BANKS PENINSULA WATER MANAGEMENT ZONE COMMITTEE AGENDA

TUESDAY 19 MARCH 2013

AT 10AM

IN ONUKU MARAE, AKAROA

Committee: Richard Simpson, Community Representative (Chairperson)
Donald Couch, Commissioner Environment Canterbury
Claudia Reid, Christchurch City Council
Yvette Couch-Lewis, Community Representative
Steve Lowndes, Community Representative
Pam Richardson, Community Representative
Kevin Simcock, Community Representative
Iaean Cranwell, Te Rūnanga o Wairewa
June Swindells, Te Hapu ō Ngāti Wheke/Rapaki
Wade Wereta-Osborn, Te Rūnanga o Koukourarata
Pere Tainui, Te Rūnanga o Ōnuku

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1. APOLOGIES

2. CONFIRMATION OF MINUTES – 19 FEBRUARY 2013

The minutes of the committee's meeting held on 19 February 2013 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

ATTACHMENT TO CLAUSE 2

BANKS PENINSULA WATER MANAGEMENT ZONE COMMITTEE
19 FEBRUARY 2013

A meeting of the Banks Peninsula Water Management Zone Committee was held in the Akaroa Sports Complex on 19 February 2013 at 4.08pm

PRESENT: Richard Simpson, Community Representative (Chairperson)
Donald Couch, Commissioner Environment Canterbury
Claudia Reid, Councillor Christchurch City Council
Steve Lowndes, Community Representative
Pam Richardson, Community Representative
Kevin Simcock, Community Representative
June Swindells, Te Hapu O Ngati Wheke
Wade Wereta-Osborn, Te Rūnanga o Koukourarata

APOLOGIES: Apologies for absence were received and accepted from Iaean Cranwell, Pere Tainui and Yvette Couch-Lewis.

June Swindell arrived at 4.22pm and was absent for clauses 1-4. Kevin Simcock arrived at 4.29pm and was absent for clauses 1-5.

June Swindell and Wade Wereta-Osborn left the meeting at 8.40pm and were absent for clause 14.

The meeting was opened with a karakia from Peter Ramsden.

1. CONFIRMATION OF MINUTES – 18 DECEMBER 2012

It was **decided** that the minutes of 18 December 2012 be approved as a true and accurate record.

2. DEPUTATIONS BY APPOINTMENT

Nil.

3. IDENTIFICATION OF URGENT ITEMS

Nil.

4. IDENTIFICATION OF ANY GENERAL PUBLIC CONTRIBUTIONS

Nil.

5. REGIONAL COMMITTEE UPDATE

Nil.

6. FINALISING ZONE IMPLEMENTATION PROGRAMME

The Committee **agreed** on the final draft of the Zone Implementation Programme (ZIP) with changes discussed at the meeting and any received via email by the zone facilitator before 5pm 20 February 2013. The ZIP will be received by both Environment Canterbury and Christchurch City Council.

7. NEW BIODIVERSITY PROJECTS

The Committee received a presentation from Robyn Russ, Environment Canterbury updating progress on the approved Immediate Steps projects in Banks Peninsula. Robyn also introduced two new biodiversity projects for the Committee's consideration and future project suggestions (refer **attachment**). The Committee **agreed** to proceed with the Owhetoro Stream project in Port Levy/Koukourarata. Robyn will report back to the Committee with further information regarding Okana River Confluence project.

8. ADJOURNMENT

The Committee adjourned from 6.20pm to 7pm.

9. TERMS OF REFERENCE REVIEW

The Committee received a report and discussed the review undertaken on the zone committee terms of reference. The Committee suggested that a higher honorarium for the Deputy Chair of a Zone Committee would reflect the extra responsibility of this position.

10. PERMITTED ACTIVITY TAKES PROJECT SUMMARY

The Committee received a presentation from Tim Davie, Environment Canterbury, regarding the permitted activity takes project and an introduction on how minimum river flows are set.

11. CULTURAL PRACTICE

The Committee deferred the pronunciation practice to the next meeting.

12. WAIREWA SUB-REGIONAL CHAPTER TIMEFRAMES AND ELECTION OF A SUBCOMMITTEE

The Committee received a report and recommendation from Nick Regnault, Environment Canterbury, regarding the Wairewa Sub-Regional Chapter and timeframes related to the CWMS (refer **attachment**). The Committee was asked to consider the formation of a working party to liaise with Environment Canterbury on development of the Wairewa Sub-Regional Chapter. The Committee **agreed** that Steve Lowndes, Richard Simpson, Pam Richardson, Wade Wereta-Osborn and Kevin Simcock will form a working party. All Committee members are invited to attend meetings of the working party. Nick Regnault is to report back to the Committee on the progress of the working party every two months.

13. NATURAL ENVIRONMENT RECOVERY PROGRAMME AND BANKS PENINSULA INTERGRATION

The Committee received a presentation from Chrissie Williams, Environment Canterbury, on the Natural Environment Recovery Programme and how this relates to the Banks Peninsula Zone Implementation Programme (refer **attachment**). The Committee **agreed** that there is a general alignment between the Zone Implementation Programme and the Natural Environment Recovery Programme.

14. MEDIA/COMMS UPDATE

The Committee received a poster advertising two upcoming meetings (refer **attachment**).

The meeting concluded at 9pm.

CONFIRMED THIS 19TH DAY OF MARCH 2013

RICHARD SIMPSON
CHAIRPERSON

6. IMMEDIATE STEPS UPDATE 10.15AM

The Committee will receive an update from Robyn Russ, Environment Canterbury, on biodiversity projects in Banks Peninsula. This agenda item relates to recommendation 4.16 in the Zone Implementation Programme (ZIP).

7. WETLANDS PRESENTATION 11AM

The Committee will receive a presentation from Tamsin Page, Environment Canterbury, on the background of regional wetlands and specific sites in Banks Peninsula (refer **attachment**). The Committee will be asked to chose two wetlands for protection and regeneration in Banks Peninsula. This agenda item relates to recommendation 4.6 in the Zone Implementation Programme (ZIP).

8. WAIREWA SUB REGIONAL CHAPTER UPDATE 11.30AM

The Committee will receive an update from Nick Regnault, Environment Canterbury, on the Wairewa Sub-Regional Chapter 6 of the ZIP.

9. MEASURING SUCCESS – TRACKING IMPLEMENTATION OF RECOMMENDATIONS 12PM

The Committee will receive a presentation from Dann Olykan, Environment Canterbury, on the recommendation tracking process.

10. ELECTION OF CHAIRPERSON

The Committee will receive nominations and proceed to elect a Banks Peninsula Water Management Zone Committee chairperson for 2013/14.

Canterbury Wetlands Overview

The CWMS contains a number of very specific wetland goals. Collectively, these signal the **protection of all wetlands** as the overall objective, with initial priority on significant wetlands:

- 2010: “prevent further loss of area of naturally occurring wetlands”
- 2015: “protected all and restored at least two significant wetlands in each zone”
- 2020: “protected all existing wetlands”
- 2040: “protected all wetlands”

Reflecting this, all of the ZIPs completed to date and the RIP include recommendations specific to wetlands. A strong trend running through all is the identification and assessment of wetlands, and many also seek the protection of wetlands through working with landowners, and through making wetland assessments and protection a ‘criteria’ for new developments.

This overview document and the accompanying “roadshow” of presentations to CWMS committees and biodiversity working groups over the second half of 2012 has been prepared in response to these ZIP recommendations. This document contains some brief information about wetlands and why they are important, and then outlines the core components of ECan’s programmes that contribute to the protection and restoration of the region’s wetlands, including the regional wetland database; the on-going field survey programme; the regulatory framework; and the non-regulatory components such as incentive funds, advocacy, provision of advice and information, and awareness-raising.

What is a wetland?

'Wetland' is the collective term for the wet margins of streams, rivers, ponds, lakes, lagoons, estuaries, bogs and swamps. A wetland may be large or small, natural or man-made, permanently or intermittently wet. Wetland water may be fresh, brackish or saline. The types of plants and animals found in wetlands depend on the water - its amount, depth, permanence, temperature, the chemicals found in it, and its source - groundwater, surface water, rainwater or seawater.

The formal definition of wetland in the RMA is:

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

Key points of this definition are: does not have to be permanently wet; must support a natural ecosystem adapted to wet conditions (i.e. certain types of plants & animals); does not explicitly require an indigenous ecosystem.

This is quite a broad definition and includes places that may not all be widely recognised as a wetland. For example, often a wetland on a farm will just be a low-lying, boggy area – the spot that grows rushes or cutty-grass that you avoid driving the ute through! (See Figure A below). While other wetlands may be quite large and have permanently standing water with raupo, sedges, flax, cabbage trees and other wetland vegetation growing amongst them (see Figure B below).

Figure A:

Figure B:

Why Wetlands matter?

"Better management of wetlands is critically dependent on all parties recognising the value of wetlands on the farm, across the district, and within a national and international context."[1]

Habitat values

Wetlands are important and significant ecosystems that provide habitat for a diverse range of plants and animals, including many rare and threatened species. They provide a major habitat for at least eight species of indigenous freshwater fish as well as frogs, birds and invertebrates. Coastal wetlands are more biologically productive than almost any other ecosystem, providing habitat, breeding areas and food for shellfish, crustaceans, inshore fish and birds. Although wetlands now cover less than 2% of New Zealand's land area, a fifth of

[1] Office of the Parliamentary Commissioner for the Environment, *Boggy Patch or Ecological Heritage*, March 2002

native bird species use wetlands as their primary habitat, and not just single wetlands - many bird species rely on a linked series of wetlands on their flyways for resting and feeding.

Ecosystem services

Wetland ecological processes provide an array of ecosystem services, the benefits of which have indirect economic value, including water storage and flood attenuation, waste disposal and water purification, erosion control, water table maintenance and the retention, removal and transformation of nutrients.

Wetland plants trap sediment suspended in water, improving water quality. In riparian areas, their roots hold riverbank soil together, reducing erosion. Nitrogen and phosphorus enter waterways through groundwater, surface run-off and disposal of effluent. Wetland vegetation uses some of these nutrients for growth. Bacteria living in wetland soils absorb and break down nitrogen from farm run-off and leaching, also improving water quality.

Cultural and Social values

Wetlands are traditional taonga for tangata whenua, valued for mahinga kai (e.g. plants such as harakeke (flax) used for weaving; food sources such as tuna (eels), patiki (flounder) and manu (birds); and rongoa (plants used for medicinal purposes)) and as taonga for their spiritual and metaphysical properties, as well as for their historical associations and significance to tribal identity.

Wetlands are also valued by the wider community for their educational, scientific, aesthetic and recreational values.

State of wetlands

Wetlands are under threat the world over from accelerated drainage, land reclamation, pollution and exploitation of wetland species. In NZ, wetlands once covered large areas of the country, but are now some of our rarest and most at-risk ecosystems, with approximately 90% of wetlands lost over the last 150 years. Draining, burning and clearing of vegetation for farmland, together with the reclamation of wetlands for urban and industrial uses, have been the principal agents of wetland destruction. In 2007, wetlands were identified as one of the national priorities for protection of biodiversity on private land[2].

The national situation is reflected in Canterbury, where freshwater wetlands now cover only about 10% of their former extent. A higher percentage remains in the high country (especially alpine areas), but in the lowlands, inland basins and along the coastal fringes the proportion is lower, in some cases markedly so. Furthermore, wetlands in these areas are relatively more depleted both in quality and extent, making wetlands that remain in these areas even more significant.

A 2010 Environment Canterbury report[3] looked at the historic and current extent of freshwater wetlands in Canterbury, including recent trends in relation to remaining wetlands over the period 1990-2008. (Note that the baseline information for this report was sourced from data that does not include wetlands under 0.5ha in area). This showed that although most of the approximately 2000 remaining wetlands in the region showed no detectable change in area over the monitoring period, there were about 140 wetlands that showed either a significant (>25%) or some (up to 25%) reduction in extent. One wetland had increased in extent. The majority of 'reduced' wetlands are in the western half of the region - in the inter-montane basins and valley floors of the high country, with a smaller number of plains and foothill wetlands showing reduction. The Lees Valley, Ashburton-Heron Basin, Upper Rangitata Valley and Mackenzie Basin all showed the largest examples of wetland reduction, and it was notable that several of the recently reduced wetlands had been

[2] MfE and DOC, *Protecting Our Places - National Priorities for Protecting Rare and Threatened Native Biodiversity on Private Land*, April 2007.

[3] Environment Canterbury, *Historic and current extent of Canterbury freshwater wetlands, and recent trends in remaining wetland areas,* June 2010

identified as nationally important for biodiversity in the Waters of National Importance report[4].

Historic and current (*c.* 2000) area of wetlands, % area loss, and number of current wetlands for the 10 Canterbury Water Management Zones[5]

Water Management Zone	Historic wetland area (ha)	Current wetland area (ha)	% loss	Number of 'current' wetland sites
Kaikoura	3272	208	93.6	34
Hurunui - Waiau	26504	352	98.7	64
Waimakariri	22164	1026	95.4	119
Christchurch - West Melton	4257	73	98.3	20
Banks Peninsula	241	32	86.7	11
Selwyn-Waihora	47272	3102	93.4	340
Ashburton	44891	5871	86.9	581
Orari-Opihi-Pareora	18689	831	95.6	195
Upper Waitaki	20022	7843	60.8	420
Lower Waitaki – South Coastal Canterbury	7621	522	93.2	220
Regional Total	**194934**	**19851**	**89.8**	**2004**

Regional Wetland Database

The recently created Canterbury Regional Wetland Geographic Information System (GIS) database has been compiled from the combination of two core information sources - the Freshwater Ecosystems of New Zealand (FENZ) wetland GIS layer for Canterbury, and the ECan coastal wetland database. Together, these provide the basis for this inventory of the region's wetland habitats.

The FENZ wetlands GIS layer is focused on freshwater palustrine wetlands and standing waterbodies with a 500 m maximum length. *Palustrine* wetlands are defined as all freshwater wetlands fed by rain, groundwater or surface water, but not directly associated with the open water of estuaries, lakes and rivers. The Canterbury portion of the FENZ wetland layer was developed from existing wetland survey information of the 1980s and 1990s. This was then checked against satellite imagery collected between 1999 and 2003 to complete delineation of wetland extent. The baseline for 'current' wetland extent in FENZ is therefore 1999-2003.

The ECan coastal wetland database is based on results of field survey, mapping and description of the region's coastal wetland vegetation/habitats completed by ECan staff over the period 2004-2011. Fifty-eight ground-surveyed coastal wetland areas are included in this database. A survey-dated description of each wetland, together with assessments of wetland condition, threats and ecological significance is provided in the attributes table.

[4] Ausseil et al., 2008

[5] Environment Canterbury, *Historic and current extent of Canterbury freshwater wetlands, and recent trends in remaining wetland areas,* June 2010, as calculated from Ausseil *et al.* (2008).

Collectively, these two sources of information provide a reasonably comprehensive inventory of the location and extent of wetlands for the region. For coastal areas, the information is relatively recent and 'ground-truthed' both in terms of location and extent, and condition, threats and significance. For inland wetlands, based on the FENZ database, the key gaps and limitations are: the exclusion of wetlands less than 0.5ha[6], and the age of the original survey information. This means that FENZ provides a useful basis for a comprehensive regional database, but ground-based survey is still necessary to improve accuracy of wetland delineation, as well as provide more detailed state and trend information on, for example, wetland class, vegetation type and overall ecological condition.

Maps from the regional wetland database showing the location of wetlands across the Canterbury region, and by CWMS water management zone are attached (Attachment 1).

Wetland Survey Programme

ECan has a work programme involving annual field survey and mapping of wetlands. The focus of this programme over recent years has been on coastal wetlands to address a key limitation of the FENZ wetland layer. The system of field survey and database reporting developed for the region's coastal wetland habitats will now be applied to inland freshwater wetlands. Ground-based survey will be carried out to add to, update or improve delineation of wetland areas derived from FENZ, as well as provide a similar level of information on wetland class, vegetation type and overall ecological condition. Results of future wetland survey, ecological description and significance assessment will progressively be added to the regional wetland database.

Field survey work is generally prioritised on the basis of where the greatest development pressures/threats to remaining wetlands are occurring. With present resources and on-going issues related to gaining access to wetlands on private land, it is estimated that this programme will take 5-10yrs to cover the whole region.

Regulatory Framework

The RMA definition for wetland is set out above in the first section of this paper. This definition applies in the regional context under the proposed Regional Policy Statement (RPS), the Natural Resources Regional Plan (NRRP), and the proposed Land and Water Regional Plan (LWRP).

RMA

Wetlands are water bodies, just as equally as streams, rivers or lakes. Consequently, wetlands are subject to the core provisions of the RMA that apply to freshwater bodies – ss14 & 15. These provisions provide that you may not do anything that may affect the water quantity or quality (i.e. take, use, dam, divert, drain, discharge) of a freshwater body unless you have a resource consent, or a rule in a regional plan makes it a permitted activity. Thus, the default situation under the RMA is one of regulated control – no wetland drainage or water diversion without resource consent.

This contrasts with the default situation that applies generally to land use activities (including wetland vegetation clearance/modification, or disturbance of the bed of a wetland), which is that you may do anything unless a regional or district plan requires a resource consent for, or prohibits, the activity.

Section 6 of the RMA sets out matters of national importance to be provided for, including the following matters that relate to/could relate to wetlands:

(a) the preservation of the natural character of … wetlands…; and

[6] Small remnant wetlands have high ecological significance in highly modified landscapes such as the Canterbury Plains, are abundant in parts of the region, and can be important sites for sustaining threatened species like Canterbury mudfish.

(c) the protection of areas of significant indigenous vegetation and significant habitats of indigenous fauna.

National Policy

- National Policy Statement for Freshwater Management:
  - Focus on water quality and water quantity
  - Objectives incorporate factors relevant to wetlands:
    - Objective A1: "...safeguard the life-supporting capacity, ecosystem processes and indigenous species including their associated ecosystems of fresh water, in sustainably managing the use and development of land, and of discharges of contaminants."
    - Objective A2: "...overall quality of fresh water within a region is maintained or improved while:
      b) protecting the significant values of wetlands..."
    - Objective B1: "..safeguard the life-supporting capacity, ecosystem processes and indigenous species including their associated ecosystems of fresh water, in sustainably managing the taking, using, damming, or diverting of fresh water."
    - **Objective B4: "To protect significant values of wetlands."**

Regional Policy & Plans

- Proposed Regional Policy Statement (RPS):
  - Main chapters relevant to wetlands: Ch9 Ecosystems and Indigenous Biodiversity & Ch7 Freshwater
  - Policy 7.3.1 – identification and preservation / maintenance / improvement of natural character values of freshwater bodies, including wetlands
  - Policy 7.3.3 – identify and protect wetlands and other areas of significant ecological value
  - Policy 9.3.1 – protect significant natural areas/habitats (policy includes criteria for determining significance).
  - Policy 9.3.5 – protect values of ecologically significant wetlands; promote protection and restoration of all remaining wetlands; encourage creation of wetlands that contribute to restoration of biodiversity.
  - Policy 9.3.2 - national priorities for protection (includes indigenous wetland vegetation) – maintain the indigenous vegetation and habitats of these areas.

- Natural Resources Regional Plan (NRRP):
  - Ch7 specifically addresses wetlands. It introduces a range of voluntary measures backed up by more focused regulation of wetland hydrology than s14 of the RMA provides for. It sets out procedures for classifying the significance of wetlands and the scope of changes allowed for low, moderate or high significance wetlands, and it enables activities such as restoration, enhancement and creation of wetlands and pest control within wetlands.
  - Rules relating to reduction of wetland area (i.e. damming, diverting, draining) are dependent on whether the wetland has been assessed as being of low, moderate or high significance.
    - If a wetland has been assessed as low significance, the rules are permissive – allowing up to 0.5ha reduction in wetland area as a permitted activity.
    - If a wetland has not been assessed, or has been assessed as of moderate or high significance, resource consent is required. Any reduction in area of a moderate or high significance wetland must be offset by the enhancement, restoration or creation of another wetland.
  - Ch4 (Water Quality) includes rules relating to discharges. These either restrict direct discharges into wetlands or require a separation distance between the discharge and wetlands.
  - Ch4 also includes rules restricting stock access to natural water bodies, including wetlands:

        - All intensively farmed livestock prohibited from all rivers, lakes and wetlands. This applies to: dairy cattle, farmed pigs, any livestock[7] grazed on irrigated land, or break-feeding or strip-grazed on crops adjacent to a natural water body.
        - Cattle, farmed pigs and farmed deer prohibited from all significant salmon spawning reaches or inanga spawning areas.
        - Any other livestock access to water bodies must not have significant adverse effects, including heavy pugging, visible discolouration of water, increase in bacteria levels, or obvious evidence of faecal matter.
    - Ch5 (Water Quantity) includes rules relating to the taking, use, damming or diversion of water that may apply to wetlands in addition to those outlined above under Ch7.
    - Ch6 (Beds of Lakes and Rivers) includes rules relating to activities within the beds of lakes and rivers and land adjacent to the bed. Ch6 applies to wetlands where the wetland is located within the bed of a lake or river or land adjacent to the bed, i.e. within the interface between the bed and the adjoining land. Conditions in these rules protect moderate or higher significance wetlands.

- Proposed Land & Water Regional Plan (LWRP):
    - Will replace chapters 1 and 4-8 of the NRRP
    - RMA definition of 'wetland' applies, but LWRP provisions generally refer to 'natural wetland', which is defined as: "a wetland formed by natural geomorphic processes, whether modified by human activity or not, and excludes any artificially made wetland".
    - Relevant objectives (3.6, 3.7 & 3.8) aim to:
        - protect the significant indigenous biodiversity values of natural wetlands & hapua
        - enhance the overall stock of wetlands in Canterbury that contribute to cultural and community values, biodiversity, water quality, mahinga kai or ecosystem services
        - maintain or restore the mauri of freshwater bodies (including natural wetlands)
        - maintain or enhance the health of ecosystems in freshwater bodies (including wetlands)
    - Key policies provide:
        - Wetlands located in the beds and margins of lakes and rivers managed as part of the lake or river rather than as separate wetlands (not subject to wetland-specific rules)
        - Any take, use, damming or diversion of water, any discharge, or any earthworks, structures, planting, vegetation removal or other land uses within a natural wetland boundary, must not adversely affect the significant indigenous biodiversity values of natural wetlands, except for temporary and minor effects associated with infrastructure installation/maintenance, pest management or habitat restoration/enhancement
        - Modification of natural wetlands may occur if necessary to provide for the installation of infrastructure and any significant effects are offset by other improvement or expansion of the same wetland
    - Key rules provide:
    - Provisions relating to discharges generally apply to wetlands
    - Stock exclusion provisions as per NRRP
    - Enhancing, restoring, creating of wetlands is permitted (subject to conditions)
    - Reduction of area of natural wetlands:
        - restricted discretionary activity where is for provision of infrastructure (includes dam, divert, drain);
        - non-complying activity where is for any other purpose (includes dam, divert, drain, vegetation clearance, burning or earthworks)
    - Conditions on earthworks, vegetation clearance and cultivation within setback distances of waterbodies, including natural wetland boundary

[7] Includes cattle, sheep, deer, horses, pigs, goats, llama, alpacas

- Restrictions on burning of vegetation within prescribed distance of wetlands
- Conditions on fertiliser application within setback distances of waterbodies, including natural wetland boundary
- Farm Management Plans required for certain farming activities must address wetland management

City and District Plans also often contain provisions regulating land use activities that impact upon wetlands.

Non-Regulatory Programmes

Running in parallel to the regulatory framework, and the database and survey programmes outlined above, ECan has a number of non-regulatory initiatives that contribute to the protection and restoration of wetlands, and to improved wetland management. The focus of these initiatives is on achieving action on the ground that supports biodiversity protection and restoration. A key component is the increased and dedicated team of biodiversity officers, who work 'on the ground' with landowners, communities, iwi, NGOs and other agencies to provide advice, support and information about biodiversity, including wetland management. The biodiversity team also administers several biodiversity incentive funds (including the Immediate Steps programme), which collectively total close to $2 million per year from ECan to support biodiversity protection and restoration in the region. Wetlands are a priority ecosystem in the application of these funds, and this is reflected across the board with zone committees, all of which have identified wetlands, either generally or in a specific part of their zone, as a priority for Immediate Steps funding.

Since inception of the Immediate Steps programme until the end of June 2012, 21 wetland projects across 8 zones, and 10 hapua, lagoon and estuary projects across 5 zones have been funded. This includes the two flagship projects Te Waihora/Lake Ellesmere and Wainono Lagoon. The two CWMS ecosystem categories of 'wetlands' and 'hapua, lagoons and estuaries' have received the greatest proportion of Immediate Steps funding - more than $500k to the end of June 2012. A further $6.8mill from central government's Fresh Start for Freshwater Fund has been committed to the Te Waihora/Lake Ellesmere and Wainono Lagoon projects.
Through other biodiversity funds administered by the Biodiversity team, more than 15 other wetland, hapua or lagoon projects have been funded over the year to June 2012.

A range of information, advice and guidance related to wetlands is also available on ECan's website, as well as in various publications, pamphlets, fact sheets etc. that ECan produces. Some key ones include:

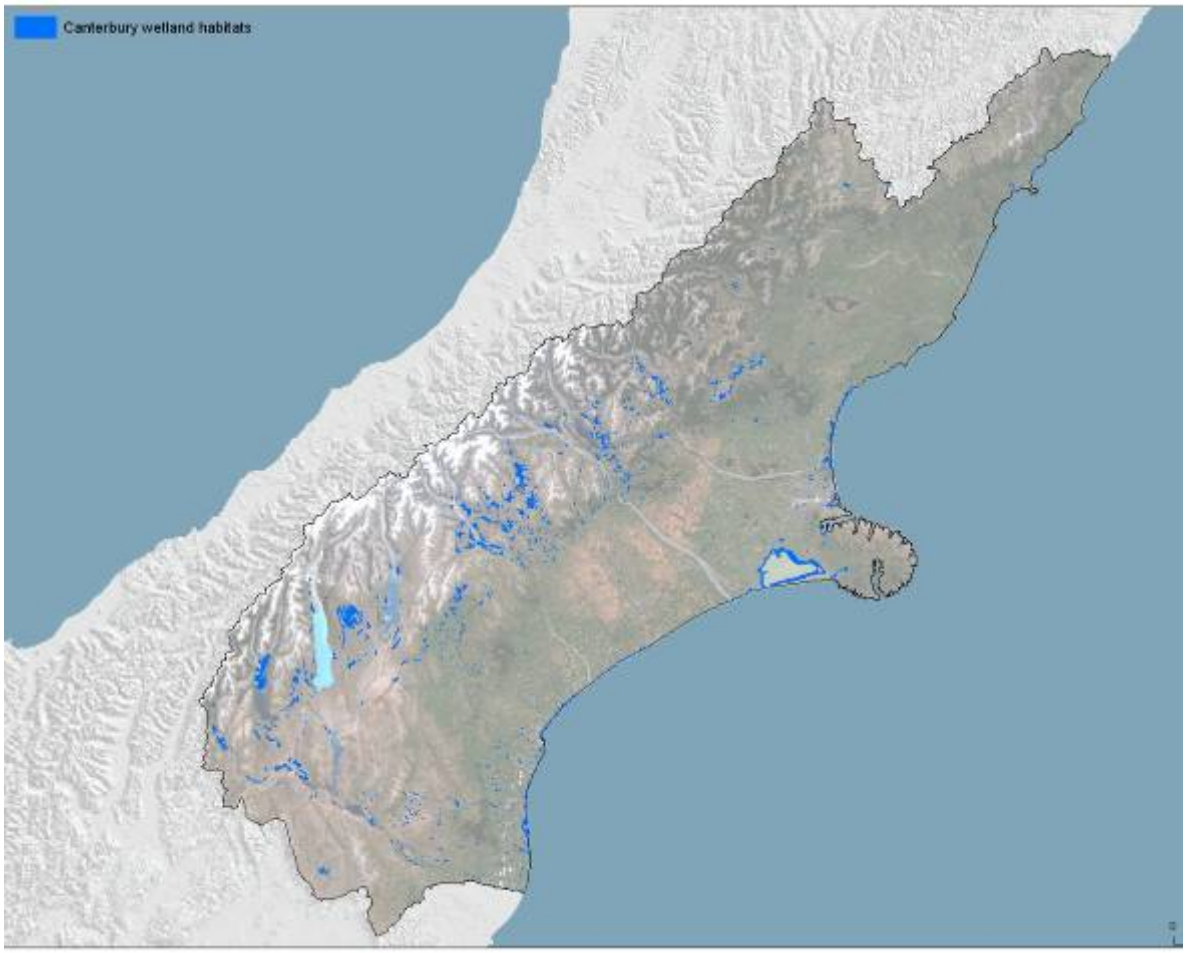
- Info Sheet 11 "Wetlands: What are they?" http://ecan.govt.nz/publications/General/infosheet11Wetlands.pdf
- Wetland planting guide http://ecan.govt.nz/publications/General/what-to-plant.pdf
- Riparian management guide http://ecan.govt.nz/publications/General/RiparianZonesWetlandsE0470.pdf
- Waterway management guide http://ecan.govt.nz/publications/General/Managingwaterways.pdf

Through the implementation of the Land Use and Water Quality programme and ASM/Extension Services initiatives, ECan is also working with landowners and industry to ensure good wetland management is incorporated into farm management plans, environmental management plans and ASM frameworks.

Clause 7 Attachment 1 Cont'd

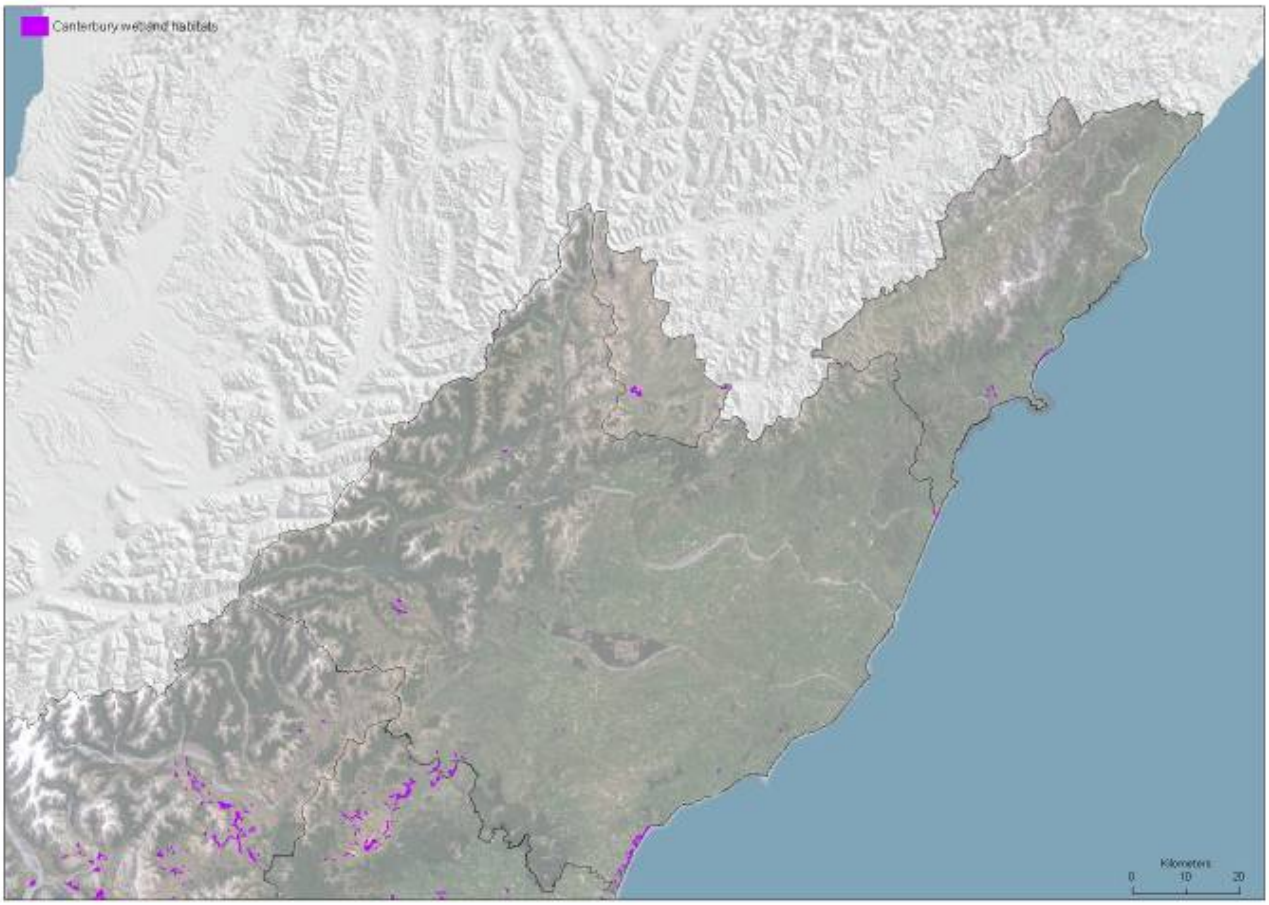
Attachment 1

Wetland location and extent – Canterbury region



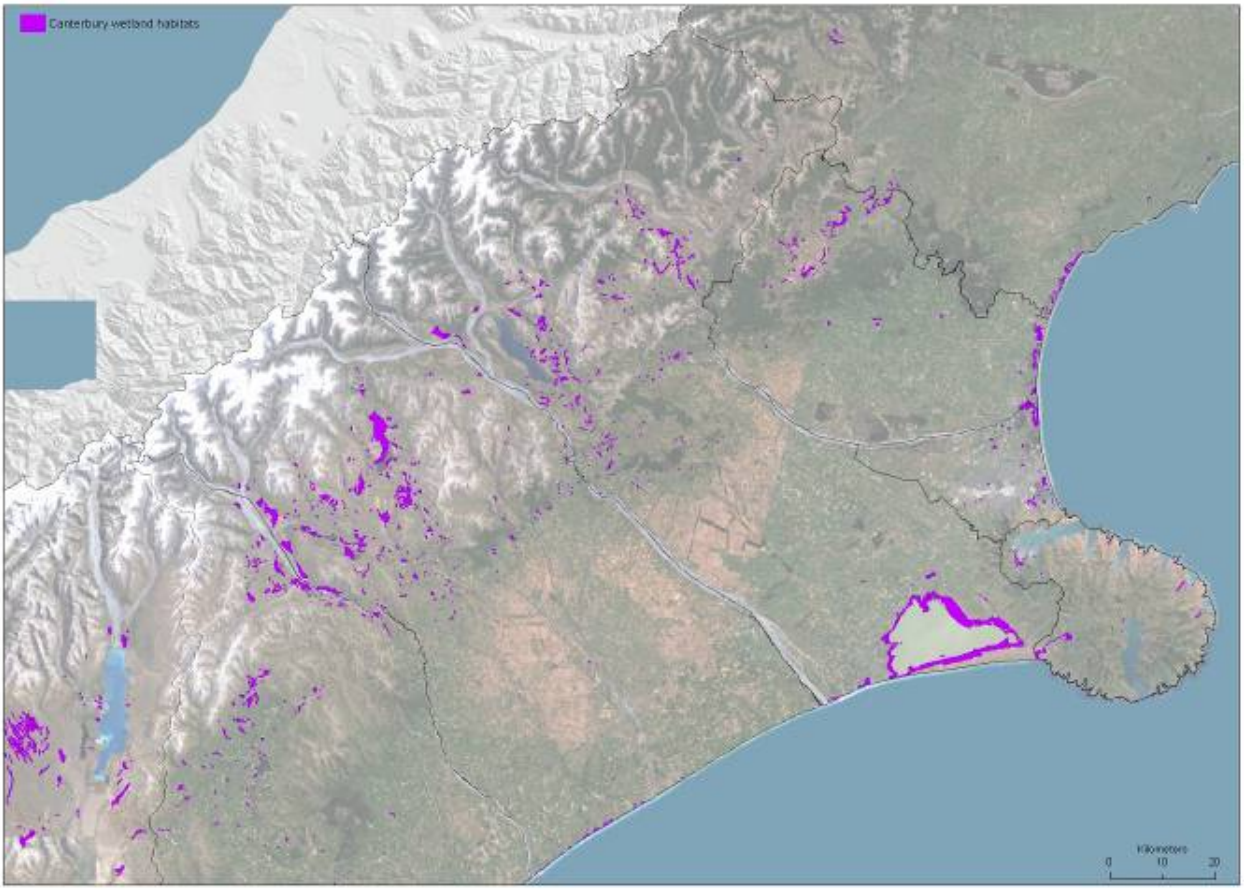
Clause 7 Attachment 1 Cont'd

Wetland location and extent – Kaikoura and Hurunui-Waiau water management zones



Clause 7 Attachment 1 Cont'd

Wetland location and extent – Waimakariri, Christchurch-West Melton, Banks Peninsula, Selwyn-Waihora and Ashburton water management zones



Clause 7 Attachment 1 Cont'd

Wetland location and extent – Orari-Opihi-Pareora, Lower Waitaki-South Coastal Canterbury and Upper Waitaki water management zones