



Kaikoura Zone Implementation Programme



Kaikoura Zone Committee

The Kaikoura Zone Committee (Zone Committee) is a joint committee of the Kaikoura District Council and Environment Canterbury. The Zone Committee are “local” people planning locally – the members are:

Derrick Millton	Chair (community member)
Matt Hoggard	Deputy Chair (community member)
Sarah Beardmore	(community member)
Tony Blunt	(community member)
Ted Howard	(community member)
Hamish Mackenzie	(community member)#
Ron Mackle	(community member)*
Teri Sonal	(community member)#
Gina Solomon	(Te Rūnanga o Kaikōura)
Winston Gray	(Kaikoura District Council)
David Bedford	(Environment Canterbury)

(see <http://ecan.govt.nz/get-involved/canterburywater/committees/kaikoura/Pages/membership.aspx> for background information on committee members)

* Ron Mackle was a member from July 2011 to March 2012

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With support from

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He tapu tō te mauri o kā wai.

Ko te wai te tīmataka me te whakamutuka.

Ko mātou ko te wai, ko te wai ko mātou.

Ki uta ki tai, kia hauora kā wai o Ngāti Kurī mō tātou, ā, mō kā uri ā muri ake nei.

The Mauri is the life force of all waterways and is sacred.

Water is the beginning of life and the end of life.

We are the water, the water is us.

*From the mountains to the sea, we want the waters in the takiwa of Ngati Kurī,
to be clean, healthy and fit for human use, for us and our children after us.*

EXECUTIVE SUMMARY

This Zone Implementation Programme (ZIP) has been produced under the Canterbury Water Management Strategy (CWMS) and is a non-statutory document. It has been prepared by the Kaikoura Zone Committee (Zone Committee) through a collaborative process. It is a collection of integrated actions and tactics to give effect to the CWMS in the Kaikoura Zone and is a work in progress. The ZIP has been submitted to Environment Canterbury and Kaikoura District Council and has been received by them as the basis for the design and realignment of work programmes and for drafting plan provisions.

Our vision for water management:

Water is the mauri (life) of all living systems as it flows from the mountains to the sea (ki uta ki tai) providing for our families and communities. As kaitiaki (guardians) we will ensure the water of the Kaikoura Zone enhances the abundance and quality of life.

In developing the recommendations of this draft ZIP the Zone Committee has:

- Affirmed that water quality and quantity is a determining factor for our economic and social well being;
- Recognised Ngāti Kuri as tangata whenua and the value they place on mahinga kai;
- Considered the unique biodiversity of the Zone, the large area of “unmanaged” native vegetation, the high naturalness of many rivers and lakes, and the high proportion in crown ownership;
- Recognised the steep nature of most streams and rivers which, coupled with infrequent high-intensity rainstorms, results in significant and sometimes devastating flooding hazards;
- Recognised the small population of the zone and the high visitor numbers;
- Recognised the socio economic contribution the agricultural sector brings to the Zone;
- Recognised the strong wish for local input into, control of and ownership of our future.

The main features of this implementation programme are:

Drinking water: *The water provided from community water schemes in the zone meets New Zealand Drinking Water Standards, including through actions that:*

- Support Kaikoura District Council work programme to get its nine schemes to New Zealand Drinking Water Standard;
- Encourage other community water supplies (particularly campgrounds) and self-supplies to regularly test water and where appropriate meet Drinking Water Standard, and thereby ensure resilient self-supporting communities;

- Educate people on the importance of quality drinking water;
- Inform all ratepayers of the importance of and methodology required for ensuring a safe water supply.

Biodiversity, natural values and mahinga kai:

Protect, enhance and celebrate the Zone’s biodiversity/ ecosystems and protect mountains-to-sea landscapes while encouraging appropriate and responsible use of our waterbodies, including through actions that:

- Protect high naturalness and unique biodiversity through Regional and District Plans, including no damming of the main stem of the Clarence/Waiau-toa River;
- Improve knowledge of and public access to Lake Rotorua;
- Identify at least two significant wetlands to be restored;
- Work with Te Korowai¹ on any relevant shared interest including the freshwater mātaimai for Oaro River;
- Support site and ecosystems initiatives with Immediate Steps Biodiversity Funding (\$500,000 over five years);
- Support Cultural Opportunity Mapping Assessment and Response (COMAR) monitoring and identification of areas where mahinga kai gathering, wāhi taonga/wāhi tapu sites are at risk from water management.

Water, nutrient and effluent management:

Maintain, and where required, improve on-farm water and land management to achieve CWMS targets to deliver economic, social, cultural and environmental outcomes, including through actions that:

- Support the use of nutrient budgets (using Overseer) and farm environmental management plans;
- Investigate local water-availability issues on Kaikoura flats;
- Investigate water storage where future demand may exceed supply (for irrigation and/or subdivision development);
- Improve water-use efficiency;
- Take an Integrated Catchment Management approach, starting with Clarence River/Waiau-toa catchment, that integrates management by all agencies and landowners of river works, weeds and pests, and other land and water management in the catchment.

¹ Te Korowai o Te Tai o Marokua/Kaikoura Coastal Marine Guardians, are a group of people standing for local leadership about the use and protection of our marine environment. The group is made up of recreational and commercial fishers, those with an interest in environmental issues and members of Te Rūnanga o Kaikōura, with support and advice from relevant government departments and Ministries and Te Rūnanga o Ngāi Tahu.

Kaikoura streams, fans, flats & wetlands: *Improve health of streams and wetlands on Kaikoura fans and flats while maintaining flood protection, ensuring the area is a great place to live, supports prosperous farming, and supports a wide range of values including tangata whenua, recreation and conservation values, including through:*

- Collaborative approach involving all land owners and community that builds on the previous Living Streams project in Lyell Creek/Waikōau;
- Community and schools involvement in waterway restoration and clean-up;
- Actions that protect and restore wetlands;

Visitor and transport corridor impacts: *Freedom camping and visitor impacts are managed so they do not pose unacceptable risk to community drinking water or to waterways. State Highway 1 and main trunk railway are managed, operated and developed in ways that maintain and, where possible, improve waterways, including through actions that:*

- Identify waterways and drinking supplies at high risk to freedom camping impacts (which are likely to be those easily accessible from State Highway 1);
- Encourage and support District Council and Department of Conservation initiatives including co-ordinated approach by agencies to freedom camping;
- Maintain fish passage under the transport corridor;
- Encourage the use of swales² to treat stormwater runoff from the transport corridor.

² A swale is a shallow depression that is covered in grass or other vegetation that serves to drain overland runoff (and trap contaminants such as those from roads or carparks).

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1 INTRODUCTION

The Canterbury Water Management Strategy (CWMS) provides a path toward improving the management and use of Canterbury’s water resources. The Strategy takes a regional approach to achieving collaborative and sustainable water management. The CWMS, initiated in 2005 by the Canterbury Mayoral Forum, is a collaborative process between the Canterbury Regional Council, the ten territorial authorities of Canterbury, and Ngāi Tahu, as well as key environmental and industry stakeholders.

The desired outcome of the CWMS is

“To enable present and future generations to gain the greatest social, economic, recreational and cultural benefits from our water resources within an environmentally sustainable framework.”

A set of ten targets provides the strategy with a sense of direction and balance, and ensures that all aspects of the solution are advanced in parallel. Achieving continued economic production and environmental quality are key to the strategy.

The role of the Zone Committee is to work with the community to prepare a Zone Implementation Programme (ZIP). This outlines a series of actions for integrated water management for the Kaikoura Zone. This ZIP is the first version and contains recommendations principally for actions in the next three years, but with a long-term horizon also in view. The ZIP is a living document and the Zone Committee will review progress against it and update it as required.

For more information on the CWMS principles and targets see Appendix 1 and 2.

1.1 GEOGRAPHIC SCOPE

The geographic area covered by the ZIP includes the catchments of Oaro, Kahutara, Kōwhai, Hapūku, Puhī Puhī, Greenburn and Kekerengu Rivers and most of the Clarence/Waiāu-toa River catchment (except the part of Clarence/Waiāu-toa River catchment that is in the Marlborough District).

The Zone includes all of the Kaikoura District and the part of the Hurunui District that is the upper Clarence/Waiāu-toa River catchment above the Acheron River confluence.

The Zone is entirely within the takiwa (area) of the Tangata Whenua Te Rūnanga o Kaikōura who represent the hapu Ngāti Kuri, from the iwi Ngāi Tahu.

1.2 SCOPE OF ZONE IMPLEMENTATION PROGRAMME

This ZIP is intended to direct the implementation of the CWMS in the Kaikoura Zone. It contains 64 recommendations for Environment Canterbury, Kaikoura District Council, and other agencies. This ZIP aims to address all the CWMS targets together.

The ZIP is not a statutory plan under the Resource Management Act and the Zone Committee does not have the power to commit any Council to any path or expenditure. However the ZIP carries the weight of the wide commitment to the CWMS of Councils, Rūnanga, and the community and a wide range of agencies and interest and industry groups.

1.3 CROSS BOUNDARY WITH MARLBOROUGH DISTRICT COUNCIL

The Clarence/Waiāu-toa River catchment is split between the Kaikoura Zone and Marlborough District Council. The Marlborough District Council is able to have an “ex officio” observer to the Zone Committee and both parties are committed to working together on areas of common interest.



The Zone Committee will seek to ensure an integrated approach to water management is taken that reflects drainage boundaries rather than administrative boundaries.

1.4 ZONE COMMITTEE PROCESS

The Zone Committee operates under the collaborative CWMS approach and consensual decision making has been sought on all committee decisions.

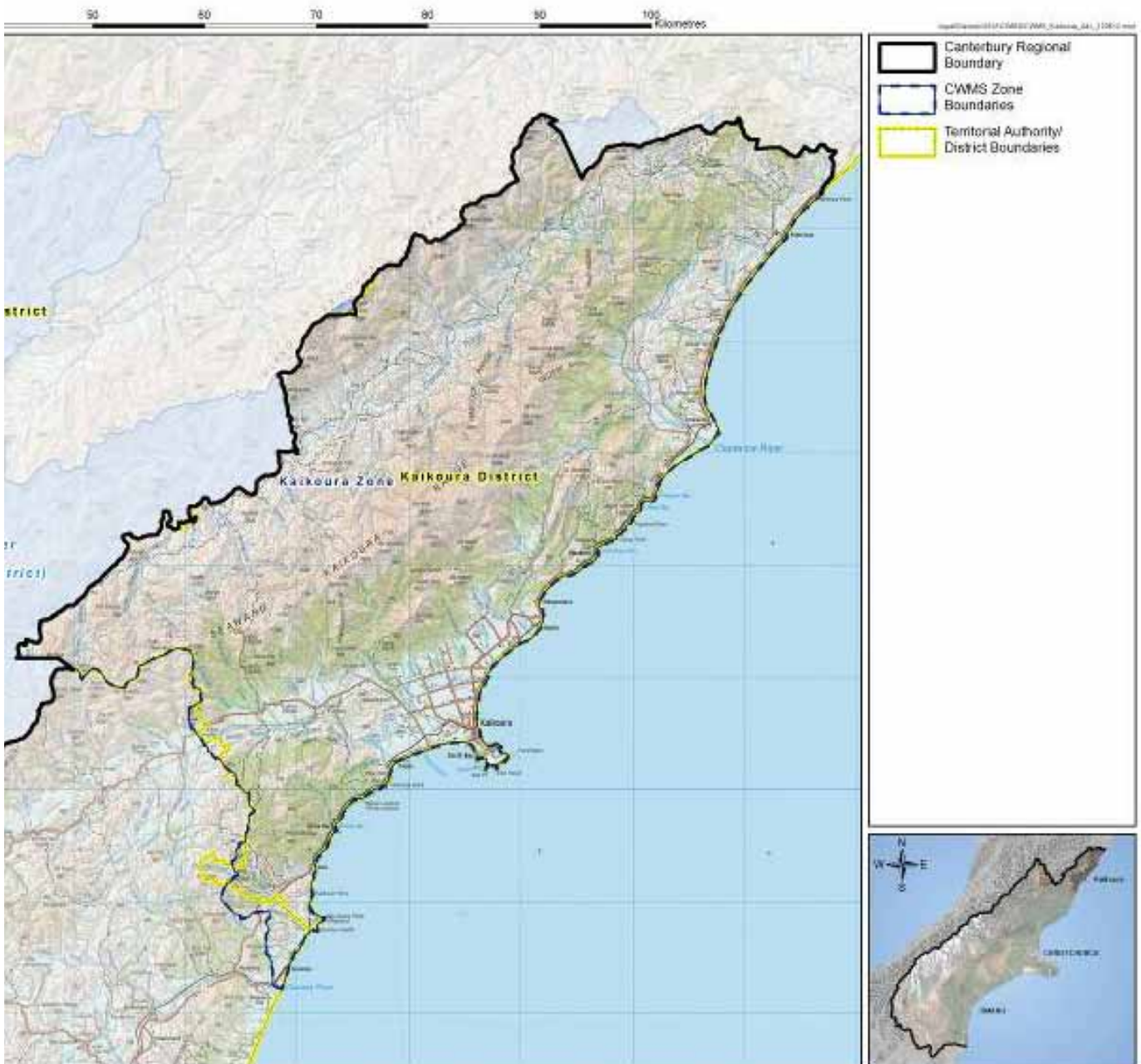
The Zone Committee has had 15 meetings and workshops since orientation in July 2011. The Zone Committee has undertaken field trips including to Kaikoura fans, Lyell Creek, Lake Rotorua, and the lower Clarence/Waiou-toa River. The Zone Committee has met at Takahanga Marae and Woodbank School as well as in Kaikoura. The Zone Committee has engaged directly with Rūnanga, community groups, industry and government agencies, including DOC, Whalewatch Trust, the farming community, Te Korowai o Te Tai o Marokura, Encounter Trust

and Clarence Rafting as well as community public meetings at Woodbank School and Kaikoura. The Zone Committee received briefings on the surface and groundwater resources and water quality in the Zone; regional planning; drinking water; Tangata Whenua cultural values and aspirations; and indigenous vegetation and biodiversity.

The draft ZIP was released in early July 2012. The Zone Committee received 29 written submissions, met with 11 stakeholder groups and held three public meetings in Kekerengu, Oaro and Kaikoura as part of the engagement process.

The final ZIP was submitted to Environment Canterbury and Kaikoura District Council in November 2012.

Environment Canterbury provides staff to facilitate the Zone Committee process with Kaikoura District Council providing secretarial support.



2 IMPLEMENTATION FRAMEWORK

2.1 VISION FOR ZONE

Our vision for water management in the Zone is:

Water is the mauri (life) of all living systems as it flows from the mountains to the sea (ki uta ki tai) providing for our families and communities. As kaitiaki (guardians) we will ensure the water of the Kaikoura Zone enhances the abundance and quality of life.

In developing the vision, priority outcomes and recommendations the Zone Committee has:

- Affirmed that water quality and quantity is a determining factor for our economic and social well being;
- Recognised Ngāti Kuri as tangata whenua and the value they place on mahinga kai;
- Considered the unique biodiversity of the Zone, the large area of “unmanaged” native vegetation, the high naturalness of many rivers and lakes, and the high proportion administered by the crown;
- Recognised the steep nature of most streams and rivers which, coupled with infrequent high-intensity rainstorms, results in significant and often devastating flooding hazard;
- Recognised the small population of the zone and the high visitor numbers;
- Recognised the economic and social well being contribution the agricultural sector brings to the Zone;
- Recognised the strong wish for local input into, control of and ownership of our future.

In developing the pathways to achieve the CWMS targets and priority outcomes for the Zone the Zone Committee has noted the following needs:

- To protect the unique biodiversity of the Zone, the high naturalness of some key waterbodies, and the mountains-to-sea landscape. Planning provisions at District and Regional level will be key to this, as well as support for local initiatives by land users and community groups;
- For actions to be taken at sub-catchment and catchment level, driven by the communities who live in the areas. This means all who have a responsibility for and/or interest in water management in a catchment should be involved in the design, development and implementation of local initiatives that are collaborative and community/landuser based;
- To encourage agencies to take a collaborative and co-ordinated approach to managing key issues that impact water management including freedom camping, weeds and pests, and the impact of the transport corridor;
- To take an integrated approach to water management that includes water quantity and quality, flood protection, biodiversity, and recreation and amenity;

- To encourage improved public access to important waterbodies, where appropriate and done in a responsible way;
- To integrate land and sea in planning and other water management initiatives. This recognises the high value of the coastal resource (for tourism, fishing and other recreation) in the Zone;
- To support and inform land and water users, and communities so they can better manage land and water to help deliver the CWMS targets and the priority outcomes and recommendations of this ZIP. This includes improving the knowledge of water management in the zone, such as through communication of the availability of testing of drinking water and the results of stream health monitoring.

2.2 PRIORITY OUTCOMES

The Zone Committee identified the following priority water outcomes that are specific to the Kaikoura Zone derived from the targets and goals of the CWMS.

- The Zone has **quality drinking water** supplies so the water provided from community water schemes meets New Zealand Drinking Water Standards;
- **Protect our (biodiversity) treasures;**
- Maintain and where required improve **water, nutrient and effluent management;**
- Take **an integrated approach to water management of Kaikoura streams, fans and flats** to improve health of streams and wetlands while maintaining flood protection, ensuring the area is a great place to live, supports prosperous farming, and supports a wide range of values including tangata whenua, recreation and conservation values;
- Manage **freedom camping, visitor and infrastructure impacts** on waterways.

The Zone Committee considers all five outcomes are important and the list above is not in any priority order. The pathways and recommendations in this ZIP represent an integrated approach to water management and they are not to be considered in isolation. More information on the priority outcomes and in particular the key pathways and recommended actions to progress the outcomes is provided in Section 3.

2.3 CROSS-CUTTING THEMES

The Zone Committee has identified the following themes that cut across some or all of the water management outcomes:

- A **‘whole of waterway’ approach** is taken to integrate management from the mountains to the sea – Ki Uta Ki Tai. This includes:
 - **integrating land and sea** in planning and management,
 - and taking an **Integrated Catchment Management³ approach** that integrates land and water management by all agencies and landowners in a catchment;
- The **collaborative approach** that has been used in the development of the CWMS and by the Zone Committee in developing this Implementation Programme must be carried through to the implementation of the recommendations.
- **Kaitiakitanga** is integrated into each pathway with actions to; address water quality and quantity, protect wāhi taonga, wāhi tapu and mahinga kai, involve the Rūnanga in water management, being woven through this document. Section 2.4 describes Kaitiakitanga in more detail. With respect to the Zone Committee’s vision (Section 2.1) and the work ahead to improve water management in the Kaikoura Zone, Ngāti Kuri considers that gifting the status of Kaitiaki to its community is an important step in walking together on the journey to achieving positive outcomes for water.

The practice of mahinga kai and recreation is part of New Zealand culture. The Zone Committee recognises that there are varied opinions on access. The Zone Committee are looking forward to developing conversations within our community so all views are respected and solutions can be developed.

2.4 KAITIAKITANGA

Kaitiakitanga is the traditional Māori philosophy of resource management. Some of its key principles are:

- Whakapapa (Genealogies & Generations) – All elements of nature are related in space and time and therefore what happens ‘upstream’ will affect what happens ‘downstream’;
- Ki uta ki tai (from the mountains to the sea) – Resource management is based on ‘catchments’ given that what happens ‘upstream’ affects what happens ‘downstream’;

- Mauri (life, health & vitality) – Mauri is the traditional measure of physical, spiritual and/or emotional wellbeing of people and places. The mauri in a waterway protects what lives in it, therefore if the waterway is polluted the mauri is negatively affected;
- Wakawaka (Hunting & Gathering Grounds) – Traditional rights to access and use key resources (including water) were collectively managed and premised on one’s ability to uphold any associated responsibilities⁴;
- Utu (Balance, Reciprocity) – Failure to uphold one’s responsibilities could result in the associated rights being removed or restricted.

The principles of kaitiakitanga are best provided for by weaving them throughout the ZIP and through implementation of the ZIP – not by relegating them into a single, stand-alone section. Therefore, particular issues of concern to Ngāti Kuri that they would like to see addressed have been included in the recommendations.

The Zone Committee recognises the importance of kaitiakitanga to Te Rūnanga o Kaikōura. Accordingly the Zone Committee commit to supporting and progressing all the kaitiakitanga targets under the CWMS including:

- The identification of mahinga kai locations, their restoration and protection.
- The abundance and use of mahinga kai will be promoted and developed.
- A mahinga kai food gathering standard will be implemented as a water quality monitoring tool.

The Zone Committee recognise that a step in progressing these targets is increasing the understanding of Te Rūnanga o Kaikōura cultural values as they relate to water and commit to supporting this.

Tangata Whenua rights and interests

The Zone Committee notes that the issue of indigenous rights to fresh water lies beyond the purview of the CWMS and is not a matter that the Zone Committee can resolve. That said, the Zone Committee recognises the following:

- That the relationship between Tangata Whenua and fresh water is longstanding;
- That Tangata Whenua’s relationship with water is fundamental to their culture;

³ An Integrated Catchment Management approach brings together landowners, Government agencies, business, interest groups and community members to identify issues and work in a collaborative way to manage land and water issues (e.g. including some or all of water quality and quantity, weeds and pests, biodiversity, wetlands, land and soil management, flood protection) on a catchment basis.

⁴ Responsibilities include such things as (a) harvesting resources sustainably (e.g. leave breeders so next generations are provided for); and (b) preserving healthy habitats (e.g. adhering to any rāhui imposed – i.e. temporary restrictions placed on a given area or resource so that the mauri (life supporting capacity) of that area or resource can be restored in the interests of present and future uses/users).

- That water and its mauri is valued as a taonga of paramount importance; and
- That the obligations to protect and enhance the mauri of water are inter-generational and must apply to all those who benefit from the use of water.

It is worth noting that, notwithstanding the unresolved nature of their rights to freshwater, Ngāi Tahu have made it very clear that economic development is vital for the region and for the nation, and that in their role as kaitiaki, they need to be involved in all aspects of water management, including economic development. Tangata Whenua have been very clear that sustainable economic development is fundamentally dependent on sustaining healthy waterways. Poor water, poor economy! No water, no economy!

Tangata Whenua consider that water quality is the paramount determinant governing all land and water use and development, ensuring that land and water users share relative responsibility to protect, maintain or enhance environmental values as a matter of first order priority so that the water can continue to uphold economic, social and cultural endeavour for generations to come.

Ultimately, Ngāi Tahu seek outcomes from water that:

- Sustain the physical and metaphysical health and well-being of waterways as a matter of first principle;
- Ensure the continuation of customary in-stream values and uses; and
- Satisfy development aspirations.

Te Rūnanga o Kaikōura goals for water management in the Zone

The Rūnanga would like to see the following:

- Increase abundance of, access to, and use of mahinga kai;
- Indigenous flora and fauna is maintained and enhanced to ensure mahinga kai opportunities for future generations;
- That all freshwater resources will once again be clean, healthy and fit for human use;
- That the value of water, in its life supporting capacity of all things, is recognised and provided for through the community being actively responsible for its wise management;
- That the community of Kaikoura and our visitors acknowledge, celebrate, learn and understand Ngāi Tahu cultural values and associations with water and the land including the practice of mahinga kai.

With respect to the Zone Committee's vision (Section 2.1) and the work ahead to improve water management in the Kaikoura Zone, Ngāti Kuri considers that gifting the status of Kaitiaki to its community is an important step in walking together on the journey to achieving positive outcomes for water.

2.5 Communication

Kaikoura people have a strong sense of ownership and care of their environment. It is clear that there is a community need for good communication and engagement on Regional and District Council activities in the Zone and on the reporting of investigation and monitoring information.

3 RECOMMENDATIONS

The following five sections containing the recommendations of the Zone Committee are the heart of the Implementation Programme and represent intertwined pathways to integrated water management and are not to be considered in isolation. There is overlap between chapters. Recommendations appear in the section they are most relevant to with no prioritisation in the order of the following sections.

3.1 DRINKING WATER

Priority outcome:

The water provided from community water schemes in the Zone meets NZ Drinking Water Standards.

The availability of high quality drinking water for all communities should be the top priority in the water strategy of a country that considers itself part of the first world. The Zone Committee believes that high quality drinking water is important for the health of their community and visitors and to sustain their tourist industry. The communities in the zone are well served by the drinking water supplies operated by Kaikoura District Council but have concerns about other supplies where the quality of the water is often inadequately monitored and legislative compliance requirements relating to water quality is lower.

Kaikoura District Council community water schemes

Kaikoura District has seven rural (stock and drinking water) supplies – Oaro, Peketa, Ocean Ridge, Ferneligh, Kincaid and East Coast schemes – and two urban water schemes – Kaikoura and Kaikoura Suburban schemes (see Appendix 4). Kaikoura District Council has work programmes or plans to ensure all of its community water supplies meet (and continue to meet) the New Zealand Drinking Water Standards (NZDWS). All Kaikoura District Council community water schemes performed well in terms of compliance with the bacteriological (*E. coli*) requirements of the NZDWS in the period July 2010 to June 2011.

The Zone Committee acknowledges and supports the District Council's work programmes to ensure all its water supplies meet, and continue to meet, NZDWS requirements.

Other community water schemes

In addition to the Council schemes there are 18 other registered drinking-water supplies in the Zone (see Appendix 4). These include small local community supplies (Dowle subdivision, Kekerengu, and Rakautara), and supplies to tourist facilities (Kekerengu Restaurant, Ocean View Motel and Restaurant, Clematis Grove Motel, Fyffe Country Inn, Hapuku Lodge and Waikene Tourist Lodge), to community facilities (Kaikoura Golf Club), and to campgrounds (Peketa Motor Camp, Kaikoura Coastal campgrounds and Waipapa Bay camp).

The Zone Committee has concerns about non-Council supplies, particularly the lack of information about these

and the possibility that users are at risk because supplies may only be tested infrequently. The Zone Committee acknowledges that some of the supplies do not have to meet NZDWS, however they are required to supply potable water under the Buildings Act and the Camping Ground Regulations and there is also a moral obligation on the supplier to deliver high quality (safe) drinking water. The Zone Committee believes this is particularly important for supplies that are primarily used by visitors and tourists – such as campground supplies. Tourists have an expectation that New Zealand tap water is safe to drink. Department of Conservation operates the water supply schemes that service their campgrounds in the Zone and advises all users to boil water. The Zone Committee encourages campground operators to increase the frequency of water testing at campgrounds and tourist facilities to improve monitoring and management of these supplies.

Marae drinking water

The CWMS targets include the goal of, from 2010, “Prevent further decline in the quality or quantity of water used as drinking water to supply to marae and associated papakainga” and the goal by 2020 of “All marae and associated papakainga have access to high quality drinking water.”

Safe drinking water is a high priority for Takahanga and Mangamaunu Marae, as the ability to manaaki (look after) visitors is a key value for Tangata Whenua.

Drinking water for Takahanga Marae is provided as part of the Kaikoura District Council urban water supply. The Runanga, however, have a concern in respect to their status as a Civil Defence Outpost, to ensure that in an emergency, services including a safe water supply, can be guaranteed. Further work is required to address what is needed.

Mangamaunu is not on the Council water supply and it does not appear to be registered. Work is required to ascertain the current status of the water, and support Mangamaunu in registering and ensuring a safe water supply into the future. It is understood that the quality of water at Mangamaunu marae is good though on-site storage may be required to ensure adequate supply in dry periods.

Water testing

Water testing of private supplies is important to ensure that there is no risk associated with consuming drinking water. The Zone Committee believes the availability of affordable drinking water testing and the requirements of a testing regime should be widely communicated. Information on monitoring could be part of a wider campaign to educate people on the importance of quality drinking water.

RECOMMENDATIONS: DRINKING WATER

The ‘aspect column’ signifies the subject of the recommendation and the ‘responsibility’ column provides direction on the most appropriate lead organisation(s) for delivering on the recommendation. Where more than one organisation is listed, the first organisation will generally take the lead role. The Zone Committee acknowledges that there may be individuals and agencies who will be involved who are not listed.

Aspect	Recommendation	Responsibility	Timetable
1.1 Kaikoura District Council water supplies	Kaikoura District Council continues its work programme to ensure all council community water supplies meet and continue to meet New Zealand Drinking Water Standards.	Kaikoura District Council, Environment Canterbury	Ongoing
1.2 Other water supplies	Provide updates to Zone Committee on ‘networked’ drinking water quality in non-Council supplies and ensure that there is good signage where drinking water is below New Zealand Drinking Water Standards.	Ministry of Health, Environment Canterbury, Kaikoura District Council	Annually from 2013
1.3 Other water supplies	Provide updates to Zone committee on self supply drinking water quality and ensure there is good signage where drinking water is below New Zealand Drinking Water Standards.	Kaikoura District Council, Environment Canterbury	Annually from 2013
1.4 Other water supplies	Provide information to ratepayers on the importance of quality drinking water and of water testing, and the results from monitoring, and provide assistance where possible to non-Council supplies to meet New Zealand Drinking Water Standards (where required).	Kaikoura District Council, Ministry of Health, Environment Canterbury	From 2013
1.5 Marae water supplies	Identify and address any requirements with regard to safe water supply at Takahanga Marae arising from the marae being a Civil Defence alternate welfare centre. Support Mangamaunu Marae in registering their water supply and identify and address any issues to ensure a safe water supply into the future.	Kaikoura District Council and Te Rūnanga o Kaikōura Mangamaunu Trustees, Te Rūnanga o Kaikōura; Ministry of Health, Environment Canterbury	From 2013 From 2013

3.2 BIODIVERSITY, NATURAL VALUES AND MAHINGA KAI

Priority outcome:

Protect, enhance and celebrate the Zone's biodiversity/ecosystems and mahinga kai resources and protect mountains-to-sea landscapes while encouraging appropriate and responsible use of our waterbodies.

The biodiversity in the Zone has high endemism, that is, many species are found here and nowhere else in the world. Native vegetation makes up over half of the land area in the zone and most of this area is in Crown ownership, primarily under the control of Department of Conservation (DOC). The high endemism means the zone is a high priority for the DOC Nelson/Marlborough conservancy. Freshwater-related threatened species in the zone include migratory galaxids, long-finned eel and some braided river nesting birds.

The zone's biodiversity and freshwater ecosystems are valued for their own worth and for the ecosystems services (e.g. water purification), mahinga kai and cultural associations, recreation and tourism benefits they provide. The Zone Committee believes it is important to maintain the zone's unique biodiversity, its extensive area of native vegetation, including freshwater ecosystems, and the generally good ecosystem health of its rivers and streams.

Mahinga kai and recreation is part of New Zealand culture. The Zone Committee recognises that there are varied opinions on access. The Zone Committee are looking forward to developing conversations within our community so all views are respected and solutions can be developed.

Integrated approach

The Zone Committee considers that maintaining the zone's biodiversity and freshwater ecosystems requires an integrated approach combining local and regional planning provisions (including vegetation clearance rules in the District Plan, and wetland protection and stock exclusion rules in Regional Plans), and support for on-the-ground actions by land owners and communities (including pest control, fencing and planting). An integrated approach must also include better coordination of weed and pest management between landowners and government agencies, particularly in Clarence/Waiiau-toa catchment. The Zone Committee is clear that the integrated approach must support and build on activities by farmers to maintain and protect biodiversity including Queen Elizabeth II Trust (QEII) covenanting, weed control and fencing wetlands, waterways and remnant native vegetation.

Mahinga kai

Mahinga kai was, and is central to the Ngāi Tahu way of life. Prior to the arrival of the first Europeans, the Kaikoura Zone was one of the more densely populated areas of the South Island. Most Māori settlements were concentrated along the coastline with its rich marine resources. However, mahinga kai resource areas extended inland as well, along major rivers and into the high country. Inland areas would have provided coastal communities with an abundance of resources for

food, fuel, shelter, fibre and rongoā including a variety of fish, birds, waterfowl, and native flora. It is important for Tangata Whenua that these resources are protected, to enable mahinga kai practices to be continued and enhanced into the future.

There is concern that mahinga kai gathering may have been compromised and/or wāhi taonga/wāhi tapu sites are at risk from poor water quality. There is insufficient information to assess this and the Zone Committee supports more work in this area including support for Cultural Opportunity Assessment and Response (COMAR) studies of key rivers and streams. A COMAR study is planned for Oaro River. Should resources allow, COMAR studies would be done on other rivers, for example Kahutara River and Lyell/Waikōau Creek. Ngāi Tahu has already mapped and recorded cultural values associated with some of the takiwā and a cultural values report for Lyell/Waikōau Creek is planned.

Fisheries

Some native fisheries, including eel, whitebait and flounder, depend on river mouths being open (from April through November) to enable recruitment of juveniles and the return of adult fish to the sea. The mouths of some rivers and streams in the Zone (such as Kahutara River and Lyell Creek/ Waikōau) close naturally during times of low river flows and high seas. Maintaining river mouth opening must be considered in water allocation plans, in the location of infrastructure and when carrying out river works. Consideration should be given to creating openings of rivers with highly-valued fisheries, particularly at times that are critical for fish passage for recruitment or for mahinga kai or recreation fishing (e.g. during whitebait season).

Bridges, culverts and other structures in waterways can put fish passage at risk. As discussed in Section 3.5, this may not be a major issue for the coastal transport corridor, however, this should be confirmed through a survey to identify if there are any significant native fish barriers in the zone and, if these occur, identify how these can be mitigated or eliminated.

There are recreational sports and fishery values on the Clarence/Waiiau-toa River including a trout and salmon fishery. There are also local recreational sports and fishery values in the Zone. Accordingly significant spawning areas for native fish, trout and salmonids should be identified, enhanced and protected.

Improving knowledge and information

The Zone Committee believes there may be a considerable amount of information on the Zone's lakes, rivers and streams that is not widely available or is poorly known in regard to ecology, ground and surface water quality and interaction.

The Zone Committee is interested in developing an adequate body of knowledge to support the sub-regional planning process on establishing minimum flows, and limits, in relation to water quality and quantity that endeavour to meet the values under the CWMS. In addition, the Canterbury Conservancy of DOC is compiling instream intrinsic values reports summarising currently available literature for catchments across Canterbury. These are valuable resource documents. The Zone Committee encourages DOC Marlborough to compile such reports for the catchments in the Kaikoura Zone. The Zone Committee also considers that educational resources should be developed based on the biodiversity and water of the Kaikoura Zone.

The Zone Committee is interested in the impact of the application of any current or new technologies such as hydraulic fracturing on the water quality of the zone and will be active in being involved in any discussions at a local government level.

While acknowledging that the entire Zone has important freshwater-related biodiversity and ecosystems, the Zone Committee has identified some key priority features, as below. The rivers, spring-fed lowland streams and wetlands of the Kaikoura fans and flats are covered in Section 3.4.

Lakes Rotorua and Rotoiti

These lowland lakes near Kaikoura are an important wildlife management reserve (they contain nationally threatened water fowl) and a traditional source of mahinga kai (including eel). Their high naturalness is recognised in the Natural Resources Regional Plan (and in the proposed Land and Water Regional Plan). This designation means that discharges to the lake may not be consented (i.e. are prohibited) and the taking of water from the lake requires a resource consent (and is a restricted discretionary activity).

The lakes are highly eutrophic (i.e. very nutrient rich) and toxic algal blooms are relatively common. It is believed the lakes have always been nutrient rich but little is known about the lake ecosystem. The land surrounding the lakes is (recently) owned by the Kaikoura Investment Trust and is mostly regenerating native scrub and forest. The land surrounding Lake Rotoiti is protected by a QE II covenant. Native planting and weed control programmes have been undertaken within the covenant as well as fencing to exclude stock from the lake. Given the nutrient-rich state of the lake this regeneration may not change the water quality in the lakes. The Zone Committee acknowledges the potential for a collaborative approach for any research into the lake ecosystem and that this could include Kaikoura High School, Canterbury University and other science and education agencies.

Public (non-motorised) access to Lake Rotorua is via a poorly marked and challenging route from the Kahutara River bed through swamp land. Kaikoura Investment Trust has approval for subdivision for lifestyle blocks of the land around and beyond the lakes but development is on hold given the current market conditions. The development plans include improved (non-motorised) public access to Lake Rotorua from Dairy Flat Road. The Zone Committee wishes to explore ways that public (non-motorised) access to Lake Rotorua could be improved and the opportunities to encourage regeneration of native forest in the catchments draining into the lakes.

Wetlands

The number and extent of wetlands⁵ in the zone has decreased significantly over the last 150 years. The Zone Committee is keen to see the remaining wetlands maintained and protected, and where possible wetlands restored.

Steep coastal streams and mountain and hill country rivers

Short, steep coastal streams are a feature of the zone. DOC monitoring indicates that these streams have good native fisheries.

The Kahutara, Kōwhai, Hapūku, Oaro, Kekerengu and Puhī Puhī Rivers are the main mountain and hill fed rivers in the zone. Hapua (lagoons) occur at the mouths of many of these rivers and are important for mahinga kai including whitebait and patiki (flounder). The mouths of many of the rivers close naturally in periods of low river flows (to the frustration of whitebaiters).

The Kaikoura Marine Strategy developed by Te Korowai o Te Tai o Marokura recommends a freshwater mātaītai for the lower reaches of the Oaro and Kahutara River. This is a tool for protecting the customary (and recreational) fishery. The Zone Committee supports integration of land and sea and wishes to work with Te Korowai o Te Tai o Marokura and other parties to integrate land and sea, including a freshwater mātaītai for Oaro and Kahutara River.

Many of the mountain and hill rivers of the zone are crossed by the State Highway and main trunk railway immediately before they reach the sea. The rivers are very dynamic and floods can transport large amounts of gravel which can cause problems for these nationally-important road and railway connections. There may be opportunities, as part of any future development of the highway or railway, to enhance the riparian margins, or wetlands and hapua associated with these rivers.

⁵ A wetland is a permanently or intermittently wet area, shallow water, and land water margins that support a natural ecosystem of plants and animals that are adapted to wet conditions.

Clarence River/Waiiau-toa⁶

The Clarence/Waiiau-toa River is one of New Zealand's rivers where people experience wilderness. It has "high naturalness" and this is recognised in the proposed Land and Water Regional Plan (LWRP). The LWRP also proposes no damming of the main stem of the river. The Zone Committee supports the high naturalness status and no damming of the main stem.

The upper catchment is in Crown ownership (including Molesworth Station and DOC's St James Station, and Ka Whata Tu o Rākihōiia/Kaikoura Conservation Park⁷). Weed and pest control is critical to maintain biodiversity and the natural values of the river.

The main weed challenges on the Clarence/Waiiau-toa river is willow, broom and gorse. The lower Clarence/Waiiau-toa River bed and adjacent area does not have gorse or broom. The upper catchment, however, does have large areas of gorse and broom. The river is a conduit for weed seeds and active well-resourced control in the upper catchment is critical if the lower river is to remain gorse and broom free. There is currently some co-ordination of managing gorse and broom throughout the length of the river between Environment Canterbury, DOC and Land Information New Zealand (LINZ). East Coast Community Organisation (ECCO) (the local landcare group) also plays a focal role in coordinating river-bed weed management in the lower Clarence/Waiiau-toa, and informally this extends to the middle Clarence/Waiiau-toa. However, the Zone Committee believes that there is scope for improving the management of river bed weeds through a more integrated and whole of catchment approach that would also ensure that current funding is spent effectively. It is important that all parties involved in managing weeds on the river are engaged in the discussion and accordingly ECCO should be an integral part of this process. The Zone Committee also believes a weed management strategy needs to be developed for the Clarence/Waiiau-toa catchment to provide long-term control.

The Waiiau-toa holds immense cultural, spiritual and historical importance for Ngāti Kuri and figures prominently in tribal history. The Waiiau-toa is considered to have the status of a parent of many other rivers in the region, with an impact on the Waiiau-toa having an impact on those rivers that are linked to it through whakapapa. It is also a known Ara Tawhito (ancient trail), a pounamu trail, linking the Kaikoura coast with the Lewis Pass and on to the West Coast. Continued access through this area is therefore important to Ngāti Kuri. The protection of remnant wetlands in the catchment is also of particular concern to Ngāti Kuri.

The Clarence/Waiiau-toa River is highly valued for recreation, particularly for rafting. Rafters and fishers value the

wilderness experience and that they can drink water straight from the river over its full length. Commercial rafting operators have strong environmental care practices and while most "freedom" rafters are responsible a few leave rubbish and exposed human waste. Recently DOC has put up signs, including a code-of-conduct at the main put-in site for people rafting the river. There is no log book for rafters at the put-in or pull-out locations and there is concern this may put people at risk should an accident occur. DOC has indicated it does not wish to operate an intention-book system.

There have been proposals for hydro-generation projects in the Clarence/Waiiau-toa River, including off-mainstem hydro-generation by Marlborough Lines. The Zone Committee is not aware of major development projects being actively pursued for the river.

Biosecurity issues on our waterbodies

The Zone Committee acknowledges that invasive weeds such as buddleia, gorse, broom and willow are present on many of the waterbodies in the Zone and that these have a negative impact on the natural character of rivers and on biodiversity.

Funding on-the-ground biodiversity action

The CWMS Immediate Steps Biodiversity Funding provides \$500,000 over five years for on-the-ground biodiversity action in the Zone (including fencing, weed control and planting).

The Zone Committee has not prioritised Immediate Steps funding to any particular part of the Zone or to particular ecosystems or issues as it believes that everywhere in the Zone has important freshwater biodiversity that would benefit from Immediate Steps funding, however the Zone Committee does recognise the potential to develop functional biodiversity on interested farm and lifestyle block properties. The Zone Committee is prepared to consider all applications for Immediate Steps Biodiversity funding. Decisions on which projects to fund are based on ecological and cultural ranking. The Zone Committee wishes, where possible, to fund projects that will result in the long-term protection (e.g. through a covenant) of biodiversity.

To date, the Zone Committee has funded three projects totalling \$45,000. These projects include two wetlands and a hill-fed stream.

The Zone Committee welcomes applications for Immediate Steps Biodiversity Funding.

The Kaikoura District Council supports the protection of areas with significant natural values through a mix of methods as

⁶ For the purposes of this document the Clarence/ Waiiau-toa river is divided into upper, middle and lower reaches, these are defined accordingly:

- Upper, from Lake Tennyson to Tinline Stream
- Middle, from Tinline Stream to Herring Stream
- Lower, from Herring Stream to the sea

⁷ Also known as Clarence Reserve

outlined in Section 22.4.3 of the District Plan. These include undertaking consultation with landowners and promoting community awareness of protecting significant natural areas. The Zone Committee believes this complements the Immediate Steps Biodiversity Funding available through Environment Canterbury and encourages the District Council to continue to resource this activity.

The Zone Committee sees Immediate Steps funding and the work of Kaikoura District Council as very important in maintaining and building on biodiversity-related activities by land owners in the area including protection of native vegetation by QE II covenants, weed control and stock exclusion. The Zone Committee encourages the long-term protection of biodiversity, such as through QE II covenants.

Land and sea integrated planning and management

The rivers and streams of the Zone are an important input to the unique marine environment of the Kaikoura Canyon. The Canyon is part of a landscape made up of the combination of

land and sea, with the Kaikoura ranges rising steeply inland and the deep waters of the Canyon dropping sharply seaward. Planning and management should take an integrated approach to the land (including waterways) and sea. The Zone Committee looks forward to developing a relationship with Te Korowai o Te Tai o Marokura and working together on areas where there is a common interest.

Recreation

Swimming in our Rivers is a traditional recreational activity for New Zealanders and part of the kiwi experience for visitors. Environment Canterbury monitors Lyell Creek Lagoon and Kahutara River at SH 1 as part of their Seasonal Recreational Monitoring Programme to identify *e-coli*. In recognition of the importance of swimming for the kiwi lifestyle and for the health of our people it is important that other popular swimming spots are identified and the monitoring extended to include water quality standards based around the microbiological water quality guidelines for recreational areas on the main swimming areas.

RECOMMENDATIONS: BIODIVERSITY, NATURAL VALUES AND MAHINGA KAI

The ‘aspect column’ signifies the subject of the recommendation and the ‘responsibility’ column provides direction on the most appropriate lead organisation(s) for delivering on the recommendation. The Zone Committee acknowledges that there may be individuals and agencies who will be involved who are not listed.

Aspect	Recommendation	Responsibility	Timetable
2.1 Lake Rotorua	Develop a relationship with the landowners to promote and encourage a whole catchment management approach to improve water quality and biodiversity of the lake.	Landowners, Environment Canterbury and Zone Committee	From 2012
2.2 Lake Rotorua	Engage with landowners to promote and encourage the consideration of the values in the Canterbury Water Management Strategy in any land development decisions.	Zone Committee, Landowners	2013
2.3 Lake Rotorua	Ensure that the fencing around Lake Rotorua excludes stock from the lake margins.	Department of Conservation	From 2012
2.4 Lake Rotorua	Improve public (non-motorised) access to Lake Rotorua.	Landowners and Zone Committee	From 2012
2.5 Lake Rotorua	Develop public awareness of hazards associated with toxic blooms.	Kaikoura District Council, District Health Board, Landowners	From 2013
2.6 Lake Rotorua	Maintain “high naturalness” in Land and Water Regional Plan (LWRP).	Environment Canterbury	2012
2.7 Lake Rotorua	Improve knowledge of lake terrestrial and aquatic ecology through support of appropriate studies.	Environment Canterbury and Kaikoura Investment Trust	From 2013
2.8 Native fisheries	Ensure consideration is given to maintenance of river mouth openings in regional (river) plans and when granting resource consents. Investigate the need, benefits and risks and consider creating mouth openings, if required at key times of the year, in rivers that have highly valued native fisheries.	Environment Canterbury	Ongoing

Aspect	Recommendation	Responsibility	Timetable
2.9 Native fish	Identify streams that only contain native fish and develop and implement a plan for protecting native fish in conjunction with relevant land owners.	Environment Canterbury, Department of Conservation, Landowners	From 2014
2.10 Fish passage	Identify if there are any significant native fish barriers in the zone and if possible, rectify and ensure that none are constructed.	Environment Canterbury and Department of Conservation	From 2013
2.11 Fish spawning	Identify, enhance and protect important inanga, trout and salmon spawning areas.	Fish and Game, Department of Conservation, Environment Canterbury	From 2013
2.12 Birds, reptiles & insects	Identify significant water habitats for native plants, birds, reptiles and insects in the Zone.	Department of Conservation, Forest and Bird, Environment Canterbury	From 2014
2.13 Wetlands	Collate a wetland inventory for the Zone.	Environment Canterbury, Fish and Game, Department of Conservation, Kaikoura District Council	From 2012
2.14 Wetlands	Identify at least two significant wetlands to be restored and develop an action and implementation plan to do so.	Environment Canterbury, Fish and Game, Department of Conservation, Kaikoura District Council	By 2014
2.15 Wetlands	Work with landowners to protect remaining wetlands in the Zone.	Environment Canterbury, Kaikoura District Council, landowners	Ongoing
2.16 Wetlands	Promote and enforce regulation relating to stock exclusion from all waterbodies as referenced under the LWRP.	Environment Canterbury Kaikoura District Council	From 2013
2.17 Clarence/ Waiau-toa River	Maintain “high naturalness” status, and prohibit dams on main stem in Land and Water Regional Plan (LWRP).	Environment Canterbury	2012
2.18 Clarence/ Waiau-toa River	Seek commitment from relevant agencies to co-ordinate control of significant weeds in the Clarence/Waiau-toa River.	East Coast Community Organisation, Department of Conservation, Land Information New Zealand, Landowners, Environment Canterbury	From 2013
2.19 Clarence/ Waiau-toa River	Modify the existing Environment Canterbury weed and pest management strategy so that it is appropriate for the Clarence River catchment.	East Coast Community Organisation, Department of Conservation, Land Information New Zealand, Landowners, Environment Canterbury, MDC	From 2013
2.20 On-the-ground biodiversity action	Decide Immediate Steps Biodiversity Funding.	Zone Committee	From 2012
2.21 On-the-ground biodiversity action	Identify priority biodiversity and ecosystem areas. Undertake consultation with landowners and promote community awareness of protecting these areas.	Environment Canterbury, Landowners	From 2012
2.22 On-the-ground biodiversity action	Undertake consultation with landowners and promote community awareness of protecting significant natural areas as per the Kaikoura District Plan.	Kaikoura District Council	From 2012

Aspect	Recommendation	Responsibility	Timetable
2.23 Mahinga kai and wahi taonga	Identify areas where mahinga kai are highly valued and/or gathering has been compromised and/or wāhi taonga/wāhi tapu sites are at risk from water management. Identify the nature of the risk and develop and implement a plan to mitigate the risk and protect the areas with the relevant landowner.	Te Rūnanga o Kaikōura, Environment Canterbury	From 2013
2.24 Mahinga kai	Undertake COMAR on the Oaro, Lyell/Waikoau (see recommendation 3.4), and Kahutara rivers as a priority.	Te Rūnanga o Kaikōura and Environment Canterbury	From 2013
2.25 Mahinga kai, land and sea	Investigate and monitor water quality on water bodies that impact on shellfish beds at mataitai sites and develop plan to resolve water quality issues if deemed necessary to ensure their mahinga kai values.	Environment Canterbury and Te Rūnanga o Kaikōura	From 2013
2.26 Mahinga kai, land and sea	Integrate land and sea management, including through freshwater mataitai for Oaro River and Kahutara.	Te Korowai, Zone Committee, Environment Canterbury	From 2013
2.27 Improve knowledge	Compile instream intrinsic values reports summarising information available for catchments in the zone.	Department of Conservation	From 2013
2.28 Education	Develop local educational resources based on biodiversity and water of Kaikoura.	Department of Conservation, Environment Canterbury, Conservation groups	From 2013
2.29 Amenity and recreational values	Identify the key swimming and recreational areas in the Zone that may not be safe for contact recreation and ensure that; they are on the Environment Canterbury Seasonal Recreational Monitoring Programme; the monitoring regime includes monitoring to microbiological water quality guidelines for recreational areas; and appropriate signage where required is maintained.	Environment Canterbury, Kaikoura District Council, East Coast Conservation Organisation, Hurunui District Council	From 2013
2.30 River management	Develop a catchment based approach to managing rivers for all the targets under the CWMS, including but not limited to flood protection, gravel extraction, cultural values, protection of native fish habitat, spawning sites and river bird breeding/nesting sites.	Environment Canterbury, Kaikoura District Council	Ongoing
2.31 Surface Water Quality: Investigation and monitoring	Investigate the impact of chemical and non chemical riparian weed control on the ecological values of water bodies and develop weed management advice to support best practice for biodiversity and ecological health of water bodies.	Environment Canterbury	From 2013
2.32 Ground and surface water quality: Investigation and monitoring	Identify, investigate and report on the impact of closed landfills and old sheep dips on surface and ground water quality and develop and implement a plan to mitigate any adverse effects on the environment.	Environment Canterbury	2013
2.33 Ki uta, ki tai and beyond	Commit to engaging with Te Korowai on areas of common concern.	Environment Canterbury, Kaikoura District Council, Kaikoura Zone Committee, Te Korowai. Ngāi Tahu, Te Rūnanga o Kaikōura	Ongoing
2.34 Hydro electricity	Investigate the possibility of small hydro schemes on streams or rivers in Kaikoura ensuring that any feasibility study includes impact on ecological, recreational, cultural, conservation and health values.	Environment Canterbury, Kaikoura District Council, Mainpower	2013

3.3 WATER, NUTRIENT AND EFFLUENT MANAGEMENT

Priority outcome:

Maintain and where required improve on-farm land and water management to achieve CWMS targets to deliver economic, social, cultural and environmental outcomes.

Improved nutrient and water management is one of the keys to successful implementation of the CWMS for this zone. On-the-ground actions by individual landholders and water users are key to address outcomes for water quality, ecosystem health and efficient use of water. In addition, there needs to be better understanding of water resources, including storage, to ensure water can be supplied, with high reliability, to meet current and reasonable future demand.

Farmers and organisations such as Fonterra have been involved in a wide range of land and water management activities including stock exclusion measures and nutrient budgeting. The Zone Committee supports such activities and particularly the widespread use of nutrient budgeting and reporting, and of farm environmental plans.

Water resources and improving knowledge and information

Minimum flows and allocation blocks have been set, or will be set in the Land and Water Regional Plan, for all rivers and streams in the zone where there is currently water abstraction. For most rivers the most reliable water (A Allocation Block) has already been taken. It is important that the water is used efficiently, both by rural and urban users.

The Zone Committee understands that water may not be available, because of local conditions and the allocation rules, in the Stony Creek area of the Kaikoura flats. Further local investigations of the surface water-groundwater systems may be required to understand the water resource and how water availability is impacted by the current minimum flow and allocation regime.

While the supply of water is generally able to meet irrigation demand in the Zone the Zone Committee understands some farmers may be looking for more water and believe a preliminary

study identifying water storage opportunities would be useful.

The Zone Committee also recognises the importance of ensuring rural water supplies are maintained especially for stock water. Further investigation and monitoring of surface and ground water interaction, reliability of future supply and investigation into storage supports this need.

Economic value of agriculture

Agriculture in Kaikoura provides a significant amount to the local economy. The Zone Committee acknowledges that access to reliable, accessible and affordable water is fundamental to dairy farming, manufacturing, and other forms of agriculture.

Nutrient management and farm plans

The proposed Land and Water Regional Plan (LWRP) includes rules relating to nitrate losses from an enterprise. The rules will impact most on intensive farming systems. Fonterra’s environmental management programme in 2012/13 will include a nitrogen management programme (alongside its effluent management and waterways programmes). The Zone Committee supports these programmes and would like to see other farmers increase their awareness of the need for improved nutrient management. The proposed LWRP includes a provision for farmers to provide, if requested, reports on nutrient losses from their farm. These reports will be based on the Overseer model. Some farmers are already using Overseer for nutrient budgeting, generally as part of fertiliser management. The Zone Committee believes nutrient budgeting alongside farm environmental plans provides a powerful tool for improving land and water management. Farmers need support in adopting nutrient budgeting and farm environmental planning.

RECOMMENDATIONS: WATER, NUTRIENT AND EFFLUENT MANAGEMENT

The ‘aspect column’ signifies the subject of the recommendation and the ‘responsibility’ column provides direction on the most appropriate lead organisation(s) for delivering on the recommendation. The Zone Committee acknowledges that there may be individuals and agencies who will be involved who are not listed.

Aspect	Recommendation	Responsibility	Timetable
3.1 Efficient water use	Improve understanding of actual water use to better inform assessment of water use efficiency and any resulting actions to improve use.	Environment Canterbury	Ongoing
3.2 Efficient water use	Promote efficient water use and reduction by urban and rural users (irrigators).	Kaikoura District Council, Irrigation New Zealand, Environment Canterbury, DairyNZ	Ongoing

Aspect	Recommendation	Responsibility	Timetable
3.3 Water storage	Preliminary study identifying water storage opportunities in areas where future demand may exceed supply. Any feasibility study should include, though not be limited to an impact assessment on cultural, environmental, conservation and human health values and opportunity for hydro electricity generation.	Environment Canterbury	From 2014
3.4 Water storage, conservation and maintenance of high quality water supplies	Identify catchments where current and future demand may exceed supply and investigate options for on farm storage.	Environment Canterbury, Kaikoura District Council, Fonterra, Federated Farmers, Dairy NZ	From 2014
3.5 Nitrogen management	Intensive farming systems model/measure and report nitrate losses.	Fonterra, DairyNZ	From 2013
3.6 Nutrient budgets and farm environmental plans	Increase the awareness education, training and information sharing to support the use of nutrient budgeting, and farm environmental planning.	Federated Farmers, Beef + Lamb, fertiliser companies, Environment Canterbury, DairyNZ	From 2013
3.7 Nutrient budgets and farm environmental plans	Develop and implement a programme of Environmental Farm Plans and Audited Self Management to help mitigate and reduce nutrient losses to water bodies.	Environment Canterbury, Fonterra, DairyNZ, Kaikoura Dairy Company	From 2012
3.8 Nutrient management	Collaborate with industry bodies and Crown Research Institutes to encourage uptake of emerging technologies in relation to improving farm nutrient management.	Environment Canterbury, DairyNZ, Fonterra	From 2013
3.9 Ground and surface water: Investigation and monitoring:	Improve water quality, water quantity and ground and surface water interaction knowledge and understanding to adequately inform the Land and Water Regional Plan sub regional planning process for the values under the Canterbury Water Management Strategy.	Environment Canterbury and Zone Committee	Ongoing from 2013
3.10 Ground and surface water: Investigation and monitoring	Improve understanding of surface and ground water interaction in any catchment where surface water is 80% allocated or above and report findings to the Zone Committee.	Environment Canterbury, Zone Committee	Ongoing from 2013
3.11 Water volume and reliability of supply: Investigation and monitoring	Implement a work programme that investigates the future impact of climate change on Kaikoura's ground and surface water resources.	Environment Canterbury	From 2014
3.12 Sub regional planning process	Ensure that the Kaikoura sub regional planning process is included in Environment Canterbury's Long-Term Plan and will commence by 2017 or earlier.	Environment Canterbury	2012
3.13 Surface water; Minimum flow and allocation	Investigate the need and capacity of reviewing current consents to meet the operative flow and allocation regimes in Section 6 of the Land and Water Regional Plan and report findings to the Zone Committee.	Environment Canterbury	2012
3.14 Communication	Communicate all investigation and monitoring of water resources to the appropriate community.	Environment Canterbury, Kaikoura District Council and Zone Committee	Ongoing
3.15 Communication	Discuss with Environment Canterbury the possibility of establishing a case manager to help consent holders manage complex queries.	Environment Canterbury, Kaikoura Zone Committee	2014

4.4 KAIKOURA STREAMS, FANS, FLATS AND WETLANDS

Priority outcome

Improve health of streams and wetlands on Kaikoura fans and flats while maintaining flood protection, ensuring the area is a great place to live, supports prosperous farming, and supports a wide range of values including tangata whenua, recreation and conservation values.

The Kaikoura flats, fans and streams are critical to the Zone's prosperity and well being. The area, extending from the un-named creek north of Harnett Creek to Stony Creek in the south, is a major contributor to the rural economy with the most intensive land use in the zone, including about 25 dairy farms and the Kaikoura Dairy factory. The many lifestyle blocks on the flats and fans are an integral part of Kaikoura township. Very importantly, the management of the streams on the fans and flats is the key to minimising the risk of flooding to the township. In the last major storm in the mid nineties, the Kōwhai River broke its banks and flowed into Lyell/Waikōau Creek flooding the business and commercial district and houses in Kaikoura.

The area also has high biodiversity, cultural and recreation values. Key freshwater areas of high ecological value include the lowland streams, spring heads and wetlands. Mahinga kai resources in the area include eel, koura and water cress. Middle Creek and Lyell/Waikōau Creek also have good trout fisheries.

The Zone Committee believes an integrated approach needs to be taken to water management of the Kaikoura streams, fans and flats that delivers the following outcomes:

- Maintain flood protection for Kaikoura and surrounding area;
- Improve the health of streams and wetlands;
- Sustain the prosperous farming on the fans and flats;
- Ensure the area is a great place to live;
- Maintain and/or improve cultural values, including mahinga kai resources;
- Maintain and/or improve recreational and amenity values;
- Increase wetlands where opportunities are available.

The Zone Committee believes all of the people who live on the fans and flats, and the wider Kaikoura community, have a shared responsibility for the management of the area. The Zone Committee believes water management of the area should be driven by the people who live there. To do this they need to be given appropriate information, tools, technical information, facilitation support and financial support to give expression to their pride in their own place and the guardianship that is their responsibility. This process also requires appropriate reporting and evaluation. The Zone Committee recognise that community- or land-user-based management may be based on:

- the landcare approach, as done in the north of the zone by ECCO which is involved in a wide range of resource management issues across a broad geographic area;

- or on the streamcare or "Living Streams" approach which takes a sub-catchment approach.

The Zone Committee believes a sub-catchment based approach is most appropriate for the Kaikoura streams as this will build on the successful Lyell/Waikōau Creek Living Streams project which ran to about 2009. The Zone Committee see the initial focus being on Lyell/Waikōau Creek but recognise the importance of both continuing and expanding activities in the other streams of the flats and fans (e.g. Middle Creek). This may lead to formation of a Kaikoura landcare group with a broad resource management focus.

In the past decade considerable improvement has been made to land and water management of the streams, fans and flats. Of particular note is the work of Forest and Bird in helping with riparian planting, weed and pest control of streams, notably the Waimangarara River Reserve. This includes fencing of streams, riparian planting and installation of stock crossings on streams. These have been encouraged through the Clean Streams Accord, the Regional Council's stock exclusion rules which provide a regulatory backstop and the Lyell/Waikōau Creek Living Streams project. Local communities have been involved in stream clean-ups with workers at the Kaikoura Dairy Factory involved in removing litter from the streams as well as riparian planting in the vicinity of the factory.

Lyell/Waikōau Creek Streamcare Group

A streamcare group was formed in about 2000 as part of the Environment Canterbury Living Streams project. This group, facilitated by Environment Canterbury, was driven by strong local leaders and the actions of the people on the ground, which included the farmers in the catchment. Over a ten-year period considerable improvement was made resulting in 90% of the stream being fenced (compared with only about 35% in 2002), the installation of stock crossings and substantial riparian planting, leading to clear water in Kaikoura and favourable comment from residents, businesses, anglers and whitebaiters.

The Living Streams streamcare group's work wound down following one of the community leaders moving away from Kaikoura. The Zone Committee wishes to build on the work to date, believes the streamcare group should be re-invigorated and understands Environment Canterbury is likely to be able to provide facilitation support for the group. The Zone Committee is prepared to consider Immediate Steps Biodiversity Funding to support improvement of Lyell/Waikōau Creek and associated wetlands but this requires formation of a community or land-user group (the streamcare group) to lead the work.

The Zone Committee believes re-invigorating the streamcare group is the best way to build on the improvements to date and complete fencing of the stream, do more riparian planting and extend the work to the drain network and lifestyle blocks. The Zone Committee acknowledges that strong, passionate community leadership is the key to the success of the streamcare group and the involvement of the 150 properties in the catchment.

Further improvements to Lyell/Waikōau Creek will benefit the town as the stream is a prominent public feature of the business area. Improvement would also increase recreation, amenity and Tangata Whenua values. For example, with improvement in stream quality would come assurance that mahinga kai, such as water cress, was safe to eat.

Kaikoura High School is adjacent to a drain feeding into Lyell/Waikōau Creek and there are seven local schools. There may be opportunities for school and community involvement in stream restoration and monitoring. There could be a competition for best enhancement project.

Flood protection

The Kaikoura rivers and streams are highly dynamic and in high intensity storms, such as Cyclone Alison in 1975, river-bed levels rise dramatically resulting in the rivers changing course, causing flooding to Kaikoura and surrounding area. Since the 1970s the rivers have been managed for flood protection and from 1995 this was increased with considerable investment in infrastructure and related work (including removal of large volumes of gravel that was deposited in the streams during the Cyclone Alison floods). The ongoing flood protection works and maintenance is managed through a local river-rating group. It is critical to maintain this level of flood protection, to manage the floodways and stopbanks for weeds, for appropriate recreation activities and to protect the high biodiversity values of some of the forest remnants in some of the river reserves, notably the Kowhai and Waimangrarara River reserves, which contain some of the largest remnants of native forest remaining along the East Coast of the South Island. These remnants include outstanding stands of Podocarp/Broadleaf forest. Ngāti Kuri have some concerns around flood protection works in respect to the impact of these on cultural values.

RECOMMENDATIONS: KAIKOURA STREAMS, FANS, FLATS AND WETLANDS

The ‘aspect column’ signifies the subject of the recommendation and the ‘responsibility’ column provides direction on the most appropriate lead organisation(s) for delivering on the recommendation. The Zone Committee acknowledges that there may be individuals and agencies who will be involved who are not listed.

Aspect	Recommendation	Responsibility	Timetable
4.1 Streamcare Group	Establish and resource a streamcare group for Lyell/Waikōau Creek.	Environment Canterbury & Zone Committee	From 2012
4.2 School and community involvement	Involve local schools, businesses and communities in improving streams (including clean-ups, planting, weed control, monitoring and raising awareness).	Environment Canterbury, Kaikoura District Council, schools, local businesses	From 2012
4.3 Flood protection	Maintain flood protection for Kaikoura and surrounding area. Manage floodways and stopbanks for weeds and, where appropriate, for recreation and amenity. Ensure the protection of cultural values, wherever possible, when managing the river for floods.	River-rating group, Environment Canterbury, Kaikoura District Council Environment Canterbury and Te Rūnanga o Kaikōura	Ongoing
4.4 Cultural assessment	Undertake a cultural assessment and COMAR monitoring of Lyell/Waikōau Creek.	Te Rūnanga o Kaikōura and Environment Canterbury	From 2013
4.5 Surface Water quality: Investigation and monitoring	Identify waterbodies that are at risk of high e-coli counts and investigate the source of the e-coli.	Environment Canterbury, Kaikoura District Council	From 2013

5.5 VISITOR AND TRANSPORT CORRIDOR IMPACTS

Priority outcomes

Freedom camping and visitor impacts are managed so they do not pose unacceptable risk to community drinking water or to waterways.

State Highway 1 and the main trunk railway are managed, operated and developed in ways that maintain and, where possible, improve waterways.

Visitor impacts

Tourism is vital to the zone's economy. While many of the visitors come to the zone because of the landscape, ecosystems and biodiversity, they may adversely impact the environment, including rivers, streams and wetlands. Of most concern is "freedom" camping and visitors who leave rubbish and human waste that can impact waterways and drinking water supplies.

The Freedom Camping Act (2011) seeks to regulate freedom camping on land controlled or managed by local authorities and DOC. The initial response by Kaikoura District Council and DOC to the Act are summarised in Appendix 5.

The District Council has done a survey on freedom camping. Overall, the survey seems to indicate that most people believe freedom camping is acceptable if it is managed in particular localities. The District Council has formed a working group to decide how freedom camping can be controlled.

DOC has developed a set of criteria to identify where freedom camping should be restricted or prohibited. An initial assessment has been done for vehicle-accessible sites in Nelson Marlborough Conservancy. The Lake Tennyson picnic area is identified as a site where freedom camping is promoted.

The Zone Committee is encouraged by initiatives from Kaikoura District Council and DOC to progress management of freedom camping and activities to reduce visitor impacts. It is important that initiatives are co-ordinated and effective in addressing issues across the zone, not just on District Council and DOC lands, and that waterways and drinking water are protected.

Transport corridor impacts

The transport corridor that traverses the zone is critical to the national economy. North and south of Kaikoura State Highway 1 (managed and operated by New Zealand Transport Agency (NZTA)) and the main trunk railway (managed and operated by KiwiRail) are contained in a narrow corridor between steep mountains and the sea. The highway and railway cross many of the rivers and streams in the zone, usually just before the waterways reach the sea. Many of these waterways have hapua (river mouth lagoons). River works, to remove gravel build-up or for protection of bridges or the highway/railway itself, are carried out as part of routine maintenance or improvement. While this work will be covered by resource consents there is a perception that communication to local communities of the timing and nature of the works may not be as good as it could be. The Zone Committee support NZTA and KiwiRail working together where practicable to achieve the outcomes in the relevant recommendations below where the corridors are adjacent to each other.

Most of the rivers and streams crossed by the highway and railway are very dynamic and it is likely that bridges and culverts do not impair fish passage, There is need, however to ensure Land and Water Regional Plan rules, consent decisions and ongoing highway/railway maintenance provide for fish passage and maintain the health of our waterways. This includes ensuring that spoils from road works are not placed in areas where they can adversely affect freshwater bodies. The Zone Committee believes there may be opportunity during highway and railway maintenance, and particularly in highway redevelopment projects, to improve rivers, streams and wetlands in the vicinity of the railway and State Highway. Weeds must be managed along the highway and rail corridors.

RECOMMENDATIONS: VISITOR AND TRANSPORT CORRIDOR IMPACTS

The 'aspect column' signifies the subject of the recommendation and the 'responsibility' column provides direction on the most appropriate lead organisation(s) for delivering on the recommendation. The Zone Committee acknowledges that there may be individuals and agencies who will be involved who are not listed.

Aspect	Recommendation	Responsibility	Timetable
5.1 Freedom camping & visitor impacts	Identify waterways and drinking supplies at high risk from visitor and freedom camping impacts, develop and implement a plan to resolve or mitigate the impact.	Kaikoura District Council and Department of Conservation	From 2013
5.2 Freedom camping & visitor impacts	Co-ordinate management of visitor and freedom camping impacts.	Kaikoura District Council, Department of Conservation and other agencies	From 2012

Aspect	Recommendation	Responsibility	Timetable
5.3 Transport corridor impacts	Regional Plan rules, consent decisions and on-going highway/railway maintenance provides for fish passage.	Environment Canterbury, New Zealand Transport Agency, Kiwi Rail	<i>Ongoing</i>
5.4 Transport corridor impacts	Improve the environmental values of rivers, streams, hapua and wetlands crossed by or adjacent to the railway, State Highway and local road network as part of maintenance and development projects. Manage weeds along highway and rail corridors.	New Zealand Transport Agency and Kiwi Rail	<i>Ongoing</i>
5.5 Transport corridor impacts	Use landscaped stormwater swales to treat run-off from the State Highway and railway where topography allows.	New Zealand Transport Agency and Kiwi Rail	<i>Ongoing</i>

KAIKOURA ZONE – WATER RESOURCES AND CONTEXT

While the Kaikoura Zone is one of the smallest in area and the smallest in terms of population of the CWMS zones, it is one of the more diverse with dramatic changes in landscapes, biodiversity and land use over short distances.

The Kaikoura area is one of the most tectonically active parts of NZ. It is characterised by distinctive rocky sea coast in close proximity to high mountains, giving rise to many short, steep, swift-flowing rivers which in flood carry amongst the highest sediment loads of any rivers in the world. The spectacular rocky coastline and deep ocean trenches, not far offshore, provide habitats for many birds, fish and marine mammals. The area is particularly important for marine ecology, recreation, tourism and fishing.

2.1 Water resources

The zone has a diverse range of water bodies – alpine rivers (Clarence/Waiiau-toa River), mountain and hill-fed rivers (e.g. Kahutara and Kōwhai Rivers), spring-fed/lowland streams (e.g. Lyell Creek/Waikōau and Middle Creek), high country lakes (e.g. Lake Tennyson), lowland lakes (e.g. Lake Rotorua and Lake Rotoiti) and groundwater.

Clarence/Waiiau-toa River

All of the Clarence/Waiiau-toa River catchment that is within Canterbury is in the Kaikoura Zone (the remainder is in Marlborough District). The Clarence/Waiiau-toa is a highly natural alpine river bounded by the inland and seaward Kaikoura ranges. It has a catchment area of 3,200 km² and at around 200km in length is one the longest rivers in New Zealand. The river, particularly in its middle reaches, is also one of the more remote.

The upper river is alpine in nature. In its middle reaches the river flows between the inland and seaward Kaikoura ranges with steep valley sides above a narrow, often bedrock-bound, river channel. For the last 20km or so the river valley widens and the channel is braided with flights of river terraces that have been developed for agriculture. All current water takes are from this lower reach.

The river is one of the few major rivers in Canterbury that does not have minimum flows and allocation limits set. The proposed LWRP will set these using a default approach based on the Environmental Flow Strategic Allocation Platform⁸ ('EFSAP') (see table below). Only a small amount of water is currently allocated from the river.

Environmental Flow Strategic Allocation Platform applied to the Clarence River

Clarence at SH 1	
7 Day Mean Annual Daily Low Flow ⁹	21,885 Litres/second
Effective Allocation (current abstraction)	270 Litres/second
EFSAP minimum flow (50% of 7DMALF)	17,508 Litres/second
EFSAP allocation limit (20% of 7DMALF)	10,942 Litres/second

Mountain and hill-fed rivers

The Kahutara, Kōwhai, Hapūku, Oaro, Kekerengu and Puhi Puhi Rivers are some of the main mountain and hill-fed rivers, generally with steep dynamic channels that carry large amounts of sediment in floods. The Hapūku River in particular is short and steep. The high sediment loads in combination with flood flows may lead to the rivers changing course during floods and large build ups of gravel in the river beds. Significant flood protection work has been put in place to protect Kaikoura township.

Minimum flows and allocation limits have been set for the following mountain and hill-country rivers - Hapūku, Kōwhai and part of Kahutara Rivers. These are the only rivers which currently have water abstractions. For other mountain and hill country rivers, default minimum flows and allocation limits, based on National Environmental Standard for environmental flows, will be set in the proposed Land and Water Regional Plan.

Ecosystem¹⁰ health in 2010/11 for Oaro River, Okarahia Stream, Oke Makura Stream, Kahutara River (at Dairy Farm Rd), Blue Duck Stream, Ohau Stream and Black Miller Stream was graded very good, Kōwhai River was graded good, Puhi Puhi River was graded fair and Kahutara River at the Kaikoura Inland Road (SH70) poor.

⁸ EFSAP is a software programme to enable assessment of different environmental flows and total allocations on reliability of supply and instream habitat.

⁹ This means the average, for a number of years, of the annual lowest daily flows. This is determined by selecting the lowest daily flow (average over 24 hours) for each year of record, summing those values and then dividing the total by the number of years of record.

¹⁰ Ecosystem health is a measurement of both water quality and habitat. It can be influenced by degraded water quality and/or freshes and floods.

Short, steep coastal streams are a feature of the zone. Department of Conservation monitoring indicates that these streams have good native fisheries (including Ohau Stream which is also “home” to seals).

Lowland/spring fed streams

There are a number of streams, particularly on the Kaikoura flats, that are spring-fed (in part or entirely) including Harnetts, Lyell/Waikōau, Middle and Luke creeks. Land use in the catchments of these small streams is mainly intensive farming and lifestyle blocks. Minimum flows and allocation blocks have been set for most of the lowland streams in the Kaikoura flats. Ecosystem health in 2010/11 for Middle Creek was graded very poor and Lyell/Waikōau Creek was graded good.

Lakes

The relatively pristine alpine Lake Tennyson (in the upper Clarence/Waiāu-toa catchment) and the lowland Lake Rotorua (near Kaikoura township) are the largest lakes in the Zone. Lake Rotorua is shallow, has high nutrient levels, is a wildlife (bird) management reserve and has significant cultural values.

Groundwater

The main groundwater storage areas in the Zone are in the Kaikoura flats/fans with two groundwater allocation zones recognised – Kaikoura/Mt Fyffe and Kaikoura/Kōwhai. Much of the land in this area is not far above the water table and during wet periods of the year the water table is 500mm or less below the surface. These groundwater resources are relatively small (about 10 and 20 million m³ respectively) with about 40% of the Kaikoura/Mt Fyffe groundwater zone allocated and about 20% of the Kaikoura/Kōwhai allocated.

Community water supplies

Kaikoura District has seven rural water supplies (stock and drinking water), two urban water schemes and the wastewater treatment plant in the Kaikoura Urban area (see Appendix 4). All Kaikoura District Council community water schemes performed well in terms of compliance with the bacteriological (*E. coli*) requirements of the NZDWS in the period July 2010 to June 2011. Kaikoura District Council has work programmes or plans to ensure all of these community water supplies meet (and continue to meet) the New Zealand Drinking Water Standards (NZDWS).

In addition to the Council community water schemes there are 18 other community water supplies or self-supplies. These are (see table in Appendix 4) small local community supplies (Dowle subdivision, Kekerengu, and Rakautara), and supplies to tourist facilities (Kekerengu Restaurant, Ocean View Motel and Restaurant, Clematis Grove Motel, Fyffe Country Inn, Hapuku Lodge and Waikene Tourist Lodge),

to community facilities (Kaikoura Golf Club), and to camp grounds (Peketa Motor Camp, Kaikoura Coastal campgrounds and Waipapa Bay camp).

Water takes and irrigation

There is a small area of irrigable land in the Zone with about 3,350ha currently irrigated. This irrigation is critical for the land-based economy of the Zone. Most of the current irrigation in the Zone is in the Kaikoura flat/fans area and Lower Clarence valley. In the Zone, takes for irrigation occur only from eight rivers/streams and from groundwater. The river/stream takes are from Hapūku, Luke Creek, Middle Creek, Lyell Creek, Kōwhai River, Ewelme Stream, Kahutara River and Clarence/Waiāu-toa River. The consented surface water takes for the Zone total about 1,280 litres/second. What this means is that at any given instant, 1280l/s can be abstracted under surface water consents within the Kaikoura Zone. The total effective annual allocation of groundwater for the zone is about 6,069,000 m³ (Kaikoura Kōwhai zone being 1,879,000 m³ and Kaikoura Mt Fyffe Zone being 4,190,000 m³) which is about 20% of the groundwater allocation limit.

2.2 Context

Tangata Whenua

Ngāti Kurī, a hapū of the iwi Ngāi Tahu, are the Tangata Whenua who have manawhenua in the Zone. Manawhenua is determined by whakapapa and confers customary authority. Te Rūnanga o Kaikōura is the modern day representative of the hapū Ngāti Kurī. The takiwā of Te Rūnanga o Kaikōura centres on Takahanga Marae and extends from Te Parinui o Whiti /White Bluffs to the Hurunui River and inland to the Main Divide – this includes all of Kaikoura Zone. Takahanga Marae is the standing place for Ngāti Kurī. There is also a marae at Mangamaunu in the north of the Zone.

The combination of Ngāi Tahu values such as tribal significant mountains, large flowing rivers, inland lakes, pounamu and the trails makes Kaikoura a place of significance to Ngāi Tahu. Not only are all these values interlinked but when combined they tell us great stories that form together a significant part of New Zealand’s history – Kaikoura’s history. The descendants of those first people of Te Waipounamu, Waitaha, Ngāti Mamoe and Ngāi Tahu are seeking to preserve these historical and spiritual sites, as areas of mahinga kai for future generations.

Mahinga kai can be defined as “the customary gathering of food and natural materials, and the places where those resources are gathered”. Mahinga kai may be birds or fish taken for food. It may also be plants such as pingao or harakeke used for weaving, or paru (mud) used for dyeing fibres. The continuation of mahinga kai is of great significance to Ngāi Tahu, as it is intrinsically linked to the continuation and understanding of the culture.

The ability to gather and share food is a cornerstone of Ngāi Tahu society, tradition, and mana and is reliant on water that is fit for human consumption and able to support mahinga kai species as well as a healthy ecosystem. Therefore this relationship Ngāi Tahu have with water and the environment is paramount to who these peoples were, who these peoples are and who these peoples will be in the future.

Te Rūnanga o Kaikōura considers it has a kaitiakitanga responsibility to protect these natural resources, mahinga kai and other values of the takiwā, especially for those people of Ngāi Tahu descent who have customary interests in the takiwā. Water is central to the Ngāi Tahu resource management philosophy 'ki uta ki tai' – from the mountains to the sea and beyond as far as the eye can see. For Ngāi Tahu this requires a holistic view of the world and integration and co-operation between agencies, legislation and management frameworks.

Ngāti Kuri has prepared an Environmental Management Plan – Te Poha o Tohu Raumati – that details resource management values and objectives for the takiwā.

Demographics

The Kaikoura District Council, with a population of about 3,700, is the smallest council in the South Island. About 60% of the population live in Kaikoura township. It is estimated the resident population grew by only 0.7% from 2006 to 2011. In the 2006 census 82% of the community identified themselves as NZ Europeans and 15% identified themselves as Māori.

While the Zone has a small resident population it has a very high number of visitors. The annual total number of visitors to Kaikoura District is estimated to be 700,000 to 800,000. In 2011 there were 206,000 overnight visitors. Kaikoura has a high number of unoccupied dwellings at 30% of the total number of dwellings compared with 10% nationally.

Local economy and land use

Historically Kaikoura District has thrived in the fishing, farming and industries (including the Kaikoura Dairy Factory). Today Kaikoura is a world-class tourism destination and still maintains its primary industries of farming and fishing.

Farming is the main land-based economy in the Zone and water is critical to its continued prosperity. The rural farming industry is based on dairy, sheep and beef. The Kaikoura Dairy Factory, one of New Zealand's smallest, produces cheese for export.

Tourism has become an important part of the zone's economic growth with visitor numbers growing every year from 1980 until about 2007. Since then numbers have declined although there has been growth since late 2011. The BERL Regional Rankings report (2011) indicates the Kaikoura District economy declined by about 1% from 2006 to 2011

with a 2% decline in employment and a small drop in the number of businesses. This is likely to be associated mainly with the decline in the tourism sector as a result of the global financial crisis.

The tourism industry is based predominately on marine attractions, particularly the seal colony, Whale Watch and Dolphin Encounter. Commercial land/freshwater-based activities include Clarence/Waiau-toa River rafting, scenic flights and horse trekking.

About 70% of the land in the zone is in Crown ownership with most of this under Department of Conservation management. This includes Molesworth Station and other high country rangelands.

The most recent information on land use is the 2007 Agricultural Production Census. This indicates that agricultural land makes up slightly less than 50% of the 204,800ha of total land area of Kaikoura District. The agricultural land was mainly tussock lands (40%) and grassland (34%) with exotic forestry less than 1%, mature native bush 1% and native scrub and regenerating native bush also 1%. Arable and horticultural land made up less than 1%.

Nationally-important infrastructure

The Zone is traversed by State Highway 1 and the main trunk rail line. South and north of Kaikoura township this nationally-important transport infrastructure is "sandwiched" into a narrow corridor between the coastline and the steep coastal mountain ranges.

Major offshore telecommunication cables connecting Auckland, Wellington and Christchurch come ashore just north of Kaikoura township and return offshore at Oaro (to bypass the Kaikoura Canyon).

Birds, fish, invertebrates, plants and natural values

The biodiversity in the Zone has very high endemism, that is, many species are only found in the Zone, not anywhere else. A number of species have their most southern- or northern-geographical limits in the Zone. Threatened or declining flora, fauna and their habitats are found in all parts of the Zone. These include the following freshwater-related species – dwarf galaxias, bluegill bullies, northern flat-head galaxias, short-jawed kōkopu and long-finned eels in the coastal streams; black fronted terns, red billed gull, black billed gull, banded dotterels, Hutton's shearwater, weeping broom and some threatened invertebrates in the braided reaches of Clarence/Waiau-toa, Kahutara and Kōwhai Rivers; and coastal tree broom found on shingle fans.

The greatest loss of biodiversity has been in wetlands, lowland spring-fed streams, and lowland forests. Areas of significant freshwater-related conservation value remaining

in the Zone include the Clarence/Waiau-toa catchment; the Kaikoura lakes and wetlands complex (Lake Rotorua and Lake Rotoiti); the Hapūku and Kōwhai Rivers with their native vegetation from headwaters to the sea including alluvial forest remnants; forest remnants in Puhi Puhi catchment; the seaward edge of the Kaikoura plain with its escarpment and lowland wetlands; and fur seal breeding areas, haul-outs and creches. The major threats to biodiversity are weeds and animal pests, and land use change.

Whitebait, eel and flounder are found in most rivers.

Trout fisheries are found in Clarence/Waiau-toa River, Kahutara River, Oaro River, Lyell/Waikōau Creek and Middle Creek. Salmon occur in Clarence River/Waiau-toa.

Large parts of the zone have high naturalness and this is recognised in the proposed Land and Water Plan with Lakes Rotorua and Rotoiti, and the Clarence/Waiau-toa River listed as locations of high naturalness.

The mountains-to-sea landscape is a feature of the zone.

Recreation

Many of the water bodies are popular for walking, tramping, hunting, four wheel driving and fishing. This includes whitebaiting at Oaro, Kahutara, Kowhai and Clarence/Waiau-toa Rivers and Lyell/Waikōau Creek.

In particular the Clarence/Waiau-toa River is highly valued for recreation, particularly for rafting.

Land and sea

The rivers and streams of the Zone are an important input to the unique marine environment of the Kaikoura Canyon. The Canyon is part of a landscape made up of the combination of land and sea, with the Kaikoura ranges rising steeply inland and the deep waters of the Canyon dropping sharply seaward. Together with the nutrient rich water upwelling from the depths close inshore, this adds a richness of wildlife and biota rare in the world.

River protection

The steep terrain coupled with infrequent high-intensity storms means there is a high risk of flooding, debris flows and landsliding which may damage settlement, transport links and farmland. For example, in 1993 following heavy rain the Kōwhai River broke its banks and flowed into Lyell/Waikōau Creek flooding the business and commercial district and houses in Kaikoura. Subsequently major stopbanks and diversion channels were constructed to reduce the risk of flooding of the town.

Regulatory context

NATIONAL POLICY STATEMENT (NPS) FOR FRESHWATER MANAGEMENT

The NPS for Freshwater Management came into effect on 1 July 2011. It directs regional councils to manage fresh water in an integrated and sustainable way, while providing for economic growth within set environmental limits. It requires regional councils to take a limits-based approach to avoid over-allocation and enable cumulative effects to be better considered and managed. The NPS also requires councils to work with iwi and hapū to identify Tangata Whenua values and interests in fresh water and reflect these in the management of, and decision-making regarding, fresh water.

CANTERBURY REGIONAL POLICY STATEMENT (RPS)

The Canterbury Regional Policy Statement (RPS) sets out objectives, policies and methods to resolve the significant resource management issues facing the region and to achieve the integrated management of the natural and physical resources of Canterbury. The 1998 RPS is currently in review and a revised Regional Policy Statement will be operative in 2012. The 2011 proposed RPS incorporates the CWMS and recognises the roles of the CWMS committees.

REGIONAL AND DISTRICT PLANNING

The Natural Resources Regional Plan (NRRP) is the major planning document within the Zone. The NRRP became operative in June 2011 and provides statutory directions to manage natural and physical resources within the Zone.

Environment Canterbury has prepared a draft Land and Water Regional Plan that was publicly notified in July 2012. This Plan will replace parts of NRRP relating to water quality and quantity, the beds of lakes and rivers, wetlands and soil conservation. It is intended that the Land and Water Regional Plan will include a sub-regional section that applies to the Kaikoura Zone.

The Kaikoura District Plan provides direction as to how the district's physical resources will be managed, in terms of subdivision, use, development and protection, including vegetation clearance.

CANTERBURY WATER MANAGEMENT STRATEGY TARGETS

The targets are an agreed way to measure progress in achieving the vision of the Canterbury Water Management Strategy. The targets include a set of goals applying from 2010 that reflect the fundamental principles in the strategy. Targets are then set for 2015, 2020 and 2040 to provide a set of long-term environment, social, economic and cultural markers reflecting a sustainable development approach. Targets will be reviewed every three years.

The following targets have been developed:

Ecosystem health/biodiversity

The importance of healthy ecosystems is a key plank of the Canterbury Water Management Strategy as reflected in the fundamental principles. Protection and restoration of biodiversity/ecosystems requires a dual approach of action on-the-ground (for example, planting and covenants) and improved planning frameworks. A systems approach is needed because freshwater habitats and ecosystems are generally part of larger, connected systems, and biodiversity depends on wider decision on environmental flows and water quality standards.

Over time, restoration and protection of biodiversity will become a pre-requisite of any new or reconfigured development. In the meantime, the Immediate Steps Protection and Restoration Programme outlined in Annex I of the strategy will provide funding in the first five years for biodiversity protection and restoration. This funding will allow the regional and zone committees to address biodiversity outcomes in the short-term.

Braided rivers are a defining characteristic of Canterbury's biodiversity and landscapes. They are addressed in a separate suite of targets.

Natural character of braided rivers

Braided rivers are a defining characteristic of Canterbury's biodiversity and landscapes. The seven alpine rivers that contribute 88% of the flow within the region - Clarence, Waiau, Hurunui, Waimakariri, Rakaia, Rangitata, Waitaki - are all braided. Other foothill rivers are braided or have braided reaches. The beds, riparian wetland/springs, riparian margins and floodplains of braided rivers support many of the regions endangered and rare species – birds, plants, fish, lizards and insects.

The flow of sediment and river bed material is critical to the braided nature of these rivers, so making sure the bed and floodplains are reworked by floods at close to a natural frequency is important. Similarly water quality is a key feature of a braided river. In addition, to control of water flows and water quality there is a need to manage gravel extraction weed control, land-use on the floodplains and river control works because these are also key influences on the state of braided rivers. The Immediate Steps Protection and Restoration Programme recommends weed and pest control,

management of vehicle use and other bed disturbances, and stock exclusion as priority actions for braided rivers.

Kaitiakitanga

Kaitiakitanga entails the active protection and responsibility for natural and physical resources by tangata whenua. Exercise of kaitiakitanga requires both a role in decision making and the achievement of environmental outcomes. The governance at zonal, regional and national scales under this strategy is therefore very important to the achievement of kaitiakitanga.

Ongoing tripartite discussions between Ngāi Tahu, the Crown and Canterbury local government will lead to increased clarity around the arrangements and commitments needed to give effect to the Treaty of Waitangi relationship as it relates to water management in Canterbury. That process may require changes and adjustments in these targets.

Drinking water

The quality and quantity of drinking water supply depends on management of point sources and non-point sources of contaminants in drinking water supply catchments/aquifers, land-use in the catchment/recharge area and on the treatment provided by the local authority. Management of non-point source contaminants from land-use is a key focus of this strategy. This target has an emphasis on nitrate in groundwater, complemented by investigations into new and emerging contaminants. The activities recognise the important role of water supply and treatment infrastructure, and health authority/regulation in the provision of drinking water.

Recreational and amenity opportunities

Recreational and amenity opportunities provided by Canterbury's water bodies are of social, cultural and economic benefit to the region. There is no consistent information source on the extent and quality of water-related recreational activities in Canterbury, with the exception of the angler surveys by Fish and Game. Without this information, the benefits of recreation including tourism benefits cannot be accurately described/measured. Information on existing recreational use is an important first step in developing more detailed targets.

Water-use efficiency

Efficiency of water use is a major theme of the Canterbury Water Management Strategy alongside Infrastructure and Biodiversity protection and restoration.

Defining “efficiency” is not straightforward, particularly in irrigation where water use varies, with soil type, crop type, and varies from month to month and year to year with climate. Water use efficiency must be addressed in context of the other targets because some actions that improve water use efficiency can be detrimental to energy efficiency and biodiversity protection. Development of benchmarks is therefore part of the targets. There is a concentration on irrigation water use but targets for community water supplies and other uses have been included.

Irrigated land area

Increasing irrigated area and reliability is a key driver for this strategy. There is an estimated 1.3 million hectares of irrigable land in Canterbury, of which 500,000 hectares is currently irrigated. The target for irrigated area and reliability will be refined through:

- the regional storage plan and zonal implementation programmes
- more definite location-specific knowledge on the potential for efficiency improvements
- testing of infrastructure proposals against the fundamental principles
- setting of environmental limits and
- refining of financial viability/funding mechanisms.

Energy security and efficiency

Canterbury’s water bodies play a critical role in the provision of renewable energy and security of electricity supply in New Zealand. The existing hydro-electricity infrastructure in Canterbury is nationally important and its use, because it is already in place and paid for, is economically efficient for New Zealand. Canterbury’s storage capacity can also act as an enabler for other renewable generation technologies, such as wind, which rely on the generation from hydro storage being available on demand. Hydro generation with storage is key to wider implementation of renewable generation technologies. New infrastructure and additions to existing irrigation infrastructure has considerable potential to increase electricity generated in the region.

These targets require that the zone and regional committees preserve the existing contributions of hydro-generation, the potential for new generation, and changes to demands for electricity. In addition, they promote the ability for new infrastructure to provide both electricity and irrigation water.

Energy use is very closely linked to water user efficiency and many of the activities under water use efficiency relate to energy use (but have not been repeated in this section).

Regional and national economies

All actions in this strategy should contribute to improved quality of life and economic prosperity in Canterbury. This set of targets measures the combined effects of many of the other targets. It is acknowledged that some of these targets such as regional GDP are influenced by initiatives outside this strategy, but it is considered important that the zone and regional committees evaluate how their implementation programmes will contribute to economic wealth. These economic targets will require reassessment as the regional infrastructure programme, economic assessments, potential for efficiency improvement, ecosystem services and recreational benefits are further understood.

Environmental limits

The Environmental limits referred to in this target are -

- Environmental flows and water levels (water quality)
- Catchment load limits or water quality outcomes/standards (water quality).

Water quantity and quality limits are interconnected. Limits therefore need to be set and reviewed with regard to these complex relationships. Environmental limits are set for the purpose of sustainable management as set out in Part 2 of the RMA, and require the decision-maker (usually the regional council) to consider all values in its decision-making.

Implementation of environmental limits for all waterbodies is a priority for this strategy. Some are already in RMA planning documents. This is predominantly a role for the regional council (other than when a national RMA instrument such as a Water Conservation Order, National Policy Statement or National Environmental Standard is used).

Alignment between the implementation programmes and RMA instruments will occur through:

- Incorporating the fundamental principles and approach of the CWMS in the water quantity and quality part of the Regional Policy Statement. Regional plans must give effect to the RPS
- Both regional and local councils will be asked to approve implementation programmes before they are finalised. This reduces potential for development of options that conflict with council policy
- Regional and Zone Committees can recommend changes to regional or district plans for consideration by councils.

APPENDIX 3

FLOW AND ALLOCATION LIMITS¹⁰ FOR SURFACE WATER TAKES IN KAIKOURA

River or stream	Location of recorder site, or site where flow is measured	Minimum flow ¹¹ for A permits ¹² (L/s)	Allocation limit for A permits ¹³ (L/s)	Minimum flow for B permits (L/s)	Allocation limit for B permits (L/s)	Estimated 7 Day Mean Annual Daily Low Flow ¹⁴ (L/s)	Estimate of effective allocation ¹⁵ (L/s)
Hapuku River	State Highway 1	670	178	950	100 (1 Oct – 30 Apr)	Estimate not available ²	178
Luke Stream	At the property with the legal description Section 329 Kaikoura Suburban DIST	15	68	110	25 (1 Oct – 30 Apr)	5 ¹	68
Middle Creek	State Highway 1	165 (1 Sep – 31 May) 240 (1 Jun – 31 Aug)	95 (1 Oct – 30 Apr) 4 (1 May – 30 Sep)	475	50 (1 Oct – 30 Apr)	230 ³	86.7
Lyell Creek/ Waikawau mainstem	Recorder site downstream of the confluence with Warrens Creek	300 (1 Oct – 30 Apr) 420 (1 May – 30 Sep)	58 (1 Oct – 30 Apr) 0 (1 May – 30 Sep)	1095	100 (Maximum of 50 from Warrens Creek/Lyell mainstem, 25 from Left Branch and 25 from Right Branch) for the period 1 Oct – 30 Apr)	360 ³	58
Lyell Creek Right Branch	At the Mt Fyffe Road Bridge	25 on the Right Branch. In addition, abstractions from the Right Branch shall be subject to restrictions relating to the Lyell Creek mainstem at the recorder.	41 (1 Oct – 30 Apr) 5 (1 May – 30 Sep)	See Lyell Creek mainstem	See Lyell Creek mainstem	25 ¹	37.8
Lyell Creek Left Branch	At the property with the legal description Lot 2 DP 377996	45 on the Left Branch. In addition, abstractions from the Left Branch shall be subject to restrictions relating to the Lyell Creek mainstem at the recorder.	20 (1 Oct – 30 Apr) 6 (1 May – 30 Sep)	See Lyell Creek mainstem	See Lyell Creek mainstem	34 ¹	13.5

¹⁰ The allocation limit is the total flow rate of water to be allocated via A and B Permits. In the case of abstractions from hydraulically connected groundwater, the allocation limit applies only to the calculated stream depletion flow rate, not to the whole rate of groundwater abstracted from the bore or well.

¹¹ Minimum flow means the flow, when measured at the relevant water flow monitoring site, at which abstractions from a water body must cease.

¹² Water permits which are granted to take water until the sum of the individual takes from a surface water resource equals the allocation limit listed for A Permits for that surface water resource.

¹³ Water permits which are granted to take water once the allocation limit for A Permits has been reached until the sum of the individual takes from a surface water resource equals the allocation limit listed for B Permits for that surface water resource.

¹⁴ Mean annual daily low flow means the average, for a number of years, of the annual lowest daily flows. This is determined by selecting the lowest daily flow (average over 24 hours) for each year of record, summing those values and then dividing the total by the number of years of record.

¹⁵ Effective allocation is the amount of water that is consented. Figures are from 2009, please treat as a general estimate.

River or stream	Location of recorder site, or site where flow is measured	Minimum flow ¹ for A permits ¹² (L/s)	Allocation limit for A permits ¹³ (L/s)	Minimum flow for B permits (L/s)	Allocation limit for B permits (L/s)	Estimated 7 Day Mean Annual Daily Low Flow ¹⁴ (L/s)	Estimate of effective allocation ¹⁵ (L/s)
Warrens Creek	Rorrison's Road Bridge	180 (1 May – 30 Sep) 110 (1 Oct – 30 Apr) In addition, abstractions from Warrens Creek shall be subject to restrictions relating to the Lyell Creek mainstem at the recorder.	117 (1 Oct – 30 Apr) 14 (1 May – 30 Sep)	See Lyell Creek mainstem	See Lyell Creek mainstem	279 ¹	130.5
Kowhai River mainstem	At the gorge	690	119	-	-	600 ³	41.8
Kowhai River tributaries	Tributary minimum flows remain as per individual consent conditions.		124	-	-	Floodgate Creek 44 ¹	124
Ewelme Stream (Stoney Creek)	Quarry Road	55	96	205	25 (1 Oct – 30 Apr)	35 ⁴	108.9
Upper Kahutara River	Blunts Road	80 (1 Oct – 30 Apr) 370 (1 May – 30 Sep)	15 (1 Oct – 30 Apr) 50 (1 May – 30 Sep)	370	50 (1 Oct – 30 Apr)	Estimate not available ²	10
Un-named tributary of the Kahutara	At the property with the legal description Lot 4 DP426919	40	52 (1 Oct – 30 Apr) 30 (1 May – 30 Sep) No further water permits. Existing permits can be replaced.	95	25 (1 Oct – 30 Apr)	Estimate not available ²	52

Estimated 7DMALF References:

¹ Facer, S. 2002: Seven day mean annual low flow mapping in the Kaikoura area. Environment Canterbury, Report, Uo2/82.

² Gabites, S (July 2005) Estimated 7DMALF Values for the Kahutara River and Hapuku River, Technical Memo prepared for Ray Maw

³ 7DMALF CALCULATED BY LLOYD, I. 2010: Hydrological assessment and 7 day mean annual low flow estimates. Middle Creek, Lyell Creek and the Kowhai River, Kaikoura, North Canterbury. Golder Associates, On Behalf of Environment Canterbury, Report No. R10/12.

⁴ Gabites, S (July 2012) Ewelme Stream 7DMALF estimate, Technical Memo prepared for consent request.

(a) SUMMARY OF KAIKOURA DISTRICT COUNCIL COMMUNITY DRINKING WATER SUPPLIES

The Council community water supplies are:

- Kaikoura Urban water supply – this supplies most of the township with high quality and reliable water from a secure (the “Mackles” deep groundwater) source. There is also a back-up supply. The Mackles bore has a design flow capacity of 100L/s with a consented maximum take of 8,640m³ per day. Projected future demand (for 2031), taking into account development of areas such as Seaview, is 3,847m³/day which is equivalent to 46L/s and well within the capacity of the supply.
- Kaikoura Suburban Supply – this serves the areas of Postman, Schoolhouse and Red Swamp Roads. The scheme is fed from a shallow intake gallery in Waimangarara Stream at the foot of Mt Fyffe. This gallery is also the source for the Kincaid supply and is one of the back-ups for the Kaikoura Urban supply. The supply has a design flow capacity of 120L/s although the consent limits the take to 86L/s (equating to 7,430m³/day). Currently the demand is significantly less than 60L/s and the supply is considered to be able to meet future population growth. At present the pipe size of the distribution main limits the ability of the scheme to meet increased future demand and it is proposed to lay parallel distribution lines along both Bay Paddock Rd and Parsons Rd.
- Ocean Ridge Water Supply – this serves the Ocean Ridge development area about 3km west of Kaikoura. This supply has been developed to provide water for about 260 lots.
- Oaro Rural Water Supply – supplies water to Oaro properties and is sourced from a shallow bore about 100m from Oaro River. The current water take allows for a maximum take of 200m³/day. As peak demand is currently about 120m³/day and population growth is expected to be small, there is adequate capacity for future demand.
- Peketa Rural Water Supply – this is the smallest of the Council’s water supplies serving Peketa village. The scheme is fed from a shallow well which recharges from a stream of the Kahutara River. The consented take is 4.5L/s with a daily take of 100m³. Current demand is substantially less than the consented take and there is adequate capacity for future demand from the small population growth expected. Should subdivision developments occur in the area then these developments would be required to implement any necessary works to upgrade the supply.
- Kincaid Rural Water Supply – this is located about 10km north of Kaikoura township. The scheme is fed from a shallow intake gallery in Waimangarara Stream at the foot of Mt Fyffe (that also supplies the Suburban scheme).
- Fernleigh Rural Water Supply – this is supplied from deep groundwater located near State Highway 1.
- East Coast Rural Water Supply – this supplies drinking and stockwater to the Lower Clarence area. The scheme is fed from deep (37m) groundwater. The consented take is 4.5L/s with a volume of 389m³/day. The average daily demand is 250m³. Growth in demand is likely to be small and the supply is considered adequate to meet future demand.

(b) SUMMARY OF NON-COUNCIL, REGISTERED DRINKING-WATER SUPPLIES (FROM CANTERBURY DISTRICT HEALTH BOARD)

Name of Supply	Distribution Zones	Source	Legal status / comments
Goose Bay Community (Dowle Subdivision)	Goose Bay Community	Bore	Networked neighbourhood supply. Requires compliance under Health Act by 1 July 2016
Kekerengu	Kekerengu	Kekerengu River	Networked small supply. Requires compliance under Health Act by 1 July 2015
	Kekerengu Restaurant		
Rakautara	Rakautara	Kahutara Bore	Networked neighbourhood supply. Requires compliance under Health Act by 1 July 2016
Kaikoura Coastal Campgrounds	Boat Harbour Camp	Otemakura Stream	Networked neighbourhood supply. Requires compliance under Health Act by 1 July 2016
	Omihi Reserve		
	Goose Bay Camp		
	Paia Point		
Ocean View	Ocean View Motel	Ocean View Stream	Networked neighbourhood supply. Requires compliance under Health Act by 1 July 2016
	Ocean View Restaurant		
Kaikoura Golf Club	Kaikoura Golf Club	Kōwhai River	Self-supply with community purpose. Must be registered under Health Act but compliance for water supply under Building Act 'potable water'. - Cannot enforce full compliance with DWSNZ
Kaikoura Airport	Kaikoura Airport	Kaikoura Airport Well	Self-supply with community purpose. Must be registered under Health Act but compliance for water supply under Building Act 'potable water'. - Cannot enforce full compliance with DWSNZ
Clematis Grove Motel	Clematis Grove Motel	Spring at Clematis Grove Motel	Self supply Compliance for water supply is under Building Act - Cannot enforce full compliance with DWSNZ
Fyffe Country Inn	Fyffe Country Inn	Fyffe Country Inn Bore	Self supply Compliance for water supply is under Building Act - Cannot enforce full compliance with DWSNZ
Kaikoura Lodge (Hapuku Lodge)	Hapuku Lodge	Hapuku Bore	Self supply Compliance for water supply is under Building Act - Cannot enforce full compliance with DWSNZ
Peketa Motor Camp	Peketa Motor Camp	Peketa Camp Bore	Self supply Compliance for water supply is under Building Act - Cannot enforce full compliance with DWSNZ
Waikene Tourist Lodge	Waikene Tourist Lodge	Green Burn Bore	Self supply Compliance for water supply is under Building Act - Cannot enforce full compliance with DWSNZ
Waipapa Bay Camp	Waipapa Bay Camp	Waipapa Bay Stream	Self supply Compliance for water supply is under Building Act - Cannot enforce full compliance with DWSNZ

FREEDOM CAMPING ACT (2011) – INITIAL RESPONSE FROM KAIKOURA DISTRICT COUNCIL AND DEPARTMENT OF CONSERVATION

The Freedom Camping Act (2011) seeks to regulate freedom camping on land controlled or managed by local authorities and Department of Conservation (DOC). To enforce freedom camping restrictions or prohibition areas the Act requires Kaikoura District Council to have a freedom camping bylaw. To help assess whether such a bylaw is required the Council sought information from the community, including a survey on freedom camping.

The survey indicated that while 70% of the 313 respondents believe freedom camping is a problem in the District, about the same proportion believes people should be able to camp away from commercial camping grounds. About half of respondents indicated that everyone should be able to camp away from camping grounds if public facilities are available and people are respectful of the environment. There was a similar level of support for self-contained vehicles being able to camp away from camping grounds. Overall, the survey seems to indicate that most people believe freedom camping is acceptable if it is managed in particular localities.

In May 2012 Kaikoura District Council resolved to:

- Consult further to identify areas where freedom camping is acceptable;

- Identify unacceptable locations for freedom camping and then consider notification of a bylaw;
- Formulate a clear brochure and web material showing areas where freedom camping is welcomed and outline environmental standards expected.

The District Council has formed a working group to decide how freedom camping can be controlled.

For DOC to enforce any freedom camping restrictions and prohibitions it must gazette a “Freedom Camping Notice” after consultation with the Conservation Board. DOC is committed to increasing participation in recreational activities on conservation land and is keen to enable freedom camping on conservation land where it is not inconsistent with legislation and where there are no significant freedom camping issues. A set of criteria has been developed by DOC with the New Zealand Motor Caravan Association to identify where freedom camping should be restricted or prohibited.

An initial assessment has been done for vehicle-accessible sites in Nelson Marlborough Conservancy. The Lake Tennyson picnic area is identified as a site where freedom camping is promoted.

GLOSSARY OF MĀORI TERMS

Hapū	Sub-tribe; section of a larger tribe.
Kaitiaki	Guardians, custodians.
Kaitiakitanga	The exercise of guardianship by the Tangata Whenua of an area in accordance with tikanga Māori in relation to natural and physical resources; and includes the ethic of stewardship.
Ki uta ki tai	From the mountains to the sea and beyond as far as the eye can see.
Mahinga kai	Food and places for obtaining natural foods and resources. The work (mahi), methods and cultural activities involved in obtaining foods and resources.
Mana	Integrity, respect, prestige, authority, power, strength.
Manawhenua	Traditional/customary authority or title over land and the rights of ownership and control of usage on the land, forests, rivers etc. Also the land area (and boundaries - takiwā) within which such authority is held.
Mātaitai	An identified, traditional fishing ground that has special status under the Fisheries Act 1996 to protect customary fishing values.
Mauri	Life supporting capacity; spiritual essence; life, health and vitality; Mauri is the traditional measure of physical, spiritual and/or emotional wellbeing of people and places.
Ngāi Tahu	Iwi with Tangata Whenua status in Canterbury and the South Island, excluding the northern part of the island.
Papatipu Rūnanga	The modern day administrative councils and representatives of Ngāi Tahu hapū and whanau. Each Rūnanga has its own area (rohe /takiwā) determined by natural boundaries such as mountain ranges and rivers. The Rūnanga for the Kaikōura zone is Te Rūnanga o Kaikōura.
Takiwā	Area.
Tangata Whenua	Those with traditional status, rights and responsibilities in an area, based on their traditional takiwā.
Taonga	Treasured possessions, both tangible and intangible.
Tikanga	Rights, customs, accepted protocol, rule, Māori traditions, lore or law, the correct Māori way.
Wāhi taonga	Places and resources of historical and traditional significance often linked to significant mahinga kai values.
Wāhi tapu	A place sacred to Māori in a traditional, spiritual, religious, ritual or mythological sense (section 2, Historic Places Act 1993).

