

CHRISTCHURCH WEST MELTON WATER MANAGEMENT ZONE COMMITTEE

AGENDA

23 FEBRUARY 2012

AT 6PM

LINWOOD SERVICE CENTRE

(PLEASE USE ENTRANCE OFF BACK CAR PARK)

Committee: Commissioner Rex Williams, Environment Canterbury (Interim Chairperson)
Councillor Sally Buck, Christchurch City Council
Deidre Francis, Community Representative
Ian Fox, Community Representative
Jon Harding, Community Representative
Councillor Debra Hasson, Selwyn District Council
Craig Pauling, Taumutu Rūnanga
Arapata Reuben, Tūāhuriri Rūnanga
Herena Stone, Rāpaki Rūnanga
Hugh Thorpe, Community Representative
Robert Wynn-Williams, Community Representative
Ann Winstanley, Community Representative

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Environment Canterbury

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1. APOLOGIES

2. CONFIRMATION OF MINUTES – 26 JANUARY 2012

The minutes of the Committee meeting held on 26 January 2012 are attached.

The Committee is asked to approve these minutes as a true and accurate record of the meeting.

3. DEPUTATIONS BY APPOINTMENT

4. IDENTIFICATION OF URGENT ITEMS

5. IDENTIFICATION OF ANY GENERAL PUBLIC CONTRIBUTIONS

23. 02. 2012

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ATTACHMENT TO CLAUSE 2

CHRISTCHURCH WEST MELTON WATER MANAGEMENT ZONE COMMITTEE
Thursday 26 January 2012

A meeting of the Christchurch West Melton Water Management Zone Committee was held in
Linwood Service Centre on Thursday 26 January 2012 at 6pm

PRESENT: Commissioner Rex Williams, Environment Canterbury (Interim Chairperson)
Deidre Francis, Community Representative
Ian Fox, Community Representative
Jon Harding, Community Representative
Councillor Debra Hasson, Selwyn District Council
Craig Pauling, Taumutu Rūnanga
Herena Stone, Rāpaki Rūnanga
Hugh Thorpe, Community Representative
Ann Winstanley, Community Representative

APOLOGIES: An apology for absence was received and accepted from Robert Wynn-Williams
and Councillor Sally Buck.

An apology for lateness was received and accepted for Craig Pauling, who arrived
at 6.19pm and was absent for Clauses 1–4.

1. **CONFIRMATION OF MINUTES – 24 NOVEMBER 2011**

It was **decided** on the motion of Jon Harding, seconded by Hugh Thorpe, that the minutes from the
Committees meeting on 24 November 2011 be approved as a true and accurate record of the
meeting.

2. **DEPUTATIONS BY APPOINTMENT**

Nil.

3. **IDENTIFICATION OF URGENT ITEMS**

Nil.

4. **IDENTIFICATION OF ANY GENERAL PUBLIC CONTRIBUTIONS**

Nil.

5. **APPOINTMENT OF CHAIRPERSON, DEPUTY CHAIRPERSON AND REGIONAL COMMITTEE
REPRESENTATIVE**

It was **decided** on the motion of Ian Fox, seconded by Deidre Francis, that the Committee adopt to
use the System B method of voting, as outlined in the agenda, to elect a Chairperson,
Deputy Chairperson and Regional Committee Representative.

It was **decided** on the motion of Ian Fox, seconded by Herena Stone, that the Committee defer the
appointment of the positions of Chairperson and Deputy Chairperson until the Committees next
meeting on 23 February 2012.

5 Cont'd

The Committee proceeded to call for nominations for the position of Regional Committee Representative.

Jon Harding was nominated by Ann Winstanley, seconded by Hugh Thorpe.

Ian Fox was nominated by Jon Harding and Councillor Debra Hasson.

On a show of hands, Jon Harding was **declared** elected Regional Committee Representative of the Zone Committee.

6. WHERE DOES THE ZONE COMMITTEE FIT IN? EXISTING STRATEGIES AND PLANS

6.1 WATER SUPPLY

The Committee **received** a presentation from Diane Shelander, Christchurch City Council, on the Water Supply Strategy.

The Committee identified the following key areas for further consideration:

- water use and charging
- threats to water sources, both in terms of quality and quantity
- the example of the Kapiti Coast Plan change, and generally the benefit of water use strategies
- water efficiency as an alternative to increase in quantity
- cross zone impacts with Banks Peninsula
- climate change planning
- total water volume, including private and public wells
- city drinking take rules
- earthquake and an up to date understanding of the impact of this on the water supply, water quality (including chemicals present), industry and machinery etc.
- change in demand for water in Christchurch post earthquake.

6.2 SURFACE WATER STRATEGY

The Committee **received** a presentation from Mel Renganathan, Christchurch City Council, on the Surface Water Strategy.

The Committee identified the following key areas for further consideration:

- how this strategy fits into draft management plan
- discussion on whether to lower the standards or insist to maintain
- stormwater management – urban basins, land use, including who pays for it
- differences between the surface water strategy and what the people actually want, and how these are interrelated with Environment Canterbury
- storm water management, work to look at cost effectiveness and water quality results, comparisons of different ways of management and tools and other benefits e.g. biodiversity
- liquefaction management
- spring management, protection and enhancement
- swimming opportunities
- wetland habitats
- city vision – ‘garden city’ verses ‘city in a garden’.

6.2 Cont'd

Owen Southern, Christchurch City Council, spoke briefly about the removal of earthquake silt from rivers and tributary waterways and undertook to give a presentation at the next meeting to further informal Zone Committee discussions.

6.3 CANTERBURY EARTHQUAKE RECOVERY AUTHORITY (CERA) AND CANTERBURY EARTHQUAKE RECOVERY (CER) ACT RECOVERY TOOLS

The Committee **received** a presentation from Viv Smith from CERA, on CERA and CER Act recovery tools.

The Committee identified the following key areas for further investigation:

- red zone land management including pest control
- service water link – specifically relating to the lower Avon River, and also the land being made available for development to the west.

7. LOCAL RUNANGA AND WATER MANAGEMENT

The Committee **received** a presentation from Committee Member Herena Stone, on the cultural values in relation to water management.

8. BIODIVERSITY: DECIDING OUR 'IMMEDIATE STEPS' APPROACH

The Committee split up into focus groups to workshop the key priority outcomes in relation to biodiversity.

The Committee highlighted the following as possible key priorities:

- wetlands:
 - remediation or creation
 - named sites and others
 - consider remediation from natural event and whether this is appropriate
 - creating a habitat to encourage biodiversity.
 - links to stormwater management
- protection of freshwater species, quality habitat, emphasis on urban streams
 - protect what is already there
 - prevent decline (threatened significant habitats)
 - improve/restore/enhance what has been degraded
 - consider targeting existing groups/projects verses starting new ones
 - protection of springheads
 - protecting/improving the habitat of fresh water mussels and fresh water crays

These will be discussed further at the next meeting before considering how these relate to use of Immediate Steps funding.

9. COMMITTEE MEETING DATES 2012

The Committee confirmed the following meeting dates for 2012:

- Thursday 23 February, 6pm–9pm at Linwood Service Centre
- Wednesday 28 March , 6pm–9pm at a venue to be confirmed
- Thursday 26 April, 6pm–9pm at Civic Offices, Hereford Street
- Thursday 24 May, 6pm–9pm at Civic Offices, Hereford Street
- Thursday 28 June, 6pm–9pm at Civic Offices, Hereford Street
- Wednesday 25 July, 6pm–9pm at a venue to be confirmed
- Thursday 23 August, 6pm–9pm at Civic Offices, Hereford Street
- Thursday 27 September, 6pm–9pm at Civic Offices, Hereford Street
- Thursday 25 October, 6pm–9pm at Civic Offices, Hereford Street
- Wednesday 28 November, 6pm–9pm at a venue to be confirmed.

The meeting concluded at 9.10pm.

CONFIRMED THIS 23RD DAY OF FEBRUARY 2012

**COMMISSIONER REX WILLIAMS
INTERIM CHAIRPERSON**

6. APPOINTMENT OF CHAIRPERSON AND DEPUTY CHAIRPERSON

1. The manner in which a Committee is to elect these positions is prescribed in clause 25 of Schedule 7 of Christchurch City Council Standing Orders. It provides that the Committee must determine by resolution that the Chairperson and Deputy Chairperson be elected or appointed by using one of the following systems of voting:

“System A—

- (a) requires that a person is elected or appointed if he or she receives the votes of a majority of the members of the local authority or committee present and voting; and*
- (b) has the following characteristics:*
 - (i) there is a first round of voting for all candidates; and*
 - (ii) if no candidate is successful in that round there is a second round of voting from which the candidate with the fewest votes in the first round is excluded; and*
 - (iii) if no candidate is successful in the second round there is a third, and if necessary subsequent, round of voting from which, each time, the candidate with the fewest votes in the previous round is excluded; and*
 - (iv) in any round of voting, if 2 or more candidates tie for the lowest number of votes, the person excluded from the next round is resolved by lot.*

System B—

- (a) requires that a person is elected or appointed if he or she receives more votes than any other candidate; and*
- (b) has the following characteristics:*
 - (i) there is only 1 round of voting; and*
 - (ii) if 2 or more candidates tie for the most votes, the tie is resolved by lot.”*

2. At the Zone Committees meeting on 26 January 2012, the Committee decided to defer consideration of the appointment of the Chairperson and Deputy Chairperson until its meeting on 23 February 2012.
3. At this meeting, the Committee also decided to use system B for the appointment of the Chairperson and Deputy Chairperson.
4. The following examples may be useful to illustrate system b:

System B

Example 1

Three nominations are received and upon the votes being counted the result is: A (4) B (2) C (1). In this case A is elected to the relevant position.

Example 2

Three nominations are received and upon the votes being counted the result is: A (3) B (3). In this case a lot is held to determine who between A and B will be elected to the relevant position.

STAFF RECOMMENDATION

It is recommended that the Committee:

- a) receive this report
- b) using system B, proceed to elect a:
 - (i) Chairperson
 - (ii) Deputy Chairperson

7. CODE OF CONDUCT

(Refer **attached**).

Christchurch Zone Committee – Code of Conduct

Introduction

The Christchurch West Melton Zone Committee has been established as part of the implementation of the Canterbury Water Management Strategy (CWMS). The Committee's purpose is to develop and facilitate enduring water management solutions that give effect to the CWMS vision, principles and targets. These solutions will be developed and implemented with the community, stakeholders and water users.

This document describes how the committee will work as a committee and as individual committee members. It also outlines the roles of the Chair, Deputy Chair and appointee to the Regional Committee.

How the committee will work is determined primarily by the Committee's purpose, the requirements of Local Government Act (LGA) and Local Government Official Information and Meetings Act (LGOIMA), the Christchurch City Council's Standing Orders, the Committee's Terms of Reference (TOR), and the philosophy of the CWMS.

The committee is a joint committee of Christchurch City Council, Selwyn District Council, and Environment Canterbury.

Operating Philosophy

The following outlines the operating approach and code of conduct for how the committee will:

- Take a collaborative and solution-focused approach;
- Engage with local community and partner with key stakeholders and water users to identify, develop and implement water management solutions;
- Recognise its Treaty of Waitangi responsibilities;
- Operate in accordance with Local Government Official Information and Meeting Act (LGOIMA) and New Zealand Model Standing Orders;
- Manage media contacts;
- Have a "no surprises" relationship with Christchurch City Council's, Selwyn District Council's and Environment Canterbury;
- Manage conflicts of interest;
- Expect Committee members to act at all times in an ethical and professional manner;
- Respect confidential and privileged information.

How the Committee will work

Collaborative, co-operative, participatory and solution-focussed

The committee will:

1. Work in a collaborative and co-operative manner using best endeavours to reach solutions that take into account the interests of all sectors of the community;
2. Cultivate a sense of group responsibility, emphasising the Committee as a whole rather than individual committee members;
3. Use the expertise of individual members to enhance the Committee as a body;
4. Give consideration to the interests of all water stakeholders in the Zone;
5. Work in a manner that encourages the involvement and collaboration of the community, stakeholders and water users in identifying, developing and implementing water management solutions in the Zone;
6. Seek consensus in its decision-making;
7. Work with adjacent Zone Committees to ensure a collaborative and consistent approach to common areas of interest and to water bodies and water issues that cross Zone boundaries;
8. Work with the Regional Committee to ensure a collaborative and consistent approach to water management in the Zone and across Zones;
9. Operate in a manner that emphasises:
 - a. Solutions rather than issues or blame;
 - b. a focus on the future rather than the past or present;

Treaty of Waitangi

The committee will:

10. Operate in a manner that recognises Ngai Tahu rights as protected under Treaty of Waitangi;
11. Operate in a manner that recognises the role and rights of “insert Rūnanga” in the exercise of kaitiakitanga to all water and lakes, rivers, hapua, waterways and wetlands in the Zone;
12. Be culturally sensitive, observing tikanga Maori.

LGOIMA

1. The committee will at all times operate in accordance with the requirements of Local Government Official Information and Meetings Act (LGOIMA) and Christchurch City Council's Standard Orders.

No alternates

2. Committee members are appointed as themselves. Delegates or alternates cannot attend meetings or take part in other Zone Committee activities on a member's behalf.

Limitation of power

3. The committee has no authority to commit Christchurch City Council, Selwyn District Council, or Environment Canterbury to any path or expenditure.
4. The committee will operate in such a way as to not compromise Christchurch City Council, Selwyn District Council, or Environment Canterbury's freedom to deliberate and make such decisions as the Council(s) deem appropriate.
5. The committee shall not submit on resource consent matters in its own right.

External communication (contact with the media)

6. Media contact and public comment *on behalf of the Zone Committee* will in the first instance be directed to and handled by the Chair (where the Chair is absent any matters will be referred to the Deputy Chair).
7. The Chair may refer any matter to the spokesperson agreed by the Committee.
8. No other member may comment *on behalf of the Committee* without having first obtained the approval of the Chair.
9. Committee members are free to express a *personal view* in the media provided the following rules are observed:
 - a. Media comments must not state or imply that they represent the views of the Committee;
 - b. Media comments must observe the other requirements of this Operating Approach – Code of Conduct including:
 - i. Avoiding public criticism of other members, of the Committee and its work, or other comment that could undermine the performance of the Committee;
 - ii. Recognising the limitation of power of the Committee;
 - iii. Not disclosing confidential information.

Linkage to the community, stakeholder and interest groups

1. The Zone Committee is a conduit for community and stakeholder engagement in water management in the Zone.
2. The Committee will work in a manner that ensures the views of the local community and key stakeholders are reflected in alternatives developed and will provide feedback on how input influenced the Committee's decisions.
3. The Committee will partner with stakeholders (including water users) on a best endeavours basis to develop alternatives and preferred water management solutions that reflect the CWMS principles and targets and that are supported by the range of interests in water management in the Zone.
4. The Committee's recommendations, such as those in its Zone Implementation Programme, will be developed through the involvement of local community and key stakeholders.
5. Where a Committee member has a close association with a particular local community, stakeholder, interest group or sector, the Committee member will keep the group informed, to the extent required, and will inform the Zone Committee of the views of the group. When informing others, the Committee member will ensure that the information reflects the views of the Committee as a whole and not their own personal views.

Linkage to the Christchurch City Council, Selwyn District Council, and Regional Council

6. The Zone Committee will ensure that it maintains close links with and excellent working relationships with Christchurch City Council, Selwyn District Council, and Environment Canterbury.
7. The Zone committee will keep Christchurch City Council, Selwyn District Council, and Environment Canterbury informed of its work, its deliberations and of any issues that arise. This includes a "no surprises" approach for the Councils in relation to the Zone Committee.
8. The Zone Committee will report regularly to Christchurch City Council, Selwyn District Council, and Environment Canterbury. This will include verbal reports, from the Zone Committee chair (or delegate), to both Councils.

How Committee members will work

Collaborative approach

9. Committee members will behave in a manner that enables the Committee to work collaboratively. This behaviour will include:
 - a. Listening respectfully to other members;
 - b. Engaging constructively with different views;

ATTACHMENT TO CLAUSE 7

- a. Helping the committee to build collaboration;
 - b. Helping the committee to reach solutions.
2. Members of the committee are appointed on the basis of their experience and knowledge and not to represent a particular interest or group. Accordingly members will contribute their knowledge and perspective but not promote the views or positions of any particular interest or stakeholder group.

Act in a professional and ethical manner

Committee members will at all times act in a professional and ethical manner. This includes:

3. Members will extend towards each other respect, integrity, courtesy and fairness;
4. Members will avoid public criticism of other members, of the Committee or its work.
5. Members will avoid actions, including public comment, that would or could undermine the performance of the Committee or of other members in their duties as a Committee member;
6. Members will act at all times in a manner that maintains public confidence in the office and in the Zone Committee;
7. Members will ensure they regularly attend Committee meetings and are adequately prepared for meetings;
8. Members will not influence, or attempt to influence, any Christchurch City Council, Selwyn District Council, or ECan employee to take actions that may benefit the member, or the member's family or business interests;
9. Members will only claim for legitimate expenses.

Relationship with Council Officers

The committee members will, with respect to Environment Canterbury, Christchurch City Council, Selwyn District Council officers:

10. Recognise that the Chief Executive Officer is the employer (on behalf of Council) of all Council employees, and as such only the Chief Executive Officer may hire, dismiss or instruct or censure an employee;
11. Treat all employees with courtesy and respect;
12. Not do anything which compromises, or could be seen as compromising, the impartiality of an employee;
13. Not publicly criticise the competence, integrity and personality of any employee;
14. Raise concerns about employees only with the Chief Executive Officer, and concerns about the Chief Executive only with the Mayor (Christchurch City Council and Selwyn District Council as appropriate) or Chair (Environment Canterbury).

Confidential and privileged information

In the course of its duties the Zone Committee will occasionally receive information that may need to be treated as confidential or privileged. This will generally be information that is either commercially sensitive or is personal to a particular individual or organisation.

1. Committee members shall not use or disclose confidential information for any purpose other than the purpose for which the information was supplied to the Committee;
2. Members must be aware that any information they hold as a member of the Zone Committee shall be deemed to be official information held by Christchurch District Council, Selwyn District Council, Environment Canterbury and in terms of the Local Government Official Information and Meetings Act can be made publicly available upon request unless good reasons exist to withhold it.

Conflicts of Interest

Committee members have been selected to ensure that the committee will include all perspectives of all the major interests in water management in the Zone. It would be counterproductive if section 6(1) of the Local Authorities (Members' Interests) Act were to apply to the Zone Committee. The result would be that some members of the committee would be removed when they had personal financial interests in the particular issue, so that not all interests and perspectives were represented around the table for issues that were financially significant. For example, it may mean that in a particular case, all those with farming interests were removed from a discussion about water storage proposals. As the committee is specifically designed and intended to include representatives of the wider community – including those with financial interests in the matters being discussed – it would mean the committee could not operate in the way intended.

Environment Canterbury has obtained from the Office of the Auditor General a declaration that section 6(1) of the Local Authorities (Members' Interests) Act that deals with Conflict of Interest will not apply to any Zone Committee members.

3. Committee members are able to participate in any Zone Committee discussion or decision on any matter, including those in which they have a pecuniary interest.
4. As a courtesy, Committee members should identify issues in which they have personal financial interest.

Disqualification from office

5. Committee members are automatically disqualified from office if they are convicted of a criminal offence punishable by two or more years imprisonment.

Adoption of this Code of Conduct

1. The Committee will formally adopt this document as a record of how the Committee and its members will work.
2. Changes to this Code of Conduct can only be made with the agreement of all Committee members.

Committee roles

Chair

1. The Committee will appoint a Chair from its members.
2. As a Committee member the Chair shares the same responsibility as other Committee members. In addition to this the Chair has the following roles:
 - a. Chair Committee meetings with all commonly recognised authority of that position. The Chair may have the Zone Facilitator facilitate meetings and workshops of the Committee.
 - b. Speak on behalf of the Committee and act as an advocate for it, including taking the primary responsibility for interaction with the media and representing the Committee at meetings with external parties.

Deputy Chair

3. The Committee will appoint a Deputy Chair from its members.
4. The Deputy Chair exercises the same roles as other members, and if the Chair is absent or incapacitated, the Deputy Chair must perform all of the responsibilities and duties of the Chair (as above).

Representative on Regional Committee

5. The Christchurch West Melton Zone Committee appoints a representative to the Regional Water Management Committee.
6. This appointee may be the Chair of the Zone Committee or another member appointed by the committee from its membership.
7. The Zone Committee representative on the Regional Committee will:
 - c. Speak on behalf of the Zone Committee and act as an advocate for it at Regional Committee meetings;
 - d. Keep the Zone Committee well informed on the activities and deliberations of the Regional Committee.

8. WORKSHOP ON BIODIVERSITY PRIORITIES

9. DECIDING OUR IMMEDIATE STEPS APPROACH

AGENDA ITEM NO: 9	SUBJECT MATTER: BIODIVERSITY: DECIDING OUR "IMMEDIATE STEPS" APPROACH
REPORT: Christchurch West Melton Zone Committee	DATE OF MEETING: 23 February 2012
REPORT BY: Matthew Ross, Facilitator	

PURPOSE

The Facilitator recommends that the Zone Committee agree to:

- (1) Establish a task and finish group to workup a considered proposal for the best approach for Immediate Steps in the Zone
- (2) Receive and consider the proposal from the task and finish group at their public meeting on Wednesday 28 March
- (3) Discuss and agree an approach at the public meeting on Wednesday 28 March

BACKGROUND

Priority outcomes for biodiversity

The Zone Committee is discussing priority outcomes for biodiversity on Wednesday 28th March building on discussion at the Thursday 23 February meeting. These outcomes will be are high level things that we want to happen to implement the Canterbury Water Management Strategy's biodiversity targets in our Zone.

In subsequent meetings we will consider "pathways" to deliver these outcomes, and which "tools" we recommend should be used/applied to make them happen.

Immediate Steps

Having identified some priority outcomes, we will then consider how one specific tool should be used. This tool is the "Immediate Steps" funding. We need to make a decision on the approach for our Zone as the funding pot is already available and some applications have been received.

We will need to decide:

- (1) How we want to align/target this funding to deliver our biodiversity priority outcomes, for example;
 - a. align funding to a different priority each year
 - b. align funding to a single or multiple priorities for the whole funding period.
- (2) How we want to deal with applications already received, for example;
 - c. support all projects received to date where they have merit
 - d. only support projects received to date that align with our priorities
 - e. start over and reopen submissions.

The Facilitator recommends that a task and finish group be established to work up a considered proposal for the best approach for Immediate Steps in the Zone. This work would take place outside of the formal committee meeting, with a worked up proposal being presented to the full committee meeting in March 2012. The full committee would then discuss a proposal from their "peers" before deciding on an approach to adopt.

10. IMPROVING URBAN WATERS PROJECT

The Committee will receive a presentation from Jennifer Rochford, Environment Canterbury on the Urban Waters Project.

Note: a briefing paper for this item will be tabled at the meeting.

11. TACKLING LIQUEFACTION IN WATERWAYS

Presenter: Owen Southern, Christchurch City Council, (refer **attached**).

ATTACHMENT TO CLAUSE 11

Rivers and Tributary Waterways Post Earthquake Silt Removal

Following the 22 September 2010 Earthquake and subsequent after shakes the rivers and waterways in the Christchurch area have been affected to varying degrees by liquefaction, silt deposition and lateral spread. While the most serious damage has occurred in the eastern suburbs, most waterways in the City have been affected to some degree. To date there has been clearance of liquefaction and silt undertaken from those waterways where the functionality of the stream had been compromised. This has involved removing silt to allow the flow of water through the waterway for the purposes of minimizing flooding. This work has been undertaken as emergency works.

Towards the end of 2011 Environment Canterbury advised the Council that the period for emergency works had now passed and it was no longer acceptable to work under this exemption for these work. We were also advised that apart from a specific consent to remove silt from Kerrs Reach we did not have a consent and if we were to continue silt removal in the Rivers and Tributaries we would be in breach of the NRRP. All silt removal work in these Rivers and Tributaries ceased and a Consultant was engaged to prepare an application for a Consent. This application has been prepared in consultation with Environment Canterbury and was lodged in early January. It should be noted that following the December 23 earthquake further clearing of waterways was undertaken, where streams were blocked, as emergency works.

To date the Council has only undertaken emergency works in rivers and waterways, and is now in a position to start on a program where stream will be restored to at least their pre-earthquake capacity and that riparian margins and buffers are re-established. This consent is fundamental to the Council being able to restore the waterway system and will be used in conjunction with it's existing Works in Waterways consent that authorises works on the banks of the Rivers and Stream.

The Council is presently gathering information that will allow it to develop a program for silt removal and re-instatement of the waterway system. While ideally this will be done by working from the upstream reaches down other priorities will need to be considered when developing work programs. Issues such as property rebuilds, infrastructure renewal and land use issues will need to be considered. The methods of silt excavation will be site specific but in general the lower reaches of the rivers and accessible sections of the upper rivers and tributaries will be excavated by specialized machinery and to remainder work will be undertaken manually

Proposed conditions cover the operational requirement such as notifications, sediment controls, protection of fish spawning areas and fish passage, biosecurity, and storage and disposal of material.

Owen Southern
Christchurch City Council
17 Feb. 2012

12. WATER AND HEALTH

The Committee will receive a presentation from Judy Williamson, Health Protection Officer/Drinking Water Assessor, Canterbury District Health Board, (refer **Attachments 1 and 2**).

Water and Health

Judy Williamson Community and Public Health (A division of CDHB)

The Ministry of Health, through the provision of standards, guidelines and other tools, ensures that an appropriate infrastructure is present in New Zealand to support the provision of clean and safe drinking-water to communities. Community and Public Health, although a division of the Canterbury District Health Board, is in essence the Ministry of Health's local presence with respect to drinking water. We have a direct contract with the Ministry to provide these services.

Through the NZ Public Health and Disability Act (2000) every District Health Board has the responsibility to:

- *“improve, promote and protect the health of people and communities” [s22 (a)]*
- *“promote the reduction of adverse social and environmental effects on the health of people and communities” [s23 (1) (h)].*

The Resource Management Act (1991) in describing its purpose under section 5 includes:

(1) The purpose of this Act is to promote the sustainable management of natural and physical resources.

(2) In this Act, sustainable management means managing the use, development, and protection of natural and physical resources in a way, or at a rate, which enables people and communities to provide for their social, economic, and cultural wellbeing and for their health and safety while—

- (a) Sustaining the potential of natural and physical resources (excluding minerals) to meet the reasonably foreseeable needs of future generations; and*
- (b) Safeguarding the life-supporting capacity of air, water, soil, and ecosystems; and*
- (c) Avoiding, remedying, or mitigating any adverse effects of activities on the environment.*

ATTACHMENT 1 TO CLAUSE 12

Our work 'upstream' within environmental health hopes to reduce hospital admissions. Our approach to protecting drinking water is a multi barrier approach. The more barriers in place the safer a water supply is considered, where one barrier might fail the actions of the others should compensate and lessen contamination. Four main barriers are considered:

- Catchment protection
- Some form of filtration
- Disinfection
- Protection within the reticulation network (including reservoirs)

Each barrier operates by removing a percentage of contamination, no barrier is absolute. The best protection offered is minimising levels of contamination in raw water (catchment protection).

A legislative frame work controls water from the catchment through to the tap. It can broadly be split into three areas.

1. The environment – The source of the water, either from below ground or from surface catchments, is primarily governed by the Resource Management Act 1991 and recently the National Environmental Standard (NES) for Sources of Human Drinking Water. Our role here is around advocating for public health at a policy and plan level and reacting to individual resource consent applications.

2. Water suppliers – This involves procuring the raw water from the environment, followed by assessment, treatment, and distribution to consumers via a piped or tankered supply. This system was previously governed by a largely voluntary regime. Our mandate here now comes from the Health (Drinking Water) Amendment Act (2007). The Act regulates this system of treatment and distribution, but reaches back to some degree to require some participation by the supplier in catchment management.

3. Storage and distribution – Storage and distribution of water in tanks and pipes within buildings up to the point of use (generally a tap) is governed by the Building Act 2004. This Act takes over responsibility for water once it leaves a public networked supply and enters the building-owner's property (usually at the water toby), and also applies to water distributed within a building from its own self-supply (eg, a roof tank or bore).

Legislation and Drinking Water Standards

Until recently the system which governs the 'second part' (above) of drinking-water management by water suppliers was administered by the Ministry of Health. Prior to the Act the system, was comprised of the following entirely voluntary elements:

1. **The New Zealand Drinking Water Standards.** These standards have been published since 1984. They provide the yardstick against which water quality is measured and detailed specifications for drinking-water suppliers, including maximum acceptable values for a range of contaminants and monitoring requirements. Compliance with the standards was previously voluntary. (Under the Act suppliers must take all reasonably practicable steps to comply with the standards).
2. **Register of Community Drinking-Water Supplies in New Zealand.** The register of over 2000 supplies is maintained as part of the Water Information NZ (WINZ) database system for drinking-water. The register provides health professionals, drinking-water professionals and the general public with an authoritative summary of the health risk status of all community drinking-water supplies known to the Ministry (available at www.drinkingwater.co.nz). Inclusion on the register was previously voluntary. (It is now mandatory for all drinking-water supplies and also self supplies which supply water to community purposes buildings, such as town halls, schools, hospitals, ski-fields etc).
3. **Public health grading of community drinking-water supplies.** The principal driver of improvement in the quality of drinking-water in New Zealand since 1993 has been the public health grading of drinking-water supplies by drinking water assessors in district health boards.
4. **Water Information New Zealand.** The national electronic drinking-water information database.
5. **Public Health Risk Management Plans.** Under the previous voluntary system the Ministry encouraged and promoted the risk based management approach of drinking-water supplies through the adoption of Public Health Risk Management Plans (PHRMP). (The Act requires all supplies serving more than 500 people to develop and implement PHRMPs. Supplies smaller than this are encouraged to prepare such plans).
6. **Annual Report on the Microbiological and Chemical Quality of Drinking-Water Supplies in New Zealand.** The report, covering the previous year, is issued in November / December each year it reviews the compliance for all registered supplies. (these reports are available from the Ministry of health's website)
7. **Guidelines for Drinking-Water Quality Management in New Zealand.** These technical Guidelines are a complement to the New Zealand Drinking Water Standards.
8. **The use of Ministry-recognised laboratories.** Only Ministry of Health-recognised laboratories may carry out testing and other procedures to demonstrate compliance with the Standards.

ATTACHMENT 1 TO CLAUSE 12

Rationale for the Health (Drinking Water) Amendment Act

The enactment of this legislation resulted from a concern that the organisation of New Zealand's drinking-water supplies was not adequate to safeguard communities. New Zealand had been unusual among developed nations in relying almost entirely on voluntary mechanisms to safeguard the treatment and distribution of drinking-water. This represents a risk to public health in two main ways:

- **Higher rates of disease** – New Zealand has relatively high rates of largely preventable enteric or gastro-intestinal disease. For example, the campylobacteriosis rate in NZ is twice that of England and three times that of Australia and Canada. This is at least partly attributable to contamination of drinking-water. Campylobacteriosis – which is just one of the potentially waterborne diseases in New Zealand – can involve fever, headache, abdominal pain, nausea, vomiting and diarrhea. Symptoms may persist for up to a week and prolonged illness or relapses may occur in adults. The burden of disease is more of a problem for rural communities.
- **Higher risk of a major disease outbreak** – The previous state of NZ's drinking-water legislation gave little effective protection or deterrence against a major outbreak of disease caused by deliberate or accidental contamination of drinking water supplies. Such events have occurred in overseas jurisdictions. For example Walkerton (pop 4000), Canada, where 7 deaths and 2321 reported cases resulted from E. coli in May 2000. Another example is Milwaukee (pop 583,000), Wisconsin, with 70–100 deaths and 400,000 people sick as a result of contracting cryptosporidiosis from the water supply in 1993.

To date New Zealand has been fortunate. Apart from the 3500 people who became sick in Queenstown in 1984 because of contaminated drinking-water, most outbreaks of drinking-water disease have tended to be on a small scale, involving less than a hundred cases but the potential remains high.

HEALTH (DRINKING WATER) AMENDMENT ACT 2007

This is the amendment to the Health Act that replaces a mainly voluntary approach detailed above to ensuring water supplies provide safe water. The Act was passed in October 2007

Purpose of the Act

"... to protect the health and safety of people and communities by promoting adequate supplies of safe and wholesome drinking water from all drinking-water supplies."

Requirements in the Act

Water suppliers must:

- register their supply
- monitor their water,
- implement a public health risk management plan (PHRMP),
- take all practicable steps to comply with the drinking-water standards,
- ensure an adequate supply and take practicable steps to protect the source.

The main duties in the Act only apply to supplies above a certain size, that is those that serve 25 or more people for 60 or more days per year; or if there are fewer than 25 people, but 6000 or more 'person/days' (that is the number of people multiplied by the number of days they receive water from the supply).

The requirements around taking all practicable steps to comply with the Standards and preparing a PHRMP come into effect in a staged manner with those supplies serving >10,000 people required to comply with the legislation from July 2012.

Other requirements include:

- Catchment protection "Duty to take reasonable steps to contribute to protection of source of drinking water"
- Duty to investigate complaints
- Duty to take remedial action if the Standards are breached

The Act makes special provision for supplies that provide water for both agricultural and drinking-water purposes, to ensure that they are not required to make fit for humans water that is only used by animals or crops. These supplies fit into the 'rural agricultural drinking-water supply' category.

Supplies in this category face no duties under the drinking-water standards until 1 July 2013 at the earliest. The drinking-water standards will be amended to determine exactly how such supplies will be managed, and the Ministry is seeking opinions on how this should be done.

Compliance with the Drinking Water Standards

For a drinking-water supply, compliance is determined by considering how the quality of the water compares with the requirements of the Standards. To meet these Standards, some sort of monitoring process is usually required.

Non-Compliance or Transgression. What's the Difference?

Monitoring is the process of taking samples from a water supply at specified intervals to measure potent contaminants. Good systematic and ongoing management is important.

If an individual sample result fails to meet the maximum allowable value (MAV) or some other requirement, it is said to be a **transgression**. In some cases (where lots of monitoring is undertaken) a few transgressions are allowable.

Compliance with the Standards is **not based on the results of a single monitoring sample**, but is an overall measure of whether the Standards requirements are met for a full 12 month period:

Compliance can include evaluation of aspects such as:

Taking enough samples

Taking them regularly, but not always at the same time of day or week.

Having no more than the acceptable number of transgressions

Having good quality procedures

having appropriate treatment processes in place and functioning

and many other details...

How much monitoring is necessary?

The amount of monitoring required is specified in the *Drinking-Water Standards for New Zealand 2005*. The standards speak about "determinands", which are chemical substances, microbiological organisms, or some other characteristic of the water that can be measured, "something for which you can test".

The standards divide all determinands of public health significance into four classes according to the priority with which they should be measured. This avoids unnecessary monitoring. Of the four classes, only determinands in the Priority 1 and 2 classes require measuring, but the others have been defined in case they are required in the future.

What are Priority 1 determinands?

The determinands with the highest priority for monitoring, appropriately called "Priority 1 determinands", must be measured in all drinking-water supplies. These are currently micro-organisms which are of public health significance.

The first of these is bacteria. To gain an indication of water contamination by faecal material, a bacteria called *E. coli* is measured.

Giardia and *Cryptosporidium* are protozoa becoming increasingly of concern in drinking-waters, so these are also Priority 1 determinands. Because direct testing for these protozoa is often not practicable, the standards offer options for stopping their passage. Treatment processes such as coagulation and filtration are recognised as effective when properly managed. Alternatively where groundwater is shown to be "secure" under the specific definition of "security" in the Standards then treatment for protozoa is not required. Within the Standards security has quite a specific meaning. If the water has been under ground for longer than a year then the tougher protozoa bacteria will not be present. Under ground for greater than 1 year is an interesting thing to prove, the water is sampled in controlled conditions and examined for chemicals such as tritium and CFC (chlorofluorocarbon) and SF6 (sulphur hexafluoride) – these substances have varied with known concentrations depending on activities – use of aerosols, nuclear tests etc. Surface water (rainfall, rivers etc) picks up a 'signature' of what is in the atmosphere at the time before going underground. In addition to meet the "secure" definition the well head needs to be appropriately designed and e-coli needs to have been measured for in the water for a year and not found.

The standards specify how frequently monitoring samples must be taken, such as monthly for a small supply through to at least daily for a metropolitan area. In all cases, a minimum of a year's sampling is required to demonstrate compliance with the standards.

What are Priority 2 determinands?

A second level of potential contaminants, known appropriately as "Priority 2 determinands", is also defined in the standards. These are determinands known to have adverse effects upon human health. Unlike Priority 1 determinands, they do not have to be measured in every supply. Monitoring is usually required if the Ministry of Health believes that levels in a particular supply exceed half the maximum allowable value (MAV) for a particular health-significant determinand.

ATTACHMENT 1 TO CLAUSE 12

How is a Priority 2 determinand identified? ESR, a Crown Research Institute, assesses supplies on behalf of the Ministry of Health. It uses questionnaires and targeted testing to identify those supplies where significant levels of a particular chemical are likely to be present. Through formal procedures, the Ministry of Health then confirms these chemicals as Priority 2 determinands for that particular supply.

Only supplies with populations of 100 or more have been assessed, and the population must be at least 500 before a Priority 2 determinand is officially assigned and appears in this *Register*. These limits will be lowered in the future.

To date, around 450 Priority 2 determinands have been assigned, spread over approximately 50 treatment plants and 400 distribution zones

The water supplier is then required to test regularly for that chemical in the supply, to confirm that it remains below the MAV. Weekly testing is required for fluoride, but for other chemicals this is usually monthly. If concentrations measured remain less than half the MAV for 12 consecutive months, and the Ministry of Health is satisfied that the risk is not significant, that Priority 2 entry will be removed from the *Register*.

All Priority 2 determinands listed in this *Register* are chemicals, but micro-organisms or radiological constituents can also be defined.

How do the supplies within your zone measure up?

CCC has three supplies in the Christchurch West Melton zone: Christchurch, Northwest Christchurch, and Brooklands/Kainga. The Lyttelton supply (including Diamond Harbour and Governors Bay) is also sourced from within the zone. There are several private water supplies within the zone; both Christchurch and Princess Margaret Hospitals are on their own supplies, Christchurch International Airport, and several schools.

Council owned supplies within this zone are sourced from groundwater and have a good record of compliance with the DWSNZ05/08. In general the groundwater sources have been demonstrated to be 'secure' and do not require any treatment to be able to fully comply with the Standards. But as you move towards the northwest of Christchurch the confining layer becomes thin, ground water sources in this area are not always 'secure' and therefore to gain protozoa compliance require some form of treatment. Council plan to introduce UV treatment to the some of the northwest wells and deepen some of the other wells to access secure aquifers. Not having full compliance with the DWSNZ05/08 has meant that the grading for this part of Christchurch is lower – Council reacted to this by dividing the city into two separate supplies: Christchurch city is graded Ba while the separate supply of Northwest Christchurch (population 83,000) has a Da grade.

ATTACHMENT 1 TO CLAUSE 12

Thinking back to the multi barrier approach – Christchurch supplies have only two barriers available – the protection offered by having a well protected catchment and the good management around the infrastructure which prevents contamination once extracted. These barriers took quite a hammering during the earthquakes. There was a need for chlorine to provide us with an additional barrier while repairs were made. Compared with other major metropolitan supplies which often would have the full 4 barriers – it remains crucial that both of these barriers remain very strong. We were therefore very supportive of Environment Canterbury's variation 6 to their Natural Resources Regional Plan which looked to control activities over the non-confined area adjacent to the Waimakariri River. As you move into the areas of unconfined aquifers the activities on the ground above groundwater have a greater potential to contaminate the underlying water, so controlling the sort of activities that are undertaken in the Christchurch groundwater protection zone is vitally important to maintaining the catchment barrier for the Christchurch water supplies.

Recreational Water

Good quality recreational water is an essential part of the natural ecosystem. Recreational water quality can affect the health of recreational water users if high levels of harmful organisms are present. These organisms include viruses, algal blooms, bacteria and protozoa. Exposure to these may cause a variety of illnesses. Contamination found in water bodies is largely derived from water fowl, sewage, stormwater or farm run-off. Algal blooms occur naturally in lake or rivers. Some species produce toxins which can be a threat to the health of people and animals.

Fish or shellfish may also be contaminated in areas where there are high levels of harmful organisms and should therefore not be collected for human consumption.

Microbiological Quality

Environment Canterbury (ECan) monitors both marine and freshwater recreational water quality at popular recreational sites in Canterbury over the summer months. Water monitoring is based on the Ministry of Health/Ministry for the Environment Microbiological Water Quality Guidelines for Marine and Freshwater Areas (1). The microbiological guidelines provide a safe limit of 550 E. coli/mL in freshwater and 280 enterococci/mL in marine water. Any identified risk to the public is notified on the ECan website, the Christchurch City Council erect signage and Community and Public Health issue a media release. Each site is graded annually based on previous microbiological results and sanitary survey results. The grades listed below have not changed for a number of years.

Of the samples taken by ECan since 2003 river samples consistently exceeded the guidelines as opposed to the beach and estuary samples.(2) Results have improved slightly at the Avon and Heathcote sites over the years when looking at compliance with the 550 MPN/100mL trigger level, but not enough to improve the grades.

Environmental Science and Research's (ESR) project (³) on the Avon River indicates that rainfall results in significant degradation of the microbial water quality. The primary sources of the degradation appears to be related to wild fowl and possibly dog fecal material. Another form of contamination occurs after high rainfall events where sewage may overflow and contaminate city rivers. This is a fairly common occurrence on the Avon River.

Gradings for 2011-2012

Spencerville Beach – very good
Waimariri Beach – good
New Brighton Beach – good
South Brighton @ surf club – good
South Brighton @ Caspian St – good
Estuary at South Spit – good
Estuary at Penguin Street – good
Estuary at Pleasant Point Yacht Club – poor
Estuary at Humphreys Drive – poor
Estuary at Beachville Road jetty – good
Estuary at Monks Bay - good
Sumner Beach – good
Scarborough Beach – good
Taylors Mistake – very good
Otukaikino creek above picnic area 1 – very poor
Otukaikino Creek at swimming hole – insufficient data
Avon River at Kerrs Reach – very poor
Heathcote River at Catherine Street – very poor
Lake Rotokohatu – very good (provisional)
Avon River - central no longer sampled, graded – very poor

Permanent signs are erected at sites where past monitoring has indicated consistently poor or very poor water quality. Over the summer sampling period when the safe levels are exceeded at other sites, temporary signs warning people not to swim are erected.

Permanent signage is placed at:

Groynes – for micro quality plus *Sytonema* algal bloom
Otukaikino Creek swimming hole
Estuary at Humphreys Drive
Estuary at Pleasant Pt Yacht Club

There is also permanent signage indicating that shellfish should not be taken from the area extending from around the Estuary to the clock tower at the Scarborough Beach Esplanade. This is due to shellfish being filter feeders and therefore concentrating the pollutants that have accumulated overtime in the environment

Earthquake damage

The earthquakes in Christchurch have severely disrupted the last two summer seasons with respect to activities on and near water. Damage to wastewater infrastructure meant that both the Heathcote and Avon Rivers became emergency discharge points for wastewater. When monitoring of the water showed a return to 'normal' levels of bacteria recreational activity was able to resume. Research initiated by ESR though has shown that the sediment in our urban rivers remains contaminated above background levels, therefore the warning to not use rivers within 48hrs of rainfall is particularly pertinent.

The safety of recreational water activities will continue to be compromised until sewerage infrastructure is fully repaired and the direct discharge of human sewage stops.

Cyanobacteria Risk in Recreational Water

This is an emerging issue for Canterbury fresh waters. The risks to humans from exposure are around skin contact and respiratory irritation. Exposure may cause skin rashes, nausea, stomach cramps, tingling and numbness around the mouth and fingertips. Animals are particularly sensitive and in the past it has been sick dogs that have sometimes alerted us.

ECan are responsible for the surveillance of cyanobacterial algal blooms on Canterbury lakes and rivers. Algal bloom protocols are based on the Interim Guidelines (⁴). Algae can multiply and form blooms in lakes or thick mats attached to rivers in stream beds. Some species produce natural toxins which can be a threat to people and animals. There have been numerous reports of dog deaths from eating the bloom which collects on the banks of rivers. Health messages are erected by the local authorities along the side of lakes and rivers when blooms are present and media releases produced by Community and Public Health to alert the public.

Phormidium is the common algal species that has caused concern in Canterbury rivers over the last few years. This has not been identified in any rivers within the Christchurch West Melton Zone however a new toxin producing algal species was identified in the freshwater lakes of the Groyne recreational reserve in 2010. The blue green alga called Scytonema produces a type of neurotoxin associated with paralytic shellfish poisoning. It is more commonly associated with harmful algal blooms in the marine environment. It is suspected to have been present for possibly 30 years or more but to date there have been no reported cases of dog or human suffering as a result of water contact. Permanent health warning signs are in place at the edges of the affected water bodies. Scytonema has not been observed in the streams around the Groyne or in the areas designated for dog walking.

Cyanobacteria Risk in Drinking Water

In relation to drinking water boiling does not remove the toxin and treatment of contaminated water is difficult and expensive. This means that catchment protection is by far the best way to control conditions which favour cyanobacteria.

The increase in incidents of cyanobacteria is thought to be as a result of climate change, and enrichment of waterways but the scientists do not have direct answers to these questions. A study of the Hutt River looking at correlations with water flow, nutrients levels and temperature found flow to be the most closely correlated but this is not conclusive for all rivers and cyanobacteria species. With respect to drinking water, once a supply has had an occurrence of cyanobacteria near the intake the Local Authority are required to have a procedure for managing the risk during subsequent summers.

The concern in Canterbury relates to surface water intakes where infiltration galleries are close to rivers which could be contaminated with cyanobacteria toxins. The protection provided by infiltration through the gravels is unknown.

References:

¹Ministry of Health/Ministry for the Environment. 2003. Microbiological Water Quality Guidelines for Marine and Freshwater Recreational Areas. Wellington:Ministry of Health and Ministry for the Environment.

²Microbial Analysis of the Avon River: Past, Present, and Future. Prepared for Environmental Canterbury and Christchurch City Council by Devane, MC, Moriarty, EM, Williamson, WM, Gilpin, BJ . Environmental Science and Research Ltd, April 2011.

³Freshwater and Coastal recreational water quality monitoring programmes. Canterbury Region. Annual summary reports (2003-2010). Stevenson, M, Bolton-Richie, L. Environmental Canterbury.

⁴Ministry for the Environment and Ministry fo Health. 2009. New Zealand Guidelines for Cyanobacteria in Recreational Fresh Waters – Interim Guidelines. Prepared for the Ministry for the Environment and the Ministry of Health by SA Wood, DP Hamilton, WJ Paul, KA Safi and WM Willkiamson, Wellington: Ministry for the Environment.



CANTERBURY DHB POSITION STATEMENT – CANTERBURY WATER MANAGEMENT STRATEGY

1. The Canterbury District Health Board (CDHB) believes that the health and wellbeing of current and future generations of Cantabrians should always take priority in water management decisions, particularly where there are competing interests for water uses.
2. The CDHB has responsibility under the New Zealand Public Health and Disability Act 2000 to improve, promote and protect the health of people and communities. Additionally there is a responsibility to promote the reduction of adverse social and environmental effects on the health of people and communities.
3. Consequently the CDHB supports the vision of the Canterbury Water Management Strategy:

“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.”

4. The CDHB acknowledges that the Canterbury Water Management Strategy can influence the health of Cantabrians now and into the future and is a key public health document. The identified fundamental principles and targets are, among other factors, important determinants of health.
5. The CDHB recognises the special relationship between Tangata Whenua and water resources especially in relation to spiritual connection, mahinga Kai and Wahi tapu. The Canterbury DHB acknowledges the role of Tangata Whenua as Treaty partners and values partnership as essential for informed water management decisions.
6. The CDHB understands that the current international literature on water governance advocates for collaborative approaches whilst highlighting that success is highly dependent upon the people involved, and the wider situation.
7. The CDHB believes that all efforts to protect and restore water quality should be supported by the most comprehensive and current scientific evidence.
8. The CDHB acknowledges that water is of major importance for Canterbury’s economic development. However, while economic wellbeing is necessary for good health, social, recreational, cultural and environmental assets such as drinking water quality, are also fundamental to health. A sustainable and thriving ecosystem is vital to supporting and sustaining the health of present and future generations in Canterbury.

Adopted CDHB Board Meeting
21 October 2011

13. UPDATE FROM REGIONAL COMMITTEE REPRESENTATIVE

14. WORK PROGRAMME UPDATE

(Refer **attached**).

CHRISTCHURCH-WEST MELTON ZONE COMMITTEE**DRAFT WORK PROGRAMME, AS OF 23 FEB 2012**

Date / Event	Content
February 2012 Public meeting 4	Water management topics <ul style="list-style-type: none"> • Deciding our “Immediate Steps” approach • Improving Urban Waters Project • Tackling liquefaction in waterways • Water and Health
March 2012 Public meeting 5	Working together <ul style="list-style-type: none"> • STAKEHOLDER EXERCISE: WHO, WHAT, WHEN? Water management topics <ul style="list-style-type: none"> • Deciding our “Immediate Steps” approach • RECREATION IN THE ZONE • WATER AND THE URBAN/RURAL ECONOMY
<i>March 2012</i> <i>Fieldtrip 3</i>	Field trip to see local community group involvement in zone Focus on issues raised in relation to surface water, and water supply to date. Building relationship “capital” of committee.
April 2012 Public meeting 6	Water management topics <ul style="list-style-type: none"> • Establish clear areas of discussion for development of priorities • Explore key topics further <p><i>Develop Water Management Priority Outcomes</i> <i>Working / task & finish groups setup</i></p> <p><i>Joint session with Waimakariri Zone Committee</i></p>
May 2012 Public meeting 7	<i>Develop Pathways To Implementing Outcomes</i> <i>Working / task & finish groups progress</i>
June 2012 Public meeting 8	<i>Consultation on draft Priority Outcomes</i> <i>Liaise with Waimakariri Zone Committee</i> <i>Liaise with Selwyn-Waihora Zone Committee</i> <i>Liaise with Banks Peninsula Zone Committee</i> <i>Liaise with Regional Committee</i>
July 2012 Public meeting 9	<i>Agree consultation draft ZIP</i>

ATTACHMENT TO CLAUSE 14

August 2012 Public meeting 10	<i>Consultation on draft ZIP</i>
September 2012 Public meeting 11	<i>Consider feedback and Update draft ZIP</i> <i>ZIP version 1?</i>
October 2012 Public meeting 12	<i>ZIP version 1?</i>