 T24:495-938 to the confluence with the Tiraumea River at approx NZMS 260 T24:553-871	Gravel and Sand (Dotterel)
	Upper Mangahao	Mangahao River	From approx NZMS 260 T24:469-826 to approx T25:309-684	Gravel and Sand (Dotterel)
	Lower Mangahao	Mangahao River	From the confluence with the Manawatu River at approx NZMS 260 T24:496-892 to approxT24:469-826	Gravel and Sand (Dotterel)
Middle Manawatu	Middle Manawatu	Manawatu River	From Teachers College at approx NZMS 260 T24:332-891 to the Manawatu Gorge at approx T24:495-938	Gravel and Sand (Dotterel)
	Upper Pohangina	Pohangina River	From approx NZMS 260 T23:534-168 to approx T23:577-213	Gravel and Sand (Dotterel)
	Middle Pohangina	Pohangina River	From approx NZMS 260 T23:464-043 to approx T23:493-113	Gravel and Sand (Dotterel)

Management Zone	Sub-zone	River	Description	Riparian Habitat Value
	Lower Pohangina	Pohangina River	From the confluence with the Manawatu River at approx NZMS 260 T24:448-965 to approx T23:464-043	Gravel and Sand (Dotterel)
Lower Manawatu	Lower Manawatu	Manawatu River	From the confluence with the Oroua River at approx NZMS 260 S24:164-825 to Teachers College at approxT24:332-891	Gravel and Sand (Dotterel)
Oroua	Upper Oroua	Oroua River	From approx NZMS 260 T23:500-242 to approx T23:519-267	Gravel and Sand (Dotterel)
	Middle Oroua	Oroua River	From approx 200 m upstream of SH3 bridge at approx NZMS 260 S23:243-005 to SH54 bridge at approx S23:293-044	Gravel and Sand (Dotterel)
	Lower Oroua	Oroua River	From approx 300 m upstream of Kopane Bridge at approx NZMS 260 S24:218-965 to approx 200m upstream of SH3 bridge at approx S23:243-005	Gravel and Sand (Dotterel)
	Kiwitea	Kiwitea Stream	From approx NZMS 260 T23:332-116 to approx T23:339-127	Gravel and Sand (Dotterel)
Coastal Manawatu	Coastal Manawatu	Manawatu River	From the river mouth at approx NZMS 260 S24:977-787 to approx 100 m downstream of the SH1 bridge at approx S24:027-744	Gravel and Sand (Dotterel) Mud/Silt habitat and estuarine roosts. (Waders)
			From approx NZMS 260 S24:101-715 to the confluence with the Oroua River at approx S24:164-825	Gravel and Sand (Dotterel)
Middle Rangitikei	Upper Moawhango	Moawhango River and tributaries	From approx NZMS 260 T20:468-948 to source	Gravel and Sand (Dotterel)
	Middle Moawhango	Moawhango River	From approx NZMS 260 T20:495-916 to approx T20:468-948	Gravel and Sand (Dotterel)
Lower Rangitikei	Lower Rangitikei	Rangitikei River	From approx NZMS 260 S23:200-221 to approx S23:217-231	Gravel and Sand (Dotterel)
Coastal Rangitikei	Coastal Rangitikei	Rangitikei River	From approx NZMS 260 S23:111-104 to approx S23:200-221	Gravel and Sand (Dotterel)
	Tidal Rangitikei	Rangitikei River and Estuary	From the river mouth at approx NZMS 260 S24:990-983 to approx S23:010-001	Gravel and Sand (Dotterel)

Management Zone	Sub-zone	River	Description	Riparian Habitat Value
Paetawa	Paetawa	Mangoihe Stream	From the confluence with the Whanganui River at approx NZMS 260 R21:889-813 to approx 1 km upstream of Jerusalem at approx 894-818	Nankeen Night Heron roosts
Lower Whanganui	Lower Whanganui	Whanganui River	From the confluence of the Whanganui River and the Kauarapaoa Stream at approx NZMS 260 R22:886-537 to 1 km upstream at approx R22:897-532	Nankeen Night Heron roosts
		Kauarapaoa Stream	From the confluence of the Whanganui River and the Kauarapaoa Stream at approx NZMS 260 R22:886-537 to 1 km upstream at approx R22:891-544	Nankeen Night Heron roosts
		Whanganui River	From NZMS 260 R22:861-422 to R26:878-505 (near Kaiwhaiki)	Mud/Silt habitat and estuarine roosts (Waders)
	Coastal Whanganui	Whanganui River and Estuary	From the river mouth at approx NZMS 260 R22:799-378 to SH3 Bridge at approx R22:861-422	Gravel and Sand (Dotterel) Mud/Silt habitat and estuarine roosts (Waders)
Upper Whangaehu	Upper Whangaehu	Whangaehu River and tributaries	Upstream from approx NZMS 260 T20:397-960 to source	Gravel and Sand (Dotterel)
		Makahikatoa Stream and tributaries	Upstream from approx NZMS 260 T20:396-008 to source	Gravel and Sand (Dotterel)
		Wahianoa Stream	Upstream from approx NZMS 260 T20:370-024 to source	Gravel and Sand (Dotterel)
	Tokiahuru	Unnamed tributary of the Tokiahuru Stream	Upstream from approx NZMS 260 T20:359-022 to source	Gravel and Sand (Dotterel)
		Unnamed tributary of the Tokiahuru Stream	Upstream from approx NZMS 260 T20:341-027 to source	Gravel and Sand (Dotterel)
		Unnamed tributary of the Te Unuunuakapuateariki Stream	Upstream from approx NZMS 260 T20:329-999 to source	Gravel and Sand (Dotterel)
		Te Unuunuakapuateariki Stream and tributaries	Upstream from approx NZMS 260 T20:311-980 to source	Gravel and Sand (Dotterel)
Coastal Whangaehu	Coastal Whangaehu	Whangaehu River	From the river mouth at approx NZMS 260 R23:890–274 to the SH3 Bridge at approx S23: 949-311	Gravel and Sand (Dotterel) Mud/Silt habitat and estuarine roosts (Waders)

Management Zone	Sub-zone	River	Description	Riparian Habitat Value
Turakina	Lower Turakina	Turakina River	From the river mouth at approx NZMS 260 S23:921–234 to the SH3 Bridge at approx S23:985–279	Gravel and Sand (Dotterel) Mud/Silt habitat and estuarine roosts (Waders)
Ohau	Lower Ohau	Ohau River	From the river mouth at approx NZMS 260 S25:922-582 to approx S25:007-569	Gravel and Sand (Dotterel) Mud/Silt habitat and estuarine roosts (Waders)
East Coast	East Coast	Wainui River	From approx NZMS 260 V24:117-727 to approx V24:113-738	Mud/Silt habitat and estuarine roosts (Waders)
		Tuatane Stream	From approx NZMS260 V24:132-730 to approx V24:136-737	Mud/Silt habitat and estuarine roosts (Waders)
Waikawa	Waikawa	Waikawa Stream	From NZMS S25:910-551 (river mouth) to S25:000-511	Gravel and Sand (Dotterel) Mud/Silt habitat and estuarine roosts (Waders)

Table 4: Recommended schedule for the Native Fish Spawning Value (NFS)

Management Zone	Sub-zone	River/Stream Name	Reference
Coastal Manawatu	Coastal Manawatu	Manawatu River	From the river mouth to a point 100 m upstream of the CMA boundary located at the seaward edge of Foxton Loop at approx NZMS 260 S24:010-765
		Whitebait Creek	From the confluence with the Manawatu River from approx NZMS 260 S24:982-791 to Source
Coastal Rangitikei	Tidal Rangitikei	Rangitikei River	From the river mouth to a point 100 m upstream of the CMA boundary located at the seaward edge of the boat ramp on the true left bank of the river located at approx NZMS 260 S24:009-000
Lower Whanganui	Lower Whanganui	Mateongaonga Stream	From the confluence with Whanganui River at approx NZMS 260 R22:873-434 to Kaimatira Road at approx R22:889-422
	Coastal Whanganui	Whanganui River	From the river mouth to a point approx 100 m upstream of the CMA boundary located at the seaward edge of the Cobham Street Bridge at approx NZMS 260 R22:848-381
		Stream opposite Corliss Island	From the confluence with Whanganui River at approx NZMS 260 R22:836-374 to State Highway 3 at approx R22:862-370
		Omapu Stream	From the stream mouth to a point 1 km upstream at approx NZMS 260 R22: 750-441
	Matarawa	Matarawa Stream	From the confluence with Whanganui River at approx NZMS 260 R22:858-398 to Ikitara Street at approx R22:869-409
Coastal Whangaehu	Coastal Whangaehu	Whangaehu River	From the river mouth to approx NZMS 260 S22:915-300
Turakina	Lower Turakina	Turakina River	From the river mouth to a point located at the continuation of the fence line at approx NZMS 260 S23:918-246
Ohau	Lower Ohau	Ohau River	From the river mouth to a point 5 km upstream at NZMS 260 S25:948-579
		Lake Waitaha Drain	From the confluence with the Ohau River at approx NZMS 260 S25:946-580 to the Lake Waitaha Outlet at approx S25:954-605
Akitio	Lower Akitio	Akitio River	From the river mouth to a point 100 m upstream of the CMA boundary located at the seaward edge of the bridge that crosses the river at NZMS 260 U25:996-619
		Whakawaihine Stream	From the confluence with the Akitio River at approx NZMS 260U25:985-657 to a point approx 2 km upstream at approx U25:989-670
Northern Coastal	Northern Coastal	Okehu Stream	From the stream mouth to intersection with SH3 at approx NZMS 260 R22:717-510

Kailwi	Kailwi	Kailwi Stream	From the stream mouth to 100 m upstream of the CMA boundary located at the seaward edge of the bridge that crosses the stream at NZMS 260 R22:721-452
Mowhanau	Mowhanau	Mowhanau Stream	From the stream mouth to Rapanui Road at approx NZMS 260 R22: 731-452
Kaitoke Lakes	Kaitoke Lakes	Kaitoke Stream	From the stream mouth to Kaitoke Lake at NZMS 260: R22:869-358
Southern Whanganui Lakes	Southern Whanganui Lakes	Koitiata Stream	From the stream mouth to a point 5 km upstream at approx NZMS 260 S23:987-191
		Waimahora Stream	From the stream mouth to intersection with Santoft Rd at NZMS 260 S23:001-154
		Raumai Range Stream	From the stream mouth to source
Northern Manawatu Lakes	Northern Manawatu Lakes	Kaikokopu Stream	From the stream mouth to Lake Kaikokopu at NZMS 260 S24:019-899
		4 Mile Creek	From the stream mouth to Lake Pukepuke at NZMS 260 S24:024-937
Lake Papiatonga	Lake Papiatonga	Waiwiri Stream	No location defined, assume from stream mouth to a point 500 m upstream at NZMS 260 S25:939-618
Lake Horowhenua	Hokio	Hokio Stream	From the stream mouth to 100 m upstream of the CMA boundary located at the seaward edge of the bridge that crosses the stream at NZMS 260 S25:950-659

Table 5: Recommended schedule for the Amenity Value

Management Zone	Sub-zone	Site	Description
Upper Manawatu	Upper Manawatu	Manawatu River at Maunga Road	At approx NZMS 260 U23:830-079
		Manawatu River at Weber Road	At approx NZMS 260 U23:749-026
Hopelands-Tiraumea	Hopelands-Tiraumea	Manawatu River at Kumeroa (Little Road)	At approx NZMS 260 T24:636-923
		Manawatu River at Hopelands Domain (River Road)	At approx NZMS 260 T24:613-895
Mangatainoka	Lower Mangatainoka	Mangatainoka River	From approx NZMS 260 T24:503-806 to approx T24:500-802
		Mangatainoka River at SH2 Reserve	At approx NZMS 260 T24:528-832
	Makakahi	Makakahi River at Bridge Street Eketahuna	At approx NZMS 260 T25:383-588
Upper Gorge	Upper Mangahao	Mangahao River at Marima Domain	At approx NZMS 260 T24:398-745
Middle Manawatu	Middle Manawatu	Manawatu River at Ashhurst Domain	At approx NZMS 260 T24:445-964
		Manawatu at Albert Street	At approx NZMS 260 T24:342-891
	Middle Pohangina	Pohangina River at Totara Reserve	At approx NZMS 260 T23:533-168
		Pohangina River at Raumai Reserve	At approx NZMS 260 T23:474-072
Middle and Lower Manawatu	Middle and Lower Manawatu	Manawatu River	From approx NZMS 260 S24:291-872 to approx T24:353-919
Lower Manawatu	Turitea	Tiritea Stream	From approx NZMS 260 T24:316-882 to approx NZMS 260 T24:334-869
	Kahuterawa	Kahuterawa Stream at Reserve	At approx NZMS 260 T24:322-810
		Kahuterawa Stream at Camp Kilsby	At approx NZMS 260 T24:316-824
	Lower Mangaone	Mangaone Stream	From approx NZMS 260 S24:286-877 to approx T24:313-954
Oroua	Upper Oroua	Oroua River at London's Ford	At approx NZMS 260 T23:502-254
		Oroua River at Bartlett's Ford	At approx NZMS 260 T23:490-226
		Oroua River at Almadale	At approx NZMS 260 T23:362-113
	Middle Oroua	Oroua River at Timona Park	At approx NZMS 260 S23:299-064
		Oroua River	From approx NZMS 260 S24:293-043 to the confluence with the Kiwitea Stream at approx NZMS 260 T23:308-066
	Kiwitea	Kiwitea Stream	From the confluence with the Oroua River at approx NZMS 260 T23:308-066 to approx NZMS 260 T23:311-075
	Makino	Makino Stream	From approx NZMS 260 S23:276-053 to the intersection with Roots Street at approx NZMS 260 S23:289-082
Coastal Manawatu	Coastal Manawatu	Foxton Beach	At approx NZMS 260 S24:978-806
	Lower Tokomaru	Tokomaru River at Horseshoe Bend	At approx NZMS 260 S24:241-768

Management Zone	Sub-zone	Site	Description
		Tokomaru River Bank Reserve (SH57)	At approx NZMS 260 S24:222-770
	Foxton Loop	Foxton Loop Reserve	From approx NZMS 260 S24:031-783 to approx NZMS 260 S24:027-796
		Foxton Loop Reserve	At approx NZMS 260 S24:033-785
Middle Rangitikei	Pukeokahu – Mangaweka	Rangitikei River upstream Hautapu confluence (Toe Toe Rd)	At approx NZMS 260 T22:531-573
	Upper and Lower Hautapu	Hautapu River	From the confluence with the Otaihape Stream at approx NZMS 260 T21:507-656 to approx T21:502-671
	Lower Hautapu	Hautapu River at Papakai Park/Spooner's Hill	At approx NZMS 260 T21:505-670
		Otaihape Stream	From the confluence with the Hautapu River at approx NZMS 260 T21:507-656 to approx T21:492-652
Lower Rangitikei	Lower Rangitikei	Rangitikei River at Mangaweka	At approx NZMS 260 T22:503-513
		Rangitikei River at Vinegar Hill	At approx NZMS 260 T22:358-379
		Rangitikei at Makino Rd/Rue Rue Rd	At approx NZMS 260 S23:213-226
Coastal Rangitikei	Tidal Rangitikei	Holben Reserve	At approx NZMS 260 S24:989-997
	Tutaenui	Tutaenui Stream	From approx NZMS 260 S23:133-209 to approx S23:133-252
Cherry Grove	Cherry Grove	Whanganui River at Manunui	At approx NZMS 260 S18:104-556
		Whanganui River at Cherry Grove	At approx NZMS 260 S18:057-545
		Whanganui River	From the confluence with the Ongarue River at approx NZMS 260 S18:055-544 to approx S18:100-554
	Lower Whakapapa	Whakapapa River at Owhango	At approx NZMS 260 S19:178-426
	Lower Ongarue	Ongarue River at various swimming holes at Taringamotu	At approx NZMS 260 S18:057-546
		Ongarue River	From the confluence with the Whanganui River at approx NZMS 260 S18:055-544 to approx S18:043-575
Pipiriki	Lower Manganui o te Ao	Manganui o te Ao River at Ruatiti	At approx NZMS 260 S20:996-079
Lower Whanganui	Lower Whanganui	Whanganui River at Mosquito Point	At approx NZMS 260 S22:902-473
	Lower and Coastal Whanganui	Whanganui River	From river mouth to approx NZMS 260 R22:888-434
	Coastal Whanganui	Castlecliff Beach	At approx NZMS 260 R22:788-388
	Matarawa	Matarawa Stream	From the confluence with the Whanganui River at approx NZMS 260 R22:857-397 to approx R22:872-408
Lower Whangaehu	Upper Mangawhero	Mangawhero River	From approx NZMS 260 S20:156-963 to approx S20:178-976
Coastal Whangaehu	Coastal Whangaehu	Whangaehu Beach	At approx NZMS 260 R23:893-269
Lower Turakina	Lower Turakina	Turakina Beach – Koitiata	At approx NZMS 260 S23:921-234

Management Zone	Sub-zone	Site	Description
Ohau	Lower Ohau	Ohau River at Kimberley Reserve	At approx NZMS 260 S25:059-574
		Ohau River at Kirkcaldies Bridge Reserve	At approx NZMS 260 S25:027-567
		Ohau River at Gladstone Reserve	At approx NZMS 260 S25:076-577
		Ohau River at Parikawau Reserve	At approx NZMS 260 S25:994-553
East Coast	East Coast	Herbertville Beach	At approx NZMS 260 V24:103-719
Akitio	Lower Akitio	Akitio River	At approx NZMS 260 U25:991-611
		Akitio Beach	At approx NZMS 260 U25:989-597
Northern Coastal	Northern Coastal	Ototoka Stream at William Birch Pool	At approx NZMS 260 R22:676-519
		Ototoka Stream	At approx NZMS 260 R22:666-471
		Ototoka Beach	At approx NZMS 260 R22:667-471
Kai Iwi	Kai Iwi	Kai Iwi Stream	At approx NZMS 260 R22:723-451
		Kai Iwi Beach	At approx NZMS 260 R22:725-448
Mowhanau	Mowhanau	Mowhanau Stream	At approx NZMS 260 R22:726-448
Kaitoke Lakes	Kaitoke Lakes	Lake Wiritoa	At approx NZMS 260 R22:882-344
		South Beach	At approx NZMS 260 R22:882-344
Southern Wanganui Lakes	Southern Wanganui Lakes	Lake Dudding	At approx NZMS 260 S23:045-203
Northern Manawatu Lakes	Northern Manawatu Lakes	Kaikokupu Stream at Himatangi Beach	At approx NZMS 260 S24:993-905
		Himatangi Beach	At approx NZMS 260 S24:991-905
Waitarere	Waitarere	Waitarere Beach	At approx NZMS 260 S24:958-701
		Wairarawa Stream at Waitarere Beach	At approx NZMS 260 S24:959-709
Waikawa	Waikawa	Waikawa Stream at Hank Edwards Reserve	At approx NZMS 260 S25:915-553
Lake Horowhenua	Hokio	Hokio Stream at Hokio Beach	At approx NZMS 260 S25:949-657

Table 6: Recommended schedule for the Native Fishery (NF) value (Whitebait fisheries only)

Management Zone	Sub-zone	River/Stream Name	Reference
Coastal Manawatu	Coastal Manawatu	Manawatu River	From the river mouth to the Foxton-Shannon Road bridge at approx NZMS 260 S24:133-727
		Holben Parade Creek	From the confluence with the Manawatu River at approx NZMS 260 S24:981-789 to the intersection with Seabury Avenue at approx S24:986-800
		Whitebait Creek	From the confluence with the Manawatu River at approx 982-791 to source
Coastal Rangitikei	Tidal Rangitikei	Rangitikei River	From the river mouth to a point 100 m upstream of the CMA boundary located at the seaward edge of the boat ramp on the true left bank of the river located at approx NZMS 260 S24:009-000
Lower Whanganui	Lower Whanganui	Kauarapaoa Stream	From the confluence with the Whanganui River at approx NZMS 260 R22:886-537 to the intersection with McNab's Access Road at approx S22:900-559
		Mateongaonga Stream	From the confluence with the Whanganui River at approx NZMS 260 R22:876-434 to the intersection with Riverbank Road at approx R22:877-433
	Lower/Coastal Whanganui	Whanganui River	From the river mouth to Parikino at approx NZMS 260 S22:936-551
	Coastal Whanganui	Stream opposite Corliss Island	From the confluence with the Whanganui River at approx NZMS 260 R22:835-374 to the intersection with Wikitoria Road at approx R22:849-371
		Omapu Stream	From the stream mouth to a point 1 km upstream at NZMS 260 R22: 750-441
	Matarawa	Matarawa Stream	From the confluence with theWhanganui River at approx NZMS 260 R22:858-398 to the intersection with Ikitara Road at approx R22:869-409
Coastal Whangaehu	Coastal Whangaehu	Whangaehu River	From the river mouth to the SH3 bridge at approx NZMS 260 S22:950-310
Turakina	Lower Turakina	Turakina River	From the river mouth to a point 100 m upstream of the CMA boundary located at the continuation of the fence line at approx NZMS 260 S23:918-246
Ohau	Lower Ohau	Ohau River	From the river mouth to a point 5km upstream at approx NZMS 260 948-579
		Lake Waitaha Drain	From the confluence with the Ohau River at approx NZMS 260 S25:946-580 to the Lake Waitaha Outlet at approx S25:954-605
Akitio	Lower Akitio	Akitio River	From the river mouth to 100 m upstream of the CMA boundary located at the seaward edge of the bridge that crosses the river at approx NZMS 260 U25:996-619

		Whakawahine Stream	From the confluence with the Akitio River at approx NZMS 260 U25:985-657 to a point approx 2 km upstream at approx U25:989-670
Northern Coastal	Northern Coastal	Okehu Stream	From the stream mouth to intersection with SH3 at approx NZMS 260 R22:717-510
Kailwi	Kailwi	Kailwi Stream	From the stream mouth to the intersection with SH3 at approx NZMS 260 R22:749-492
Mowhanau	Mowhanau	Mowhanau Stream	From the stream mouth to a point 1 km upstream at approx NZMS 260 R22:736-452
Kaitoke Lakes	Kaitoke Lakes	Kaitoke Stream	From the Stream mouth to Kaitoke Lake at approx NZMS 260: R22:869-358
Southern Whanganui Lakes	Southern Whanganui Lakes	Koitiata Stream	From the stream mouth to a point 5 km upstream at approx NZMS 260 S23:987-191
		Waimahora Stream	From the stream mouth to intersection with Santoft Rd at approx NZMS 260 S23:001-154
		Raumai Range Stream	From the stream mouth at approx NZMS 260:S23:979-081 to Source
Northern Manawatu Lakes	Northern Manawatu Lakes	Kaikokopu Stream	From the stream mouth to Lake Kaikokopu at NZMS 260 S24:019-899
		4 Mile Creek	From the stream mouth to a point 100 m upstream at NZMS 260 S24:024-937
Lake Papiatonga	Lake Papiatonga	Waiwiri Stream	No location defined, assume from the stream mouth to a point 500 m upstream at NZMS 260 S25:939-618
Lake Horowhenua	Hokio	Hokio Stream	From the stream mouth to Lake Horowhenua

Table 7: Recommended Schedule for the Trout Fishery (TF) Value

Management Zone	Sub-zone	River/Stream Name	Classification	Reference
Upper Manawatu, Weber Rd – Tamaki, Tamaki – Hopelands and Hopelands - Tiraumea	Upper Manawatu, Mangatewainui and Mangatoro, Weber Rd – Tamaki , Tamaki – Hopelands and Hopelands – Tiraumea	Manawatu River	Regionally Significant	From the confluence with the Tiraumea River at approx NZMS 260 T24:553-871 to source including all tributaries from the Weber Road Recorder at approx U23:747-027 to source
Tiraumea	Upper and Lower Tiraumea	Tiraumea River	Other Trout Fishery	From the confluence with the Manawatu River at approx NZMS 260 T24:553-871 to source
	Lower Tiraumea	Makairo Stream	Other Trout Fishery	From approx NZMS 260 T24:653-834 to source
	Makuri	Makuri River and tributaries	Regionally Significant	From the confluence with the Tiraumea River at approx NZMS 260 T24:568-771 to source
Mangatainoka	Upper, Middle and Lower Mangatainoka and Makakahi	Mangatainoka River and tributaries excluding the Mangaramarama Creek and tributaries	Regionally Significant	From the confluence with the Tiraumea River at approx NZMS 260 T24:556-854 to source
Upper Gorge	Upper Gorge	Manawatu River	Other Trout Fishery	From approx NZMS 260 T24:495-938 to the confluence with the Tiraumea River at approx T24:553-871
	Upper and Lower Mangahao	Mangahao River	Other Trout Fishery	From the confluence with the Manawatu River at approx NZMS 260T24:496-892 to source
Middle Manawatu	Middle Manawatu	Manawatu River	Other Trout Fishery	From approx NZMS 260 T24:332-890 to approx T24:495-938
	Upper, Middle and Lower Pohangina	Pohangina River	Other Trout Fishery	From the confluence with the Manawatu River at approx NZMS 260 T24:449-966 to source
	Middle Pohangina	Makiekie (Coal) Creek	Other Trout Fishery	From the confluence with the Pohangina River at approx NZMS 260 T23:528-166 to source
Lower Manawatu	Lower Manawatu	Manawatu River	Other Trout Fishery	From approx NZMS 260 T24:332-890 to Oroua confluence at approx S24:164-825
	Turitea	Turitea Stream	Other Trout Fishery	From approx 800 m downstream of the Old West Road Bridge at approx NZMS 260 T24:331-875 to approx T24:365-790
	Kahuterawa	Kahuterawa stream	Other Trout Fishery	From the confluence with the Manawatu River at approx NZMS 260 S24:293-871 to source

Management Zone	Sub-zone	River/Stream Name	Classification	Reference
Oroua	Upper, Middle and Lower Oroua	Oroua River	Other Trout Fishery	From the confluence with the Manawatu River at approx NZMS 260 S24:164-826 to approx U22:729-400
	Upper Oroua	Mangiora Stream	Other Trout Fishery	From the confluence with the Oroua River at approx NZMS 260 T22:577-379 to source
	Makino	Makino Stream	Other Trout Fishery	From the confluence with the Oroua River at approx NZMS 260 S23:243-005 to approx S23:260-037
Coastal Manawatu	Coastal Manawatu	Manawatu River	Other Trout Fishery	From 100 m upstream of the CMA Boundary located at the seaward edge of Foxton Loop at approx NZMS 260 S24:010-767 to the confluence with the Oroua River at approx S24:164-825
	Upper and Lower Tokomaru	Tokomaru River	Other Trout Fishery	From the confluence with the Manawatu River at approx NZMS 260 S24:132-727 to source
Upper Rangitikei	Upper Rangitikei	Rangitikei River and Tributaries	Outstanding	From the Makahikatoa Stream confluence at approx NZMS 260 U21:725-887 to Source
Middle Rangitikei	Middle Rangitikei	Rangitikei River	Outstanding	From approx NZMS 260 U21:713-707 to the confluence with the Makahikatoa Stream at approx U21:725-887
		Porotaiana Stream	Outstanding	From the confluence with the Rangitikei River at approx NZMS 260 U21:714-878 to source
		Mangaururoa Stream	Outstanding	From the confluence with the Rangitikei River at approx NZMS 260 U21:710-852 to source
		Whangaipotiki Stream	Outstanding	From the confluence with the Rangitikei River at approx NZMS 260 U21:700-819 to source
		Mangaohane Stream	Outstanding	From the confluence with the Rangitikei River at approx NZMS 260 U21:707-818 to Source
		Makomiko East Stream	Outstanding	From the confluence with the Rangitikei River at approx NZMS 260 U21:709-792 to source
		Tamatipama Stream	Outstanding	From the confluence with the Makomiko East Stream at approx NZMS 260 U21:681-802 to source
		Waiakaha Stream	Outstanding	From the confluence with the Rangitikei River at approx NZMS 260 U21:707-785 to source
		Pokopoko Stream	Outstanding	From the confluence with the Rangitikei River at approx NZMS 260 U21:722-758 to source

Management Zone	Sub-zone	River/Stream Name	Classification	Reference
	Pukeokahu - Mangaweka	Rangitikei River	Outstanding	From approx NZMS 260 the confluence with the Mangawhahariki River approx NZMS 260 T22:504-519 to approx U21:713-707
		Whakaurekou River and tributaries	Outstanding	From the confluence with the Rangitikei River at approx NZMS 260 U21:712-690 to source
		Kawhatau River and tributaries	Outstanding	From Confluence with the Rangitikei River at approx T22:504-551 to source
	Upper, Middle and Lower Moawhango	Moawhango River	Other Trout Fishery	From the confluence with the Rangitikei River at approx NZMS 260 T21:609-623 to source
	Middle Moawhango	Aorangi Stream	Other Trout Fishery	From the confluence with the Moawhango River at approx NZMS 260 T21:595-858 to source
	Lower Moawhango	Tikirere Stream	Other Trout Fishery	From the confluence with the Moawhango River at approx T21:559-741 to source
	Upper Hautapu	Hautapu River and tributaries	Regionally Significant	From the confluence with the Oraukura Stream at approx NZMS 260 T21:509-670 to Source
	Lower Hautapu	Hautapu River	Other Trout Fishery	From the confluence with the Rangitikei River at approx NZMS 260 T22:528-573 to the Oraukura Stream confluence at approx T22:509-670
Lower Rangitikei	Lower Rangitikei	Rangitikei River	Regionally Significant	From approx NZMS 260 S23:200-221 494 to the confluence with the Mangawhahariki River at approx T22:504-519t
Coastal Rangitikei	Coastal/Tidal Rangitikei	Rangitikei River	Other Trout Fishery	From 100 m upstream of the CMA Boundary located at the seaward edge of the boat ramp at approx NZMS 260 S24:009-000
Upper Whanganui	Upper Whanganui	Whanganui River	Other Trout Fishery	From the confluence with the Ongarue River at approx NZMS 260 S18:054-544 to the to source
		Otamangakau Dam	Other Trout Fishery	From the confluence with the Whanganui River at approx NZMS 260 T19:367-409 to T19:375-414
		Otamangakau Canal	Other Trout Fishery	From the confluence with the Whanganui River at NZMS 260 T19:367-409 to source
		Okupata Stream	Other Trout Fishery	From the confluence with the Whanganui River at approx NZMS 260 S19:289-406 to source
		Mangatepopo Stream	Other Trout Fishery	From the confluence with the Okupata Stream at approx NZMS 260 S19:287-397 to source

Management Zone	Sub-zone	River/Stream Name	Classification	Reference
		Waione Stream	Other Trout Fishery	From the confluence with the Whanganui River at approx NZMS 260 S19:276-427 to source
		Waipari Stream	Other Trout Fishery	From the confluence with the Whanganui River at approx NZMS 260 S19:269-455 to source
		Waione Stream	Other Trout Fishery	From the confluence with the Waipari Stream at approx NZMS 260 S18:282-516 to source
		Waipungapunga Stream	Other Trout Fishery	From the confluence with the Waipari Stream at approx NZMS 260 S19:287-490 to source
		Waionenui Stream	Other Trout Fishery	From the confluence with the Waipari Stream at approx NZMS 260 S19:288-475 to source
		Waione Stream	Other Trout Fishery	From the confluence with the Waipari Stream at approx NZMS 260 S19:282-464 to source
		Mako Stream	Other Trout Fishery	From the confluence with the Whanganui RIver at approx NZMS 260 S19:231-455 to source
		Taringapupu Stream	Other Trout Fishery	From the confluence with the Whanganui RIver at approx NZMS 260 S19:205-477 to source
		Herungaweka Stream	Other Trout Fishery	From the confluence with the Taringapupu Stream at approx NZMS 260 S18:229-511 to source
		Paewaru Stream	Other Trout Fishery	From the confluence with the Taringapupu Stream at approx NZMS 260 S19:216-488 to source
		Papanui Stream	Other Trout Fishery	From the confluence with the Whanganui River at approx NZMS 260 S19:192-485 to source
Cherry Grove	Cherry Grove	Kakahi Stream	Other Trout Fishery	From the confluence with the Whanganui River at approx NZMS 260 S19:151-497 to source
	Upper Whakapapa	Whakapapa River	Other Trout Fishery	From approx NMZS 260 S19:226-295 to the confluence with the Whakapapaiti and Whakapapanui Streams at approx NZMS 260 S19:243-268
		Whakapapaiti Stream	Other Trout Fishery	From the confluence with the Whakapapa River at approx NZMS 260 S19:243-268 to source
		Whakapapanui Stream	Other Trout Fishery	From the confluence with the Whakapapa River at approx NZMS 260 S19:243-268 to source
		Makahikatoa Stream	Other Trout Fishery	From the confluence with the Whakapapnui Stream at approx NZMS 260 S19:273-244 to source

Management Zone	Sub-zone	River/Stream Name	Classification	Reference
		Taranaki Stream	Other Trout Fishery	From the confluence with the Makahikatoa Stream at approx NZMS 260 S19:296-235 to source
		Pukeonaki Stream	Other Trout Fishery	From the confluence with the Whakapapnui Stream at approx NZMS 260 S19:269-255 to source
		Tawahi Stream	Other Trout Fishery	From the confluence with the Whakapapaiti Stream at approx NZMS 260 S19:242-265 to approx S19:242-256
		Papamanuka Stream	Other Trout Fishery	From the confluence with the Whakapapa Stream at NZMS 260 S19:234-288 to NZMS 260 S19:277-281
	Lower Whakapapa	Whakapapa River	Other Trout Fishery	From the confluence with the Whanganui River at approx NZMS 260 S19:188-495 to approx NZMS 260 S19:226-295
		Unnamed tributary of the Whakapapa River	Other Trout Fishery	From the confluence with the Whakapapa River at approx NZMS 260 S19:174-416 to source
		Otamawairua Stream	Other Trout Fishery	From the confluence with the Whakapapa River at approx NZMS 260 S19:193-324 to source
	Piopiotea Stream	Piopiotea Stream and tributaries	Other Trout Fishery	From the confluence with the Whakapapa River at approx NZMS 260 S19:174-356 to source
	Pungapunga	Pungapunga River	Other Trout Fishery	From approx NZMS 260 S18:124-544 to approx S18:266-577
	Upper and Lower Ongarue	Ongarue River	Other Trout Fishery	From the confluence with the Whanganui River at approx NZMS 260 S18:055-544 to source
	Upper Ongarue	Waimiha Stream	Other Trout Fishery	From the confluence with the Ongarue River approx NZMS 260 S17:132-862 to source
		Okauaka Stream	Other Trout Fishery	From the confluence with the Ongarue River at approx NZMS 260 S17:188-864 to source
		Matamataha River	Other Trout Fishery	From the confluence with the Ongarue River at approx NZMS 260 S17:116-806 to source
	Lower Ongarue	Mangakahu Stream	Other Trout Fishery	From the confluence with the Ongarue River at approx NZMS 260 S18:087-736 to source
		Taringamotu River and tributaries	Other Trout Fishery	From the confluence with the Ongarue River at approx NZMS 260 S18:046-582 to source
Middle Whanganui	Retaruke	Retaruke River	Other Trout Fishery	From the confluence with the Whanganui River at approx NZMS 260 R19:889-309 to source

Management Zone	Sub-zone	River/Stream Name	Classification	Reference
Pipiriki	Upper Manganui o te Ao	Manganui o te Ao River	Outstanding Trout Fishery	From the confluence with the Hoihenga Stream at approx NZMS 260 S20:046-078 to source
		Mangaturuturu River	Outstanding Trout Fishery	From the confluence with the Manganui o te Ao River at approx NZMS 260 S20:056-067 to source
		Makatoe River	Outstanding Trout Fishery	From the confluence with the Manganui o Te Ao River at approx NZMS 260 S20"128-119 to Source
		Waimarino Stream	Outstanding Trout Fishery	From the confluence with the Manganui o te Ao River at approx NZMS 260 S20"128-119 to source
	Lower Manganui o t e Ao	Manganui o te Ao River	Outstanding Trout Fishery	From the confluence with the Whanganui River at approx NZMS 260 R20:860-979 to the Hoihenga Stream confluence at approx S20:056-067
		Orautoha Stream	Outstanding Trout Fishery	From the confluence with the Manganui o te Ao River at approx NZMS 260 S20:026-067 to Source
Pipiriki and Paetawa	Pipiriki and Paetawa	Whanganui River	Other Trout Fishery	From approx NZMS 260 S22:937-563 to confluence with the Retaruke at approx R19:889-309
Upper Whangaehu	Waitangi	Waitangi Stream	Other Trout Fishery	From the confluence with the Whangaehu River at approx NZMS 260 T21:315-888 to source
	Tokiahuru	Tokiahuru Stream and tributaries	Other Trout Fishery	From the confluence with the Whangaehu River at approx NZMS 260 S21:218-865 to source
Lower Whangaehu	Upper Mangawhero	Mangawhero River including the Taonui Stream and all tributaries upstream of the Taonui Stream	Other Trout Fishery	From the confluence with the Makotuku River at approx NZMS 260 S20:079-902
	Upper and Lower Makotuku	Makotuku River and Tributaries	Other Trout Fishery	From the confluence with the Mangawhero River at approx NZMS 260 S20:079-902
	Lower Mangawhero and Lower Whangaehu	Mangawhero River	Other Trout Fishery	From the confluence with the Whangaehu River at approx NZMS 260 S22:065-470 to confluence with the Makotuku River at approx NZMS 260 S20:079-902
Ohau	Upper and Lower Ohau	Ohau River	Other Trout Fishery	From mouth to source including the Makahika Stream and tributaries and an unnamed tributary at approx NZMS 260 S25:974-585

Table 8: Recommended Schedule for the Trout Spawning (TS) Value

Management Zone	Sub-zone	River/Stream Name	Reference
Upper Manawatu	Upper Manawatu	Manawatu River	From the confluence with the Kahututaeatua Stream at approx NZMS 260 U23:891-194 to source
		Mangarangiora Stream and tributaries	From the confluence with the Manawatu River at approx NZMS 260 U23:879-145 to source
		Mahurauiti Stream	From the confluence with the Manawatu River at approx NZMS 260 U23:853-235 to the confluence with the Mahurunui Stream (Stoney Creek) at approx U23:850-244
		Mangapuaka Stream and tributaries	From the confluence with the Manawatu River at approx NZMS 260 U23:841-044 to source
	Mangatewainui	Mangatewainui River and tributaries	From the confluence with the Manawatu River at approx NZMS 260 U23:829-085
	Mangatoro	Mangatoro River	From the confluence with the Manawatu River at approx NZMS 260 U23:807-026 to the confluence with the Mangamarie Stream at approx U24:838-991
		Mangatoro River and tributaries	From the confluence with the Mangamarie Stream at approx NZMS 260 U24:838-991 to source
Weber – Tamaki	Mangatera	Mangatera Stream	From confluence with the Manawatu River at approx NZMS 260 U23:736-025 to approx U23:756-079
		Mangatera Stream and tributaries	From approx NZMS 260 U23:756-079 to source
		Tapuata Stream	From the confluence with the Mangatera Stream at approx NZMS 260 U23:738-044 to approx U23:732-052
Upper Tamaki	Upper Tamaki	Tamaki River and tributaries	From approx NZMS 260 U23:706-100 to source
Tamaki – Hopelands	Tamaki – Hopelands	Otawaho Stream and tributaries	From the confluence with the Manawatu River at approx NZMS 260 T24:651-935 to source
		Totara Stream and tributaries	From the confluence with the Manawatu River at approx NZMS 260 T24:647-929 to source
	Lower Tamaki	Tamaki River	From the confluence with the Manawatu River at approx U23:708-002 NZMS 260 to approx U23:706-100
	Lower Kumeti	Kumeti Stream	From the confluence with the Manawatu River at approx NZMS 260 T23:697-005 to approx T23:681-041
	Oruakeretaki	Oruakeretaki Stream	From the confluence with the Manawatu River at approx NZMS 260 T24:690-999 to the confluence with the Mangapukakakahu Stream at approx T23:628-058
	Raparapawai	Raparapawai Stream	From the confluence with the Manawatu River at approx NZMS 260 T24:641-931 to source

Management Zone	Sub-zone	River/Stream Name	Reference
Tiraumea	Makuri	Makuri River and tributaries	From the confluence with the Tiraumea River at approx NZMS 260 T24:568-771 to source
Mangatainoka	Upper Mangatainoka	Makotukutuku Stream	From the confluence with the Mangatainoka River at approx NZMS 260 S25:279-576 to source
	Middle / Lower Mangatainoka	Mangatainoka River	From approx NZMS 260 T24:558-857 to the confluence with the Mangaroa Stream at approx T25:324-627
	Middle Mangatainoka	Mangaraupiu Stream	From the confluence with the Mangatainoka River at approx NZMS 260 T25:366-655 to approx T25:322-665
		Unnamed tributary of the Mangatainoka River and tributaries	From the confluence with the Mangatainoka River at approx NZMS 260 T25:369-654 to source
		Hukanui Stream	From the confluence with the Mangatainoka River at approx NZMS 260 T25:396-680 to approx T25:341-676
		Mangamarie Stream	From the confluence with the Mangatainoka River at approx NZMS 260 T24:451-762 to approx T24:433-742
	Makakahi	Makakahi River	From the confluence with the Mangatainoka River at approx NZMS 260 T24:475-775 to source
		Bruce Stream	From the confluence with the Makakahi River at approx NZMS 260 T25:346-524 to source
Upper Gorge	Mangapapa	Mangapapa Stream	From the confluence with the Mangaatua Stream at approx NZMS 260 T24:514-922 to approx T24:527-931
	Upper Mangahao	Unnamed tributary	From the confluence with the Mangahao River at approx NZMS 260 T24:348-700 to source
		Unnamed tributary	From the confluence with the Mangahao River at approx NZMS 260 T24:364-704 to source
		Orangane Stream	From the confluence with the Mangahao River at approx NZMS 260 T24:377-716
		Matarua Creek	From the confluence with the Mangahao River at approx NZMS 260 T24:445-788 to source
		Unnamed tributary	From the confluence with the Matarua Creek at approx NZMS 260 T24:422-793 to source
	Lower Mangahao	Makaretu Creek	From the confluence with the Mangahao River at approx NZMS 260 T24:484-844 to source
	Upper Pohangina	Pohangina River	From the confluence with the Whangapuna Stream at approx NZMS 260 T23:605-240 to approx T23:647-236
		Konewa Stream and tributaries	From the confluence with the Pohangina River at approx NZMS 260 T23:575-203 to source
		Makewekaweka Stream and tributaries	From the confluence with the Pohangina River at approx NZMS 260 T23:568-199 to source
		Te Ekaou Stream	From the confluence with the Pohangina River at approx NZMS 260 T23:562-180 to approx T23:594-150

Management Zone	Sub-zone	River/Stream Name	Reference
		Porewa Stream	From the confluence with the Pohangina River at approx NZMS 260 T23:549-163 to approx T23:579-147
		Opawe Stream	From the confluence with the Pohangina River at approx NZMS 260 T23:544-161 approx T23:556-144
	Middle Pohangina	Makiekie (Coal) Creek and tributaries	From the confluence with the Pohangina River at approx NZMS 260 T23:528-165 to source
		Ohinetapu Stream and tributaries	From the confluence with the Pohangina River at approx NZMS 260 T23:517-131 to source
		Maranganui Strream	From the confluence with the Pohangina River at approx NZMS 260 T23:492-112 to approx T23:504-107
		Te Awaoteatua Stream	From the confluence with the Pohangina River at approx NZMS 260 T23:480-090 to approx T23:499-077
		Makohine Stream	From the confluence with the Pohangina River at approx NZMS 260 T23:469-058 to source
Lower Manawatu	Turitea	Tiritea Stream	From the confluence with the Manawatu River at approx NZMS 260 T24:302-879 to approx T24:357-827
	Kahuterawa	Kahuterawa Stream	From the confluence with the Manawatu River at approx NZMS 260 S24:293-870 to approx T24:317-796
Oroua	Upper Oroua	Oroua River	From the confluence with the Tunupo Creek at approx NZMS 260 T22:699-356 to approx U22:715-378
		Tunupo Creek	From the confluence with the Oroua River at approx NZMS 260 T22:699-356 to source
		Mangiora Stream	From the confluence with the Oroua River at approx NZMS 260 T22:577-378 to the confluence with Scandlyn Creek at approx T22:621-384
		Mangapikopiko Stream	From the confluence with the Oroua River at approx NZMS 260 T22:515-307 to source
	Kiwitea	Kiwitea Stream	From the confluence with the Oroua River at approx NZMS 260 T23:308-066 to approx T23:363-215
	Makino	Makino Stream	From approx NZMS 260 S23:294-088 to approx T23:307-111
			From approx NZMS 260 S23:279-058 to approx S23:286-069
			From the confluence with the Oroua River at approx NZMS 260 S23:243-005 to approx S23:259-037
Coastal Manawatu	Upper and Lower Tokomaru	Tokomaru River and tributaries	From the confluence with the Linton Drain at approx NZMS 260 S24:196-774 to source
Upper Rangitikei	Upper Rangitikei	Ecology Stream	From the confluence with the Rangitikei River at approx NZMS 260 T20:691-176 to source
		Otamatenui Stream	From the confluence with the Rangitikei River at approx NZMS 260 T20:672-107 to source

Management Zone	Sub-zone	River/Stream Name	Reference
		Makomiko Stream	From the confluence with the Otamatenui Stream at approx NZMS 260 T20:650-120 to source
		Mangamarie River	From the confluence with the Rangitikei River at approx NZMS 260 T20:691-090 to source
		Waingakia Stream	From the confluence with the Rangitikei River and approx NZMS 260 U20:715-053 to source
		Otutua Stream	From the confluence with the Rangitikei River at approx NZMS 260 U20:716-014 to source
		Otarere Stream and tributaries	From the confluence with the Okorotehehe Stream at approx NZMS 260 T20:684-988 to source
		Mangamarahia Stream	From the confluence with the Rangitikei River at approx NZMS 260 U21:723-889 to approx U20:756-954
		Makahikatoa Stream including all tributaries	From the confluence with the Rangitikei River at approx NZMS 260 U21:725-887 to source
Middle/Upper Rangitikei	Middle/Upper Rangitikei	Rangitikei River	From the confluence with the Pokopoko Stream at approx NZMS 260 U24:721-758 to source
Middle Rangitikei	Middle Rangitikei	Mangaohane Stream	From the confluence with the Rangitikei River at approx NZMS 260 707-818 to source
	Pukeokahu – Mangaweka	Whakaurekou River	From the confluence with the Rangitikei River at approx NZMS 260 U21:712-690 to the confluence with the Mangatera and Maropea Rivers at approx NZMS 260 U21:749-655
		Mangatera River and Maropea River and tributaries	From the confluence with the Whakaurekou River at approx NZMS 260 U21:749-655 to source
		Kawhatau River	From the confluence with the Rangitikei River at approx NZMS 260 T22:504-551 to source
		Porangakai River	From the confluence with the Mangakukeke Stream at approx NZMS 260 T22:635-507 to source
		Mangakukeke Stream	From the confluence with the Kawhatau River at approx NZMS 260 T22:634-508 to approx T22:677-486
	Upper Moawhango	Moawhango River and tributaries	From Approx NZMS 260 T20:468-948 to source
	Middle Moawhango	Moawhango River	From the confluence with the Tikirere Stream at approx NZMS 260 T21:559-741 to approx T20:468-948
	Upper Hautapu	Waiouru Stream and tributaries	From the confluence with the Hautapu River at approx NZMS 260 T21:410-838 to source
		Irirangi	From the confluence with the Hautapu River at approx NZMS 260 T21:407-810 to source
	Upper and Lower Hautapu	Hautapu River	From the confluence with the Otaihape Stream at approx NZMS 260 T21:506-656 to source

Management Zone	Sub-zone	River/Stream Name	Reference
Lower Rangitikei	Lower Rangitikei	Mangamako Stream	From confluence with the Rangitikei River at NZMS 260 T22:389-415 to source
	Makohine	Makohine Stream	From confluence with the Rangitikei River at NZMS 260 T22:390-440 to source
Coastal Rangitikei	Porewa	Porewa Stream	From the confluence with the Rangtikei River at approx NZMS 260 S23:191-215 to source
Upper Whanganui	Upper Whanganui	Whanganui River	From the confluence with the Whakapapa River at approx NZMS 260 S19:188-495 to approx T19:358-411
		Mangatepopo Stream	From the confluence with the Whanganui River at approx NZMS 260 S19:289-405 to approx T19:308-360
Cherry Grove	Cherry Grove	Whanganui River	From the confluence with the Pungapunga River at approx NZMS 260 S18:124-544 to the confluence with the Whakapapa River at approx S 260 S19:188-495
	Upper and Lower Whakapapa	Whakapapa River	From the confluence with the Whanganui River at approx NZMS 260 S19:188-495 to the confluence with the Whakapapanui Stream and the Whakapapaiti Stream at approx NZMS 260 S19:243-268
	Upper Whakapapa	Whakapapanui Stream	From the confluence with the Whakapapa River and the Whakapapaiti Stream at approx NZMS 260 S19:243-268 to source
		Whakapapaiti Stream	From the confluence with the Whakapapa River and the Whakapapanui Stream at approx NZMS 260 S19:243-268 to source
		Mahikatoa Stream	From the confluence with the Whakapapanui Stream at approx NZMS 260 S19:273-245 to confluence with Taranaki Stream approx NZMS 260 S19:295-236
		Taranaki Stream	From the confluence with the Mahikatoa Stream at approx NZMS 260 S19:295-236 to source
		Pukeonaki Stream	From the confluence with the Whakapapanui Stream at approx NZMS 260 S19:269-255 to source
		Papamanuka Stream	From the confluence with the Whakapapa River at approx NZMS 260 S19:233-288 to approx S19:258-283
	Lower Whakapapa	Otamawairua Stream	From the confluence with the Whakapapa River at approx NZMS 260 S19:195-324 to source
	Piopiotea	Piopiotea Stream	From the confluence with the Whakapapa River at approx NZMS 260 S19:174-356 to source
		Makaretu Stream	From the confluence with the Piopiotea Stream at approx NZMS 260 S19:172-284 to source
		Pukerimu Stream	From the confluence with the Piopiotea Stream at approx NZMS 260 S19:168-285 to source
		Tepure Stream	From the confluence with the Piopiotea Stream at approx NZMS 260 S19:159-327 to approx S19:198-270

Management Zone	Sub-zone	River/Stream Name	Reference
		Unnamed tributary of the Tepure Stream	From the confluence with the Tepure Stream at approx NZMS 260 S19:181-299 to source
	Pungapunga	Pungapunga River	From the confluence with the Whanganui River at approx NZMS 260 S18:124-544 to source
		Waituhi Stream	From the confluence with the Pungapunga River at approx NZMS 260 S18:278-592 to approx T18:301-587
		Pungapunga River tributary	From the confluence with the Pungapunga River at approx NZMS 260 S18:261-580 to source
		Hauwai Stream	From the confluence with the Pungapunga River at approx NZMS 260 S18:239-573 to source
		Whangapuoto Stream	From the confluence with the Pungapunga River at approx NZMS 260 S18:165-542 to source
	Upper Ongarue	Unnamed tributary of the Ongarue River	From the confluence with the Ongarue River at approx NZMS 260 S17:286-880 to source
		Okauaka Stream	From the confluence with the Ongarue River at approx NZMS 260 S17:187-865 to source
		Kahoho Stream	From the confluence with the Waimiha Stream at approx NZMS 260 T17:310-965 to source
		Waimiha Stream	From the confluence with the Ongarue River at approx NZMS 260 S17:132-862 to source
		Matamataha River	From the confluence with the Ongarue River at approx NZMS 260 S17:116-806 to source
		Unnamed tributary of the Matamataha River	From the confluence with the Matamataha River at approx NZMS 260 S18:273-793 to source
		Piropiro Stream	From the confluence with the Matamataha River at approx NZMS 260 S17:251-804 to source
		Te Rerengaohoro Stream	From the confluence with the Matamataha River at approx NZMS 260 S18:238-807 to approx S18:239-802
		Waione Stream	From the confluence with the Ongarue River at approx NZMS 260 S18:118-799 to source
		Mangatukutuku Stream	From the confluence with the Waione Stream at approx NZMS 260 S18:127-796 to source
		Waikoura Stream	From the confluence with the Mangatukutuku Stream at approx NZMS 260 S18:174-761 to source
	Upper and Lower Ongarue	Ongarue River	From the confluence with the Mangakahu Stream at approx NZMS 260 S18:087-736 to source
	Lower Ongarue	Mangakahu Stream	From the confluence with the Ongarue River at approx NZMS 260 S18:087-736 to source

Management Zone	Sub-zone	River/Stream Name	Reference
		Otataka Stream	From the confluence with the Mangakahu Stream at approx NZMS 260 S18:182-701 to source
		Unnamed tributary	From the confluence with the Mangakahu Stream at approx NZMS 260 S18143:729 to source
		Kakimotu Stream	From the confluence with the Mangakahu Stream at approx NZMS 260 S18:140-729 to source
		Uepango Stream	From the confluence with the Ongarue River at approx NZMS 260 S18:053-683 to source
		Taringamotu River	From the confluence with the Ongarue River at approx NZMS 260 S18:047-582 to source
		Unnamed tributary of the Taringamotu River	From the confluence with the Taringamotu River at approx NZMS 260 S18:243-631 to source
		Unnamed tributary of the Taringamotu River	From the confluence with the Taringamotu River at approx NZMS 260 S18:229-618 to source
		Tutaeti Stream	From the confluence with the Taringamotu River at approx NZMS 260 S18:205-598 to source
		Maraetohu Stream	From the confluence with the Taringamotu River at approx NZMS 260 S18:190-593
		Unnamed tributary of the Taringamotu River	From the confluence with the Taringamotu River at approx NZMS 260 S18:154-611 to source
		Whararíki Stream	From the confluence with the Taringamotu River at approx NZMS 260 S18:143-613 to source
		Upokomatu Stream	From the confluence with the Taringamotu River at approx NZMS 260 S18:110-626 to source
		Te Tomo Stream	From the confluence of the Upokomatu Stream at approx NZMS 260 S18:157-664 to source
		Piawa Stream	From the confluence of the Upokomatu Stream at approx NZMS 260 S18:115-635 to source
		Ngakonui Stream	From the confluence with the Taringamotu River at approx NZMS 260 S18:101-622
Middle Whanganui	Retaruke	Retaruke River	From the confluence with the Kaitieke Stream at approx NZMS 260 S19:041-326 to source
Pipiriki	Upper/Lower Manganui o te Ao	Manganui o te Ao River	From the confluence with the Whanganui River at approx NZMS 260 R20:860-979 to source
	Upper Manganui o te Ao	Makatote River	From the confluence with the Manganui o te Ao River at approx NZMS 260 S20:128-119 to S20:201-129
	Lower Manganui o te Ao	Otautoha Stream	From the confluence with the Manganui o te Ao River at approx NZMS 260 S20:026-067 to approx S20:156-063

Management Zone	Sub-zone	River/Stream Name	Reference
Upper Whangaehu	Waitangi	Waitangi Stream and tributaries	From the confluence with the Whangaehu River at approx NZMS 260 T21:315-888 to source
	Tokiahuru	Omarae Stream	From the confluence with the Waitaiki Stream at approx NZMS 260 S20:265-921 to source
		Waitaiki Stream	From the confluence with the Tokiahuru Stream at approx NZMS 260 S21:235-880 to approx S20:273-929
		Tokiahuru Stream	From the confluence with the Whangaehu River at approx NZMS 260 S21:218-865 to approx T20:334-956
Lower Whangaehu	Upper and Lower Makotuku	Makotuku River and tributaries	From the confluence with the Mangawhero River at approx NZMS 260 S20:079-902 to source
	Upper Mangawhero	Mangawhero River	From the confluence with the Makotuku River at approx NZMS 260 S20:079-902 to source
		Mangateitei Stream	From the confluence with the Mangawhero River at approx NZMS 260 S20:158-961 to source
		Taonui Stream	From the confluence with the Mangawhero River at approx NZMS 260 S20:121-956 to approx S20:159-020
		Makaranui Stream	From the confluence with the Mangawhero River at approx NZMS 260 S20:116-953 to approx S20:165-932
Ohau River	Upper Ohau	Makahika Stream and tributaries	From the confluence with the Ohau River at approx NZMS 260 S25:090-585 to source
		Makaretu Stream and tributaries	From the confluence with the Ohau River at approx NZMS 260 S25:083-579 to source
	Lower Ohau	Makorokio Stream and tributaries	From the confluence with Ohau River at approx NZMS 260 S25:018-563 to source

Table 9: Recommended Schedule for the sites of significance for Aesthetic (A) value

Management Zone	Sub-zone	River / Stream Name	Description	Characteristics / Values
Tiraumea	Makuri	Makuri River and tributaries	From the confluence with the Tiraumea River at approx NZMS 260 T24:569-771 to source	Recreational values, visual and scenic characteristics - particularly its deeply entrenched gorge downstream of Makuri township and the adjacent Scenic Reserve. Ecological significance – particularly as a fisheries and wildlife habitats and Recognised protection – Local Water Conservation Notice
Mangatainoka	Upper, Middle and Lower Mangatainoka, Makakahi and Mangaramarama	Mangatainoka River and tributaries	From the confluence with the Tiraumea River at approx NZMS 260 T24:558-856 to source	Recreational values – particularly as an important trout fishery, and Recognised protection – Local Water Conservation Notice
Upper Gorge, Middle Manawatu	Upper Gorge and Middle Manawatu	Manawatu River	From the confluence with the Pohangina River at approx NZMS 260 T24:449-966 to the Ballance bridge at approx T24:494-926	Visual and scenic characteristics Geological feature – provided by being the only river in New Zealand to drain both east and west of the main divide
Middle Manawatu	Upper, Middle and Lower Pohangina	Pohangina River and tributaries	From the confluence with the Manawatu River at approx NZMS 260 T24:449-966 to source	Visual and scenic characteristics - particularly the river and valley landscape
Oroua	Upper Oroua River	Oroua River and tributaries	From the confluence with the Mangaoira Stream at approx NZMS 260 T22:577-379 to source	Visual and scenic characteristics - particularly its riparian margins, Recreational values
Upper Rangitikei	Upper Rangitikei	Rangitikei River and tributaries	From the confluence with the Makahikatoa Stream at approx NZMS 260 U24:725-888 to source	Recreational values, Ecological significance – Wildlife habitat and fisheries, Visual and scenic characteristics particularly its gorges, terrace formations and high bluffs and Recognised protection – National Water Conservation (Rangitikei River) Order 1993.
Middle Rangitikei	Pukeokahu - Mangaweka	Whakaurekou River and tributaries	From the confluence with the Rangitikei River at approx NZMS 260 U21:712-691 to source	
		Kawhatau River and tributaries	From the confluence with the Rangitikei River at approx NZMS 260 T22:504-551 to source	

Management Zone	Sub-zone	River / Stream Name	Description	Characteristics / Values
	Upper Hautapu	Hautapu River and tributaries	From the confluence with the Oraukura Stream at approx NZMS 260 T21:510-670 to source	Recreational value - particularly as a brown trout fishery, Visual and scenic characteristics particularly the deeply entrenched river and steep gorge and Recognise protection – Local Water Conservation Notice
Middle and Lower Rangitikei	Middle Rangitikei, Pukeokahu – Mangaweka and Lower Rangitikei	Rangitikei River	From the Mangarere Bridge at approx NZMS 260 T22:483-496 to the confluence with the Makahikatoa Stream at approx U24:725-888	Recreational values, Ecological significance – Wildlife habitat and fisheries, Visual and scenic characteristics particularly its gorges, terrace formations and high bluffs and Recognised protection – National Water Conservation (Rangitikei River) Order 1993.
Upper Whanganui, Cherry Grove, Te Maire, Middle Whanganui, Pipiriki, Paetawa and Lower Whanganui	Upper Whanganui, Cherry Grove, Te Maire, Middle Whanganui, Pipiriki, Paetawa and Lower Whanganui	Whanganui River	The Whanganui River and catchment upstream of Aramoana at approx NZMS 260 S22:933-510 to source	Visual and scenic characteristics particularly the gorge landscapes and papa rock formations.
Cherry Grove	Upper and Lower Whakapapa Catchment	Whakapapa River and tributaries	From the confluence with the Whanganui River at approx NZMS 260 S19:189-496 to source.	Visual and scenic characteristics and Recreational Values and Ecological significance – particularly in providing a habitat for blue duck
Pipiriki	Upper Manganui o te Ao	Makatote River	From the confluence with the Manganui o te Ao River at approx NZMS 260 S20:128-120 to source	Visual and scenic characteristics – particularly its river gorges and riparian margins; and outstanding wild and scenic characteristics Ecological significance – providing a habitat for the blue duck, and wildlife and fisheries Recognised protection - National Water Conservation Order
		Waimarino Stream	From the confluence with the Makatote River at approx NZMS 260 S20:129-120 to source	
		Mangaturuturu River	From the confluence with the Manganui o te Ao River at approx NZMS 260 S20:057-067 to source	
	Lower Manganui o te Ao	Orautoha Stream	From the confluence with the Manganui o te Ao River at approx NZMS 260 S20:026-067 to source	

Management Zone	Sub-zone	River / Stream Name	Description	Characteristics / Values
	Upper and Lower Manganui o te Ao	Manganui o Te Ao River	From the confluence with the Whanganui River at approx NZMS 260 R20:861-979 to source	

Table 10: Existing consented surface water takes for community water supply

Management Zone	Sub-zone	River	Description
Upper Manawatu	Upper Manawatu	Manawatu River	Including all tributaries upstream of a point at approx NZMS 260 U23:821-240
Weber-Tamaki	Weber-Tamaki	Manawatu River	Including all tributaries upstream of a point at approx NZMS 260 U23:726-013
Upper Tamaki	Upper Tamaki	Tamaki River	Including all tributaries upstream of a point at approx NZMS 260 U23:709-114
Tiraumea	Upper Tiraumea	Hirinakitu Stream	Including all tributaries upstream of a point at approx NZMS 260 T25:577-627
Mangatainoka	Middle Mangatainoka	Mangatainoka River	Including all tributaries upstream of a point at approx NZMS 260 T24:441-746
	Lower Mangatainoka	Mangatainoka River	Including all tributaries upstream of a point at approx NZMS 260 T24:504-808
	Makakahi	Makakahi River	Including all tributaries upstream of a point at approx NZMS 260 T25:318-520
			Including all tributaries upstream of a point at approx NZMS 260 T25:317-554
			Including all tributaries upstream of a point at approx NZMS 260 T25:384-572
		Bruce Stream	Including all tributaries upstream of a point at approx NZMS 260 T25:328-504
Upper Gorge	Mangapapa	Mangapapa Stream	Including all tributaries upstream of a point at approx NZMS 260 T24:543-986
Middle Manawatu	Middle Manawatu	Manawatu River	Including all tributaries upstream of a point at approx NZMS 260 T24:394-937
	Middle Pohangina	Pohangina River	Including all tributaries upstream of a point at approx NZMS 260 T23:507-063
	Lower Pohangina	Pohangina River	Including all tributaries upstream of a point at approx NZMS 260 T23:455-042
Lower Manawatu	Turitea	Turitea Stream	Including all tributaries upstream of a point at approx NZMS 260 T24:314-875
			Including all tributaries upstream of a point at approx NZMS 260 T25:368-827
Oroua	Upper Oroua	Oroua River	Including all tributaries upstream of a point at approx NZMS 260 T23:502-254
			Including all tributaries upstream of a point at approx NZMS 260 T23:422-156
			Including all tributaries upstream of a point at approx NZMS 260 T23:364-113
	Kiwitea	Kiwitea Stream	Including all tributaries upstream of a point at approx NZMS 260 T23:369-239
Coastal Manawatu	Coastal Manawatu	Manawatu River	Including all tributaries upstream of a point at approx NZMS 260 S24:134-726
	Lower Tokomaru	Tokomaru River	Including all tributaries upstream of a point at approx NZMS 260 S24:242-767
			Including all tributaries upstream of a point at approx NZMS 260 S24:138-726

Management Zone	Sub-zone	River	Description
	Mangaore	Mangaore Stream	Including all tributaries upstream of a point at approx NZMS 260 S25:170-665
Middle Rangitikei	Pukeokahu - Mangaweka	Makino Stream	Including all tributaries upstream of a point at approx NZMS 260 U22:707-589
	Upper Hautapu	Hautapu River	Including all tributaries upstream of a point at approx NZMS 260 T21:407-811
			Including all tributaries upstream of a point at approx NZMS 260 T21:420-738
		Waiouru Stream	Including all tributaries upstream of a point at approx NZMS 260 T21:435-896
	Lower Hautapu	Reporoa Stream	Including all tributaries upstream of a point at approx NZMS 260 T21:509-655
Lower Rangitikei	Lower Rangitikei	Rangitikei River	Including all tributaries upstream of a point at approx NZMS 260 T22:504-512
			Including all tributaries upstream of a point at approx NZMS 260 T22:332-324
			Including all tributaries upstream of a point at approx NZMS 260 T22:360-372
			Including all tributaries upstream of a point at approx NZMS 260 T22:301-330
			Including all tributaries upstream of a point at approx NZMS 260 S22:272-299
Coastal Rangitikei	Coastal Rangitikei	Rangitikei River	Including all tributaries upstream of a point at approx NZMS 260 S23:198-221
			Including all tributaries upstream of a point at approx NZMS 260 S23:154-118
			Including all tributaries upstream of a point at approx NZMS 260 S23:145-115
			Including all tributaries upstream of a point at approx NZMS 260 S23:132-105
			Including all tributaries upstream of a point at approx NZMS 260 S23:125-099
	Tidal Rangitikei	Flockhouse Drain No 1	Including all tributaries upstream of a point at approx NZMS 260 S23:045-019
	Tutaenui	Tutaenui Stream	Including all tributaries upstream of a point at approx NZMS 260 S22:144-137
Upper Whanganui	Upper Whanganui	Te Whaiau Stream	Including all tributaries upstream of a point at approx NZMS 260 T19:357-369
		Mangatepopo Stream	Including all tributaries upstream of a point at approx NZMS 260 T19:313-361
Cherry Grove	Cherry Grove	Whanganui River	Including all tributaries upstream of a point at approx NZMS 260 S18:130-504
			Including all tributaries upstream of a point at approx NZMS 260 S18:102-556
	Upper Whakapapa	Makahikatoa Stream	Including all tributaries upstream of a point at approx NZMS 260 T20:316-138
			Including all tributaries upstream of a point at approx NZMS 260 T20:300-177
		Waipuna Stream	Including all tributaries upstream of a point at approx NZMS 260 S20:299-162
		Mangahuia Stream	Including all tributaries upstream of a point at approx NZMS 260 S19:236-205

Management Zone	Sub-zone	River	Description
	Lower Whakapapa	Whakapapa River	Including all tributaries upstream of a point at approx NZMS 260 S19:190-402
	Piopiotea	Piopiotea Stream	Including all tributaries upstream of a point at approx NZMS 260 S19:178-283
Middle Whanganui	Upper Ohura	Mangaparare Stream	Including all tributaries upstream of a point at approx NZMS 260 R18:817-602
Upper Whangaehu	Waitangi	Waitangi Stream	Including all tributaries upstream of a point at approx NZMS 260 T20:397-914
Lower Whangaehu	Upper Makotuku	Makotuku River	Including all tributaries upstream of a point at approx NZMS 260 S20:103-012
	Upper Mangawhero	Mangawhero River	Including all tributaries upstream of a point at approx NZMS 260 S20:198-999
Ohau	Upper Ohau	Ohau River	Including all tributaries upstream of a point at approx NZMS 260 S25:077-580
	Lower Ohau	Ohau River	Including all tributaries upstream of a point at approx NZMS 260 S25:064-577
			Including all tributaries upstream of a point at approx NZMS 260 S25:066-578
Akitio	Waihi	Waihi Stream	Including all tributaries upstream of a point at approx NZMS 260 U24:746-771
			Including all tributaries upstream of a point at approx NZMS 260 U24:743-768
		Waipuehu Stream	Including all tributaries upstream of a point at approx NZMS 260 U24:766-804
Kai Iwi	Kai Iwi	Karamu Stream	Including all tributaries upstream of a point at approx NZMS 260 R22:781-543
Kaitoke Lakes	Kaitoke Lakes	Lake Kaitoke	Including all tributaries upstream of a point at approx NZMS 260 R22:897-361
Waikawa	Waikawa	Waikawa Stream	Including all tributaries upstream of a point at approx NZMS 260 S25:009-506
			Including all tributaries upstream of a point at approx NZMS 260 S25:997-514
			Including all tributaries upstream of a point at approx NZMS 260 S25:998-531

Table 11: Existing consented surface water takes for Industrial abstraction

Management Zone	Sub-zone	River	Description
Upper Manawatu	Upper Manawatu	Mangarangiora Stream	At approx NZMS 260 U24:885-158
		Manawatu River	At approx NZMS 260 U23:785-023
Tamaki-Hopelands	Tamaki-Hopelands	Manawatu River	At approx NZMS 260 T23:678-003
	Lower Tamaki	Tamaki River	At approx NZMS 260 U23:707-047
Mangatainoka	Middle Mangatainoka	Artificial lake on Tutaekara Road	At approx NZMS 260 T24:433-726
	Lower Mangatainoka	Mangatainoka River	At approx NZMS 260 T24:533-831
			At approx NZMS 260 T24:529-833
			At approx NZMS 260 T24:500-801
			At approx NZMS 260 T24:537-842
Middle Manawatu	Middle Manawatu	Manawatu River	At approx NZMS 260 T24:395-936
			At approx NZMS 260 T24:395-932
			At approx NZMS 260 T24:359-924
Lower Manawatu	Lower Manawatu	Manawatu River	At approx NZMS 260 T24:302-881
Oroua	Middle Oroua	Oroua River	At approx NZMS 260 S23:298-049
Middle Rangitikei	Pukeokahu - Mangaweka	Rangitikei River	At approx NZMS 260 T22:529-572
			At approx NZMS 260 T22:528-573
Lower Rangitikei	Lower Rangitikei	Rangitikei River	At approx NZMS 260 T22:386-427
Coastal Rangitikei	Coastal Rangitikei	Rangitikei River	At approx NZMS 260 S23:184-182
			At approx NZMS 260 S23:166-164
			At approx NZMS 260 S23:167-123
			At approx NZMS 260 S23:127-102
			At approx NZMS 260 S23:124-105
			At approx NZMS 260 S23:073-028
	Tutaenui	Tutaenui Stream	At approx NZMS 260 S23:129-233
Cherry Grove	Cherry Grove	Whanganui River	At approx NZMS 260 S18:167-502
	Upper Ongarue	Waimiha Stream	At approx t NZMS 260 S17:250-968
	Lower Ongarue	Taringamotu River	At approx NZMS 260 S18:193-592
Pipiriki	Lower Manganui o te Ao	Hoihenga Stream	At approx NZMS 260 S20:097-029
Lower Whanganui	Coastal Whanganui	Whanganui River	At approx NZMS 260 R22:831-413
			At approx NZMS 260 R22:798-378
Upper Whangaehu	Tokiahuru	Tokiahuru Stream	At approx NZMS 260 S20:284-913
Lower Whangaehu	Upper Mangawhero	Mangawhero River	At approx NZMS 260 S20:279-079
Northern Coastal	Northern Coastal	Okehu Stream	At approx NZMS 260 R22:761-598

Table 13: Existing consented surface water takes for Agriculture

Management Zone	Sub-zone	River	Number of Consents	Description
Upper Manawatu	Upper Manawatu	Manawatu River	1	At approx NZMS 260 U23:821-240
			1	At approx NZMS 260 U23:873-220
		Makotuku Stream	1	At approx NZMS 260 U23:870-145
	Mangatewainui	Mangatewainui Stream	1	At approx NZMS 260 U23:819-102
	Mangatoro	Mangatoro Stream	1	At approx NZMS 260 U24:826-979
			1	At approx NZMS 260 U24:831-985
			1	At approx NZMS 260 U24:838-997
Weber-Tamaki	Weber-Tamaki	Manawatu River	1	At approx NZMS 260 U23:726-020
	Mangatera	Whakaruatapu Stream	1	At approx NZMS 260 U23:762-086
Upper Kumeti	Upper Kumeti	Kumeti Stream	1	At approx NZMS 260 T23:669-048
Tamaki-Hopelands	Tamaki-Hopelands	Manawatu River	1	At approx NZMS 260 T24:646-928
			1	At approx NZMS 260 T24:662-941
			1	At approx NZMS 260 T24:691-999
			1	At approx NZMS 260 T24:682-956
			1	At approx NZMS 260 T24:623-912
			1	At approx NZMS 260 T24:623-9142
	Lower Tamaki	Tamaki River	1	At approx NZMS 260 U23:708-019
			1	At approx NZMS 260 U23:710-036
	Lower Kumeti	Otamarahu Stream	1	At approx NZMS 260 U23:704-007
		Kumeti Stream	1	At approx NZMS 260 T23:656-067
	Oruakeretaki	Oruakeretaki Stream	1	At approx NZMS 260 T23:656-028
			1	At approx NZMS 260 T23:645-027
		Mangapuka Kakahu Stream	1	At approx NZMS 260 T23:659-031
			1	At approx NZMS 260 T23:654-036
	Raparapawai	Raparapawai	1	At approx NZMS 260 T24:656-979
			1	At approx NZMS 260 T24:653-983
			1	At approx NZMS 260 T24:664-964
			1	At approx NZMS 260 T24:664-956
Hopelands-Tiraumea	Hopelands-Tiraumea	Manawatu River	1	At approx NZMS 260 T24:613-891
			1	At approx NZMS 260 T24:571-863
Tiraumea	Upper Tiraumea	Tiraumea River	1	At approx NZMS 260 T24:541-731
		Black Creek	1	At approx NZMS 260 T25:569-618
	Lower Tiraumea	Tiraumea River	1	At approx NZMS 260 T24:566-848
			1	At approx NZMS 260 T24:587-835
			2	At approx NZMS 260 T24:553-859
	Mangaone River	Black Creek	1	At approx NZMS 260 T25:472-638
Mangatainoka	Middle Mangatainoka	Mangatainoka River	1	At approx NZMS 260 T25:362-645
			1	At approx NZMS 260 T25:363-642
	Lower Mangatainoka	Mangatainoka River	1	At approx NZMS 260 T24:548-855
		Avery Road Stream	1	At approx NZMS 260 T24:485-796
			1	At approx NZMS 260 T24:490-808
	Mangaramarama	Mangaramarama Creek	1	At approx NZMS 260 T24:545-832
Upper Gorge	Upper Gorge	Manawatu River	1	At approx NZMS 260 T24:532-872
			1	At approx NZMS 260 T24:517-882
			1	At approx NZMS 260 T24:520-876
			1	At approx NZMS 260 T24:527-869
	Lower Mangahao	Mangahao River	1	At approx NZMS 260 T24:488-870
Middle Manawatu	Middle Manawatu	Manawatu River	1	At approx NZMS 260 T24:379-925
			1	At approx NZMS 260 T24:439-957
			1	At approx NZMS 260 T24:345-916

Management Zone	Sub-zone	River	Number of Consents	Description
	Middle Pohangina	Pohangina River	1	At approx NZMS 260 T23:465-050
			1	At approx NZMS 260 T23:501-115
			1	At approx NZMS 260 T23:475-077
	Lower Pohangina	Pohangina River	1	At approx NZMS 260 T23:463-054
			1	At approx NZMS 260 T24:455-989
			1	At approx NZMS 260 T23:459-014
Lower Manawatu	Lower Manawatu	Manawatu River	1	At approx NZMS 260 S24:202-830
			1	At approx NZMS 260 S24:170-823
	Kahuterawa	Kahuterawa Stream	1	At approx NZMS 260 T24:311-831
		Kara Creek	1	At approx NZMS 260 T24:306-844
	Lower Mangaone Stream	Mangaone Stream	1	At approx NZMS 260 S24:283-878
Oroua	Upper Oroua	Oroua River	1	At approx NZMS 260 T23:347-092
			1	At approx NZMS 260 T23:343-075
			1	At approx NZMS 260 T23:341-077
			1	At approx NZMS 260 T23:366-114
			1	At approx NZMS 260 T23:348-089
			1	At approx NZMS 260 T23:328-072
	Lower Oroua	Oroua River	1	At approx NZMS 260 S24:185-938
	Kiwitea	Kiwitea Stream	1	At approx NZMS 260 T22:522-406
	Makino	Mangaone West Stream	1	At approx NZMS 260 S23:254-055
			1	At approx NZMS 260 S23:228-111
		Makino Stream	1	At approx NZMS 260 S23:243-006
			1	At approx NZMS 260 S23:254-023
Coastal Manawatu	Coastal Manawatu	Manawatu River	1	At approx NZMS 260 S24:129-785
			1	At approx NZMS 260 S24:132-741
			1	At approx NZMS 260 S24:115-717
			1	At approx NZMS 260 S24:033-735
	Lower Tokomaru	Tokomaru River	2	At approx NZMS 260 S24:143-729
	Mangaore	Mangaore Stream	1	At approx NZMS 260 S25:165-691
	Koputaroa	Koputaroa Stream	1	At approx NZMS 260 S25:070-630
Middle Rangitikei	Pukeokahu - Mangaweka	Kawhatau River	1	At approx NZMS 260 T22:631-496
			1	At approx NZMS 260 T22:635-492
Lower Rangitikei	Lower Rangitikei	Rangitikei River	1	At approx NZMS 260 S23:265-294
			1	At approx NZMS 260 S23:235-273
			1	At approx NZMS 260 S23:221-236
			1	At approx NZMS 260 S23:212-227
			1	At approx NZMS 260 S23:224-255
			1	At approx NZMS 260 T22:310-303
			1	At approx NZMS 260 S23:212-227
			1	At approx NZMS 260 T22:353-361
			1	At approx NZMS 260 S23:252-285
Coastal Rangitikei	Coastal Rangitikei	Rangitikei River	1	At approx NZMS 260 S23:089-089
			1	At approx NZMS 260 S23:076-071
			1	At approx NZMS 260 S23145-105
			1	At approx NZMS 260 S23:167-122
			1	At approx NZMS 260 S23:163-138
			1	At approx NZMS 260 S24-040-995
			1	At approx NZMS 260 S23:168-149
			1	At approx NZMS 260 S23:088-083
			1	At approx NZMS 260 S23:082-053
			1	At approx NZMS 260 S23:176-155
			1	At approx NZMS 260 S23:158-122

Management Zone	Sub-zone	River	Number of Consents	Description
			1	At approx NZMS 260 S23:075-055
			1	At approx NZMS 260 S23:076-053
			1	At approx NZMS 260 S23:073-056
			1	At approx NZMS 260 S23:171-142
			1	At approx NZMS 260 S23:111-103
			1	At approx NZMS 260 S24:042-998
			1	At approx NZMS 260 S23:150-115
			1	At approx NZMS 260 S23:187-209
			1	At approx NZMS 260 S23:184-185
			1	At approx NZMS 260 S23:060-032
	Tidal Rangitikei	Rangitikei River	1	At approx NZMS 260 S24:015-995
	Tutaenui	Tutaenui Stream	1	At approx NZMS 260 S23:112-282
Cherry Grove	Cherry Grove	Whanganui River	1	At approx NZMS 260 S18:074-551
Lower Whanganui	Lower Whanganui	Whanganui River	1	At approx NZMS 260 R22:898-436
		Waireka Stream	1	At approx NZMS 260 R22:897-459
		Mateongaonga Stream	1	At approx NZMS 260 R22:883-429
		Mangamoku Stream	1	At approx NZMS 260 S22:914-429
Upper Whangaehu	Waitangi	Waitangi Stream	1	At approx NZMS 260 T21:317-887
			1	At approx NZMS 260 T21:337-893
		Makiokio Stream	1	At approx NZMS 260 T21:395-898
	Tokiahuru	Tokiahuru Stream	1	At approx NZMS 260 S21:245-890
			1	At approx NZMS 260 S21:258-890
			1	At approx NZMS 260 S21:261-891
			1	At approx NZMS 260 S21:264-894
			1	At approx NZMS 260 S21:263-894
			1	At approx NZMS 260 S21:218-866
		Waitaki Stream	1	At approx NZMS 260 S20:252-906
Middle Whangaehu	Middle Whangaehu	Rangiwahia Stream	1	At approx NZMS 260 S21:211-836
Lower Whangaehu	Lower Whangaehu	Mangawhero River	1	At approx NZMS 260 S22:057-497
	Lower Makotuku	Little Makara Stream	1	At approx NZMS 260 S20:091-014
		Makara Stream	1	At approx NZMS 260 S20:118-027
	Upper Mangawhero	Mangawhero River	1	At approx NZMS 260 S20:107-957
			1	At approx NZMS 260 S20:158-951
			1	At approx NZMS 260 S20:167-966
			1	At approx NZMS 260 S20:173-962
		Hapuawhenua Stream	1	At approx NZMS 260 S20:125-956
		Taonui Stream	1	At approx NZMS 260 S20:122-967
		Mangaeteitei Stream	1	At approx NZMS 260 S20:178-953
			1	At approx NZMS 260 S20:187-952
			1	At approx NZMS 260 S20:186-952
		Makaranui Stream	1	At approx NZMS 260 S20:151-952
			1	At approx NZMS 260 S20:143-945
		Colins Creek	1	At approx NZMS 260 S20:229-984
Coastal Whangaehu	Coastal Whangaehu	Whangaehu River	1	At approx NZMS 260 S22:009-347
Ohau	Lower Ohau	Ohau River	1	At approx NZMS 260 S25:014-572
			1	At approx NZMS 260 S25:937-581
Akitio	Lower Akitio	Akitio River	1	At approx NZMS 260 U24:940-712
			1	At approx NZMS 260 U24:964-707
			1	At approx NZMS 260 U24:947-714
Kai Iwi	Kai Iwi	Katikara Stream	1	At approx NZMS 260 R22:825-488
Mowhanau	Mowhanau	Omapu Stream	1	At approx NZMS 260 R22:803-459

Management Zone	Sub-zone	River	Number of Consents	Description
Lake Papaitonga	Lake Papaitonga	Lake Papaiatonga	1	At approx NZMS 260 S25:938-617
Waikawa	Waikawa	Waikawa Stream	1	At approx NZMS 260 S25:938-521
		Manukau Stream	1	At approx NZMS 260 S25:968-517
			1	At approx NZMS 260 S25:967-511

These two paragraphs were provided by Dr. Russell Death, Senior Lecturer at Massey University to justify the inclusion of Lamprey, Banded Kokopu, Koaro and Redfin Bully in the list of regionally threatened species.

"Lamprey are listed by the Department of Conservation as being sparse. However, in my considerable experience lamprey are very rare in this region although they were once an abundant food source for Maori along the Whanganui River. I have only ever seen one adult lamprey, it was in the Pohangina River and do not recall collecting larval lamprey from any other river in the Region. Similarly banded kokopu are not listed as threatened by the Department of Conservation but they are extremely rare in streams in this Region and I am only aware of two streams where banded kokopu can be found in the Manawatu-Wanganui region.

Red fin bully and koaro are also not listed as being threatened in the Department of Conservation list. They are more common than lamprey and banded kokopu in the Manawatu-Wanganui Region however they are restricted in distribution to relatively pristine streams and are thus much less common in this Region than in other areas of New Zealand"

Notes on Native Fish/Fisheries WQ Values Information Search (*Including Notes from Interview with Sam Tamarapa, Ministry of Fisheries*)

Background

The objective of this project is:

"To collate available information to allow the native fishery and native fish spawning values to be mapped."

This value recognizes five native fisheries: eel, inanga, koura, lamprey and whitebait.

Results

Inanga spawning
These areas are restricted to the tidal zones of the estuaries of rivers and streams along the east and west Coasts of the Region. Inanga spawning areas are defined in ***Annex A***. Information for the list was gathered from the following sources:

Regional Plan for Beds of Rivers and Lakes and Associated Activities, Horizons Regional Council, 2001;
Land and Water Regional Plan, Horizons Regional Council, 2003;
Environmental Code of Practice for Drain Maintenance Works, Horizons Regional Council, 2001;
Davis S.F. (1987): *Wetlands of national Importance to fisheries*, New Zealand Freshwater Fisheries Report No. 90, MAFFish;
Sam Tamarapa, Ministry of Fisheries, personal communication, April 2006;
Rosemary Miller, Department of Conservation (Wanganui Conservancy), personal communication, May 2006; and
John Jamieson, Horizons Regional Council (Wanganui Office), personal communication, June 2006.
Note several rivers and streams flowing to beaches on the West and East Coasts that may provide whitebait spawning habitats but have not been identified on the list are:

Raumai North Stream (S23: 974-111)
Wairarawa Stream (S24: 960-709)
Wainui River (V24: 119-734)
Unnamed Stream (S24: 989-875)
Owhanga River (U25: 926-531)
Tautane Stream (V24: 132-731)

Whitebait fishery
These areas are basically the coastal estuaries and upstream as much as several kilometers on larger rivers. Whitebait fishing areas are defined in ***Annex B***. Information sources are as for inanga spawning. Rivers and streams that may provide whitebait fishery values, but are not listed in *Annex B* are the same as those listed above as potential inanga spawning areas.

Commercial eel fishery
There is a significant commercial eel fishery controlled by the Ministry of Fisheries using a quota system. However, I am told there is also a significant illegal eel catch from the Region. This results in a reluctance (refusal) to disclose areas of value for eel fishing.

[*See also the attached notes from my meeting with Sam Tamarapa, Ministry of Fisheries, on 13 April 2006*.]
Traditional eel, lamprey and koura fisheries
There are references to sites such as Lake Horowhenua (eels), other West Coast lakes (eels), Whanganui River (lamprey) and streams near Ohakune (koura) as locations for traditional fisheries.
Other species with fisheries potential
Other species that have potential fisheries values are: kakahi (known traditional fishery in Lake Horowhenua), black flounder and yellow belly flounder.

Recommendation regarding traditional fisheries
I am advised that Mäori regard traditional food gathering sites as waahi tapu sites and this results in a reluctance or refusal to disclose locations. This is evident from discussions with DOC who has been unable to get support for research on the traditional lamprey fishery on the Upper Whanganui River. This reluctance to disclose is exacerbated where there is a risk of commercial exploitation of that fishery once it becomes public knowledge.

> I am concerned that if we identify traditional fisheries, even very generally, in the One Plan without the knowledge and approval of the traditional fishers we run the risk of being labeled culturally insensitive despite our best intentions.
>
> I recommend we use the information we have on traditional fisheries as the basis of a fisheries values discussion during our future consultation with Mäori.

Notes from Interview with Sam TamarapaMinistry of Fisheries

I met with Sam Tamarapa, Ministry of Fisheries on 13 April 2006 at Horizons Wanganui office. Sam was the Fisheries Officer for this area and is now in a ”relationship management” role with the Ministry of Fisheries. He has a wealth of knowledge and is a good guy to know and deal with. Sam’s observations are bullet pointed below.

Commercial Eel Fisheries

The whole Region (lowland to headwater, big river to small stream, lakes, wetlands) is fished commercially for eels where access is available.

The eel fishery is the only freshwater fishery the quota system has been applied to so far.

The eel fishery is declining. The Ministry is especially concerned about the long-fin eel populations.

The Whanganui River is closed to commercial eel fishing from upstream of Kemps Pole (approx 30km from the mouth) including all tributaries except the Ohura River, Taringamotu River and Ongarue River.

The interest in using aquaculture for commercial use of eels is growing. Current research is focusing on resolving the issues around successful spawning and survival of larva.

Traditional Eel Fisheries

Known traditional eel fisheries are Horowhenua Lakes, other coastal lakes, lower Turakina River and upper Whanganui River.

There is sensitivity about publicizing traditional fisheries (see next bullet point).

There was an unwritten respect from commercial eel fisherman for reaches of rivers used as traditional eel fisheries, but in some areas commercial fishing has now moved into those areas forcing traditional fishing into “nontraditional” areas. In some cases this has lead to exclusive agreements between local Mäori and landowners for eel fishing access. It has also led to a high level of secrecy about where these fisheries are located.

Traditional Lamprey Fisheries

The most well-known traditional lamprey fishery is in the Upper Whanganui River. There is anecdotal evidence that the lamprey population is declining. Not very much is known about the fish or the fishery.

Traditional Koura Fisheries

Traditional fisheries are primarily found in the mountain streams around Mount Ruapehu. This is consistent with anecdotal information that there is a valued traditional koura fishery in the Ohakune area.

Koura are the subject of increasing interest as a commercially farmed species.

Sam also mentioned that Treaty Settlements include protocol requirements for how government agencies such as Ministry of Fisheries will interact with Mäori.

Annex A

Table 1:Water bodies with important habitats for the Inanga Spawning

Catchment & Water Body	Reference	Reference
Akitio River Catchment		
Akitio River	From river mouth to 100 metres upstream of the CMA boundary located at the seaward edge of the bridge that crosses the river at NZMS 260 U25: 997 619	BRL Appendix 5 L&WP Appendix 6
Whakawahine Stream	Two kilometres upstream from the confluence with the Akitio River.	L&WP Appendix 6
Hokio Stream	From the stream mouth to 100 metres upstream of the CMA boundary located at the seaward edge of the bridge that crosses the stream at NZMS 260 S25: 949-658	BRL Appendix 5 L&WP Appendix 6 Davis S.F. (1987)
Kai Iwi Stream Catchment	From the stream mouth to 100 metres upstream of the CMA boundary located at the seaward edge of the Archers Bridge footbridge that crosses the stream at NZMS 260 R22: 721-452	BRL Appendix 5 L&WP Appendix 6
Kaikokopu Stream	From stream mouth to Lake Kaikokopu at NZMS 260 S24 019 899)	L&WP Appendix 6
Koitiata Stream	From the stream mouth to a point 5km upstream at NZMS 260 S23: 002-186	L&WP Appendix 6
Kaitoke Stream	From stream mouth to Kaitoke Lake at NZMS 260 R22: 869-358	L&WP Appendix 6
Manawatu River Catchment		
Manawatu River	From the river mouth to a point 100 metres upstream of the CMA boundary located at the seaward edge of the Foxton loop at NZMS S24:010-767	BRL Appendix 5 L&WP Appendix 6 Davis S.F. (1987) Miller, 2006
Whitebait Creek	From confluence with the Manawatu River to source	COP for Drain Maintenance Works L&WP Appendix 6
Mowhanau Stream	From stream mouth to Rapanui Road at NZMS 260 R22: 731-452	Miller 2006
4 Mile Creek	From stream mouth to Lake Pukepuke at NZMS 260 S24:024-937	Miller, 2006
Ohau River	From the river mouth to a point approximately 5 km upstream at NZMS 260 S25: 943-580	Davis S.F. (1987)
Okehu Stream	From stream mouth to intersection with SH3 at NZMS 260 R22: 717-509	L&WP Appendix 6
Omapu Stream	From the stream mouth to a point 1km upstream at NZMS 260 R22: 749-441	L&WP Appendix 6

Catchment & Water Body	Reference	Reference
Rangitikei River	From the river mouth to 100 metres upstream of the CMA boundary located at the seaward edge of the boat ramp on the true left bank of the river located at NZMS 260 S24: 009-002	BRL Appendix 5 L&WP Appendix 6 Davis S.F. (1987) Miller, 2006
Raumai Range Stream	From stream mouth at NZMS 260 S23: 979-081 to source.	L&WP Appendix 6
Turakina River	From the river mouth to a point 100 metres upstream of the CMA boundary located at the continuation of the fence line at NZMS 260 S23: 918-246.	BRL Appendix 5 L&WP Appendix 6
Waimahora Stream	From stream mouth to intersection with Santoft Rd at NZMS 260 S23: 001-154	L&WP Appendix 6 Miller, 2006
Lake Waitaha Drain	No location defined, assume from lake Waitaha outlet at NZMS 260 S25: 953-604 to confluence with Ohau River at NZMS 260 S25: 945-580	COP for Drain Maintenance Works
Waiwiri Stream	No location defined, assume from stream mouth to a point 500 upstream at NZMS 260 S25: 931-615	COP for Drain Maintenance Works
Whangaehu River	From river mouth to a point upstream located at NZMS 260 S22: 915-300	Miller, 2006
Whanganui River Catchment		
Stream opposite Corliss Island	From confluence with Whanganui River at NZMS 260 R22: 845-374 to State Highway 3 at NZMS 260 R22: 855-374	Miller, 2006
Matarawa Stream	From confluence with Whanganui River at NZMS 260 R22: 858-398 to Ikitara Street NZMS 260 R22: 869-409	Miller, 2006
Mateongaonga Stream	From confluence with Whanganui River at NZMS 260 R22: 876-434 to Kaimatira Road at NZMS 260 R22: 894-423	Miller, 2006

References:

1. BRL: *Regional Plan for Beds of Rivers and Lakes and Associated Activities*, Horizons Regional Council, 2001.
2. L&WP: *Land and Water Regional Plan*, Horizons Regional Council, 2003.
3. COP for Drain Maintenance Works: *Environmental Code of Practice for Drain Maintenance Works*, Horizons Regional Council, 2001.
4. Davis S.F. (1987): *Wetlands of national Importance to fisheries*, New Zealand Freshwater Fisheries Report No. 90, MAFFish.
5. Miller: Personal communication with Rosemary Miller, Department of Conservation (Wanganui Conservancy), May 2006.

Annex B

Water bodies with important habitats for whitebait fishing

Catchment & Water Body	Reference	Reference
Akitio River Catchment		
Akitio River	From river mouth to 100 metres upstream of the CMA boundary located at the seaward edge of the bridge that crosses the river at NZMS 260 U25: 997 619	L&WP Appendix 6
Whakawahine Stream	Two kilometres upstream from the confluence with the Akitio River.	L&WP Appendix 6
Hokio Stream	From the stream mouth to Lake Horowhenua.	L&WP Appendix 6 BRL Appendix 10 Davis S.F. (1987)
Kai Iwi Stream Catchment	From stream mouth to intersection with State Highway 3 at NZMS 260 R22: 748-493.	L&WP Appendix 6 BRL Appendix 10
Kaikokopu Stream	From stream mouth to Lake Kaikokopu at NZMS 260 S24 019 899)	L&WP Appendix 6 BRL Appendix 10
Koitiata Stream	From the stream mouth to a point 5 km upstream at NZMS 260 S23: 002-186	L&WP Appendix 6 BRL Appendix 10
Kaitoke Stream	From stream mouth to Kaitoke Lake at NZMS 260 R22: 869-358	L&WP Appendix 6 BRL Appendix 10 Jamieson, 2006
4 Mile Creek	From stream mouth to a point 100m upstream at NZMS 260 S24:024-937	Miller, 2006
Manawatu River Catchment		
Manawatu River	From the river mouth to the Foxton Shannon Road bridge at NZMS 260 S24: 133-726	L&WP Appendix 6 Davis S.F. (1987) Miller, 2006
Holben Parade Creek	From Confluence with the Manawatu River to Seabury Avenue at NZMS 260 S24: 986-800	Miller, 2006
Whitebait Creek	From confluence with the Manawatu River to source	L&WP Appendix 6 BRL Appendix 10
Mowhanau Stream	From stream mouth to a point 1 km upstream at NZMS 260 R22: 736-453	Miller 2006 Jamieson, 2006
Ohau River	From the river mouth to a point 5 km upstream	Davis S.F. (1987)
Okehu Stream	From stream mouth to intersection with SH3 at NZMS 260 R22: 717-509	L&WP Appendix 6 BRL Appendix 10 Jamieson, 2006
Omapu Stream	From the stream mouth to a point 1km upstream at NZMS 260 R22: 749-441	L&WP Appendix 6 BRL Appendix 10

Catchment & Water Body	Reference	Reference
Rangitikei River	From the river mouth to 100 metres upstream of the CMA boundary located at the seaward edge of the boat ramp on the true left bank of the river located at NZMS 260 S24: 009-002	L&WP Appendix 6 Davis S.F. (1987)
Raumai Range Stream	From stream mouth at NZMS 260 S23: 979-081 to source.	L&WP Appendix 6 BRL Appendix 10
Turakina River	From the river mouth to a point 100 metres upstream of the CMA boundary located at the continuation of the fence line at NZMS 260 S23:918-246.	L&WP Appendix 6
Waimahora Stream	From stream mouth to intersection with Santoft Rd at NZMS 260 S23: 001-154	L&WP Appendix 6
Lake Waitaha Drain	No location defined, assume from lake Waitaha outlet at NZMS 260 S25: 953-604 to confluence with Ohau River at NZMS 260 S25: 945-580	COP for Drain Maintenance Works
Waiwiri Stream	No location defined, assume from stream mouth to a point 500 upstream at NZMS 260 S25: 931-615	COP for Drain Maintenance Works
Whangaehu River	From river mouth to the State Highway 3 bridge at NZMS 260 S22: 950-310	Miller, 2006
Whanganui River Catchment		
Whanganui River	From the river mouth to Parikino (NZMS 260 S22: 936-547)	L&WP Appendix 6 Miller, 2006
Stream opposite Corliss Island	From confluence with Whanganui River at NZMS 260 R22: 845-374 to Wikitoria Road at NZMS 260 R22: 849-371	Miller, 2006 Jamieson, 2006
Matarawa Stream	From confluence with Whanganui River at NZMS 260 R22: 858-398 to Ikitara Street NZMS 260 R22: 869-409	Miller, 2006 Jamieson, 2006
Mateongaonga Stream	From confluence with Whanganui River at NZMS 260 R22: 876-434 to Riverbank Road at NZMS 260 R22: 877-433	Miller, 2006 Jamieson, 2006
Kauarapaoa Stream	From confluence with Whanganui River at NZMS 260 R22: 886-537 to McNab's Access Road at NZMS 260 S22: 900-559	Miller, 2006 Jamieson, 2006

References:

1. BRL: *Regional Plan for Beds of Rivers and Lakes and Associated Activities*, Horizons Regional Council, 2001.
2. L&WP: *Land and Water Regional Plan*, Horizons Regional Council, 2003.
3. COP for Drain Maintenance Works: *Environmental Code of Practice for Drain Maintenance Works*, Horizons Regional Council, 2001.
4. Davis S.F. (1987): *Wetlands of national Importance to fisheries*, New Zealand Freshwater Fisheries Report No. 90, MAFFish.
5. Miller: Personal communication with Rosemary Miller, Department of Conservation (Wanganui Conservancy), May 2006.
6. Jamieson: Personal communication with John Jamieson, Horizons Regional Council (Wanganui Office), June 2006.

horizons
regional council

11-15 Victoria Avenue
Private Bag 11 025
Manawatu Mail Centre
Palmerston North 4442

T 0508 800 800
F 06 952 2929
help@horizons.govt.nz
www.horizons.govt.nz