PREFERRED OPTION REPORT TO DISTRICT PLAN COMMITTEE

DATE: 24 October 2018

TOPIC NAME: Natural Hazards

SCOPE DESCRIPTION: Stopbanks and defences against water – NH011

TOPIC LEAD: Rachael Carruthers

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EXECUTIVE SUMMARY

Issue(s)	Whether the operative provisions of the District Plan relating to stopbanks and related defences against water remain relevant and appropriate.
Preferred Option	Option 3, being a comprehensive update of provisions to give effect to higher order documents and improve consistency with regional and City provisions, where this is appropriate.
Recommendation to DPC	That the Preferred Option for 'Stopbanks and defences against water' is endorsed for further development and engagement
DPC Decision	That the Preferred Option for 'Stopbanks and defences against water' is endorsed for further development and engagement





1.0 Introduction

The overall aim of this report is to establish a range of options, including a preferred option, to manage the continued maintenance of existing, and establishment of new, stopbanks and related defences against water in Selwyn District as part of the Selwyn District Plan Review (DPR).

The report considers the existing provisions within Selwyn and how these provisions have been implemented, particularly those resource consents that have been granted for new stopbanks in Selwyn since 2008.

The current provisions are compared with relevant statutory documents and the provisions of adjoining districts Ashburton, Christchurch, Hurunui and Waimakariri are considered.

This topic relates only to stopbanks and other (structural and non-structural) defences intended to manage river and lake flooding. Defences intended to manage coastal hazards will be addressed through that topic.

The other DPR topics of particular relevance to this scope are earthworks, water and vegetation.

Three options are presented for consideration. Of these, Option 3 is recommended for further targeted engagement as part of the intended wider engagement about flooding.

2.0 Summary of Issues

Stopbanks and related defences against water are a significant river flood management method within Selwyn, with stopbanks along parts of the Waimakariri and Selwyn Rivers. The majority of stopbanks are owned and maintained by the Canterbury Regional Council, although Selwyn District maintains stopbanks at Arthurs Pass within the bed of the Bealey River, and there are isolated private stopbanks.

Although stopbanks fall within the current Operative Selwyn District Plan (SDP) definition of 'utility', they are outside the draft National Planning Standard definition of 'infrastructure', and so will need to be separately provided for in the Proposed District Plan (PDP).

The SDP does not address higher order documents to the extent they anticipate. No provision is made for the requirements of the National Water Conservation (Te Waihora/Lake Ellesmere) Order 1990, while the existing provisions predate the Canterbury Regional Policy Statement and the introduction of the management of significant risks from natural hazards as an RMA matter of national importance.



3.0 Statement of Operative District Plan approach

3.1 Operative District Plan

The SDP currently only applies to defences against water located outside the beds of rivers. The SDP leaves Canterbury Regional Council to control activities within the beds of rivers, including defences against water in these areas, through regional plans and bylaws.

Work to mitigate potential natural hazards, including stopbanks, are currently defined in the SDP as a utility. As such, their upgrading, maintenance, operation and replacement is a permitted activity and not subject to compliance with any other performance standards, conditions or rules in the SDP provided that the effects of such are the same or similar in character and scale to those which existed before such upgrading, maintenance or replacement activities commenced.

Structural works beyond the permitted scope are subject to the earthworks rules in townships. In the Rural Zone flood areas, any new utility structure that diverts or displaces floodwater is a restricted discretionary activity, while earthworks in these areas that raise the mean average ground level of the area subject to the works are also a restricted discretionary activity.

Vegetation planting, a key non-structural defence, is a permitted activity in townships as it is not subject to any rules. In the Rural Zone, trees planted for the purposes of bank stabilisation or the prevention of soil erosion are exempt from the 10m or 20m (depending on the waterbody) waterbody setbacks applicable to other tree plantings.

In Living Zones, any dwelling or other principal building between any waterbody and any stop bank designed to contain flood water from that waterbody is a prohibited activity, although there are no townships with stopbanks where the rule would apply. In the Rural Zone, the erection of any new dwelling or principal building in this area is a non-complying activity. There are no current equivalent provisions in Business Zones.

The provisions of the SDP relating to stopbanks and other defences to mitigate natural hazards are attached as Appendix A.

3.2 Implementation of the Operative District Plan

The Selwyn District Council stopbanks at Arthurs Pass are located within the bed of the Bealey River. As such, they are not subject to district plan provisions.

Over the life of the SDP, two consents have been granted for new stopbank projects.

Waimakariri River secondary stopbank project (SDC resource consent 075121)

This application was one of a suite made by the Canterbury Regional Council in 2007 to enable flood protection works for the protection of residents of Christchurch City, Selwyn and Waimakariri Districts from the effects of a significant flood in the Waimakariri River. The other applications were made to Canterbury Regional Council, Christchurch City and Waimakariri District. In relation to the Selwyn application, the works generally consisted of:



- Construction of new sections of a secondary stopbank in the Halkett area
- Reconstruction or upgrading of existing sections of secondary stopbank which were below the desired design standard
- Maintenance and minor upgrading of three sections of primary stopbank between Thompsons Rad and Intake Road.

The works required consent from Selwyn District Council because they breached the rules relating to:

- Earthworks within a flood area that raised the mean average level of the land; exceeded the maximum permitted volume; and may disturb wahi taonga sites – discretionary activity
- Utility structures that divert or displace floodwater and may disturb a wahi taonga site discretionary activity
- Construction activities that would exceed 60 equivalent car movements per day restricted discretionary activity
- Illuminated construction activities at night within the West Melton Observatory Lighting
 Area discretionary activity
- Clearance of indigenous plant species listed in Appendix 14 Schedule of regionally significant plants on the Canterbury Plains – non complying activity

Consent was granted in 2009, subject to conditions relating to: the timing of the works in relation to the wider project; construction effects management; an archaeological sites protocol; management of disturbance to ecological sites; liaison with NZDF, Canterbury Astronomical Society and Transpower NZ Ltd to minimise effects on their operations; and a 20 year lapse date to allow for staged construction (the project was staged to progress upstream and so the Selwyn works are the last to be completed). Construction of the Selwyn portion of the project is currently underway ahead of the original schedule, with completion now expected in 2019.

Waterford dairy farm stopbank (SDC resource consent 125085)

The 4 September 2010 earthquake created a fault scarp that runs along and through a portion of the Hororata River, adjacent to the applicant's dwelling. As a result of this fault scarp, any flooding of the Hororata River would result in flood water leaving the current channel and potentially inundating the applicant's dwelling. They therefore wished to protect the dwelling by constructing a 100m long stopbank, of which a portion was approximately 5 metres from the bank of the Hororata River.

The design complied with the volume standards for earthworks, and required consent because of the proximity to the Hororata River – a 20m setback from rivers is required for permitted earthworks. Consent was granted on 2 May 2012, subject to conditions relating to construction effects management.



4.0 Summary of relevant statutory and/or policy context and other background information

4.1 Resource Management Act 1991

The management of significant risks from natural hazards are a s6 matter of national importance that must be recognised and provided for when achieving the purpose of the RMA. Stopbanks and other defences against water are a significant flood management tool in parts of Selwyn, and so need to be provided for in the Proposed District Plan.

4.2 Soil Conservation and Rivers Control Act 1941

Section 10 of the Soil Conservation and Rivers Control Act 1941 sets out the objects of this Act as including:

- c. the prevention of damage by floods:
- d. the utilisation of lands in such a manner as will tend towards the attainment of the said objects.

Canterbury Regional Council has the responsibility to undertake the actions required by this Act, and so is the primary constructor and maintainer of stopbanks and other defences against water in Selwyn.

4.3 Canterbury Regional Policy Statement

Section 75(3)(c) of the RMA directs that a district plan must give effect to any regional policy statement.

Stopbanks and defences against water are outside the Canterbury Regional Policy Statement (RPS) definitions of 'critical infrastructure' and 'regionally significant infrastructure', but 'essential structures' are defined as including structures that support or form part of a flood-protection work or facility.

The objectives and policies in *Chapter 10 Beds of rivers and lakes and their riparian margins* and *Chapter 11 Natural hazards* (Appendix B) seek to protect existing flood mitigation structures and vegetation and to allow new physical works to mitigate natural hazards only where the natural hazard risk cannot be reasonably avoided and where any adverse effects of the works are avoided, remedied or mitigated (Policy 11.3.7).

Within the methods associated with these policies, Selwyn District is directed to:

- set out in the district plan, objectives and policies, and may include methods, to:
 - o control the effects of the protection of land to avoid, remedy or mitigate adverse effects on the values of the riparian zones of rivers and lakes
 - control the protection of land outside of river and lake beds, for the purpose of avoiding or mitigating flood hazards and to enable the Canterbury Regional Council to carry out its



- functions in regard to flood protection works, including the maintenance of flood mitigation structures and vegetation
- avoid impediments to accessing community owned mitigation structures for maintenance purposes
- ensure new hazard mitigation works will only be undertaken in accordance with the provisions of RPS Policy 11.3.7
- Use iwi management plans and engage with Ngāi Tahu as tāngata whenua and papatipu rūnanga to assist when determining actual or potential adverse effects of hazard mitigation works

Provision therefore needs to be made within the PDP to provide for the continued maintenance of existing, and to manage the establishment of new, stopbanks and other defences against water (including vegetation) outside of river and lake beds.

4.4 National Water Conservation (Te Waihora/Lake Ellesmere) Order 1990

Section 75(4)(a) of the RMA directs that a district plan must not be inconsistent with a water conservation order.

The National Water Conservation (Te Waihora/Lake Ellesmere) Order 1990 directs in Clause 5 (Appendix C) that a resource consent shall not be granted allowing the damming, stopbanking, polderisation (the reclamation of land from the sea or other wet area by building levees, filling and draining) or drainage of any part of Te Waihora/Lake Ellesmere where the lake bed is below 1.2m above the 1937 Lyttelton vertical datum in elevation.

The Order does allow for resource consent to be granted for polderisation for fish farming or fisheries research, and to retain and maintain any stopbank which existed on 27 June 1986.

4.5 National Water Conservation (Rakaia River) Order 1998

The National Water Conservation (Rakaia River) Order 1998 is concerned with the protection of the outstanding natural braided river characteristic of the river and its tributaries, together with its wildlife habitat, fisheries, recreational, angling and jet boating features. The provisions of the Order relate to regional council functions including minimum flow rates and water quality. In general, the Order prevents the granting of resource consents unless that consent replaces or renews a consent that was in existence when the order was introduced.

4.6 Canterbury Land and Water Regional Plan

Section 75(4)(b) of the RMA directs that a district plan must not be inconsistent with a regional plan for any matter specified in s30(1). This includes the control of the use of land for the purpose of avoiding or mitigating natural hazards (s30(1)(c)(iv)) and in relation to any bed of a water body, the control of the introduction or planting of any plant in, on, or under that land, for the purpose of avoiding or mitigating natural hazards (s30(1)(g)(iv)).



The relevant provisions of the Canterbury Land and Water Regional Plan (LWRP) are attached as Appendix D.

The LWRP defines a 'defence against water' as meaning:

Any structure or equipment, including any bund, weir, spillway, floodgate, bank, stopbank, retaining wall, rock or erosion protection structure, groyne, vegetation (including anchored tree vegetation) or reservoir, that is designed to have the effect of stopping, diverting, controlling, restricting or otherwise regulating the flow, energy or spread of water, including floodwaters, in or out of a waterbody, artificial watercourse, or artificial lake. For the purposes of this definition, dams are excluded.

The relevant objectives of the LWRP seek to ensure that the effectiveness of existing defences against water are maintained and that activities do not exacerbate the risk of flooding. The associated policies support the maintenance and upgrading of flood control measures, while ensuring that new defences against water are appropriately placed so as not to exacerbate potential natural hazards elsewhere.

The rules relating to defences against water are contained within the region-wide rules. The installation, maintenance, use and removal of defences against water by a local authority or network utility operator on, in or under the bed of a lake or river is a permitted activity, subject to standards relating to maintaining access to structures and maintaining fish passages. Where any standard is not met, the proposal becomes a discretionary activity. The establishment of flood protection planting on, in or under the bed of a lake or river is also a permitted activity subject to standards.

In addition, the LWRP manages earthworks and vegetation clearance outside the bed of a river but within 10m of the bed of a lake, river or wetland in hill and high country or land shown as High Soil Erosion Risk on the planning maps. The management area setback is 5m for all other river, lakes and wetlands. Within these areas, earthworks beyond 10m³ or 500m² such as those associated with defences against water are a restricted discretionary activity. Although amenity values are not included, the LWRP matters for discretion in relation to this rule cover matters that territorial authorities have traditionally been concerned about – natural character, landscape, ecological and cultural values.

4.7 Waimakariri River Regional Plan

As noted above, s75(4)(b) of the RMA directs that a district plan must not be inconsistent with a regional plan for any matter specified in s30(1).

The Waimakariri River Regional Plan (WRRP) applies to that part of the district within the Waimakariri River catchment. The provisions relevant to stopbanks and other defences against water are attached as Appendix E.

The WRRP defines 'flood protection works' as meaning:

Physical features intended to provide flood protection or to maintain or increase the flood carrying capacity or stability of a river channel, including: stopbanks, permeable and non-



permeable groynes, rockwork or concrete blocks used for bank protection, tree and vegetation plantings and anchors, floodgates and culverts and their support structures, berm drains, gauges, roads and tracks.

The relevant objectives and policies of the WRRP are less focused than the LWRP, and seek to balance use and development with protection of the environment and of community values.

Rule 7.2 permits the repair or maintenance of flood protection works that disturb the bed of, or required deposition on, or planting in, the Waimakariri River. Flood protection works in the beds of the river that are not permitted become discretionary activities under Rule 7.4.

4.8 Mahaanui Iwi Management Plan

Section 74(2A) RMA requires that a territorial authority, when preparing or changing a district plan, must take into account any relevant planning document recognised by an iwi authority and lodged with the territorial authority, to the extent that its content has a bearing on the resource management issues of the district.

The relevant objectives of the Mahaanui lwi Management Plan (Appendix F) seek to establish waterways with healthy functioning riparian zones that are protected from inappropriate land uses. The associated policies seek to manage earthworks in order to protect water quality, and recognise the role of floods in river management and in replenishing groundwater and wetlands.

4.9 Te Waihora Joint Management Plan

The relevant objectives of the Te Waihora Joint Management Plan (JMP) (Appendix G) seek to conserve the integrity of the natural and cultural landscapes of the JMP Area.

The policies seek to ensure that all existing stopbanks with the area should be managed to be consistent with management for "mahinga kai, conservation and other purposes". New structures that are essential for the public good should be considered only where they cannot reasonably be located outside the JMP Area and their adverse effects can be avoided, remedied or mitigated.

4.10 Canterbury Regional Council Flood Protection and Drainage Bylaw

The purpose of the Canterbury Regional Council Flood Protection and Drainage Bylaw 2013 is to manage, regulate and protect flood protection and flood control works belonging to or under the control of the Canterbury Regional Council from damage or misuse.

This bylaw only controls activities that may affect the integrity or effective operation and maintenance of the flood protection and flood control works belonging to or under the control of the Canterbury Regional Council. It does not apply to any privately owned/managed drainage or flood protection schemes, or those that are managed by Selwyn District Council.

Compliance with the bylaw does not remove the need for activities to comply with the Resource Management Act 1991, and the relevant regional and district plans.

The bylaw defines a 'defence against water' as meaning:



any structure or equipment, including any dam, bund, weir, spillway, floodgate, bank, stopbank, retaining wall, rock protection structure, groyne, anchored tree protection or reservoir, that is designed to have the effect of stopping, diverting, controlling, restricting or otherwise regulating the flow or spread of water, including floodwaters, in or out of a watercourse, for the purpose of flood mitigation and/or drainage.

The bylaw prevents any person from undertaking the following activities, without the prior authority of the Canterbury Regional Council:

- a. Alter or otherwise interfere with any defence against water;
- b. Damage or allow direct damage to occur to any defence against water;
- c. Allow stock to damage or overgraze vegetation on any defence against water;
- d. Remove, adjust, or interfere with any equipment including pump stations, relied on for the operation of any defence against water
- e. Construct any crossing in, over, through, along or under any defence against water;
- f. Remove, damage, or allow stock to damage any fence, gate, sign, track, or ford that is owned or controlled by the Council in relation to any defence against water
- g. Construct, or form through repeated use, a road, track or ford for the passage of vehicles, people or stock, on any defence against water
- h. Within 7.5 metres of the landward side of any defence against water, on any defence against water or between the bank of any watercourse and any adjoining defence against water:
 - i. Plant or allow to grow any shrub, hedge, tree, or part thereof;
 - ii. Dump or deposit any thing;
 - iii. Construct or locate any structure;
 - iv. Carry out any earthworks or excavation, including for construction of a drain or for building foundations;

5.0 Summary of alternative management responses – Other Districts

5.1 Ashburton District

The 2014 Ashburton District Plan separately defines 'river protection work' and 'stopbank'.

River protection work is defined as meaning: works, structures and plantings for the protection of property and people from floods; and includes areas of vegetation maintained or planted in the margins of flood fairways, the clearance of vegetation and debris from flood fairways, stopbanks, access tracks, rockwork, anchored trees, wire rope and other similar structures.

Stopbank is defined as meaning: a *structure* or device for containing or diverting river flows to protect property, people or assets.

Utility is defined as meaning: *facilities, structures and works necessary for, incidental to, and associated with, providing the following* [among others]:



the protection of the community from natural hazards;

Provisions relating to utilities are contained in Section 14: Utilities, Energy and Designations of the Ashburton District Plan. Maintenance and replacement of existing river protection works is provided for as a permitted activity in under Rule 14.7.1.l, without the need to comply with standards. New river protection works are a discretionary activity under Rule 14.7.4.c.

The provisions of Section 14 override most other provisions of the Plan, with the exception of the following sections where the rules do apply:

- Section 6 Open Space Zones
- Section 10 Transport
- Section 11 Noise
- Section 12 Heritage Values and Protected Trees
- Section 13 Signs
- Section 16 Hazardous Substances

5.2 Christchurch City

The Christchurch District Plan separately defines 'defence against water' and 'water body bank maintenance or enhancement work'.

Defence against water is defined as meaning: any structure or equipment, including any bund, weir, spillway, floodgate, bank, stopbank, retaining wall, rock or erosion protection structure, groyne, vegetation (including anchored tree protection) or reservoir, that is designed to have the effect of stopping, diverting, controlling, restricting or otherwise regulating the flow, energy or spread of water, including floodwaters, within, into or out of a water body, artificial watercourse, or artificial lake, for the purposes of flood mitigation.

This definition is very similar to the LWRP definition, with the only difference being that the LWRP definition excludes dams, which are themselves defined in the LWRP as: a structure used or to be used for the damming of any water, or waterbody where the structure is the full width of the waterbody and includes stormwater treatment ponds, sediment retention ponds and temporary impoundments used during site dewatering, It excludes bridges, intake bunding or structures for water takes provided the structures are not the full width of a waterbody, culverts except any culverts which have a mechanism that can be used to completely block the flow of water through the culvert, and any activities involved in the enhancement, creation or restoration of wetlands.

Defences against water are excluded from the Christchurch District Plan definitions of 'utility' and 'critical infrastructure'.

Within Chapter 5 natural hazards, filling or excavation within flood management areas that is associated with the maintenance of flood protection and bank erosion protection works is a permitted activity with no associated standards.



New stopbanks in the flood management area are generally a restricted discretionary activity, with discretion exercised over the timing, location, scale and nature of the earthworks and their effect on flooding and drainage.

Within Sub-chapter 6.6 setbacks from water bodies, earthworks associated with the maintenance, upgrade or construction of hazard mitigation and protection works, including defences against water, are exempt from compliance with the rules, but only where the works are undertaken by a territorial or regional authority, the Department of Conservation or the Crown. Any other hazard mitigation and protection works within certain distances from water bodies are a restricted discretionary activity, with a comprehensive set of matters over which discretion can be exercised.

Consistent with the Water Conservation Order, other than for certain fishery activities, any new damming, stopbanking, polderisation or drainage of any part of Te Waihora/Lake Ellesmere outside the bed of the lake and below 1.2 metres above the 1937 Lyttelton vertical datum is a prohibited activity.

Activities in proximity to Waimakariri stopbanks

Buildings are managed as restricted discretionary activities when they are within 100m of the landward side of the Waimakariri primary stopbank, or within 50m of the landward side of the secondary stopbank, of which the Selwyn portion is nearing completion. New buildings and additions to existing buildings on the river side of these stopbanks are a non complying activity.

5.3 Hurunui District Plan

The 2018 Hurunui District Plan provides for earthworks within the vicinity of waterbodies as a permitted activity where they are carried out for reasons of public or personal safety. In rural areas, this is subject to volume limits, but not in residential areas.

Subdivision within two particular areas is conditional upon a stopbank being adequate, but there are no other provisions governing activities within proximity to stopbanks.

5.4 Waimakariri District Plan

The 2005 Waimakariri District Plan separately defines **stopbank** (an embankment to prevent flooding) and the **centreline of a stopbank**, while the construction and operation of natural hazard protection devices or structures falls within the definition of **utility**.

New stopbanks are generally a restricted discretionary activity, as they do not comply with the standards for permitted earthworks and they are utility structures greater than 35m² in area.

In terms of activities in proximity to stopbanks, these are managed through the rules relating to setbacks from waterways, in that where there is a stopbank the centerline of the stopbank is the point from which the setback is measured. Activities within this area are generally restricted discretionary activities.



5.5 Cross boundary assessment summary

Having reviewed the District Plan provisions relating to stopbanks and associated defences against water within the four Canterbury districts adjoining Selwyn, the approaches to defences against water reflect the ages of the district plans and the degree to which stopbanks are used within the district. In general, however, the maintenance and upgrade of existing defences against water is permitted without compliance with additional standards, while new defences require consent to enable the effects on natural hazards to be assessed.

Some of the plans, particularly Ashburton, go beyond just considering effects on natural hazards, and also consider effects on wider values in the margins of lakes and rivers (such as natural character, landscape, amenity values, access for recreation, etc).

The Christchurch District Plan addresses these wider issues in its Sub-Chapter 6.6, which has policies and matters of discretion covering the wide range of effects in riparian margins (biodiversity, natural character, water quality, amenity values, recreation access, etc, as well as flood management). However, the Plan is much more permissive than others, in that it goes on to exempt earthworks for publicly constructed hazard mitigation and protection works from the application of its rules.

Christchurch City is the only adjoining district that shares stopbanks with Selwyn District (along the Waimakariri River), together with the management of activities that may affect Te Waihora/Lake Ellesmere. As such, consistency with their provisions respect to stopbanks may be of higher value than consistency with the provisions of other districts.

6.0 Summary of Options to address Issues

There are essentially three potential approaches to providing for stopbanks in the proposed District Plan: to continue to manage them through the utility/infrastructure provisions (Option 1); to keep them about the same, with some tweaks to allow them to fit within the Natural Hazards chapter of the draft National Planning Standard (NPS) plan structure (Option 2); or a more comprehensive review (Option 3). These options are discussed in more detail below.

Option 1 – Status quo

Option 1 would see no change to the existing provisions, with stopbanks and other defences against water being managed through the infrastructure provisions.

Effectiveness in Addressing Issue:

The draft NPS definition of 'infrastructure' does not include measures to mitigate against natural hazards. As such, Option 1 is not a viable option for the PDP.

Option 2 – Adapt existing provisions to new Plan structure

Option 2 would alter the existing provisions only so far as is required to fit into the new PDP structure. This would involve:



- Retaining the existing definition of 'stopbank'
- Retaining the existing objectives and policies relating to natural hazards, other than where these are updated through other natural hazards workstreams such as flooding and geotechnical risk
- Within the new Natural Hazards chapter:
 - consistent with the existing utilities permitted activity standards, create a permitted activity to allow the upgrading, maintenance, operation and replacement of existing stopbanks, not subject to compliance with any other performance standards, conditions or rules of the Plan
 - o consistent with the existing rural earthworks Rule 1.4 and utilities Rule 5.8, make new stopbanks within rural flood areas a restricted discretionary activity
 - o consistent with the existing townships earthworks Rule 2.1.1.5, make new stopbanks within Tai Tapu a restricted discretionary activity
- General earthworks rules would continue to apply, such that new stopbanks would be likely to require consent for breaching permitted volumes and/or setbacks from waterbodies.
- General vegetation rules would continue to apply, such that trees planted for the purpose
 of bank stabilisation or the prevention of soil erosion would continue to be exempt from
 any setback from waterbodies.
- Consistent with existing Rural Rule 3.1.4, the erection of any new dwelling or other principal building between any waterbody and any stopbank designed to contain floodwater from that waterbody would be a non complying activity in the rural zone.
- Consistent with existing Living Zone Rule 4.1.4, erecting any new dwelling or other principal building between any waterbody and any stopbank designed to contain flood water from the waterbody would be a prohibited activity.

Effectiveness in addressing issue

Option 2 would allow the intent of the existing provisions to be translated into the structure of the PDP, but would give no effect to the National Water Conservation (Te Waihora/Lake Ellesmere) Order 1990. Because the existing provisions predate the current RPS and the elevation of natural hazards to a RMA matter of national importance, only limited effect would be given to these documents.

In particular, RPS Policy 11.3.7 and the associated methods require the PDP to contain the following, which are not well provided for in the current SDP:

- objectives and policies to avoid impediments to accessing community owned mitigation structures for maintenance purposes
- new physical works are acceptable only where the natural hazard risk cannot be reasonable avoided
- new physical works are acceptable only where the cultural values of Ngāi Tahu are avoided remedied or mitigated



Budget or Time Implications:

There would be limited time and cost associated with ensuring that the existing provisions match the structure of the proposed Plan.

Stakeholder and Community Interests:

This topic will be of greater interest than the general public to: affected landowners and occupiers; those organisations responsible for maintaining existing structures and managing natural hazards; and those with an interest in water quality and quantity, including tangata whenua.

Recommendation:

As noted above, Option 2 would not reflect higher order documents to the degree required by the RMA and so is not the recommended approach.

Option 3 – Update provisions

Option 3 would be a more comprehensive update of provisions to give effect to higher order documents and improve consistency with regional and City provisions, where this is appropriate. The revised provisions could include:

- Retaining the existing definition of 'stopbank' and introducing a wider term 'defences
 against water' with a definition consistent with the LWRP or the Christchurch District Plan
- Ensuring that the objectives and policies relating to natural hazards give effect to the relevant provisions of the Canterbury RPS, including objectives and policies to:
 - o protect the stability, performance and operation of defences against water for activities in river and lake margins
 - o control the effects of inappropriate protection of land to avoid, remedy or mitigate adverse effects on the values of the riparian zones of rivers and lakes
 - o control the protection of land outside of river and lake beds for the purpose of avoiding or mitigating flood hazards and to enable the Canterbury Regional Council to carry out its functions in regard to flood protection works, including the maintenance of flood mitigation structures and vegetation
 - avoid impediments to accessing community owned mitigation structures for maintenance purposes
 - ensure that new hazard mitigation works will only be undertaken in accordance with the provisions of RPS Policy 11.3.7
- Within the new Natural Hazards chapter required by the draft NPS:
 - o consistent with the existing utilities permitted activity standards, creating a permitted activity to allow the upgrading, maintenance, operation and replacement of existing defences against water, not subject to compliance with any other performance standards, conditions or rules of the Plan
 - o review the activity status of new defences against water, to give effect to the Canterbury RPS, including using iwi management plans and engagement with Ngāi



Tahu as tāngata whenua and papatipu rūnanga to assist when determining actual or potential adverse effects of hazard mitigation works

- General earthworks rules could continue to apply, in which case new stopbanks outside the bed of a river may require consent for breaching permitted volumes and/or setbacks from waterbodies (as outlined in the preferred option report for earthworks endorsed on 27 June 2018)
- General vegetation rules could continue to apply, such that trees planted for the purpose of bank stabilisation or the prevention of soil erosion could continue to be exempt from any setback from waterbodies (as outlined in the preferred option report for vegetation endorsed on 22 August 2018)
- Introducing provisions to give effect to the National Water Conservation (Te Waihora/Lake Ellesmere) Order 1990
- Considering a non complying or prohibited status (consistent across zones) for new dwellings or other principal building between any waterbody and any stopbank designed to contain floodwater from that waterbody
- Considering a new landward setback distance from stopbanks for new dwellings or other principal buildings

Effectiveness in Addressing Issue:

Option 3 would be a more holistic review of the provisions than Option 2 envisages, and would ensure that the provisions of the PDP accurately reflect current higher-order documents and are consistent with the provisions of the LWRP.

Consistency in definitions with the LWRP or the Christchurch District Plan is desirable in order to provide a consistent understanding of what a 'defences against water' is along the existing shared network.

The Christchurch District Plan was prepared in a climate of responding to and recovering from a significant natural event, and permits new defences against water where they are undertaken by a relevant authority, without compliance with other standards. The Selwyn PDP is not being prepared in that context, and so needs to give effect to the relevant provisions of the RPS.

Risks:

Option 3 may result in additional restrictions on land use near stopbanks than apply at present. This may result in community dissatisfaction with the PDP and so the reasons for any additional restrictions would need to be clearly communicated.

The costs and benefits / efficiency and effectiveness of the additional restrictions will need to be considered as part of the s32 assessment.

If the provisions for new defences against water are too restrictive appropriate defences may be prevented from construction, while if they are too permissive structures may be installed in inappropriate locations or using inappropriate methods.



Budget or Time Implications:

There would be greater time and cost associated with the drafting of amended provisions, than for Option 2, but this would likely be offset by fewer submission points from the Canterbury Regional Council and Christchurch City Council seeking consistency with higher order documents and their own plans.

Stakeholder and Community Interests:

As for Option 2.

Option 3 is supported by Canterbury Regional Council River Engineering.

Recommendation:

Option 3 is therefore the recommended approach for further engagement, s32 analysis and drafting.

7.0 Summary of stakeholder engagement

Internal discussions were held with members of council's surface water engineers and monitoring and enforcement staff. Their comments are reflected above. Resource consents staff have not been directly consulted because the author of this report was the reporting planner for both applications discussed above.

Environment Canterbury River Engineering

Canterbury Regional Council River Engineering staff support a permitted activity status to allow the upgrading, maintenance, operation and replacement of existing defences against water, not subject to compliance with any other performance standards, conditions or rules of the Plan, while not opposing the continued application of rules for work involving upgrades that allow for increased flow volumes.

River Engineering staff support considering a consistent non-complying or prohibited status for dwellings or other principal buildings between any waterbody and its stopbank, as these buildings can adversely affect the stopbanks flood flow capacity or defect water onto the stopbanks. They do note, however, that consideration should be given to the effect on buildings such as toilet blocks or other community facilities such as those as Coes Ford. The positive effects of facilities such as these may mean that a prohibited activity status is unnecessarily restrictive.

River Engineering staff also support the consideration of a new landward setback distance from stopbanks for dwellings and other principal buildings, and suggest that distance reflects the Flood Protection and Drainage Bylaw 2013, being 7.5m for those stopbanks within Selwyn.

Mahaanui Kurataio Ltd

Mahaanui Kurataio Ltd were invited to provide feedback on this report on behalf of ngā rūnanga, but at the time of finalising this report had not responded.



The Preferred Approach Report for Sites and Areas of Cultural Significance prepared by Mahaanui Kurataio Ltd and presented to the Committee on 17 July 2018 supported vegetation clearance within waterbodies for the purposes of flood management, and sought that earthworks near waterbodies for hazard mitigation and defences against water be a restricted discretionary activity.

8.0 Conclusion

Generally because of its age, the SDP does not address higher order documents to the extent they anticipate, while the format of the SDP does not easily provide for a simple transfer of provisions relating to defences against water into the draft NPS format.

A comprehensive update of definitions, objectives, policies and rules relating to defences against water is therefore recommended to give effect to higher order documents and to improve consistency with Christchurch City where appropriate.

9.0 Preferred Option for further engagement

The Project Team recommends that:

 Option 3 adopted for further targeted engagement as part of wider engagement on the topic of flooding, followed by s32 analysis and drafting. Specifically, a comprehensive update of definitions, objectives, policies and rules relating to defences against water to give effect to higher order documents and improve consistency with Christchurch City where appropriate.



Appendix A – Current District Plan Provisions

Definition (both volumes)

Utility: includes the use of any structure, building or land for any of the following purposes;

(g) Work to mitigate potential natural hazards, including (but not limited to) stopbanks, groynes and gabions;

Relevant rural objectives and policies

Utilities

Objective B2.2.1: Utilities are recognised as essential tools for people's economic and social well-being, and to mitigate effects of other activities, on the environment.

Objective B2.2.2: The provision of utilities where any adverse effects on the environment and on people's health, safety and wellbeing is managed having regard to the scale, appearance, location and operational requirements of utilities.

Policy B2.2.5(a): Avoid siting utility structures or buildings on hilltops in the margins of lakes or rivers or in areas identified as outstanding natural features and landscapes, sites with special cultural values (Silent File Areas, Wāhi Taonga Sites and Management Areas or Mahinga Kai Sites) or Heritage Sites in the Plan, unless operational necessity makes this impractical.

Policy B2.2.5(b): Where not practical mitigate any adverse effects of the utility, and of any access road or ancillary features, on the landscape values of the area.

Policy B2.2.8: Ensure utilities located in areas subject to flooding or slips, do not create or exacerbate natural hazards.

Policy B2.2.10: Enable the provision of utility networks that serve extensive areas to be located in rural areas commensurate with operational requirements.

Natural hazards

Objective B3.1.1: Activities do not cause or exacerbate natural hazards.

Objective B3.1.2: Measures to mitigate natural hazards do not cause or exacerbate adverse effects on the environment.

Policy B3.1.2: Avoid locating dwellings, buildings or other assets of high value in any of the following areas:

- (a) Between any waterbody and any stopbank designed or used to contain floodwater from that waterbody;
- (b) Within the bed of any lake or river;
- (c) Seaward of the Coastal Hazard 1 Line shown on Planning Maps 001, 002 and 004; or



- (d) Within the Waimakariri Flood Category A shown on Planning Maps 017 and 018.
- (e) In proximity to a stopbank where there is a high risk of damage and loss of life from inundation due to the potential depth and velocity of flood water.
- Policy B3.1.4: Ensure any earthworks undertaken in the flood areas shown on the Planning Maps do not exacerbate flooding on other property by displacing or diverting floodwater on surrounding land.

Policy B3.1.8: Ensure any measures proposed to mitigate a potential natural hazard:

- Do not lead to or intensify a potential natural hazard elsewhere; and
- Any other adverse effects on the environment being avoided, remedied or mitigated.

Relevant townships objectives and policies

Utilities

- Objective B2.2.1: Access to utilities to enable people and communities to carry out their activities.
- Objective B2.2.2: Efficient use of utilities is promoted.
- Objective B2.2.3: The provision of utilities where any adverse effects on the receiving environment and on people's health, safety and wellbeing is managed having regard to the scale, appearance, location and operational requirements of the facilities.
- Policy B2.2.5: Avoid potential 'reverse sensitivity' effects of activities on the efficient development, use and maintenance of utilities.
- Policy B2.2.6: Ensure the effects of utilities are compatible with the amenity values and environmental characteristics of the zone in which they locate, also having regard to operational, functional and economic constraints.
- Policy B2.2.7: Ensure any adverse effects of utilities on or near waterbodies, or on any ecological, heritage, cultural, recreational, aesthetic or amenity values of the waterbody, are avoided, remedied or mitigated.
- Policy B2.2.8: Require utilities located in areas identified in the District Plan as areas likely to be subject to natural hazards, to be designed and sited considering possible effects of the potential natural hazard.

Natural hazards

- Objective B3.1.1: Ensure activities do not lead to or intensify the effects of natural hazards.
- Objective B3.1.2: Ensure potential loss of life or damage to property from natural hazards is mitigated.
- Objective B3.1.3: Ensure methods to mitigate natural hazards do not create or exacerbate adverse effects on other people or the environment.
- Policy B3.1.2: Avoid allowing new residential or business development in areas known to be vulnerable to a natural hazard, unless any potential risk of loss of life or damage to property is adequately mitigated.
- Policy B3.1.3: Avoid locating dwellings and other principal buildings in the following areas:



- Between any waterbodies and any stopbank designed or used to contain floodwater from that waterbody; or
- Within the bed of any lake or river.

Policy B3.1.6: Ensure any measures proposed to mitigate a potential natural hazard:

- Do not lead to or intensify a potential natural hazard elsewhere; and
- That any other adverse effects on the environment are avoided, remedied or mitigated.

Earthworks - Rural Rule 1.4

- 1.4.1 The following earthworks undertaken in an area shown on the Planning Maps as a flood area shall be a permitted activity:
 - 1.4.1.1 The forming of vehicular accessways through or within properties and the forming of building platforms, provided that the existing land drainage patterns are not altered or impeded; or
 - 1.4.1.2 Any other earthworks which do not raise the mean average level of the land subject to the earthworks or reduce the storage capacity of surface water ponding areas.

Note: For the purposes of Rule 1.4.1.2, the level of the land is measured as the mean average level above mean sea level, over the area on which any earth is disturbed, removed or deposited.

- 1.4.2 Any earthworks undertaken within any area shown on the Planning Maps as a flood area which do not comply with Rule 1.4.1 shall be a restricted discretionary activity.
- 1.4.3 Under Rule 1.4.2, the Council shall restrict its discretion to the consideration of:
 - 1.4.3.1 The potential effects of the earthworks on creating or exacerbating flooding on the site;
 - 1.4.3.2 The potential effects of the earthworks on creating or exacerbating flooding on other properties, by diverting floodwaters or by increasing the level of floodwater on lower lying properties;
 - 1.4.3.3 Any positive effects which may offset any adverse effects

Earthworks – Living Rule 2.1

- 2.1.1 Any earthworks shall be a permitted activity if the following conditions are met:
 - 2.1.1.5 On land located within the Living 1A or 2A Zones at Tai Tapu, earthworks are limited to the forming of any accessway to a site or the preparation of any site to erect a building, provided that these earthworks do not alter or impede the land drainage pattern.

Plantations – Rural Rule 2.2

- 2.2.1 The planting or harvesting of any plantation shall be a permitted activity if all of the following conditions are met:
 - 2.2.1.5 Any tree is planted at least:



- (a) 20m from the edge of any waterbody listed in Appendix 17; and
- (b) 10m from the edge of any other waterbody (excluding aquifers)

Provided that Rules 2.2.1.5 (a) and 2.2.1.5 (b) do not apply to any trees planted for the purpose of bank stabilisation or prevention of soil erosion.

All Zones Utilities

Any utility which meets the following provisions and complies with all other relevant rules shall be a permitted activity:

Upgrading, maintenance, operation and replacement of existing utilities shall be permitted and shall not be subject to compliance with any other performance standards, conditions or rules in this Plan provided that the effects of such shall be the same or similar in character and scale to those which existed before such upgrading, maintenance or replacement activities commenced.

Utilities - Rural Rule 5.8

- 5.8.1 In any area shown on the Planning Maps as a flood area, any utility structure which is not located in a position or designed in such a way that it would:
 - 5.8.1.1 Divert, or displace, any floodwater; or
 - 5.8.1.2 Impede or alter the existing drainage pattern of the land;

Shall be a permitted activity.

- 5.8.2 Any activity which does not comply with Rule 5.8.1 shall be a restricted discretionary activity.
- 5.8.3 Under Rule 5.8.2, the Council shall restrict its discretion to consideration of:
 - 5.8.3.1 Any potential risk of the utility structure being inundated and the extent of any potential flood damages;
 - 5.8.3.2 The effectiveness of any mitigation measures proposed to reduce the risk of inundation or extent of flood damages
 - 5.8.3.3 Any effects of the utility structure or any proposed flood mitigation measures, on diverting or displacing floodwaters on to other property or increasing the potential level of floodwater on other properties;
 - 5.8.3.4 Any other effects of any proposed mitigation measures on the environment;
 - 5.8.3.5 Any positive effects which may offset any adverse effects;
 - 5.8.3.6 Any monitoring or review conditions.

Buildings – Rural Rule 3.1

3.1.1 Erecting any building or any additions or alterations to, or modification or demolition of, any building shall be a permitted activity if all of the following conditions are met:



- 3.1.1.1 Any new dwelling or other principal building is not erected in any of the following areas:
 - (c) Between any waterbody and any stopbank designed to contain floodwater from that waterbody; and

Rule 3.1.1 does not apply to additions or alterations to existing dwellings or existing principal buildings located in these areas.

Existing buildings may be able to be replaced as Existing Uses under section 10 of the RMA.

3.1.4 Erecting any new dwelling or other principal building on any site in the areas listed in Rules 3.1.1.1(a), 3.1.1.1(b) or 3.1.1.1(c) shall be a non-complying activity.

Buildings – Living Rule 4.1

4.1.4 Erecting any dwelling or other principal building between any waterbody and any stop bank designed to contain flood water from that waterbody shall be a prohibited activity.



Appendix B - Canterbury Regional Policy Statement

Chapter 10 – Beds of rivers and lakes and their riparian zones

Objective 10.2.1 Provision for activities in beds and riparian zones and protection and enhancement of bed and riparian zone values

Enable subdivision, use and development of river and lake beds and their riparian zones while protecting all significant values of those areas, and enhancing those values in appropriate locations.

Objective 10.2.2 Maintenance of flood-carrying capacity of rivers

To maintain the flood-carrying capacity of rivers.

Objective 10.2.3 Protection of essential structures

Protection of the stability, performance and operation of essential structures from activities in river and lake beds and on their banks or margins.

Policy 10.3.1 Activities in river and lake beds and their riparian zones

To provide for activities in river and lake beds and their riparian zones, including the planting and removal of vegetation and the removal of bed material, while:

- 1. recognising the implications of the activity on the whole catchment;
- 2. ensuring that significant bed and riparian zone values are maintained or enhanced; or
- 3. avoiding significant adverse effects on the values of those beds and their riparian zones, unless they are necessary for the maintenance, operation, upgrade, and repair of essential structures, or for the prevention of losses from floods, in which case significant adverse effects should be mitigated or remedied.

Methods – territorial authorities will:

4. Set out objectives and policies, and may include methods in district plans to control the effects of the inappropriate subdivision, use, development, or protection of land to avoid, remedy or mitigate adverse effects on the values of the riparian zones of rivers and lakes.

Policy 10.3.3 Management for flood control and protecting essential structures

To manage activities in river and lake beds and their banks or margins to:

- 1. avoid or, where this is not practicable, to remedy or mitigate adverse effects on vegetation that controls flood flows or protects river banks or lake margins from erosion; and
- 2. avoid adverse effects on the stability, performance, operation, maintenance, upgrade and repair of essential structures that are located in, on, under or over a river or lake bed or its bank or margin.

Methods – territorial authorities will:

4. Set out objectives and policies, and may include methods in district plans to control the subdivision, use, development, or protection of land outside of river and lake beds, for the purpose of avoiding or mitigating flood hazards and to enable the Canterbury Regional Council to carry out its functions



in regard to flood protection works, including the maintenance of flood mitigation structures and vegetation.

Chapter 11 - Natural hazards

Objective 11.2.2 Adverse effects from hazard mitigation are avoided or mitigated

Adverse effects on people, property, infrastructure and the environment resulting from methods used to manage natural hazards are avoided or, where avoidance is not possible, mitigated.

Policy 11.3.7 Physical mitigation works

New physical works to mitigate natural hazards will be acceptable only where:

- 1. the natural hazard risk cannot reasonably be avoided; and
- 2. any adverse effects of those works on the natural and built environment and on the cultural values of Ngāi Tahu, are avoided, remedied or mitigated.

Alternatives to physical works, such as the relocation, removal or abandonment of existing structures should be considered.

Where physical mitigation works or structures are developed or maintained by local authorities, impediments to accessing those structures for maintenance purposes will be avoided.

Methods – territorial authorities will:

2. Set out objectives and policies, and may include methods in district plans to avoid impediments to accessing community owned mitigation structures for maintenance purposes.

Methods – local authorities will:

- Set out objectives and policies, and may include methods in regional and district plans to ensure new hazard mitigation works will only be undertaken in accordance with the provisions of Policy 11.3.7.
- 4. Use iwi management plans and engage with Ngāi Tahu as tāngata whenua and papatipu rūnanga to assist when determining actual or potential adverse effects of hazard mitigation works.



Appendix C – National Water Conservation (Te Waihora /Lake Ellesmere) Order 1990

5 Right to dam or to drain land not to be granted

- (1) Subject to subclauses (2) to (4), because of the outstanding features specified in clause 3, a resource consent shall not be granted under sections 9, 13 and 14 of the Act allowing the damming, stopbanking, polderisation, or drainage of any part of Te Waihora/Lake Ellesmere where the lake bed is below 1.20 m.s.l. in elevation.
- (2) A resource consent to polderise for fish-farming or for research into fisheries may be so granted if there is no significant impact on the outstanding features of Te Waihora/Lake Ellesmere specified in clause 3.
- (3) A resource consent may be so granted for any stopbanks, drains, and other uses of water which existed on 27 June 1986.
- (4) A resource consent may be so granted for works associated with the maintenance of those outlets of rivers, streams, and drains, and of those stopbanks, which existed on 27 June 1986.



Appendix D - Canterbury Land and Water Regional Plan

Definitions

Defence against water: means any structure or equipment, including any bund, weir, spillway, floodgate, bank, stopbank, retaining wall, rock or erosion protection structure, groyne, vegetation (including anchored tree protection) or reservoir, that is designed to have the effect of stopping, diverting, controlling, restricting or otherwise regulating the flow, energy or spread of water, including floodwaters, in or out of a waterbody, artificial watercourse, or artificial lake. For the purposes of this definition, dams are excluded.

Hill and high country: means all land above 600m altitude or greater than 20 degrees in slope.

Section 3 Objectives

- 3.21 The diversion of water, erection, placement or failure of structures, the removal of gravel or other alteration of the bed of a lake or river or the removal of vegetation or natural defences against water does not exacerbate the risk of flooding or erosion of land or damage to structures.
- 3.22 The effectiveness of both man-made natural hazard protection infrastructure, and wetlands and hāpua as natural water retention areas, is maintained to reduce the risk of and effects from natural hazards, including those arising from seismic activity and climate change.

Section 4 Policies

Damming and Diversion of Water Bodies

- 4.47 Small-scale diversions of water within the beds of lakes, rivers or adjoining wetlands are provided for as part of:
 - (c) undertaking minor flood or erosion control or repair works and the diversion is occurring within the boundaries of a site or an individual's property and there are no potential adverse effects that are more than minimal on any other person, their property, or any ecological, cultural, recreational or amenity values of the fresh waterbody;

Wetlands and riparian margins

- 4.81 Any take, use, damming or diversion of water, any discharge of contaminants onto land or into water, or any earthworks, structures, planting, vegetation removal or other land uses within a wetland boundary, do not adversely affect the significant values of wetlands, hāpua, coastal lakes and lagoons, except for:
 - (a) a temporary and or minor adverse effect where that activity is part of installing, maintaining, operating or upgrading infrastructure, pest management, or habitat restoration or enhancement work; or
 - (b) the artificial opening of hāpua, coastal lakes or lagoons to assist in fish migration or achieving other conservation outcomes, customary uses, or to avoid land inundation.



Activities in Beds of Lakes and Rivers

- 4.85A Indigenous biodiversity, habitats of indigenous fauna and flora, and the natural character of Canterbury's braided river systems is preserved through:
 - (b) limiting vegetation clearance and cultivation within the bed, banks and margins of lakes, braided rivers and associated wetlands and coastal lagoons, unless the vegetation clearance or cultivation is for the purpose of pest management, habitat restoration, flood control purposes, the operation, maintenance, upgrade or repair of structures or infrastructure, or maintenance of public access.
- 4.86 Activities that occur in the beds or margins of lakes, rivers, wetlands, hāpua, coastal lakes and, lagoons are managed or undertaken so that:
 - (c) existing lawful access to the bed of the lake, river, wetland, hāpua, coastal lake, or lagoon for recreational, customary use, water intakes or supplies or flood control purposes, is not precluded, except where necessary to protect public health and safety.
- 4.88 Earthworks, structures, or the planting or removal of vegetation (other than by spraying) in the beds of lakes, rivers, hāpua, coastal lakes and lagoons, or within a wetland boundary do not occur in flowing or standing water unless any effects on water quality, ecosystems, or the amenity, recreational or cultural values will be minor or the effects of diverting water are more significant than the effects of the activity occurring in flowing or standing water.
- 4.89 Earthworks, structures (including defences against water), vegetation planting or removal, or other activities in the beds of lakes or rivers, do not materially restrict flood flows in any river, or create or exacerbate erosion of the bed or banks of any river or the bed or margins of any lake.
- 4.91 Land uses, and other activities in the beds or margins of lakes and rivers, do not adversely affect the stability or functioning of lawfully established erosion control or flood protection works or infrastructure.
- 4.92 Communities are protected from the natural hazards of flooding and erosion through gravel extraction and establishment and maintenance of flood protection assets.

Natural hazards

- 4.97 Remediation works which are necessary to enable people and communities to recover from natural hazard events
 - (a) occur in a timely way,
 - (b) the works are managed to minimise their duration and scale,
 - (c) the works do not cause or exacerbate potential natural hazards elsewhere, and
 - (d) adverse effects on the environment resulting from the works are avoided, remedied or mitigated.



Section 5 Region-wide Rules

Structures

- 5.138 The installation, maintenance, use and removal of defences against water, including the associated deposition of substances on, in or under the bed of a lake or river and excavation associated diversions and discharges of sediment or other disturbance of the bed of a lake or river is a permitted activity, provided the following conditions are met:
 - 1. The activity does not prevent access in any way to lawfully established structures, including defences against water; and
 - Other than for the use of defences against water the activity is not in, on, or under the bed of
 any river or lake listed as a high naturalness waterbody in Sections 6 to 15 or within a salmon
 spawning site listed in Schedule 17, or in any inanga spawning habitat during the inanga
 spawning season of 1 March to 1 June inclusive; and
 - The activity is undertaken by or on behalf of a local authority or a network utility operator in accordance with a plan that has been certified by the CRC as being in accordance with the Canterbury Regional Council Code of Practice for Defences Against Water and Drainage Schemes (June 2015); and
 - 4. The works or structures do not prevent any existing fish passage.
- 5.140 Despite any other rule in this Plan, temporary structures and diversions associated with undertaking activities in Rules 5.135 to 5.139, military training activities, or artificial watercourses are permitted activities, provided the following conditions are met:
 - 1. The activity is not undertaken in a salmon spawning site listed in Schedule 17, or in any inanga spawning habitat during the inanga spawning season of 1 March to 1 June inclusive; and
 - 2. The temporary structure and diversion is in place for not more than 4 weeks in any 12 month period.
- 5.141A The placement, installation, erection, reconstruction, alteration or removal of any structure, excluding dams, on, in or under the bed of a lake or river, and including any associated excavation, disturbance, diversion and discharge in the bed of a lake or river that does not comply with Rules 5.135 to 5.141 is a discretionary activity.

Floodwaters

- 5.142 The diversion of floodwaters within a property and the discharge of floodwaters from a property to a river, lake or artificial watercourse to alleviate surface flooding is a permitted activity, provided the following conditions are met:
 - 1. The discharge:
 - (a) does not cause or exacerbate erosion of the property or the bed or banks of the receiving surface waterbody; and



(b) does not result in the destabilisation of any lawfully established structure.

Vegetation in Lake and Riverbeds

- 5.163 The introduction or planting of any plant, or the removal and disturbance of existing vegetation in, on or under the bed of a lake or river and any associated discharge of sediment or sediment-laden water in circumstances where sediment may enter surface water is a permitted activity, provided the following conditions are met:
 - 1. The activity does not prevent access to lawfully established structures, including flood protection works, or to flood control vegetation; and
 - No vegetation used for flood control or bank stabilisation is disturbed, removed, damaged or destroyed without the prior written permission of the person or agency responsible for maintaining that vegetation for flood control purposes; and
 - 3. No woody vegetation is disposed of in, on, over or under the bed of a lake or river other than for in situ decomposition of sprayed weeds that were growing in, on, over or under the bed; and
 - Introduction or planting of vegetation in, on, or under the bed of any lake or river is not of a species listed in the Biosecurity NZ Register of Unwanted Organisms or the Canterbury Pest Management Strategy; and
 - 5. Introduction or planting of vegetation in, on, or under the bed of any river or lake listed as a high naturalness waterbody in Section 6 to 15 is only of indigenous plant species that naturally occur in the catchment; and
 - 6. Vegetation clearance in, on, or under the bed of any river or lake listed as a high naturalness waterbody in Section 6 to 15 is only of:
 - (a) non-indigenous species; or
 - (b) indigenous species that form the understorey of plantation forest that is being harvested and a minimum 5 m set back from the river or lake is provided upon replanting (if replanting occurs); and
 - 7. Vegetation clearance does not occur in a salmon spawning site listed in Schedule 17, or in any inanga spawning habitat during the period of 1 January to 1 June inclusive; and
 - 8. In a flood control rating district scheme area, the introduction or planting of any plant, has the prior written permission of the person or agency responsible for maintaining that vegetation for flood control purposes; and
 - 9. From 5 September 2015, and within the bed of the Clarence, Waiau, Hurunui, Waimakariri, Rakaia, Rangitata, and Waitaki rivers, vegetation clearance or cultivation does not result in a reduction in the area or diversity of existing riverbed vegetation, unless the activity is for the purpose of the operation, maintenance, upgrade or repair of infrastructure; and



- 10. Except in relation to recovery activities, or the establishment, maintenance, repair or upgrading of network utilities and fencing, the concentration of total suspended solids in the discharge does not exceed:
 - (a) 50g/m³ where the discharge is to any Spring-fed river, Banks Peninsula River, or to a lake, except when the background total suspended solids in the waterbody is greater than 50g/m³ in which case the Schedule 5 visual clarity standards shall apply; or
 - (b) 100g/m³ where the discharge is to any other river or to an artificial watercourse except when the background total suspended solids in the waterbody is greater than 100g/m³ in which case the Schedule 5 visual clarity standards shall apply.
- 5.164 The introduction or planting of any plant, or the removal or disturbance of existing vegetation in, on or under the bed of a lake or river and any associated discharge of sediment or sediment-laden water that does not comply with one or more of the conditions of Rule 5.163, excluding conditions 2, 4, and 9, is a restricted discretionary activity.

The exercise of discretion is restricted to the following matter:

- 1. The actual and potential adverse environmental effects of not meeting the condition or conditions of Rule 5.163.
- 5.165 The introduction or planting of any plant, or the removal and disturbance of existing vegetation in, on or under the bed of a lake or river and any associated discharge of sediment or sediment-laden water that does not comply with conditions 2 or 9 of Rule 5.163 is a non-complying activity.
- 5.166 The introduction or planting of any plant, or the removal and disturbance of existing vegetation in, on or under the bed of a lake or river and any associated discharge of sediment or sediment-laden water that does not comply with condition 4 of Rule 5.163 is a prohibited activity.

Earthworks and Vegetation Clearance in Riparian Areas

- 5.168 The use of land for earthworks outside the bed of a river or lake or adjacent to a wetland boundary but within:
 - (a) 10 m of the bed of a lake or river or a wetland boundary in Hill and High Country land or land shown as High Soil Erosion Risk on the Planning Maps; or
 - (b) 5 m of the bed of a lake or river or a wetland boundary in all other land not shown as High Soil Erosion Risk on the Planning Maps or defined as Hill and High Country;

and any associated discharge of sediment or sediment-laden water in circumstances where sediment may enter surface water is a permitted activity, provided the following conditions are met:

- 1. Except in relation to recovery activities, or the establishment, maintenance or repair of network utilities and fencing, the extent of earthworks within the riparian margin:
 - (a) does not at any time exceed:
 - (i) an area of 500 m², or 10% of the area, whichever is the lesser; or



- (ii) a volume of 10m³ on land shown as High Soil Erosion Risk on the Planning Maps; or
- (b) is undertaken in accordance with a Farm Environment Plan that has been prepared in accordance with Schedule 7 Part A; or
- (c) for plantation forestry activities is undertaken in accordance with the Environmental Code of Practice for Plantation Forestry (ECOP) 2007 and the NZ Forest Road Engineering Manual (2012); and
- Except in relation to recovery activities or the establishment, maintenance or repair of network utilities and fencing, the concentration of total suspended solids in the discharge does not exceed:
 - (a) 50g/m³ where the discharge is to any Spring-fed river, Banks Peninsula River, or to a lake, except when the background total suspended solids in the waterbody is greater than 50g/m³ in which case the Schedule 5 visual clarity standards shall apply; or
 - (b) 100g/m³ where the discharge is to an other river or to an artificial watercourse except when the background total suspended solids in the waterbody is greater than 100g/m³ in which case the Schedule 5 visual clarity standards shall apply; and
- 3. The activity does not occur adjacent to a salmon spawning area listed in Schedule 17, or in any inanga spawning habitat during the period of 1 January to 1 June inclusive; and
- 4. Except in relation to recovery activities or the establishment, maintenance or repair of network utilities and fencing, any earthworks or cultivation is not within 5 m of any flood control structure; and
- 5. From 5 September 2015, and in the riparian margins of Clarence, Waiau, Hurunui, Waimakariri, Rakaia, Rangitata, and Waitaki rivers, earthworks or cultivation do not result in a reduction in the area or diversity of existing riparian vegetation, unless the works have been authorised by a land use consent granted by the relevant territorial authority and conditions 1 to 4 above are met, or the activity is for the purpose of the installation, operation, maintenance, upgrade or repair of infrastructure.
- 5.169 Vegetation clearance and earthworks outside the bed of a river or lake or adjacent to a wetland boundary but within:
 - (a) 10 m of the bed of a lake or river or a wetland boundary in Hill and High Country land and land shown as High Soil Erosion Risk on the Planning Maps; or
 - (b) 5 m of the bed of a lake or river or a wetland boundary in all other land not shown as High Soil Erosion Risk on the Planning Maps or defined as Hill and High Country;

and any associated discharge of sediment or sediment-laden water in circumstances where sediment may enter surface water that does not comply with one or more of the conditions in Rules 5.167 or 5.168 is a restricted discretionary activity.

The exercise of discretion is restricted to the following matters:



- 1. For forest harvesting, the harvesting method, location of haulage and log handling areas, access tracks, and sediment control; and
- 2. The actual and potential adverse environmental effects on soil quality or slope stability; and
- 3. The actual and potential adverse environmental effects on the quality of water in rivers, lakes, or artificial watercourse, or wetlands; and
- 4. The actual and potential adverse environmental effects on areas of natural character, outstanding natural features or landscapes, areas of significant indigenous vegetation, indigenous biodiversity and significant habitats of indigenous fauna, mahinga kai areas or sites of importance to Tangata Whenua; and
- 5. The actual and potential adverse environmental effects on the banks or bed of a waterbody or on its flood carrying capacity; and
- 6. The actual and potential adverse environmental effects on transport networks, neighbouring properties or structures.

Section 11 Selwyn – Te Waihora

Policy – Halswell River/Huritini Catchment Flooding and Drainage

11.4.34 To prevent any increase in inundation (excluding inundation that is caused by or results from a stormwater treatment system) of land in the Halswell River/Huritini Catchment, to ensure hydraulic neutrality the discharge to surface water of any stormwater or drainage water in the Halswell River/Huritini Catchment that is not within an area covered by a consented stormwater management plan will require specific evaluation through a resource consent process.

Rule - Vegetation in Lake and River Beds

- 11.5.45 Within the Selwyn Te Waihora sub-region Regional Rule 5.163 includes the following additional condition:
 - 1. Where the activity involves the removal of existing vegetation by or on behalf of a local authority within the Cultural Landscape/Values Management Area the activity is undertaken in accordance with a drainage management plan that identifies:
 - (a) The frequency, extent and characteristics of the works to be authorised by the Plan; and
 - (b) The identification and avoidance or mitigation of all effects on mahinga kai, wāhi tapu and wāhi taonga.



Appendix E – Waimakariri River Regional Plan

Appendix 1 – Definition of terms

Flood Protection Works

Physical features intended to provide flood protection or to maintain or increase the flood carrying capacity or stability of a river channel, including: stopbanks, permeable and non-permeable groynes, rockwork or concrete blocks used for bank protection, tree and vegetation plantings and anchors, floodgates and culverts and their support structures, berm drains, gauges, roads and tracks.

Introduction

Regulation of Activities

The Plan regulates the following activities within the Waimakariri River Catchment through regional rules:

- (b) The use, diversion, discharge or damming of water in the Waimakariri River or its tributaries (Chapter 5, Rule 5.2 discretionary activity, Rule 5.3 non-complying activity, Rule 5.4 prohibited activity).
- (c) The discharge of contaminants into the Waimakariri River or its tributaries or onto or into land where the discharge can enter surface waters (Chapter 6, Rule 6.1 discretionary activity, Rule 6.2 non-complying activity), except where the activity occurs within the boundaries of Greater Christchurch, and is classified by
 - Rule WQL36A of the Natural Resources Regional Plan; or
 - Rules 8.5.2 or 8.5.3 of the Waimakariri sub-regional section of the proposed Land and Water Regional Plan; or
 - Rules 9.5.6 or 9.5.7 of the Christchurch-West Melton sub-regional section of the proposed Land and Water Regional Plan; or
 - Rules 11.5.1 or 11.5.2 of the Selwyn-Waihora sub-regional section of the proposed Land and Water Regional Plan
- (d) The disturbance of the beds of rivers and lakes (Chapter 7, Rules 7.1, 7.2 and 7.3 permitted activities, Rule 7.4 discretionary activities and Rule 7.5 prohibited activity).
- (e) The introduction or planting, and the disturbance, removal, damage or destruction of plants or habitats in river and lake beds (Chapter 7, Rule 7.2 permitted activity, Rule 7.4 discretionary activities, Rule 7.5 prohibited activities).
- (f) The use, erection, reconstruction, placement, alteration, extension, removal or demolition of structures in river and lake beds (Chapter 7, Rule 7.3 permitted activities, Rule 7.4 discretionary activities, and Rule 7.5 prohibited activities).
- (h) The reclamation or drainage of river and lake beds (Chapter 7, Rule 7.4 discretionary activity and Rule 7.5 prohibited activity).



Chapter 7 River and lake beds

Objective 7.1

Enable present and future generations to gain cultural, social, recreational, economic, health, and other benefits from river and lake beds in the Waimakariri River Catchment while:

- (a) safeguarding the existing value of rivers and lakes for efficiently providing sources of drinking water for people and their animals;
- (b) safeguarding the life-supporting capacity of the water in the beds of rivers and lakes, including its associated: aquatic ecosystems, significant habitats of indigenous fauna, and areas of significant indigenous vegetation;
- (c) safeguarding the existing value of rivers and lakes for providing mahinga kai for Tangata Whenua;
- (d) protecting wahi tapu and other wahi taonga of value to Tangata Whenua;
- (e) preserving the natural character of rivers, lakes and wetlands and protecting them from inappropriate use and development;
- (f) protecting outstanding natural features and landscapes from inappropriate use and development;
- (g) maintaining and enhancing amenity values;
- (h) protecting and where appropriate enhancing the habitat and heritage values of river and lake beds;
- (i) protecting and where appropriate enhancing the flood carrying capacity of rivers;
- (j) protecting the banks of rivers and lakes, and the stability and performance of essential structures in their beds; and
- (k) protecting the significant habitat of trout and salmon.

Policy 7.1

Control in the bed of any river or lake in the Waimakariri River Catchment:

- (a) the use, erection, reconstruction, placement, alteration, extension, removal, or demolition of any structure or part of any structure in, on, under, or over the bed;
- (b) the excavation, drilling, tunnelling, or other disturbance of the bed;
- (c) the introduction or planting of any plant or any part of any plant (whether exotic or indigenous) in, on, or under the bed;
- (d) the deposition of any substance in, on, or under the bed;
- (e) the reclamation or draining of the bed; and
- (f) the disturbance, removal, damage, or destruction of any plant or part of any plant (whether exotic or indigenous) or the habitats of any such plants or of animals in, on, or under the bed;

so that (a) to (k) of Objective 7.1 are achieved and in particular:



- (i) the flood hazard to adjacent land is not increased;
- (ii) disturbance to protected wildlife and their breeding habitat, and indigenous vegetation is minimised;
- (iii) salmon spawning sites are not disturbed;
- (iv) wetlands are protected;
- (v) the braided character of the Waimakariri River where it exists is sustained;
- (vi) the natural patterns, colours and textures of the riverbed areas are maintained;
- (vii) above Woodstock, defined in Figure 4 and Map 1, river and lake beds are kept free of weeds and other exotic vegetation; and
- (viii) below Woodstock, defined in Figure 4 and Map 1, the present natural character of river beds is at least maintained.

Policy 7.2

Promote measures in river and lake beds in the Waimakariri River Catchment to restore or enhance those values in (a) to (k) of Objective 7.1.

Rule 7.1 Permitted Activities

The following activities, except as provided for in Rules 7.2(a), 7.3(a), 7.3(b), 7.3(c) 7.3(d), 7.3(f), and 7.3 (g), are permitted activities:

- (a) the disturbance of the bed of the mainstem of the Waimakariri River;
- (b) the disturbance of the bed of any tributary river upstream of the Waimakariri River Gorge Bridge near Sheffield;
- (c) the disturbance of the bed of the Eyre River;

provided that:

- (i) the quantity of bed material disturbed is less than 10 cubic metres per week per person, and less than 50 cubic metres per annum per person;
- (ii) the disturbance does not occur within 50 metres of any structure located in the riverbed, other than flood protection works as provided for in (iv) below;
- (iii) the disturbance does not occur under flowing water or in, on, under or over any wetland in the bed;
- (iv) the disturbance does not occur within 5 metres of the banks of the river or any flood protection works; and
- (v) the disturbance does not occur within 100 metres of colonies of birdlife, nesting or rearing their young in riverbed gravels from 1 September to 31 January of the following year, or physically disturb any indigenous bird's nest currently in use.



Rule 7.2 Permitted Activities

The following activities in, on, under, or over the bed of any river in the Waimakariri River Catchment are permitted activities:

- (a) the disturbance of the bed;
- (b) the deposition of excavated bed material, rockwork, rock used for bank protection, or cut plant material, but not including concrete blocks;
- (c) the introduction or planting of any plant or any part of any plant (whether exotic or indigenous);
- (d) the disturbance, removal, damage, or destruction of any plant or part of any plant (whether exotic or indigenous) or the habitats of any such plants or of animals;

provided that:

- (i) the activity is for the purpose of:
 - (1) the repair or maintenance of flood protection works;
- (ii) the disturbance of the bed does not occur within 100 metres of colonies of birdlife, nesting or rearing their young in riverbed gravels from 1 September to 31 January of the following year, or physically disturb any indigenous bird's nest currently in use;
- (iii) no plant or any part of any plant, whether exotic or indigenous, is introduced or planted where it will adversely affect flood carrying capacity;
- (iv) no plant or part of any plant defined as a pest in a pest management strategy, or defined as an unwanted organism under the Biosecurity Act 1993, is planted or introduced;
- (v) no plant or any part of any plant, including slash, debris, prunings and thinnings, is deposited in a position where it will block or divert the river flow;
- (vi) "above Woodstock", defined in Figure 4 and Map 1, any plant or any part of any plant introduced or planted is indigenous to New Zealand and to the locality, or is the same exotic species as plants growing in the vicinity of the activity undertaken;
- (vii) the activity is not located in, on, under, or over any wetland in the bed;
- (ix) any rockwork or rock used for bank protection deposited in the bed, shall be the same or similar colour to the greywacke material in the riverbed.

Rule 7.4 Discretionary Activities

The following activities in the Waimakariri River Catchment, where not provided for as a permitted activity in Rules 7.1, 7.2 or 7.3, or a prohibited activity in Rule 7.5 in Chapter 7 of this Plan, are discretionary activities:

- (a) the disturbance of the bed of any river;
- (b) the deposition of excavated bed material, rockwork, rock or concrete blocks used for bank protection, or cut plant material in, on, or under the bed of any river;



- (c) the introduction or planting of any plant or any part of any plant (whether exotic or indigenous) in, on, or under the bed of any river;
- (d) the disturbance, removal, damage, or destruction of any plant or part of any plant (whether exotic or indigenous) or the habitats of any such plants or of animals in, on, or under the bed of any river or lake:
- (e) the use, erection, reconstruction, placement, alteration, extension, removal, or demolition of any structure or part of any structure in, on, under, or over the bed of any river or lake;
- (f) the reclamation or drainage of any river bed; and
- (g) the introduction or planting of any indigenous plant or any part of any indigenous plant in, on, or under the bed of any lake.

Rule 7.5 Prohibited Activities

Except where provided for as a permitted activity in Rules 7.1, 7.2 or 7.3, the following are prohibited activities in the Waimakariri River Catchment for which no resource consent shall be granted:

- (a) the deposition of any substance except:
 - (i) excavated river bed material;
 - (ii) rockwork and rock, or concrete blocks used for bank protection;
 - (iii) cut plant material;
 - (iv) contaminants resulting from an authorised discharge; and
 - (v) substances used in the authorised erection, reconstruction, placement, alteration or extension of any structure or part of any structure;

in, on, or under the bed of any river or lake;

- (b) the erection or placement of a dam or weir in, on, or over the bed of the mainstem of the Waimakariri River from its source down to the Coastal Marine Area;
- (c) the erection or placement of a dam or weir in, on, or over the bed of any river, including tributaries, "above Woodstock" defined in Figure 4 and Map 1;
- (d) the disturbance of the bed of lakes Blackwater, Grace, Grasmere, Hawdon, Letitia, Marymere, Mavis, Minchin, Pearson, Rubicon, Sarah, and Vagabonds Inn except where necessary for:
 - (i) the use, reconstruction, alteration, removal or demolition of any structure or part of any structure as provided for in Rule 7.3 (a);
 - (ii) the use, erection, reconstruction, placement, alteration, extension, removal, or demolition of stock fences, hydrological recording stations, public signs or temporary fish traps or barriers as provided for in Rule 7.3 (b) and (c); or
 - (iii) the purpose of carrying out research, or maintaining or enhancing habitat values, natural character, or ecological functioning as provided for in Rule 7.3 (g);



- (e) the erection, reconstruction, placement, alteration, or extension of any structure or part of any structure in, on, under, or over the bed of lakes Blackwater, Grace, Grasmere, Hawdon, Letitia, Marymere, Mavis, Minchin, Pearson, Rubicon, Sarah, and Vagabonds Inn except for the purposes of stock fencing, hydrological recording stations, or public signs as provided for in Rule 7.3 (b) and (c);
- (f) the introduction or planting of any exotic plant or any part of any exotic plant in, on, or under the bed of any lake; and
- (g) the reclamation or drainage of any lake bed.



Appendix F – Mahaanui Iwi Management Plan

5.3 Wai Māori

Ngā Paetae Objectives

- (3) Water and land are managed as interrelated resources embracing the practice of Ki Uta Ki Tai, which recognises the connection between land, groundwater, surface water and coastal waters.
- (7) All waterways have healthy, functioning riparian zones and are protected from inappropriate activities, including stock access.

Ngā Kaupapa / Policy

WM6.1 To require that the improvement of water quality in the takiwā is recognised as a matter of regional and immediate importance.

Controls on land use activities to protect water quality

- WM6.17 To require the development of stringent and enforceable controls on the following activities given the risk to water quality:
 - (b) Subdivision and development adjacent to waterways;
 - (d) Activities in the bed and margins of waterways, including gravel extraction; and

Riverworks

- WM12.8 To require that all river works activity, including vegetation clearance and silt removal, are undertaken in a manner that protects the bed and margins of the waterway from disturbance, and that mahinga kai values are not compromised as a result of the activity.
- WM12.9 To require that any river works activity that results in the loss or damage of riparian vegetation includes measures to replace or restore vegetation, with appropriate indigenous species.
- WM12.12 To require that any plantings associated with flood protection works is undertaken using indigenous species.

Riparian margins

WM13.7 To recognise the protection, establishment and enhancement of riparian areas along waterways and lakes as a matter of regional importance, and a priority for Ngāi Tahu.

5.4 Papatūānuku

Ngā Paetae Objectives

- (3) Land use planning and management in the takiwā reflects the principle of Ki Uta Ki Tai.
- (5) Inappropriate land use practices that have a significant and unacceptable effect on water quality and quantity are discontinued.



(8) Ngāi Tahu cultural heritage values, including wāhi tapu and other sites of significance, are protected from damage, modification or destruction as a result of land use.

Ngā Kaupapa / Policy

P11.1 To assess proposals for earthworks with particular regard to:

- (a) Potential effects on wāhi tapu and wāhi taonga, known and unknown;
- (b) Potential effects on waterways, wetlands and waipuna;
- (c) Potential effects on indigenous biodiversity;
- (d) Potential effects on natural landforms and features, including ridge lines;
- (e) Proposed erosion and sediment control measures; and
- (f) Rehabilitation and remediation plans following earthworks.

Erosion and sediment control

- P11.9 To require stringent and enforceable controls on land use and earthworks activities as part of the resource consent process, to protect waterways and waterbodies from sedimentation, including but not limited to:
 - (a) The use of buffer zones;
 - (b) Minimising the extent of land cleared and left bare at any given time; and
 - (c) Capture of run-off, and sediment control.

6.4 Waimakariri

Ngā Paetae Objectives

(1) The natural "energy, vitality and life" of the Waimakariri River as a braided river is protected and restored.

Ngā Kaupapa / Policy

Subdivision and development

- WAI4.2 To require that local government recognise and provide for the particular interest of Papatipu Rūnanga in subdivision and development activities in the Waimakariri catchment, including:
 - (a) Ensuring that engagement with the Papatipu Rūnanga is not limited to silent file or wāhi tapu triggers.

Water quantity

WAI6.3 To require that the frequency of good sized floods and freshes in the Waimakariri River are protected as a natural and necessary features of the river system, providing and restoring the following services:



- (a) Fresh and flush Brooklands Lagoon;
- (b) Clean out spawning gravels;
- (c) Trigger spawning and migrations of mahinga kai species;
- (d) Flush contaminants from the river;
- (e) Replenish wetlands and groundwater, and keep river flows higher in summer months, through allowing floodwater to soak into the plains;
- (f) Rearrange channels and clear islands of vegetation, including noxious weeds; and
- (g) Enable downstream movement of boulders and sediments from the headwaters, that shape and structure the lower reaches of the river.

6.11 Te Waihora

Ngā Paetae Objectives

- (6) The relationship between land use, groundwater, surface water and Te Waihora is recognised and provided for according to the principle of Ki Uta Ki Tai.
- (7) Lake management, including lake level management, reflects living with the lake, rather than forcing the lake to live with us.
- (8) The cultural health of lowland waterways is restored, through the restoration of water quality and quantity and riparian margins.
- (10) All waterways have healthy, planted riparian margins and are protected from stock access.

Ngā Kaupapa / Policy

TW8.1 To require that the wāhi taonga status of wetlands, waipuna and riparian margins is recognised and provided for in the catchment, as per general policy on Wetlands, waipuna and riparian margins (Section 5.3 Issue WM13).

6.12 Rakaia ki Hakatere

Ngā Paetae Objectives

- (1) The mauri and mahinga kai values of the Hakatere and Rakaia Rivers and their tributaries, lakes and wetlands and hāpua are protected and restored, mō tātou, ā, mō kā uri ā muri ake nei.
- (2) Management of the Rakaia River, including the Rakaia Water Conservation Order (RWCO), recognises and provides for outstanding cultural characteristics of the catchment and therefore improved protection for this ancestral river.



Ngā Kaupapa / Policy

Rakaia River bed and margin

RH2.9 To advocate for riparian margins on both sides of the Rakaia River that are the same width as the river itself, to enable the river to spread in times of flooding, and preserve the character of the braided river.



Appendix G – Te Waihora Joint Management Plan

Landforms and landscapes Te matawhenua

Objectives

- (1) Operations within the Joint Management Plan Area conform to high standards of environmental design and are managed to conserve landscape integrity.
- (2) The landscapes of Te Waihora, including their scenic, landform and other natural features, are protected and enhanced.

Policies

- 3.1 To maintain the values and the range of natural and cultural landscapes of the JMP Area by:
 - (a) Maintaining the wide open vistas as well as the intimate spaces.
 - (b) Encouraging the maintenance of the distinct distant views of Te Waihora from the surrounding area.
 - (c) Avoiding the intrusion of structures with unnatural lines and shapes.
- 3.2 To retain the natural landscapes of the JMP Area and its wider environment as far as possible, including by:
 - (a) Recognising and allowing that some natural features may migrate inland as the result of dynamic coastal processes, including sea level rise.
 - (b) Recognising and allowing the 'natural' daily and seasonal movements and changes in the waters and vegetation of Te Waihora.
 - (c) Avoiding induced lake edge erosion.
 - (d) Seeking controls on landuses that negatively impact on significant landform features, including Kaitorete Spit, the Selwyn River/Waikirikiri delta, Banks Peninsula/Horomaka spurs and the Kaituna embayment.

Methods

3c Ensure that any new structures within the JMP Area are necessary, and if so, are designed and built in sympathy with the landscape values of Te Waihora.

Commercial and other activities Ngā mahi arumoni me ētahi atu mahi

Objectives

(1) The mahinga kai status of Te Waihora and the Ngäi Tahu ownership of the Ngäi Tahu lakebed are recognised in evaluating activities that require a concession or permit within the Joint Management Plan Area.



(2) All activities that require a concession or permit within the Joint Management Plan Area are compatible with the other objectives and policies of this Plan.

Policies

- 7.1.3 Within the JMP Area, all existing drains and stopbanks should be managed to best be consistent with management for "mahinga kai, conservation and other purposes", and any new drains should be consistent with management for "mahinga kai, conservation and other purposes".
- 7.2.1 To consider all applications for utilities, structures and easements within the JMP Area in accordance with the relevant legislation and the objectives and policies of this Plan where:
 - (a) Their purposes are essential for the public good and cannot reasonably be achieved outside of the JMP Area.
 - (b) Their adverse effects can be avoided, remedied or mitigated.

Methods

- 7.1c Ensure all drainage and stopbank activities within the JMP Area, and seek that those outside of the area:
 - (a) Avoid, remedy or mitigate adverse effects on mahinga kai and conservation values.
 - (b) Avoid the introduction or spread of exotic species.
 - (c) Adhere to best practice drain maintenance methods that are consistent with management for "mahinga kai, conservation and other purposes", as far as practical.

