



PUBLIC AGENDA

FOR THE MEETING OF

DISTRICT PLAN COMMITTEE

TO BE HELD AT THE

SELWYN DISTRICT COUNCIL OFFICES,
COUNCIL CHAMBERS

ON WEDNESDAY 5 DECEMBER 2018

COMMENCING AT 1:00PM

Committee Members

Chair

Environmental Services Manager Tim Harris

Selwyn District Council

Mayor Sam Broughton

Councillor Mark Alexander

Councillor Jeff Bland

Councillor Debra Hasson

Councillor Murray Lemon

Councillor Malcolm Lyall

Councillor Pat McEvedy

Councillor Grant Miller

Councillor John Morten

Councillor Bob Mugford

Councillor Nicole Reid

Councillor Craig Watson

Chief Executive David Ward

Te Taumutu Rūnanga

Hirini Matunga

Environment Canterbury

Councillor Peter Skelton

Te Ngāi Tūāhuriri Rūnanga

Tania Wati

Project Lead

Justine Ashley

Phone 027 285 9458

Project Sponsor

Jesse Burgess

Phone 347-2773

Agenda Items

Item	Page(s)	Type of Briefing	Presenter
Standing Items			
1. Apologies	4	Oral	The Chair
2. Declaration of Interest	4	Oral	
3. Deputations by Appointment	4	Oral	
4. Outstanding Issues Register	4	Written	
5. Confirmation of Minutes	4	Written	
Specific Reports			
6. Energy Generation <ul style="list-style-type: none">Preferred Options reportCommunications and Engagement Summary Plan	5-131	Written	Rachel Ducker (Harrison Grierson)
7. Update on Network Utilities <ul style="list-style-type: none">Preferred Options update reportCommunications and Engagement Summary Plan	132-227	Written	Nicola Rykers
8. Alpine Villages <ul style="list-style-type: none">Post engagement reportUpdated Communications and Engagement Summary Plan	228-235	Written	Jocelyn Lewes
9. Vegetation Planting <ul style="list-style-type: none">Post engagement reportUpdated Communications and Engagement Summary Plan	236-245	Written	Robert Love
10. Wildfire <ul style="list-style-type: none">Post engagement reportUpdated Communications and Engagement Summary Plan	246-253	Written	Robert Love
11. Water <ul style="list-style-type: none">Post engagement reportUpdated Communications and Engagement Summary Plan	254-262	Written	Andrew Mactier
12. Stopbanks <ul style="list-style-type: none">Preferred Option reportCommunications and Engagement Summary Plan	263- 309	Written	Rachael Carruthers
13. Coastal Hazards <ul style="list-style-type: none">Preferred Option reportCommunications and Engagement Summary Plan	310-384	Written	Rachael Carruthers
14. Resolution to Exclude the Public	385	Written	The Chair

Standing Items

1. APOLOGIES

Ms T Wati, (Te Ngāi Tūāhuriri Rūnanga), Councillor M Lemon

2. DECLARATION OF INTEREST

Nil.

3. DEPUTATIONS BY APPOINTMENT

Nil.

4. OUTSTANDING ISSUES REGISTER

Subject	Comments	Report Date / Action	Item Resolved or Outstanding
Community & Recreation Facilities	Clarification of Preferred Option for non-custodial community corrections facilities	28 November 2018	Resolved
Earthworks	Clarification of how bunds are managed in the rural area, including the permitted activity threshold	28 November 2018	Resolved
Earthworks	Clarification of Preferred Option relating to provisions recognising the need to safeguard the mauri of soils	28 November 2018	Resolved
Sites and Areas of Cultural Significance	Engagement with SDC Assets and all affected landowners	28 November 2018	Resolved

5. CONFIRMATION OF MINUTES

No minutes to confirm.

Specific Reports

6. Preferred Option Report and Communications and Engagement Summary Plan - Energy Generation

Author:	Rachel Ducker and Shravan Miryala (Harrison Grierson) & Nicola Rykers (Consultant Planner/Topic Lead)
Contact:	(03) 347 1854 (Nicola)

Purpose

To brief the Committee on the Preferred Options Report, which identifies issues and options to address the location, scale and management of Renewable Energy Generation activities within the Selwyn District. The Preferred Option Report is preceded by the 'Energy Generation' Baseline Report.

The attached Communications and Engagement Summary Plan is to inform the Committee of the engagement activities to be undertaken in relation to the 'Energy Generation' topic.

Recommendation

“That the Committee notes the report.”

“That the Preferred Options for ‘Energy Generation’ be endorsed for further development and engagement, including Section 32 Evaluation and Plan Drafting.”

“That the Committee notes the summary plan.”

Attachments

‘Preferred Options for Energy Generation including Small Scale Energy Generation’

‘Renewable Energy Generation’ – communications and engagement summary plan’

PREFERRED OPTION REPORT TO DISTRICT PLAN COMMITTEE (DPC)

DATE:	DPC Meeting - 5 December 2018
TOPIC NAME:	Energy Generation including Small Scale Energy Generation (E1008)
SCOPE DESCRIPTION:	Stage 2 - Preferred Options for Energy Generation including Small Scale Energy Generation (E1008)
TOPIC LEAD:	Nicola Rykers, Consultant Planner
PREPARED BY:	Rachel Ducker and Shravan Miryala, Consultant Planners

EXECUTIVE SUMMARY

<i>Issue(s)</i>	<p><i>The key issues for this topic are:</i></p> <ol style="list-style-type: none"> <i>1. Maintenance and minor works to the Coleridge Power Station need a potentially more permissive consent framework to maintain efficient electricity generation output.</i> <i>2. Opportunities for new development and upgrades of Renewable Energy Generation (REG) activities need to be provided for consistency with the NPS-REG.</i> <i>3. Effective management of REG buildings and infrastructure which have the potential for adverse effects on sensitive receiving environments is required.</i> <i>4. More permissive provisions are needed to establish small and community-scale renewable energy generation activities with acceptable environmental effects.</i>
<i>Preferred Options</i>	<p><i>In summary, the recommended Preferred Options for further development are:</i></p> <ul style="list-style-type: none"> <i>• Encouraging REG activities - Option 1b: Prepare enabling objectives, policies and rules to encourage REG activities, including small scale on-site and community scale generation activities, across the district in appropriate locations.</i> <i>• Enabling, maintenance and minor upgrades to the Coleridge Power Station - Option 2b: Enabling maintenance, repairs and minor upgrades to the Coleridge Power Station as a permitted activity, while requiring discretionary activity consent to increase the scale and capacity of the power station and to carry out substantial works and upgrades.</i>
<i>Recommendation to DPC</i>	<i>That the Preferred Options for 'Energy Generation' be endorsed for further development and engagement, including Section 32 Evaluation and Plan Drafting.</i>
<i>DPC Decision</i>	



1.1 Introduction

The purpose of this Preferred Option Report is to identify issues and options to address the location, scale and management of Renewable Energy Generation (REG) activities within the Selwyn District.

The National Policy Statement for Renewable Electricity Generation 2011 (NPS-REG) requires District Councils' to review their plans to ensure that the national significance of renewable energy generation activities is recognised and provided for in objectives, policies, methods and rules (where appropriate). The NPS-REG specifically requires District Plans to contain planning provisions to:

- a) Assist in meeting the New Zealand Government's renewable energy target;
- b) Maintain the generation output of existing REG activities;
- c) Provide for new development of REG activities;
- d) Consider including more permissive approaches to establishing small and community-scale REG activities; and
- e) Limit reverse sensitivity effects of other uses on existing and consented REG activities.

This Preferred Option Report is preceded by the 'Energy Generation' Baseline Report (Baseline Report) prepared by Harrison Grierson Consultants Limited (HG) in October 2018. The Baseline Report provides an overview of existing and potential future renewable energy generation resources in New Zealand and the Selwyn District, summarises relevant provisions in the Operative Selwyn District Plan (Plan), and compares the current Plan provisions against the approaches adopted in four other district plans¹. A copy of the Baseline Report (E1008) is included in **Appendix 1**.

The Baseline Report notes that a relatively small amount of renewable energy is generated within the Selwyn District, with the most significant source being from the hydroelectric Coleridge Power Station (39 megawatt (MW) output). Solar and wind energy generated within the district is only sufficient for on-site domestic or business use, although the Energy³ wind turbine operating at Southbridge has the capacity to service the electricity needs of approximately 20-25 average New Zealand homes. The Baseline Report notes that future upgrades to the Coleridge Power Station, investigations for commercial wind farms and new hydro-generation from in-stream or in-irrigation channel, and an increase in on-site solar generation are the most likely future renewable energy sources within the district.

This Preferred Option Report recommends preferred options for managing REG activities in the Proposed District Plan (Proposed Plan). If endorsed by Council, the preferred options will form the basis of further engagement with targeted stakeholders and s32 evaluations and drafting phases of the District Plan Review (DPR).

¹ [Auckland Unitary Plan; Christchurch District Plan; Far North District Plan; Proposed Dunedin District Plan].

2.0 Statement of Operative District Plan Approach

2.1 Summary of the Plan

Section 5.0 of the Baseline Report summarises the key REG objectives, policies and rules in the Plan, which are contained in the following three chapters:

- Rural Volume (RZ) - C5 Rural Zones Rules.
- Township Volume (LZ) - Chapter 6 Living Zone Rules.
- Township Volume (BZ) - Chapter 18 Business Zones Rules.

A summary of the relevant rules is included in **Table 1**.

TABLE 1: Summary of Renewable Energy Rules			
	LIVING ZONES (LZ)	BUSINESS ZONES (BZ)	RURAL ZONES (RZ)
LAND USE			
Utility (use on-site for solar, wind or petroleum based energy)	Permitted (6.1.1.6)	Permitted (18.1.1.6)	Permitted (5.1.2.4)
Utility* (renewable energy used off site)	Non-complying (6.1.5)	Non-complying (18.1.1.6)	Discretionary (5.1.3)
Upgrading, maintenance, operation and replacement of existing utilities	Non-complying** (6.1.5)	Non-complying** (18.1.5)	Discretionary (5.1.3)
BUILDINGS/INFRASTRUCTURE			
New utility building/ additions and alterations to an existing utility building	Permitted (6.2.1) subject to compliance with performance standards. Otherwise restricted discretionary (6.2.2) for non-compliance with setbacks Or discretionary (Rule 6.2.4) for non-compliance with height.	Permitted (18.2.1) subject to compliance with performance standards. Otherwise restricted discretionary (18.2.2) for non-compliance with setbacks (except within 10m of road/living zone boundary) Or discretionary (Rule 18.2.4) for non-compliance with height or within 10m of road/living zone boundary.	Permitted (5.2.1) subject to compliance with performance standards. Otherwise discretionary (5.2.2)
New utility building/ alterations to existing building in outstanding	Permitted (6.4.1.4) (Arthurs Pass and Castle Hill) subject to compliance with performance standards	Permitted (18.4.1.4) (Arthurs Pass and Castle Hill) subject to compliance with performance standards.	Permitted (5.6.1) subject to compliance with performance standards.

landscape areas***	about materials and reflectivity. Otherwise a restricted discretionary activity (6.4.2) (would apply to most structures)	Otherwise a restricted discretionary activity (18.4.2) (which would apply to most structures)	Otherwise a restricted discretionary activity (5.6.2) or non-complying activity (5.6.4).
New utility structure/ alterations to existing structure	Permitted (6.3.1) subject to compliance with performance standards. Otherwise a discretionary activity (6.3.5).	Permitted (18.3.1) subject to compliance with performance standards. Otherwise a discretionary activity (18.3.4)	Permitted (5.3.1) subject to compliance with performance standards. Otherwise a restricted discretionary activity (5.3.2) if exceeds 25m or discretionary activity (5.3.4) for non-compliance with pole/mast height requirements
New utility structure/ alterations to existing structure in outstanding landscape areas	Permitted (6.4.1.3) Any antenna, mast or utility or other structure that is not a building and does not exceed 10.5 metres Any utility building or utility (6.4.1.4) constructed of timber/stone/corrugated iron (Arthurs Pass only) and reflectivity value between 0-37%. Otherwise restricted discretionary activity (6.4.2).	Permitted (18.4.1.3) Any antenna, mast or utility or other structure that is not a building and does not exceed 15 metres Any utility building or utility (18.4.1.4) constructed of timber/stone. Otherwise restricted discretionary activity (18.4.2).	Permitted (5.5.1) subject to compliance with performance standards. Otherwise restricted discretionary activity (Rule 5.5.3)

**Includes hydroelectricity, bioenergy and larger scale solar, wind and petroleum based energy generation.*

***Rules 6.1.1.1 and 18.1.1.1 permit upgrades, maintenance, operation and replacement of existing utilities for telecommunications and electricity transmission. Energy generation is not permitted under Rule 6.1.1.6 or 18.1.16 unless the utility is for solar, wind and petroleum based generators located on the same site.*

****Includes the Port Hills, Malvern Hills and the High Country.*

Other relevant rules relate to the following:

- Outstanding Landscape Areas²
- Rural Character³
- Natural Hazards⁴

² Utility Structures (5.5); Utility Buildings (5.6)

³ Utility Buildings (5.7)

⁴ Utility Structures (5.8); Utility Buildings (5.9)

- Sites of Significance to Tangata Whenua⁵
- Waterbody Setbacks⁶ and
- Heritage Buildings⁷

Overall, the rules regarding utilities are comprehensive. However, they are lengthy and complex and could be consolidated and streamlined further and to align with the proposed Draft National Planning Standards (Draft Standards).

The objectives and policies in the Plan in both the Township and Rural Volumes are contained in the following sections:

- Natural Resources
- Physical Resources
- Health and Safety Values
- Growth of Townships/ Growth Rural

Relevant objectives and policies are included in Appendix 2 of the Baseline Report.

2.2 Consent requirements for anticipated renewable energy

Discretionary consent is currently required for any proposed energy generation activities, including solar generation plants, further expansion to the Coleridge Power Station, in-stream hydro-generation (such as through the Central Plains Water Scheme), bioenergy generation or commercial scale wind farms. Discretionary consent is also required to carry out upgrading, maintenance, operation and replacing existing utilities at the Coleridge Power Station. Associated utility structures and buildings are permitted activities subject to compliance with performance standards in the RZ, where non-compliance requires restricted discretionary or discretionary activity.

Under the heritage rules, works on the Coleridge Power Station, which is a listed heritage item, are a permitted activity for minor maintenance⁸. More substantial works, such as additions and alterations to the Power Station would require a restricted discretionary activity under Rule 5.14.6. Restricted discretionary consent is also required under Rule 3.16.12 to undertake additions or alterations to the Power Station building.

Small-scale wind turbines or solar panels for on-site use for rural based industries such as dairy farms or plants or domestic dwellings are a permitted activity in the LZ, BZ and RZ. Associated utility structures and buildings are also permitted subject to compliance with performance standards in the LZ, BZ and RZ, where non-compliance requires either a restricted discretionary or discretionary activity consent.

⁵ Utility Structures (5.10); Utility Buildings (5.11)

⁶ Utility Structures and Utility Buildings (5.13)

⁷ Utility Structures and Utility Buildings (5.14)

⁸ Selwyn District Plan: Rural Volume, CS Rural Rules – Utilities, 5.14 Heritage Buildings – Utility Structure and Utility Buildings, Rule 5.14.1

3.0 Summary of Issues

3.1 Overview

The Baseline Report is one of the key steps in reviewing the effectiveness of the energy provisions in the Plan. The key issues for this topic are:

1. Maintenance and minor works to the Coleridge Power Station need a potentially more permissive consent framework to maintain efficient electricity generation output.
2. Opportunities for new development and upgrades of REG activities need to be provided for consistent with the NPS-REG.
3. Effective management of REG buildings and infrastructure which have the potential for adverse environmental effects on sensitive receiving environments is required.
4. More permissive approaches are needed to establish small and community-scale renewable energy generation activities in appropriate locations with acceptable environmental effects.

These issues are summarised further in sections 3.2 to 3.6 below.

3.2 Maintenance and minor works on the Coleridge Power Station

A reasonably onerous requirement for a discretionary activity resource consent for maintenance, repair and minor upgrades has been applied to the Coleridge Power Station. This does not appear to be well aligned with the nature and significance of potential effects that would be typically associated with these works.

The effects anticipated from maintenance, upgrading and replacement works at the Power Station are relatively minor and are permitted for other utilities under Rule 5.1.1 of the Plan. For example, maintenance of open channels used to convey water is a permitted activity for existing drains and stock races under Rule 5.1.2.5 but is discretionary for the Power Station under Rule 5.1.3. This restrictive consent framework, particularly for maintenance and minor repairs, appears unduly onerous and suggests that the Operative Plan is not as efficient as it could be in terms of enabling the on-going efficient operation of the Power Station.

The rules for new buildings and structures associated with the Power Station are more permissive than the rules for maintenance activities although new buildings and structures may potentially have more significant effects. New utility buildings and structures, are permitted under Rules 5.2 and 5.3 (subject to compliance with height and location standards) and smaller scale utility buildings with low reflectance levels are permitted in Outstanding Landscape Areas (OLA) under Rule 5.5.1.

Minor maintenance on the listed heritage Coleridge Power Station building is a permitted activity under the Heritage Rule 5.14.1. More substantive works such as additions and alterations to heritage buildings are a restricted discretionary activity under Rule 5.14.6. Consent is also required under the more general Section C3 Buildings in the Operative Plan (Rule 3.16.1.2) for a restricted discretionary activity for additions or alterations to a listed heritage item. It is noted that there are no specific assessment matters for considering the tension between protecting the

heritage values of the Power Station building and ensuring continued efficient operation of the Power Station.

A portion of the Power Station building, part of the inlet structure from Lake Coleridge, and the tail races, are located within the Outstanding Natural Landscape (ONL) area. The ONL boundaries and their relationship to the Power Station will be assessed as part of the Natural Environment – Outstanding Natural Features and Landscapes topic and may be subject to amendment. Some structures associated with the Power Station are considered likely to remain located within the ONL area (such as tail races and inlet structures) and the consent requirements and assessment matters under Rules 5.5.4 and 5.6.3 are considered appropriate to manage the likely effects of these utility structures on the ONL.

3.3 Potential adverse reverse sensitivity effects on the Coleridge Power Station

Through consultation, Trustpower noted that that plantation forestry (plantations) have the potential to increase fire risk and disrupt operations of the Power Station. As the ONL is expected to be retained around the Coleridge Power Station and plantation forestry is expected to be retained as a non-complying activity in the ONL, this matter is considered unlikely to be a significant issue in the District Plan Review process.

3.4 Opportunities for new development of REG activities and upgrades

The Operative Plan does not provide for temporary activities for site suitability investigations for future renewable energy generation which is a requirement of Policy G of the NPS-REG.

Opportunities for new development (including upgrades) of REG also need to be provided for consistent with the NPS-REG. More substantial expansion of the Coleridge Power Station requires a consent for a discretionary activity under the Plan which is appropriate for larger scale expansions. As described above, other in-stream or in-channel hydro-generation activities still require a consent as a discretionary activity under Rule 5.1.3 even though the anticipated effects of using existing irrigation channels to generate energy is likely to be much less significant than constructing and operating new larger scale infrastructure.

While the Baseline Report has identified that commercial scale wind generation is not likely due to inappropriate wind conditions relative to other locations in New Zealand, the effects of this activity and associated structures can be significant and requires appropriate management.

3.5 Managing REG buildings and structures

The effects of REG buildings and structures vary dependent on their location in relation to more sensitive land uses and the landscape and amenity values of the setting.

Living Zones are more sensitive to the noise and amenity effects of larger scale structures such as turbines. While the Baseline Report does not anticipate on-site wind generation in living zones (as the sites are too small to achieve compliance with the New Zealand Standard for managing noise effects), it is appropriate that the Proposed District Plan clearly manages any effects of

wind energy generation. In addition to the height of structures, other potential effects include noise, overshadowing, and impacts on amenity values in living zones.

In Living Zones the visual effects of solar panels are generally minimal and anticipated. However, more significant visual effects may arise if solar panels are not aligned with the roof pitch and are more visually obtrusive. Within industrial and commercial settings, the visual effects of solar panels are likely to be minimal, even if they are not aligned with the roof pitch due to lower levels of amenity in these locations.

Local commercial areas are also likely to be sensitive to REG structures such as wind turbines due to noise and amenity effects on the adjoining residential areas. However, industrial areas and key activity centres are likely to be less sensitive to these effects as activities at the scale of development and anticipated level of amenity can better absorb the potential effects of wind and solar infrastructure.

In rural locations, the larger land areas for individual properties means that there is appropriate separation between REG infrastructure and residential dwellings. The most significant effects will relate to visual effects where the infrastructure is visible from road corridors, ridgelines or in Outstanding Landscape Areas (OLA). The Plan is permissive in sensitive locations by enabling smaller scale utility infrastructure in OLA as permitted activities regardless of its effect on the OLA.

3.6 Small and community-scale renewable energy generation activities with acceptable environmental effects

There is a tension between enabling smaller community-scale renewable energy generation activities as required under the NES-REG and ensuring that the effects of these activities and structures are effectively managed. The Plan permits on-site wind and solar generation activities in the living, business and rural zones and manages the effects of utility structures by controlling the height⁹ and siting of utility structures. Utility structures such as solar panels and some wind turbines¹⁰ (subject to compliance with recession planes) are permitted under these rules without any consideration of the amenity or overshadowing effects of wind turbines, the noise effects of any turbines, or the amenity effects of solar panels not aligned with the roof pitch (and potentially encroaching recession planes).

The Plan does not distinguish between smaller community-scale renewable energy (generated to supplying a local community) activities and larger scale commercial generation activities or the varying effects of these activities. A consent is required as a non-complying activity in the living and business zones and for a discretionary activity in rural zones for all energy generated for off-site use regardless of its purpose or effects. The non-complying activity status in commercial

⁹ Rule 6.3.1⁹ permits utility structures up to 15 metres in height and either less than 500mm in diameter over 6 metres or greater than 500mm over 6 metres subject to complying with the recession plane in living zones. Rule 18.3.1 permits utility structures up to 30 metres in business zones⁹ and Rule 5.3.1 permits utility structures up to 25 metres in rural zones with the same exceptions over 6 metres as applied in Rule 6.3.1.

¹⁰ A website search indicates that wind turbines for domestic use in New Zealand recommend a minimum pole height of over 8 metres.

zones and discretionary activity status in rural zones may discourage development of community scale renewable electricity generation projects which is encouraged by the NES-REG.

4.0 Summary of Relevant Statutory and/or Policy Context and Other Background Information

4.1 Statutory framework

Section 5.6 of the Baseline Report reviews and summarises the planning framework relevant to this topic. The following sub-sections outline the findings of the assessment of the Plan against the NPS-REG; Canterbury Regional Policy Statement (CRPS), draft National Planning Standards and Mahaanui: Iwi Management Plan.

National Policy Statement – Renewable Electricity Generation

The NPS-REG¹¹ sets out the requirements for objectives and policies for renewable electricity generation under the Resource Management Act 1991 (Act). The NPS-REG also requires District Councils' to recognise and provide for renewable electricity generation activities at a local level and reduce unnecessary barriers to obtaining resource consent for the development of small and community scale REG projects.

While some provisions of the Plan are consistent with the requirements of the NPS-REG, this was unintentional as the Plan pre-dates the NPS-REG.

Canterbury Regional Policy Statement

The Canterbury Regional Policy Statement 2013 (CRPS) contains specific objectives and policies regarding energy generation in Chapter 16 – Energy which aim to implement the NPS-REG.

The Plan is inconsistent with the CRPS as it does not recognise, promote and encourage renewable electricity generation explicitly. Furthermore, there are no specific objectives, policies and rules relevant to REG activities.

The Plan does not provide for small and community scale distributed renewable electricity generation.

Draft Planning Standards

The draft National Planning Standards (Draft Standards) aim to improve consistency in plan and policy statement structure, format and content. The first set of the Draft Standards is anticipated to be gazetted in April 2019 (Ministry for the Environment, 2018). The Draft Standards currently include definitions on renewable energy generation but do not contain any proposed standardised rules. The Draft Standards also require any district plan rule to manage noise emissions consistent with noise measurement methods in the New Zealand Standards which in this case is New Zealand Standard 6808:2010 Acoustics - Wind farm noise.

¹¹ The NPS-REG came into effect on 13 May 2011.

Mahaanui: Iwi Management Plan

Ngāi Tahu have a particular interest in energy generation, distribution, use and the establishment of wind farms and its potential effects on Ngāi Tahu values and associations with the landscape. The Mahaanui Iwi Management Plan 2013 includes a series of relevant objectives and policies that are attached in Appendix 5 of the Baseline Report. In summary, policies (P.17.1 to P17.5 and TAW1.1 to TAW1.5) are considered relevant in terms of electricity generation from renewable energy. In particular Policies P17.4 and P17.5 support the development and implementation of policies for renewable energy and encourage solar and wind energy generation activities in the Canterbury Region.

Policy 17.3 specifically supports the use of Cultural Impact Assessments (CIA) to assess actual and potential effects of proposals on Ngāi Tahu values for renewable energy generation. Ngā Paetae objectives in section 5.8 Ngā Tūtohu Whenua seek recognition and mapping of cultural landscapes. The objectives and policies reiterate the importance of consultation with the Rūnanga to address cultural, heritage and landscape values early in the consent application process.

The requirement for a resource consent and consultation with local iwi are triggered in the Plan when undertaking earthworks associated with utility buildings and structures within identified cultural sites. There is no other consent trigger or assessment required in relation to the energy generation as an activity.

The Plan provisions do not specifically require CIA's. However, it does contain specific policies which seek to ensure that 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.

5.0 Summary of Alternative Management Responses - Other Districts

5.1 Case studies selected

The following four operative Unitary and District Plans were selected to provide a representative sample of the type of policy approaches used:

- Auckland Unitary Plan (AUP)
- Christchurch District Plan (CDP)
- Far North District Plan (FNDP)
- Proposed Dunedin District Plan (pDDP)

A summary of the different approaches adopted in the case studies is included in Section 6 of the Baseline Report – **Appendix 1**.

5.2 Case study findings

The four case studies provide some valuable insights into developing renewable energy policy within the district. For example, the approach of retaining all assessment matters for renewable energy in the same chapter used in the CDP, FNDP and the pDDP is considered appropriate for district plan usability. The approach of permitting small-scale (domestic-scale/on-site energy generation) renewable electricity generation and other smaller scale infrastructure subject to meeting activity specific standards and built-form standards in relevant zones is consistent with the enabling intent of the NPS-REG.

The preferred approach to rules is that they relate to the scale of activities and related effects and the sensitivity of locations. The approach of requiring consents for large scale infrastructure, and smaller scale permanent infrastructure in sensitive landscapes and areas of cultural or historic significance is preferred.

6.0 Summary of Options to Address Issues

A series of options have been developed to identify a broad approach to addressing the issues outlined in section 3.0 of this report.

Following Council consideration of this report, preferred options will form the basis of draft objectives, policies and rules for the energy generation topic.

6.1 OPTION 1a - Retain the current restrictive consent requirements for REG activities

Effectiveness in Addressing Issue:

The Baseline Report concluded that the current planning framework in the Plan is unreasonably restrictive for some utility activities and works. The Plan contains some objectives and policies which are consistent with the NPS-REG by default but requires updating to achieve full compliance with the NPS-REG. Option 1a is a more restrictive approach to managing energy generation similar to the Plan where off-site distribution and use of electricity generated requires a consent as a discretionary activity and in some cases as a non-complying activity.

The Plan rules restrict activities that generate electricity off-site, while it is permissive for electricity generation from solar and wind for on-site use in all zones. For example, the enabling framework which permits on-site wind generation in the LZ, BZ and RZ subject to compliance with performance standards is likely to lead to some unintended consequences by permitting adverse amenity effects (visual, noise and overshadowing) in residential areas.

The permitted activity status of on-site solar generation does not allow assessment of the visual and amenity effects of solar panels which do not align with the roof pitch and may cause adverse effects. Resource consent and consultation with the local iwi are triggered only when undertaking earthworks within identified cultural sites but not on the basis of activity being undertaken.

The Plan was prepared prior to the NPS-REG. The existing provisions have been in place for over a decade and have been tested through the resource consent process on very few occasions. The Plan does not recognise REG activities and it does not provide a robust framework for assessing new and existing REG activities.

Risks:

The primary risks associated with retaining the status quo approach of more restrictive consent requirements are that they will not fully give effect to the NPS-REG or the CRPS. This has the potential to discourage any new REG activities and as discussed above may result in adverse effects on people living, working or visiting the living, business and rural environments in the district.

Budget or Time Implications:

While this option would be efficient both in terms of cost and timeframes as the existing rules would effectively be rolled over, it has the potential to result in significant longer term costs to Council and applicants in consent processing for some relatively minor matters. It also fails to address the need to provide more enabling provisions to encourage REG activities and fails to give effect to the NES-REG.

Stakeholder and Community Interests:

Trustpower has raised the following issues in relation to the Coleridge Power Station and performance of the Plan: reverse sensitivity from forestry, activity status for activities in the Outstanding Natural Landscape (ONL), activity status in relation to maintenance and up-grades to the heritage listed Power Station. Trustpower indicated that it would accept restricted discretionary activity status for fundamental external changes and additions but would prefer a controlled or permitted activity status for minor repairs and up-grades. This approach would better recognise the provisions of the NPS-REG and CRPS.

Liaison with the relevant work streams is required in the subsequent phases of the DPR to enable a consistent approach across the Proposed Plan.

Recommendation:

The Plan contains some objectives which are consistent with the NPS-REG by default but requires updating to give effect to the NPS-REG. Based on the analysis that has been undertaken, and the results of brief consultation with MKT, Trustpower and E³, the current framework is considered to lack the degree of certainty required by the NPS-REG, CRPS and community. Retaining the current restrictive provisions is not considered to be the most efficient or effective means of providing for existing and new REG activities within the District.

6.2 OPTION 1b – Enabling renewable energy generation activities including small scale on-site and community scale generation in appropriate locations

Effectiveness in Addressing Issue:

Option 1b adopts an enabling approach of facilitating increased renewable energy activities consistent with the NPS-REG that would be applied district-wide as part of the Utilities Chapter. This option would also permit a series of smaller-scale works to be undertaken where they comply with performance standards. This approach is similar to the approach applied in the Christchurch District Plan and would enable the following REG activities to occur where they comply with performance standards: (a) maintenance, repair and replacement of buildings and structures; (b) minor works to access tracks and tail races, equipment within buildings, temporary generators and noise monitoring equipment; (c) installation of, solar panels on buildings or structures.

Option 1b would require restricted discretionary activity consent for establishing new REG activities or to undertake significant alterations to utility buildings and structures in rural and industrial zones. A discretionary activity consent would be required to carry out these works in more sensitive residential and commercial zones and other sensitive locations identified in the Plan.

Commercial wind farms would require discretionary activity consent in all zones, while wind turbines limited to on-site and community scale generation would be a restricted discretionary activity in rural and industrial zones and a discretionary activity in residential and commercial zones.

Risks:

This approach will provide certainty to residents and the renewable electricity generators regarding the anticipated outcomes for different scales and types of REG activities in different locations across the district. As this option is more aligned with the NPS-REG it does not provide any significant risk.

Budget or Time Implications:

This approach would enable new REG activity provisions to be developed collaboratively as part of the DPR process. There are a number of cross over areas with other Topics, including Utilities, Noise and Vibration, Visual Amenity, Outstanding Natural Landscapes, Sites and Areas of Cultural Significance and Heritage.

Opportunity exists through this process to gain efficiencies by developing the new provisions as a comprehensive suite of provisions through integrating the s32 evaluations with other Topics.

Stakeholder and Community Interests:

Trustpower seeks provisions for up-grading existing facilities such as structures or canals of the Coleridge Hydroelectric Power Station and less restrictive provisions for undertaking works on the Power Station building which is a listed heritage item.

Liaison with the relevant work streams is required in the subsequent phases of the DPR.

Recommendation:

Option 1b is recommended as it would enable increased renewable energy activities, including permitting activities with minor effects and requiring a resource consent for a restricted discretionary activities for most other activities (except in sensitive locations where consents would be required for discretionary activities) consistent with the NPS-REG.

It is recommended that this option is progressed in consultation with Environment Canterbury, Iwi via MKT, Trustpower, and other relevant Topic Leads.

6.3 OPTION 2a - Enabling the efficient operation and providing for future development of the Coleridge Power Station with fewer consent requirements

Effectiveness in Addressing Issue:

Option 2a applies specifically to the Coleridge Power Station and provides for future development of the Power Station with fewer consent requirements than Option 2b.

Option 2a would provide the following consent framework for the Power Station:

Permitted activity (subject to performance standards)	Restricted discretionary activity	Discretionary activity
Operation and future expansion of the Power Station (activity)		
Minor repairs, maintenance and new smaller scale buildings and infrastructure (works)	Smaller scale buildings and infrastructure that does not meet performance standards (works) Larger scale buildings and infrastructure (works)	

Risks:

This approach would enable continued operation of the Coleridge Power Station without any consent requirements for expansion of the activity, minor repairs, maintenance and smaller scale new infrastructure and buildings subject to compliance with performance standards. Works on the heritage power station building and in the ONL would continue to require consents under other rules which would protect important landscape or heritage values with minor works¹²

¹² Including: the replacement of materials that do not form part of the original heritage features of the building, structure or site; replacement of any materials which form part of the original heritage values of the buildings, structure, or site, provided that these materials are of the same or similar appearance and character as the original material; any repainting of existing painted surfaces;

being a permitted activity. Larger scale works would be assessed through a restricted discretionary consent with consideration of a limited set of matters of discretion.

The key risks with this approach is that it would provide less management of the actual and potential environmental effects of a larger scale expansion to the Power Station. It may also be difficult to set threshold performance standards for permitted works including matters such as tail race expansions and any associated environmental effects.

Budget or Time Implications:

The restricted discretionary status for larger scale expansion would reduce costs to Trustpower and may result in a more straightforward consent process which is limited to considering certain issues. This may reduce the need for unnecessary reports and/or assessments that may be unduly time consuming and costly to prepare and process.

Stakeholder and Community Interests:

Option 2a is generally consistent with Trustpower's position as they are seeking more permissive provisions for both management and upgrade of the Power Station. Trustpower indicated that works such as external changes or additions could be supported as a Restricted Discretionary activity, but works such as replacing the roof could be a controlled activity. This is further discussed below as it is interrelated with District-wide Natural Environment- Heritage Items and Protected Trees.

Trustpower has advised that forestry in close proximity to the Coleridge Power Station could adversely affect operations. However, use of adjoining land for forestry is considered unlikely due to its location within an ONL. Therefore, a separate rule is not considered necessary to address this issue.

Liaison with the relevant work streams is required in the subsequent phases of the DPR.

Recommendation:

Option 2a would enable continued operation of the Coleridge Power Station without any unnecessary consent requirements for repairs, maintenance and smaller scale buildings and infrastructure. It would also enable minor expansion of the Power Station without the need for a resource consent while requiring a restricted discretionary activity consent for more significant works. Works on the heritage power station and in the ONL would continue to require consents under other rules which would protect important landscape or heritage values.

Although there are a number of benefits with this approach, Option 2a is not recommended as it would enable an increase in the scale and intensity of the Power Station without sufficient consideration of the effects of the proposed activity and works which may give rise to adverse effects on the environment.

repainting; any cleaning or washing of external heritage features provided this does not involve the use of abrasive materials or techniques, such as sandblasting.

6.4 Option 2b – Enabling efficient operation and managing future development of the Coleridge Power Station through a more controlled consent framework

Effectiveness in Addressing Issue:

Option 2b provides for future development of the Coleridge Power Station with more controlled consent requirements than Option 2a.

Option 2b would apply the following consent framework:

Permitted activity (subject to performance standards)	Restricted discretionary activity	Discretionary activity
Operation of the Power Station (activity)		Significant expansion of Power Station (activity)
Minor repairs, maintenance and new smaller scale buildings and infrastructure (works)	Smaller scale buildings and infrastructure that does not meet performance standards (works)	Larger scale buildings and infrastructure (works)

Risks:

Option 2b would enable continued operation of the Coleridge Power Station without any excessive consent requirements for minor repairs and maintenance which are not on the listed heritage buildings or in the ONL.

This option would reduce the risk of any adverse cumulative effects associated with the increased scale and operational capacity of the Power Station activity and would enable consideration of the broader effects of larger scale buildings and infrastructure on the environment.

Budget or Time Implications:

The discretionary activity status for expansion of the power station (activity and works) would maintain the status quo for more substantive works. Option 2b would enable maintenance, repairs and other smaller scale buildings and infrastructure to be undertaken as permitted activities and minimise costs associated with consent preparation and processing. It would also enable more straightforward consent processes for smaller scale buildings and structures which do not meet performance standards and require consent as a restricted discretionary activity.

Stakeholder and Community Interests:

As noted in 2a above.

Recommendation:

Option 2b is recommended as it would enable continued operation of the Coleridge Power Station without any unnecessary consent requirements for minor repairs and maintenance. Works on the listed heritage Power Station and in the ONL would continue to require consents under other rules which would protect important landscape or heritage values.

Option 2b would also enable management of the effects from increasing the scale and operational capacity of the power station activity including any cumulative effects and management of larger scale works through a consent for a discretionary activity.

7.0 Summary of Stakeholder Engagement

7.1 Overview

Stakeholder engagement has been undertaken as part of the DPR for Energy Generation to inform the Baseline Report, which has assisted to prioritise the issues and evaluate the Preferred Options.

This report has been based primarily on desk-top research. A limited number of targeted discussions were undertaken with Energy (E³)¹³ an energy design and manufacturing company based in Christchurch but working primarily in Australia, and Trustpower as managers of the Coleridge Power Station.

7.2 Trustpower

Based on consultation with Trustpower, we understand that the following activities and structures are operated/associated with the Coleridge Power Station:

- Earthworks related to diversion of water (Canterbury Regional Council (ECan) functions)
- Earthworks and structures associated with gates, weirs, canals. Mention was made of Lake Stream where there is a small gate used to control outflows from the lake. The dam is to be rebuilt and will require a new gate
- Instruments associated with monitoring and operation
- General maintenance activities
- Vegetation clearance
- Up-grading - may or may not involve any distinguishable change to structures, may be internal to powerhouse. Upgrades may involve changes which result in the structure looking quite different. These may be due to materials used, technology, or in response to climate variability and change which requires a different design response.

Many of the activities/structures are located close to or are in waterbodies connected to the powerhouse.

The following broad topics were discussed:

Activity Status - Activity status was discussed, for example works to upgrade canals or structures. Trustpower indicated that it can be very difficult to determine the physical parameters of an upgrade. Trustpower indicated that a restricted discretionary consent may be acceptable, acknowledging the ONL status of Lake Coleridge. With respect to the Power House (which is a listed heritage item), Trustpower indicated that fundamental external changes or additions could

¹³ E3 is an energy design and manufacturing company providing commercial energy solutions primarily in Australia.

be accepted as a Restricted Discretionary activity, but works such as replacing the roof could be a controlled activity.

Reverse sensitivity - forestry can impact operation of the Coleridge Power Station. Trustpower indicated that they would like to ensure that forestry is excluded in the general locality (Note: The surrounding area is ONL where it is likely that any commercial forestry will be a non-complying activity in the Proposed Plan). It is noted that Forestry is also regulated by the Resource Management (National Environmental Standards for Plantation Forestry) Regulations 2017. Topic *RU209 - Vegetation (Plantations, Plantation Forestry, Shelter Belts, Amenity Plantings), including Wilding Tree Spread* is addressing forestry as part of the DPR.

7.3 Energy³

Energy³ is an energy design and manufacturing company. Selwyn District Council consulted with Tom Cameron who is the founder of E³ and sought advice on the following matters that are reflected in the Baseline Report and this Preferred Options Report:

- Dimensions, height and number of wind turbines required for domestic use
- Features associated with wind turbine
- Feasibility of wind energy for residential, Industrial, Commercial and Rural areas
- Monitoring duration for a wind turbine
- Colour finishes of the blades
- Any visual effects from blades
- Solar energy feasibility from photovoltaic

7.4 Environment Canterbury

Feedback from Ecan will be incorporated after consultation.

7.5 Mahaanui Kurataiao Limited

Mahaanui Kurataiao Limited (MKT) act on behalf of the Rūnanga and facilitate the Rūnanga input into Council reports. From reviewing the endorsed Preferred Options report for Sites and Areas of Cultural Significance, it appears there will be cultural landscape layer in the District Plan maps (Ngā Tutohu Whenua / Wāhi Tapu, Wāhi Tapu Waipuna and Wāhi Taonga / Ngā Tūranga Tūpuna/ Ngā Wai), that may trigger engagement with the Rūnanga and/or require consents. Lake Coleridge and the Rakaia River are proposed to be classified as a Ngā Wai¹⁴ in accordance with the Endorsed Preferred Options report.

Feedback from MKT will incorporated after consultation.

¹⁴ Wai is water and represents the essence of all life

8.0 Conclusion

The Operative Plan is relatively restrictive in terms of consent requirements for undertaking maintenance and minor works on the Coleridge Power Station. More enabling provisions are also needed to encourage REG activities anticipated under the NPS-REG in appropriate locations, while taking into account the character of the setting. In particular, more permissive approaches to on-site renewable energy are required.

Preferred Options 1b proposes a district-wide enabling planning framework for REG activities with consent requirements that encourage this form of development, while managing any potentially adverse effects.

Preferred Option 2b recommends a more enabling planning framework for the Coleridge Power Station with new permitted maintenance, repairs and other smaller scale buildings and infrastructure. Increases in the scale of the energy generation activity and more substantial works associated with major redevelopment are proposed to be a discretionary activity under Option 2b.

9.1 Preferred Option for Further Engagement

The Project Team recommends that Option 1b and 2b be developed as follows:

1. The above preferred options are received and the approach outlined in Section 6 is endorsed.
2. The Preferred Options for District Wide matter- Energy Generation including small scale energy generation, as outlined in Section 6.0, are endorsed for further development (including targeted stakeholder engagement, Section 32 analysis and Drafting Phase).
3. Incorporate definitions related to renewable energy for small and community and large-scale REG activities consistent with definitions within the NPS-REG and the Draft National Planning Standards.
4. Provide for upgrading, maintenance, operation and replacement of the Coleridge Power Station.
5. Develop a robust objective and policy framework to manage REG activities consistent with amenity, character anticipated in relevant zones, and which provides for REG activities to occur in appropriate locations while avoiding or mitigating adverse effects, particularly on sensitive receptors.

10.0 Recommendations for Content of Energy Generation Provisions

10.1 Definitions

While a range of definitions have been applied in other district plans ranging from extremely comprehensive to a more minimal approach, it is recommended that consideration is given to

‘wrapping up’ definitions into higher order definitions. For example, renewable energy can be defined more generally rather than defining each type of renewable energy resource separately. The same approach could apply to renewable energy infrastructure. Definitions should be consistent with the NPS-REG and take into account the Draft Standards. However, it is noted that the Draft Standards have not been gazetted and may be subject to further change.

We recommend defining the following terms:

- Renewable electricity generation (as defined in the NPS-REG)
- Renewable electricity generation activities (as defined in the NPS-REG)
- Small and community-scale distributed electricity generation (as defined in the NPS-REG)
- Research and exploratory-scale investigations for renewable electricity generation activities
- Large-scale electricity generation

10.2 Matters to be included in objectives and policies

The Baseline Assessment has identified a range of matters that should be reflected in policy to meet the requirements of Part 2 of the Act, the NPS-REG, the Draft Planning Standards and best practice. Inclusion of a ‘small scale renewable electricity generation’ definition in the NPS-REG and Draft Standards also creates opportunities for a framework of policies and rules based on the type, location and scale of buildings and infrastructure. This approach is consistent with the NPS- REG enabling approach for renewable energy generation and would simplify interpretation of policies and rules.

Matters which should be reflected in objectives and policies are summarised below:

- Higher level objective/s that reinforce and recognise the national and local significance of renewable electricity generation.
- The higher level objective/s are to be supplemented by policies and rules that recognise, provide, enable, and manage REG activities with different types and scales in appropriate locations/zones.
- Policy encouraging regional scale renewable energy generation activities and infrastructure in rural or industrial zones (as proposed in the pDDP) and limiting it elsewhere.
- Policy acknowledging the implications and constraints associated with renewable electricity generation activities, including locational, operational and technical matters.
- Enabling policy to support the maintenance and minor repair of infrastructure and heritage buildings at the Coleridge Power Station.
- Enabling policy for small scale in-stream or in-channel hydroelectricity generation.
- Policy to promote and manage biomass electricity generation in proximity to available fuel sources that minimise potential effects such as on the surrounding road network and the amenity values of neighbours, earthworks and dust which fall under district council functions.
- Enabling policy for temporary wind energy resource monitoring activities and infrastructure.

- Enabling policy for on-site wind energy generation activities and infrastructure in rural and industrial locations including cultural landscapes (to enable on-site generation at marae) provided they are not in areas with landscape, or historic heritage significance.
- Policy limiting wind generation activities and infrastructure in residential or commercial areas.
- Policy managing potential adverse effects of commercial wind farms.
- Enabling policy for solar panels for on-site and on-site/ grid use where potential environmental effects are minor.

Note: The above matters will be consolidated to form a good basis for a higher level objective/s and a few supporting policies.

10.3 Scope of proposed rules

- Rules managing the scale and effects of activities and infrastructure in sensitive landscapes. Cross referencing rules and activity status from relevant work streams will be required.
- Rules managing reverse sensitivity effects of other activities on existing renewable energy generation activities for example Coleridge Power Station.
- Rules enabling repair, maintenance and minor buildings and structures at the Coleridge Power Station.
- Rules managing more significant upgrades to Coleridge Power Station (new buildings, infrastructure and other works).
- Rules enabling small-scale in-stream or in-irrigation channel hydroelectricity generation activities.
- Rules requiring compliance with zone earthwork rules.
- Rules permitting research and temporary exploratory-scale investigations for REG activities.
- Rules to manage potential effects of larger scale bioenergy activities and infrastructure.
- Rules regarding appropriate locations for wind turbines (rural and industrial zones)
- Rules enabling wind turbines in industrial areas with appropriate standards (including noise, setbacks from zone boundaries).
- Rules managing potential adverse effects of commercial wind farm activities and infrastructure.
- Rules that limit number and height of wind turbines based on the zone.
- Rules requiring wind turbines and wind farms as a non-complying activity in the residential areas and restricted discretionary activity in other areas across the District.
- Rules/performance standards requiring compliance with New Zealand Standard 6808:2010 Acoustics - Wind farm noise.
- Rules/performance standards to avoid adverse amenity effects in residential areas (e.g. area, reflectivity and alignment of panel with roof). A reference back to compliance with recession plane requirements in the relevant zones is proposed to be included.

Note: The above matters will be consolidated and developed further to form rules.

10.4 Matters of discretion could relate to managing the following environmental effects:

- Visual (scale of buildings, infrastructure, reflectivity, overhead wires and access tracks)
- Landscape (ridgelines, sensitive landscapes, access tracks)
- Noise from wind turbines and consistency with NZS6608:2010. The noise standards for the relevant zones shall apply and cross referencing rules and matters of discretion in Noise and Vibration chapter.
- Ecological values (removal of native vegetation and effect on habitat). Cross referencing matters of discretion from relevant Natural Environment work streams.
- Construction (earthworks, noise and traffic)
- Overshadowing (from large structures) and shadow flicker on dwellings.
- Heritage (Coleridge Power Station). Cross referencing with Natural Environment work stream.
- Cultural (Ngai Tahu values and sites of cultural significance). Cross referencing with Natural Environment work streams.
- Operational considerations
- Health and safety
- Reverse sensitivity

APPENDIX 1: Baseline Report (E1008)

ENERGY GENERATION



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REVIEWED	Craig Friedel, Senior Planner
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---------------------------	---------------------------------

OFFICE OF ORIGIN	Christchurch
TELEPHONE	+64 3 421 6131
EMAIL	r.ducker@harrisingrierson.com

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APPENDICES

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Appendix 4	Regional Policy Statement Objectives and Policies
Appendix 5	Iwi Management Plan Objectives and Policies
Appendix 6	Victoria Planning Provisions

1.0

INTRODUCTION AND SCOPE

1.1 PROJECT SCOPE

This Baseline Report covers the Energy Generation Topic of the Selwyn District Plan Review. This Topic encompasses large scale renewable energy generators including the Lake Coleridge Power Station through to small scale energy generators, such as domestic wind turbines and solar power.

Under Section 74 (1) (b) of the Resource Management Act (RMA), Councils' must prepare and change district plans in accordance with the provisions of Part 2 of the Act. Sections 7 (ba) and (j) of the RMA require that decision makers have particular regard to the efficiency of the end use of energy and the benefits of the use and development of renewable energy

The National Policy Statement for Renewable Electricity Generation 2011 (NPS-REG) requires District Councils' to review their plans to ensure that the national significance of renewable energy generation activities are recognised and provided for in objectives, policies, and methods (including rules where appropriate). District Councils' are required to have a broad appreciation of relevant developed and undeveloped renewable energy generation resources in their district, as well as the future potential for renewable energy when reviewing their district plans.

The NPS-REG requires District Plans to contain planning provisions to:

- a) Assist in meeting the New Zealand Government's renewable energy target;
- b) Maintain generation output of existing renewable energy generation;
- c) Provide for new development of renewable energy generation activities;
- d) Consider including more permissive approaches to establishing small and community-scale renewable energy generation activities; and
- e) Limit reverse sensitivity effects of other uses on existing and consented renewable energy generation.

The NPS-REG enables planning provisions to be included within a stand-alone energy chapter or form part of a wider suite of chapters relating to infrastructure or network utilities.

This report provides an overview of existing energy generation within the Selwyn District and potential changes to national and local energy generation to inform the Selwyn District Plan review. It reviews the effectiveness of existing energy generation policy in the Operative Selwyn District Plan (Plan) and its consistency with the National Policy Statement for Renewable Electricity Generation 2011 (NPS-REG). It also assesses energy generation policy approaches for a representative sample of other District Plans across New Zealand and also the Victoria Planning Provisions (Australia).

1.2 METHODOLOGY

This report has been based primarily on desk-top research. A limited number of targeted discussions were undertaken with Energy (E³)¹ an energy company operating in the Selwyn District, and Trustpower as managers of the Lake Coleridge Power Station.

¹ E3 is an energy company specialising in wind farms across New Zealand from site evaluation through to construction.

2.0 EXISTING RENEWABLE ENERGY GENERATION

2.1 NATIONWIDE RENEWABLE ENERGY GENERATION

In 2016, 85% of electricity supply in New Zealand was generated by renewable energy sources.² The percentage of energy generated by type from 2011-2018 is shown in Figure 1 below.

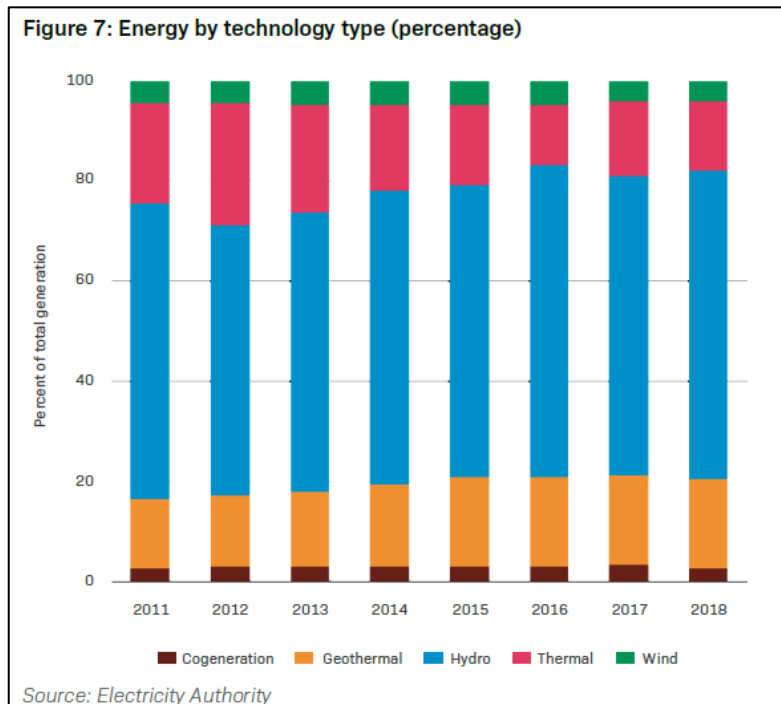


Figure 1: Energy By Type. Source (The Electricity Authority, 2018 p. 29).

2.1.1 GEOTHERMAL ENERGY

New Zealand has an abundant supply of geothermal energy due to its location on the boundary between two tectonic plates. Geothermal energy provides 22% of New Zealand's total primary energy supply. The average percentage of electricity generated from geothermal resources over the last five years was 17% (The Electricity Authority, 2018).

New Zealand's high-temperature geothermal fields are mostly concentrated around the Taupo Volcanic Zone and another major field at Ngawha Springs in Northland. Six fields are currently used for geothermal electricity generation with a further eight new and expanded fields in various stages of planning and development (New Zealand Geothermal Association, 2018).

² This is the third highest percentage of renewable electricity generation for countries in the Organisation for Economic Co-ordination and Development (OECD) (MBIE, 2017).

2.1.2 HYDRO ENERGY

New Zealand has had a long history of investment in hydro energy development. Hydro energy currently provides 59% of electricity generation (The Electricity Authority, 2018).

New Zealand has five main hydroelectricity systems; Waitaki, Waikato, Manapouri, Clutha and Tongariro (EECA, 2013). The volumes of electricity produced in stations within these systems are include in Figure 2.

ENERGY BY GENERATION TYPE (GWH)				
New Zealand's five largest power stations				
SITE CAPACITY	STATION NAME	GENERATION TYPE	LOCATION	OWNER
953 MW	Huntly ¹	Thermal (Gas and Coal)	Waikato	Genesis Energy
800 MW	Manapouri	Hydro	Otago/Southland	Meridian Energy
577 MW	Stratford ²	Thermal (Gas)	Taranaki	Contact Energy
540 MW	Benmore	Hydro	South Canterbury	Meridian Energy
464 MW	Clyde	Hydro	Otago/Southland	Contact Energy
Source: Electricity Authority				

Figure 2: Electricity in New Zealand. Source (The Electricity Authority, 2018 p.28).

No recent investment has been made in new hydroelectricity schemes since the Clyde Dam opened in 1992.

2.1.3 BIOENERGY

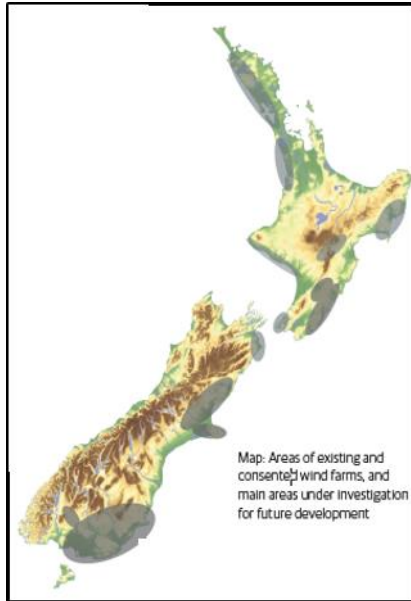
Bioenergy is fuel made from renewable organic material. More than 10 percent of New Zealand's energy currently comes from bioenergy (Bioenergy Association, 2018).

New Zealand has a significant biomass³ potential (EECA, 2013). The Bioenergy Association estimates that bioenergy could supply 25 percent of New Zealand's energy needs by 2040, including 30 percent of our transport fuel (Bioenergy Association, 2018).

2.1.4 WIND

New Zealand has a high-quality and reliable wind resource due to its geographic location. Locations in the lower North Island (Hawkes Bay, Manawatu and Wellington) and lower half of the South Island (Canterbury, Otago and Southland) are suitable sites to operate wind farms (EECA, 2013). Figure 3 shows the locations of existing and consented wind farms, and main areas under investigation for future wind energy development in New Zealand.

³ Most waste biomass is available through household rubbish, forestry, agriculture and other industries dealing in organic matter.



The average percentage of electricity generated by wind over the past 5 years' was 5% (The Electricity Authority, 2018).

Figure 3: Map of Wind Generation in New Zealand. Source: New Zealand Wind Energy Association

2.1.5 SOLAR ENERGY

Solar energy can be converted into electricity via solar photovoltaic (PV) panels. The Ministry of Business, Innovation and Employment (MBIE) reports that in 2016 there were 12,698 solar PV connections into the national electricity grid in New Zealand (MBIE, 2017). However, solar generation is a small proportion of energy generation and currently comprises only 0.1% of the total renewable energy generated (EECA, 2016).

2.1.6 SUMMARY

Renewable energy sources comprise a significant percentage (85%) of electricity supply in New Zealand. Hydro energy is the greatest source of electricity (59%) followed by geothermal energy (17%) and wind energy (5%). Other renewable energy sources such as solar provide a lesser amount of electricity.

Current renewable energy sources in the Selwyn District are outlined in section 2.2 of this report.

2.2 SELWYN DISTRICT

2.2.1 GEOTHERMAL ENERGY

There is no known geothermal energy generated in the Selwyn District.

2.2.2 LAKE COLERIDGE POWER STATION

The Lake Coleridge Hydroelectric Power Station (Power Station) is located between Lake Coleridge and the Rakaia River. The power station was constructed in 1914 and later added additional turbines and capacity with the diversion of the Acheron and Wilberforce Rivers into Lake Coleridge (Trustpower, 2018).

The Lake Coleridge Power House is a listed heritage item (Plan reference H112) in the Plan and specific provisions limit works on the building due to its heritage significance.



Image 1: Photograph of Lake Coleridge Power Station. Source: Trustpower website

The Power Station was upgraded following resource consents issued in 2001 and 2009. It now has the capacity to generate 39 megawatts (MW) with an average annual output to 270 gigawatt hours (GWh) (Trustpower, 2018).

2.2.3 WIND ENERGY

A wind turbine owned by Energy3 Generation currently operates in Southbridge. This wind turbine comprises a single three bladed 100kW turbine mounted on a 42m high lattice tower. It has the equivalent capacity to service the annual electricity needs of approximately 20-25 average New Zealand homes (New Zealand Wind Energy Association, 2018).

Two 10 metre high wind turbines located at the Lincoln New World car park meet some of the energy needs of the supermarket.

Three additional resource consents have been granted over the past eight years for wind monitoring masts near Windwhistle, Lake Coleridge and Springston.

2.2.4 SOLAR ENERGY

Solar panels are located on numerous domestic and commercial buildings within the Selwyn District. However, there is no available data on the number of solar panels currently installed for on-site use and the effect this has on reducing energy demand. There is also no data about the amount of electricity being generated or the number of connections to the national electricity grid.

2.2.5 BIOENERGY

There is a lack of published material regarding use of biomass (organic matter) as an energy resource within the Selwyn District.

2.2.6 SUMMARY

The majority of renewable energy generated in the Selwyn District is from the Lake Coleridge Power Station although the amount of electricity generated (39mW) is relatively small compared to the five main hydroelectricity systems in New Zealand. Solar and wind energy generated within the District is only sufficient for on-site

domestic or business use, although the Energy3 wind turbine has the capacity to service the electricity needs of approximately 20-25 average New Zealand homes.

3.0 FUTURE OF RENEWABLE ENERGY GENERATION

3.1 INFLUENCES ON NEW ZEALAND RENEWABLE ENERGY GENERATION

Key influences on renewable energy generation relate to changes in New Zealand Government energy policy and consequential non-renewable electricity plant decommissioning and increased investment in geothermal energy generation. These national influences, which also affect renewable energy generation in the Selwyn District, are summarised in 3.1.1- 3.1.4 below.

3.1.1 NATIONAL RENEWABLE ENERGY TARGETS

The New Zealand Energy Strategy (2011-2021)⁴ sets a target of 90% of electricity demand from renewable sources by 2025. The New Zealand Government's approach is to ensure that market incentives and the regulatory framework support further investment in appropriate renewable projects by removing unnecessary regulatory barriers (MoED, 2011).

3.1.2 CHANGE IN NON-RENEWABLE ENERGY SOURCES

In the past five years' two gas fired electricity plants (Otahuhu Power Station and Southdown Plant) have been retired (MBIE, 2017). Further closures of the two remaining coal / gas burning units at Huntly Power Station were originally planned for 2018, but are now proposed to close in 2022 to enable more time to develop increased generation capacity.

3.1.3 INCREASED INVESTMENT IN GEOTHERMAL ENERGY

Since 2007, eight geothermal schemes⁴ with a generating capacity of 10 megawatts or greater have been commissioned (Statistics New Zealand, 2017). These schemes have resulted in increases from 3,210 GW to 7,091 GW (8 percent to 17 percent of net generation) from 2007-2015 (Statistics New Zealand, 2017).

3.1.4 CHANGES IN ENERGY DEMAND

Consumer energy demand is continuing to rise, up 5.9 petajoule (PJ) for the fifth consecutive year (MBIE, 2017). The majority of this increased demand is from industry as industrial energy demand increased by 2.7% (5.5 PJ) in 2016 (MBIE, 2017). However, average residential electricity use has fallen by 2.8% (by individual control point) from 2015 levels, and has been trending downwards since 2009 likely due to energy efficiency improvements, demographic changes and weather variations (MBIE, 2017).

The energy demand for industrial uses within the Selwyn District is not known. However, changes from non-renewable to renewable energy sources are occurring in industry within the district. Synlait, which operates a large dairy factory in Dunsandel, is seeking to lower energy demand from on-site coal boilers by using a large scale electrode boiler which runs on renewable energy. Synlait is also investigating ways of integrating heat pump technology and recovering and re-using waste heat from the manufacturing process (ECCA media release 'Environmental move could be the making of milk, June 2018).

⁴ These were either new schemes or upgrades to existing generating capacity.

These nationwide trends all influence renewable energy generation in New Zealand and in the Selwyn District as discussed in section 3.2 of this report.

3.2 FUTURE RENEWABLE ENERGY GENERATION

3.2.1 GEOTHERMAL ENERGY

Within New Zealand, growth in the geothermal energy generation sector is anticipated to increase due to the relatively low cost technology for energy production (Statistics New Zealand, 2017). Geothermal projects that are either under development or are coming on stream include Te Mihi (200MW), Tauhara (263MW) and Mighty River Power (132MW) station constructed in Rotorua.

Geothermal energy generation is not anticipated to be developed in the South Island or the Selwyn District due to distance from the demand in the upper North Island and lack of high temperature geothermal fields.

3.2.2 HYDROELECTRICITY

Hydroelectricity generation is still anticipated to form the 'backbone' of New Zealand's electricity system in the future (EECA website⁵). The EECA website notes that while there is still significant scope to develop new hydroelectricity generation in New Zealand, large projects are unlikely as the major opportunities have already been taken and there is strong public interest in preserving waterways, including the associated landscape, recreational, biodiversity and cultural values attributed to them.

It is not anticipated that there will be any new hydroelectricity scheme development in the Selwyn District due to the lack of economic opportunities and potential environmental and community concerns. There may be smaller scale upgrades to the Lake Coleridge Power Station which could increase hydro electricity generation efficiency (pers. com Nicola Foran 2018).

Other opportunities for increased hydroelectricity generation relate to small-scale hydroelectric facilities ranging from 5kW micro-hydro servicing houses and buildings up to 10 MW servicing small scale commercial.⁶ These facilities use the force of running water to turn turbine blades, which spin a shaft connected to a generator. They can be used in situations where water falls from a higher level to a lower level such as waterfalls and streams (Energywise website). There may be potential for micro-hydro systems for domestic use and larger scale mini-hydro generation for other uses in the Selwyn District, including through water schemes such as the Central Plains Water Scheme.⁷

3.2.3 WIND ENERGY

The New Zealand Wind Energy Association reports that there is 682 MW installed wind capacity and a further 2000 MW of consented capacity (NZWEA website). There is no certainty that the consented capacity, which is predominantly in the North Island with some consented capacity in North Canterbury and Southland, will be built.

No wind farms are known to be being planned in the Selwyn District. Discussions with the Southbridge wind farm owner and operator (Energy3) have identified that the Selwyn District does not have appropriate wind conditions relative to some other sites

⁵ <https://www.eeca.govt.nz/>

⁶ Smaller hydroelectric schemes are often classified as micro-hydro - up to 5 kW, mini-hydro - between 5 kW and 20 kW and small commercial hydro - between 20 kW and 10 MW (Source Energywise website).

⁷ The Central Plains Water Scheme (Stage 1) comprises a 17km long canal delivering water from the Rakaia River into a piped distribution network and 23km pipe between the Selwyn and Waimakariri Rivers (Stage 2). Source: Central Plains Water website.

in New Zealand and commercial wind farms are unlikely in the near future (Pers. com between Nicola Rykers and Thomas Cameron). However, small-scale wind turbines for rural based industries, larger commercial and industrial buildings for dairy farms or dairy plants may be feasible subject to costs and benefits and on a case-by-case basis. One example of small-scale turbines is the two wind turbines installed at Lincoln New World supermarket.

It is not anticipated that wind turbines will be developed in residential areas due to costs and environmental effects related to turbine noise, visual amenity, and overshadowing in relation to support pole height.

3.2.4 SOLAR ENERGY

The percentage of solar energy generation in New Zealand is growing quickly as a generation source from a low base, up 52% over the year (MBIE, 2017).

Any increases in solar electricity generation both nationwide and in the Selwyn District are anticipated from solar PV connections for personal use or for personal use and connection back into the national grid. It is not anticipated that any medium or large scale generation plants will be developed within the Selwyn District or within New Zealand in the short-medium term.

3.2.5 BIOENERGY

Research by Crown Research Institute, Scion, shows that bioenergy from different sources could supply a significant amount of New Zealand's liquid fuel and heating demands (EECA website). A key bioenergy resource is wood from plantation forestry. Other potential sources of bioenergy include biomass waste utilisation⁸ that could be sourced from intensive farming activities or municipal waste (WIREs Energy Environ 2013).

There are several large-scale forestry interests in the Selwyn District and intensive farming activities (pork and dairy) which could be used as bioenergy sources. Development of plant based biofuel and potential use of bioenergy from the East Selwyn Sewer Scheme may be also be possible subject to economic viability.

3.2.6 SUMMARY

Geothermal energy generation is not anticipated to be developed in the Selwyn District due to distance from markets and lack of high temperature geothermal fields. Hydroelectricity generation development is anticipated to be limited to smaller scale upgrades to the Lake Coleridge Power Station to increase efficiency and other small-scale hydroelectric generation such as use of water irrigation schemes for smaller scale commercial use. Commercial scale wind farms are considered unlikely to be developed within the District due to the lack of appropriate wind conditions relative to other parts of New Zealand and the cost of infrastructure development. However, small-scale wind turbines for rural based industries such as for dairy farms or plants may be feasible. Wind turbines are considered unlikely to be developed in residential areas due to cost and potential for adverse environmental effects. No medium or large scale solar generation plants are anticipated within the Selwyn District in the short-medium term. However, increases in solar electricity generation from solar PV connections for personal use or for personal use and connection back into the national grid are anticipated. Forestry and intensive farming activities could be used as a source of bioenergy subject to economic viability.

⁸ Anaerobic digestion of effluents for combined heat and power.

4.0 ANTICIPATED EFFECTS OF FUTURE RENEWABLE ENERGY GENERATION

4.1 ANTICIPATED INFRASTRUCTURE

Section 3.2 noted that future renewable energy generation sources in the Selwyn District are most likely to be from:

- Hydroelectricity from the existing Lake Coleridge Power Station and small-scale operational improvements to this scheme.
- Small-scale in-stream or in-irrigation channel hydroelectricity schemes.
- Small-scale wind turbines for on-site use for rural based industries for dairy farms or plants.
- Small-scale wind turbines for on-site use in rural locations.
- Solar PV connections for on-site use or for on-site use and connection back into the national grid.

There is also potential for future bioenergy generation from forestry and intensive farming activities subject to economic viability.

The most significant effects arising from renewable energy generation requiring consideration in the Selwyn District Plan review are likely to be from the construction and operation of infrastructure required to generate energy. This is particularly the case for commercial scale wind farms which are not anticipated to be developed but have been included in the assessment in section 4.2 for completeness.

The key types of infrastructure relating to commercial scale windfarms are likely to be turbines and towers (wind), PV panels generally on roof forms (solar), turbines, buildings and tail races (hydro). An overview of the effects of this type of infrastructure is included in section 4.2.

4.2 OVERVIEW OF TYPES OF ENVIRONMENTAL EFFECTS

The potential effects of renewable energy infrastructure on the environment are summarised in Table 1. Potential effects associated with bioenergy have not been addressed as the majority of these effects are anticipated to fall within regional council functions (e.g. discharge to air or land).

Potential environmental effects associated with renewable energy have been identified through a review of recent consents issued in the Selwyn District and other publications including *Effectiveness Review of Operative District Plan in managing visual amenity effects of network utilities and energy generating activities*, (Boffa Miskell, 2017). The actual and potential effects of renewable energy generation infrastructure will vary depending on the type of infrastructure proposed and the site context.

TABLE 1: POTENTIAL ENVIRONMENTAL EFFECTS FROM RENEWABLE ENERGY INFRASTRUCTURE	
RENEWABLE ENERGY INFRASTRUCTURE	POTENTIAL EFFECTS
Hydroelectricity	<p>The key effects associated with maintaining and undertaking operational enhancements to the Lake Coleridge Power Station, relate to the effects of works on the heritage listed buildings and works associated with maintaining tailraces, gates and structures over the surface of waterways. Minor repairs are considered unlikely to affect the heritage values of the buildings.</p> <p>The majority of the Power Station building is not within the Outstanding Natural Landscape (ONL) area. However, part of the building, part of the inlet structure from Lake Coleridge and the tail races are located within the ONL area. Minor repairs or new works may have an adverse effect on the significant natural values of the ONL. Key effects relate to building and infrastructure height, scale and location and reflectivity of materials, colour schemes, and overhead wires.</p> <p>Earthworks associated with new infrastructure and maintenance of infrastructure such as tail races have the potential to: remove native vegetation, affect protected species and associated habitat or adversely affect significant waterways. Earthworks also have the potential to affect sites of cultural significance including the potential for the accidental discovery of archaeological or cultural sites during construction.</p> <p>Trustpower has advised that forestry in close proximity to the Power Station could adversely affect operations. However, use of adjoining land for forestry is considered unlikely due to its location in an area of high landscape significance.</p> <p>Any effects of smaller-scale hydroelectricity generation are likely to be associated with in-stream or in-channel infrastructure. Any infrastructure is likely to be small-scale pipes, pumps, and pumphouses which is considered likely to have relatively minor visual effects.</p>
Wind	<p>The visual effects of commercial scale windfarms and wind monitoring devices, which are generally located in rural settings, have the potential to be more than minor. Windfarm infrastructure requires numerous large turbines and tall support poles which are typically in lighter colours. This infrastructure is often visually dominant in rural settings which are characterised by relatively low numbers of buildings and other infrastructure.</p> <p>Wind energy infrastructure is typically located on ridge lines or in coastal locations with stronger wind conditions. Any wind energy infrastructure located in the Port Hills, margins of Te Waihora, Malvern Hills, Arthur's Pass Village, Castle Hill Village and Outstanding Natural Landscapes, has the potential to adversely affect these sensitive landscapes. Placement of turbines on hilltops of significance to iwi may also adversely affect the cultural values of these places.</p> <p>The noise effects of commercial wind farm turbines on rural dwellings, small townships and other sensitive uses such as schools, have the potential to be more than minor. NZS 6608:2010 Acoustics Wind Farm Noise provides tools to assess, measure and</p>

	<p>limit noise from wind turbines and minimise adverse environmental effects from noise. This standard accounts for actual wind farm layout, turbine type, wind conditions, topography and background and provides an effects-based assessment of noise from wind turbines. It also contains model conditions which generally form the basis of noise related resource consent conditions.</p> <p>Protected bird species may fly into wind turbines which has the potential to adversely affect these bird species.</p> <p>Earthworks to establish windfarm infrastructure can be large in scale⁹ and have the potential to remove native vegetation and habitat of protected species. Earthworks may also affect sites of archaeological or iwi significance including the potential for the accidental discovery of archaeological sites or taonga during construction.</p> <p>Construction of a commercial wind farm is likely to generate a significant volumes of traffic associated with earthworks and pole and turbine delivery and construction. The traffic and construction effects, such as the effect on road safety with increased large trucks and access and associated visual amenity effects of new access roads, have the potential to be more than minor.</p> <p>Turbines for domestic use or linked to the national grid are not anticipated in residential settings or commercial areas primarily due to cost and adverse effects of the infrastructure. However, turbines may be sought on larger, stand-alone commercial sites similar to the Lincoln New World. The scale of the blades and support poles are likely to have adverse effects on visual amenity and overshadowing in domestic and other commercial settings. The turbines are not likely to meet NZS6608:2010 in a residential setting and area likely to cause adverse noise effects. Turbines are also unlikely to meet noise standards in commercial areas.</p> <p>Turbines for commercial use or linked to the national grid may be sought in industrial areas. The amenity effects of infrastructure in industrial locations may be relatively minor except in interfaces with other zones. However, noise standards may still not be meet in some locations such as iZone due to the smaller lot sizes.</p>
Solar	<p>Solar panels are typically attached to roofs of dwellings and are aligned with the roof pitch. The visual effects of solar panels are generally minimal and anticipated in residential zones. More significant visual effects may arise if solar panels are not aligned with the roof pitch and are more visually obtrusive.</p> <p>Within industrial and commercial settings, the visual effects of solar panels are likely to be minimal, even if they are not aligned with the roof pitch due to lower levels of amenity in these locations.</p>

⁹ Consent data for the most recent Lake Coleridge resource consent application included approximately 36,000m² earthworks to construct a new tail race and bunds.

5.0 EFFECTIVENESS OF SELWYN DISTRICT PLAN

5.1 PLAN COMMENCEMENT

The Plan became fully operative on 3 May 2016. The decisions on utility provisions were released on 6 November 2004 and they were treated as effectively operative from 10 June 2008¹⁰. Therefore, while the utility provisions are relatively comprehensive, they pre-date the NPS-REG which became operative in 2011.

An overview of the key Plan provisions is outlined below.

5.2 DEFINITIONS

There are no specific definitions of renewable energy or renewable energy activities or infrastructure in the Plan. The definition of utility includes the use of any structure, building or land for:

- (a) *‘The generation, transformation and/or transmission of energy.*
- (h) *Meteorological facilities for the observation, recording and communication of weather information.’*

A utility building is defined as: *‘any building or part of any building which is a utility or which is used principally to house or support a utility; and that building is 10m² or more in gross floor area, and greater than 2.5m in height.’*

A utility structure is defined as *‘any device, equipment or other facility which is used principally to house or support a utility including any antenna, mast, pole or pylon; or any structure housing a utility which is less than 10m² in gross floor area, or less than 2.5m in height.’*

There are no specific definitions for wind farms, solar energy generation or hydroelectricity or bioenergy in the Plan.

5.3 OBJECTIVES AND POLICIES

The objectives and policies in the Plan in both the Township and Rural Volumes are contained in the following sections:

- Natural Resources
- Physical Resources
- Health and Safety Values
- Growth of Townships/ Growth Rural

Relevant objectives and policies are included in **Appendix 2**.

Objectives B2.2.1 and B2.2.2 identify the significance of utilities and the need for utilities to manage any adverse effects on the environment. Policy B2.2.3 (Rural volume) and Policy B2.2.5 (Township volume) aim to avoid adverse reverse sensitivity effects of activities on utilities. Policy B2.2.5 (a) and (b) (Rural volume) aim to avoid siting utility structures or buildings in sensitive landscapes and areas with significant heritage or cultural value and Policy B2.2.6 (Rural volume) requires utility structures to be made of

¹⁰ The Plan became fully operative on 3 May 2016.

low reflective materials. Policy B2.2.7 (Township volume) seeks to ensure that 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.

Other policies in the Rural volume encourage co-siting of utilities (Policy B2.2.7), siting utilities servicing a broader catchment in rural areas (B2.2.10) and ensuring their location does not create or exacerbate hazards (Policy B2.2.8). Policy B2.2.9 relates to managing traffic safety effects of utility installation in road reserves.

5.4 RULES

5.4.1 OVERVIEW OF RULES

Relevant rules within the Plan relating to utility are included in the following three chapters:

- Chapter 6 Living Zone (LZ)
- Chapter 18 Business Zones (township volume) (BZ) and
- Chapter 5 Rural Zones (rural volume) (RZ)

A summary of the relevant rules is included in Table 2 and a copy of all relevant rules is included in **Appendix 3**.

TABLE 2: Summary of Renewable Energy Rules			
	LIVING ZONES (LZ)	BUSINESS ZONES (BZ)	RURAL ZONES (RZ)
LAND USE			
Utility (use on-site for solar, wind or petroleum based energy)	Permitted (6.1.1.6)	Permitted (18.1.1.6)	Permitted (5.1.2.4)
Utility* (renewable energy used off site)	Non-complying (6.1.5)	Non-complying (18.1.1.6)	Discretionary (5.1.3)
Upgrading, maintenance, operation and replacement of existing utilities	Non-complying** (6.1.5)	Non-complying** (18.1.5)	Discretionary (5.1.3)
BUILDINGS/INFRASTRUCTURE			
New utility building/ additions and alterations to an existing utility building	Permitted (6.2.1) subject to compliance with performance standards. Otherwise restricted discretionary (6.2.2) for non-compliance with setbacks Or discretionary (Rule 6.2.4) for non-	Permitted (18.2.1) subject to compliance with performance standards. Otherwise restricted discretionary (18.2.2) for non-compliance with setbacks (except within 10m of	Permitted (5.2.1) subject to compliance with performance standards. Otherwise discretionary (5.2.2)

	compliance with height.	road/living zone boundary) Or discretionary (Rule 18.2.4) for non-compliance with height or within 10m of road/living zone boundary.	
New utility structure/ alterations to existing structure in outstanding landscape areas***	Permitted (6.4.1) (Arthurs Pass and Castle Hill) subject to compliance with performance standards. Otherwise a restricted discretionary activity (6.4.2).	Permitted (18.4.1) (Arthurs Pass and Castle Hill) subject to compliance with performance standards. Otherwise a restricted discretionary activity (18.4.2).	Permitted (5.6.1) subject to compliance with performance standards. Otherwise a restricted discretionary activity (5.6.2) or non-complying activity (5.6.4).
New utility structure/ alterations to existing structure	Permitted (6.3.1) subject to compliance with performance standards. Otherwise a discretionary activity (6.3.5).	Permitted (18.3.1) subject to compliance with performance standards. Otherwise a discretionary activity (18.3.4)	Permitted (5.3.1) subject to compliance with performance standards. Otherwise a restricted discretionary activity (5.3.2) if exceeds 25m or discretionary activity (5.3.4) for non-compliance with pole/mast height requirements
New utility structure/ alterations to existing structure in outstanding landscape areas	Permitted (6.4.1.3) Any antenna, mast or utility or other structure that is not a building and does not exceed 10.5 metres Any utility building or utility (6.4.1.4) constructed of timber/stone/corrugated iron (Arthurs Pass only) and reflectivity value between 0-37%. Otherwise restricted discretionary activity (6.4.2).	Permitted (18.4.1.3) Any antenna, mast or utility or other structure that is not a building and does not exceed 15 metres Any utility building or utility (18.4.1.4) constructed of timber/stone. Otherwise restricted discretionary activity (18.4.2).	Permitted (5.5.1) subject to compliance with performance standards. Otherwise restricted discretionary activity (Rule 5.5.3)

**Includes hydroelectricity, bioenergy and larger scale solar, wind and petroleum based energy generation.*

***Rules 6.1.1.1 and 18.1.1.1 permit upgrades, maintenance, operation and replacement of existing utilities for telecommunications and electricity transmission. Energy generation is not permitted under Rule 6.1.1.6 or 18.1.1.6 unless the utility is for solar, wind and petroleum based generators located on the same site.*

****Includes the Port Hills, Malvern Hills and the High Country.*

Other relevant rules relate to Outstanding Landscape Areas - Utility Structures (5.5), Outstanding Landscape Areas - Utility Buildings (5.6), Rural Character - Utility Buildings (5.7), Natural Hazards - Utility Structures (5.8), Natural Hazards - Utility Buildings, Utility Structures and Sites of Significance to Tangata Whenua (5.10), Utility Buildings and Sites of Significance to Tangata Whenua (5.11), Waterbody Setbacks - Utility Structures and Utility Buildings and Heritage Buildings - Utility Structures and Utility Buildings (5.14).

Overall, the rules regarding utilities are comprehensive. However, they are lengthy and complex and could be consolidated and streamlined further.

5.4.2 CONSENT REQUIREMENTS FOR ANTICIPATED RENEWABLE ENERGY

Based on the Operative Plan, any proposed geothermal energy generation activities, solar generation plants, further expansion to the Lake Coleridge Power Station, in-stream hydrogeneration (such as through the Central Plains Water Scheme), bioenergy generation and commercial scale wind farms requires a resource consent for a discretionary activity. Upgrading, maintenance, operation and replacement of existing utilities at the Lake Coleridge Power Station is a discretionary activity. Associated utility structures and buildings are permitted activities subject to compliance with performance standards in the RZ or otherwise either a restricted discretionary or discretionary activity.

Works on the heritage Lake Coleridge Power Station are a permitted activity under Rule 5.14.1 for minor maintenance as defined in the Plan. More substantive works such as additions and alterations to heritage buildings are a restricted discretionary activity under Rule 5.14.6. A consent is also required under Rule 3.16.12 for a restricted discretionary activity for additions or alterations to the Power Station building as it is heritage listed.

Small-scale wind turbines or solar panels for on-site use for rural based industries such as dairy farms or plants or domestic dwellings are a permitted activity in the LZ, BZ and RZ. Associated utility structures and buildings are permitted subject to compliance with performance standards in the LZ, BZ and RZ or otherwise either a restricted discretionary or discretionary activity.

5.5 ASSESSMENT MATTERS

No specific assessment matters are included for a utility as a land use in the LZ, BZ or RZ as renewable generated for off-site use is a discretionary activity in the RZ and a non-complying activity in the LZ and BZ.

Assessment matters for new utility buildings, and alterations and additions to existing buildings in the LZ under Rule 6.2.3 and 18.2.3 in the BZ relate to effects on privacy, outlooks, shading and amenity values, the character of the street and safety and visibility of pedestrians, cyclists, and motorists.

Assessment matters (Rule 5.6.3) for new larger-scale utility buildings requiring consent in the ONL (RZ) relate to; building design and siting, reflectance values, placement of infrastructure, the appropriateness of the building site, surrounding built form, visibility of the building from public land, opportunities to protect open space and conservation

values and the extent to which the building may dominate the landscape. Assessment matters for new utility structures in the ONL (Rule 5.5.4) are similar to those for larger-scale utility buildings.

Rule 5.7 Rural Character - Utility Buildings and Waterbody Setbacks - Utility Structures and Utility Buildings (5.13) do not have any assessment matters as consents are required for discretionary activities and a broader assessment is required.

Rule 5.8 Natural Hazards - Utility Structures require consideration of the risk of a utility structure being inundated and the effects of a utility structure on proposed flood mitigation (Rule 5.8.3). Rule 5.9 Natural Hazards - Utility Buildings requires assessment of the risk of a building changing overland flow and flooding neighbouring dwellings (Rule 5.9.3).

Assessment matters for Utility Structures and Sites of Significance to Tangata Whenua (5.10) and Utility Buildings and Sites of Significance to Tangata Whenua (5.11) contain identical assessment matters requiring consideration of sites of cultural significance and mahinga kai sites which may affect new energy generation buildings and infrastructure in the future.

In Rule 5.14 Heritage Buildings - Utility Structures and Utility Buildings assessment matters require consideration of the effect of proposed works on the heritage value of buildings which includes the Lake Coleridge Power Station building.

In Landscape Management Alpine Villages (Arthurs Pass and Castle Hill) assessment matters (6.4.3) for utility structures relate; to the effects of the activity on the landscape values of the area, the character of villages, heritage buildings or general heritage values of the area. Assessment matters (6.4.3) for new utility structures in the Landscape Management Alpine Villages (Arthur's Pass and Castle Hill) relate to; the effects of the activity on the landscape, the design of heritage buildings and general heritage values of the area.

Overall, the assessment matters are comprehensive but could be consolidated further.

5.6 EFFECTIVENESS OF EXISTING PROVISIONS

The following criteria have been used to assess the effectiveness of the existing Plan provisions;

- Consistency with the NPS-REG;
- Consistency with the RPS;
- Ability to manage the range of actual and potential environmental effects arising from the infrastructure;
- How effectively policies respond to Ngai Tahu values; and
- Consistency with National Planning Standards.

5.6.1 CONSISTENCY WITH THE NATIONAL POLICY STATEMENT

The NPS-REG¹¹ sets out the requirements for objective and policies for renewable electricity generation under the Resource Management Act 1991 (Act). The NPS-REG also requires policy and decision makers, including District Councils' to recognise and provide for renewable electricity generation activities at national, regional and local level. The stated objective of the NPSREG is:

¹¹ The NPS-REG came into effect on 13 May 2011.

“To recognise the national significance of renewable electricity generation activities by providing for the development, operation, maintenance and upgrading of new and existing renewable electricity generation activities, such that the proportion of New Zealand’s electricity generated from renewable energy sources increases to a level that meets or exceeds the New Zealand Government’s national target for renewable electricity generation.”

The NPS is enabling as it seeks to reduce unnecessary barriers to obtaining resource consent for the development of small and community scale renewable electricity generation projects.

The specific NPS-REG requirements which require inclusion in District Plans are outlined in **Table 3**. Table 3 also assesses the consistency of the Plan with the NPS-REG requirements. However, any compliance within the NPS-REG is unintentional as the Plan pre-dates the NPS-REG.

TABLE 3: COMPARATIVE ANALYSIS OF THE PLAN WITH NPS-REG	
NPS-REG KEY REQUIREMENTS	CONSISTENCY WITH REQUIREMENTS
Recognise and provide for the development, operation, maintenance and upgrade of new and existing renewable electricity generation activities.	<p>The Plan provides for renewable electricity generation activities by requiring a resource consent for a discretionary activity in the RZ and a non-complying activity in the LZ and BZ.</p> <p>The Plan provides for activities associated with upgrading, maintaining, operating and replacing existing utilities as a discretionary activity in the RZ and a non-complying activity in the LZ and BZ.</p> <p>The plan does not provide a simplified consent process for minor maintenance of the Lake Coleridge Power Station.</p>
Provide for solar, biomass, tidal, wave, ocean current, hydro, wind, and geothermal generation to the extent applicable to the region or district.	<p>The Plan provides for electricity generation from wind and solar for on-site use only as a permitted activity.</p> <p>Generation for off-site use including for community scale activities is provided for as a discretionary activity. This does not create a barrier for obtaining resource consents but is a higher threshold than for a restricted discretionary activity.</p>
The NPS seeks to reduce unnecessary barriers to obtaining resource consent for the development of small and community scale renewable electricity generation projects.	
Incorporating provisions for small and community –scale renewable electricity generation activities into district plans	
Managing reverse sensitivity effects on renewable electricity generation activities	The Plan includes policies that seek to avoid potential adverse reverse sensitivity effects of activities on the efficient operation development, use and maintenance of established utilities.
Conflict with other matters such as amenity values that needs to be	The Plan identifies outstanding landscapes, outstanding natural features, visual amenity areas and

considered in the development of the district plans.	Wāhi Taonga sites, Wāhi Taonga Management Areas, Mahinga Kai sites and the Silent File Areas and has specific provisions for utilities. However, the Plan does not provide any guidance for managing the tension between protecting significant natural and cultural areas and delivering increased renewable energy.
Enabling identification of renewable electricity generating activities	The Plan is not enabling of investigating opportunities for renewable energy generation. No specific provisions are provided in the Plan for activities associated with the investigation, identification and assessment of potential sites and energy sources for renewable electricity generation by existing and prospective generators. Therefore, the general rules for a utility apply.
<p>Definitions</p> <p>Renewable electricity generation means <i>generation of electricity from solar, wind, hydroelectricity, geothermal, biomass, tidal, wave, or ocean current energy sources.</i></p> <p>Renewable electricity generation activities means <i>the construction, operation and maintenance of structures associated with renewable electricity generation. This includes small and community-scale distributed renewable generation activities and the system of electricity conveyance required to convey electricity to the distribution network and/or the national grid and electricity storage technologies associated with renewable electricity.</i></p> <p>Small and community-scale distributed electricity generation means <i>renewable electricity generation for the purpose of using electricity on a particular site, or supplying an immediate community, or connecting into the distribution network.</i></p>	The Plan does not define ‘renewable electricity generation’, ‘renewable electricity generation activities’, or ‘small and community-scale distributed electricity generation’ which are defined in the NPS-REG.
District plans and territorial authorities need to give effect to Policies A, B, C, D, E, F, G and H of the NPS-REG by incorporating provisions into the Plans within 12 months in order to satisfy the requirements of s55 of the Resource Management Act (Act).	The Plan does not give full effect to the NPS-REG as required by s55 of the Act and the NPS-REG as no further changes were made to the Plan following the NPS-REG.

In summary, while some of the provisions of the Plan are consistent with the requirements of the NPS-REG, this was unintentional as the Plan pre-dates the NPS-REG.

The Plan applies an enabling approach for on-site solar and wind energy generation activities which are permitted in the LZ, BZ and RZ (although on-site wind energy generation is unlikely in the LZ due to cost and adverse effects). No specific provisions are provided in the Plan for activities associated with the investigation, identification and assessment of potential sites and energy sources for renewable electricity generation. However, as these activities will not provide any off-site energy they are assumed to be a permitted utility.

The Plan is less enabling for repairs and minor alterations to be undertaken on the Lake Coleridge Power Station which requires a consent for a discretionary activity. The Plan adopts a more restrictive approach for off-site renewable energy generation as it requires consent for a discretionary activity in the RZ and for a non-complying activity in the LZ and BZ. This is considered to be an appropriate balance between enabling renewable energy and providing the opportunity for consideration and management of any actual and potential adverse effects.

5.6.2 CONSISTENCY WITH THE REGIONAL POLICY STATEMENT

The Canterbury Regional Policy Statement 2013 (CRPS) contains specific objectives and policies regarding energy generation in Chapter 16 – Energy to implement the NPS-REG. **Appendix 4** outlines the objectives and policies that are relevant to renewable energy. The objectives and policies are directive by requiring that renewable electricity generation is recognised, promoted and encouraged throughout Canterbury. The CRPS seeks to enable the upgrade of existing, or development of new electricity generation infrastructure, with a particular emphasis on encouraging the operation, maintenance and upgrade of renewable electricity generation activities and associated infrastructure. The CRPS requires due consideration to be given to the impacts of energy generating activities on character values and visual amenity.

The operative Selwyn District Plan is inconsistent with the CRPS as it does not recognise, promote and encourage renewable electricity generation explicitly. Furthermore, there are no specific objectives, policies and rules relevant to renewable electricity generation activities. The Plan does not provide for small and community scale distributed renewable electricity generation. However, it is noted that electricity generation from solar and wind for on-site use only is permitted in the LZ, RZ and BZ.

5.6.3 DRAFT NATIONAL PLANNING STANDARDS

The draft National Planning Standards (Draft Standards) aim to improve consistency in plan and policy statement structure, format and content. The first set of the Draft Standards is anticipated to be gazetted in April 2019 (Ministry for the Environment, 2018).

The Draft Standards currently include definitions regarding renewable energy generation and do not contain any proposed standardised rules. The Draft Standards require any district plan rule to manage noise emissions consistent with noise measurement methods in the New Zealand Standards which in this case is New Zealand Standard 6808:2010 Acoustics - Wind farm noise. The Plan predates the Draft Standards, which carry little weight as they have yet to be gazetted.

An assessment of the consistency of the Plan with the Draft Standards is included in Table 4.

TABLE 4: DRAFT NATIONAL PLANNING STANDARDS	
DEFINITION/REQUIREMENT	COMMENTARY
Small scale renewable electricity generation is defined as not exceeding a power rating of 20kW.	The Plan does not explicitly provide for small scale renewable electricity generation based on power rating.

<p>Infrastructure is defined as follows: has the same meaning as in section 2 of the RMA (as set out in the box below) means— ...</p> <p>(d) facilities for the generation of electricity, lines used or intended to be used to convey electricity, and support structures for lines used or intended to be used to convey electricity, excluding facilities, lines, and support structures if a person—</p> <p>(i) uses them in connection with the generation of electricity for the person's use; and</p> <p>(ii) does not use them to generate any electricity for supply to any other person:</p> <p>...</p> <p>(l) anything described as a network utility operation in regulations made for the purposes of the definition of network utility operator in section 166...</p>	<p>The Plan does not define 'infrastructure' but defines 'utility' as including generation, transformation and/or transmission of energy. The Plan defines 'utility building' and 'utility structure'.</p>
<p>Any plan rule should manage an emission of noise consistent with noise measurement methods in the New Zealand Standards, in the context of wind farms being New Zealand Standard 6808:2010 Acoustics - Wind farm noise for measuring.</p>	<p>The Plan includes general noise standards with reference to NZS 6801:1999 Acoustics – Measurement of Environmental Sound. There is no reference to the NZS 6808:2010 Acoustics - Wind farm noise.</p>

5.6.4 ABILITY TO MANAGE ENVIRONMENTAL EFFECTS

This section assesses the ability of the existing Plan provisions to adequately manage any actual or potential adverse environmental effects for different renewable energy generation types (as identified in section 4.0 of this report) in residential, commercial and rural settings.

Hydroelectricity (including Lake Coleridge and new in-stream/ in-channel generation)

The discretionary activity status of off-site energy generation under Rule 5.1.3 in the RZ enables consideration of all actual and potential environmental effects. The non-complying activity status of off-site energy generation enables full assessment of all environmental effects in the LZ and BZ which may be significant and warrant notification or refusal of applications.

Additional rules apply for setbacks of utility buildings from waterbodies in the RZ (5.1.3) and enable assessment of effects associated with buildings in close proximity to a waterbody. This rule does not apply to the Lake Coleridge Power Station as tail races do not meet the definition of waterbody under the Plan and the rule only relates to rivers listed in Appendix 17 of the Plan. The Rakaia River is not listed in Appendix 17. Therefore, the Plan does not address building setbacks and other works within close proximity to either the tail race or the Rakaia River.

There are no specific assessment matters for considering the tension between protecting the heritage values of buildings at the Lake Coleridge Power Station and ensuring operational efficiency or future expansion of the Power Station.

Wind (including rural industries/farming and on site use)

The enabling framework which permits on-site wind generation in the LZ, BZ and RZ subject to compliance with performance standards is likely to lead to some unintended consequences by permitting adverse amenity effects (visual, noise and overshadowing) in residential areas.

The discretionary activity status for off-site energy generation will enable consideration of all actual and potential environmental effects in the RZ and the non-complying activity status in the LZ and BZ of off-site energy generation enables full assessment of all environmental effects which may be significant and warrant notification or refusal of applications.

The noise effects of utilities are managed by applying the noise standards in the relevant zones including; chapter 10 (LZ Activities); chapter 22 (BZ Activities) of the township section; and chapter 9 (Activities) of the rural volume. This does not require an assessment of noise against NZS 6808:2010 which requires a more comprehensive assessment and is a deficiency in the Plan.

Solar (Solar PV connections for on-site use or for on-site use and connection back into the national grid)

The permitted activity status of on-site solar generation does not allow assessment of the visual and amenity effects of solar panels which do not align with the roof pitch and may cause adverse effects.

The discretionary activity status for off-site energy generation will enable consideration of all actual and potential environmental effects of any larger scale solar regeneration plant (which is considered unlikely) in the RZ. The non-complying activity status of off-site energy generation in the LZ and BZ enables full assessment of all environmental effects which may be significant and warrant notification or refusal of applications.

Sensitive landscapes

In situations where a utility building and utility structure proposed in a sensitive landscape area does not meet the built form standards, a restricted discretionary activity consent is required. In the RZ, where utility buildings do not meet the standards listed in the restricted discretionary activity, applications are assessed as non-complying activity. The matters of discretion are sufficiently comprehensive as they address visual effects from a utility building or structure although the matters for discretion for utility buildings are more comprehensive in comparison to the matters of discretion for utility structures.

5.6.5 RESPONDING TO NGAĪ TAHU VALUES

Ngāi Tahu have a particular interest in energy generation, distribution, use and the establishment of wind farms and its potential effects on Ngāi Tahu values and associations with the landscape. The Mahaanui Iwi Management Plan 2013 includes a series of relevant objectives and policies that are attached in **Appendix 5**.

Policies (P.17.1 to P17.5 and TAW1.1 to TAW1.5) are considered relevant in terms of electricity generation from renewable energy particularly wind, solar and hydro. Policy 17.3 specifically supports the use of Cultural Impact Assessments (CIA) to assess potential and actual effects of proposals on Ngāi Tahu values for renewable energy generation. Ngā Paetae objectives in section 5.8 Ngā Tūtohu Whenua require cultural landscapes to be recognised and provided for as a planning tool including heritage mapping. The objectives and policies reiterate the importance of consultation with the Rūnanga to address cultural, heritage and landscape values early in the consent stage. The Plan provisions do not have specific reference to requiring CIA's but contains specific policies that seek to 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.

The Plan recognises the cultural values of rūnanga through specific rules that are triggered when undertaking earthworks associated with utility structures and buildings within Wāhi Taonga Sites, Wāhi Taonga Management Areas, Mahinga Kai Sites and the Silent File Areas. These sites are listed within Appendix E5 in Township and Rural Volumes of the Plan. Non-compliance with the relevant permitted standards requires resource consent as a restricted discretionary with one of the matters of discretion reflecting consultation with the local Rūnanga and Heritage New Zealand.

The Plan contains comprehensive matters of discretion for addressing effects on the sites of significance to Tangata Whenua by taking into account any inappropriate disturbance, damage, destruction, removal or other potential adverse effects on any site of significance within a silent File Area, Wahi Taonga Management Area, and Mahinga Kai sites. The matters of discretion implies consultation with the local Rūnanga and the New Zealand Historic Places Trust Pouhere Taonga. The matters of discretion also give consideration to if any alternatives options are available, positive effects and if any monitoring or review conditions are required.

6.0 BEST PRACTICE REVIEW

6.1 CASE STUDIES

A preliminary review of district and unitary plans confirms that a range of approaches have been applied to enable and manage renewable energy generation across New Zealand. Four operative Unitary and District Plans, which cover a range of different geographic areas and types of renewable energy resources and activities, were selected to provide a representative sample of the type of policy approaches used. The four case studies selected for further analysis were:

- Auckland Unitary Plan (AUP)
- Christchurch District Plan (CDP)
- Far North District Plan (FNDP)
- Proposed Dunedin District Plan (pDDP)

These particular case studies represent second generation District Plans prepared to give effect to the NPS-REG. The exception is the Far North District Plan which is recognised as being one of the more comprehensive first generation District Plans in respect to how it manages renewable energy generation.

The four case studies have been analysed to identify the approach each District or Unitary Plan takes to defining relevant terms, setting the policy framework, and providing rules and a decision-making framework for renewable energy generation, resource consent requirements and performance standards. A summary of the different renewable energy approaches adopted in the four case studies is included in **Appendix 1**.

The following analysis assesses the effectiveness of the four case studies using the following criteria:

- Clear definitions provided for all renewable energy types and renewable energy infrastructure.
- Clear, concise and robust policy and objectives.
- Rules that provide for existing and reasonably anticipated renewable energy generation and manage any associated adverse effects
- Achieve consistency with the NPS-REG.

6.2 DEFINITIONS

6.2.1 OVERVIEW

The definitions of renewable energy related terms included in each district plan vary significantly across the four case studies. The CDP Plan definition of renewable electricity generation (rather than energy) is limited to solar and wind energy sources whereas the FNDP defines renewable energy more holistically to include energy produced from solar, wind, hydro, geothermal, biomass, tidal, wave and ocean current sources. It also defines solar, wind marine, biomass and hydropower energy separately. The AUP and pDDP do not define renewable energy although the AUP includes a definition of a large scale wind farm. The only two district plans that define 'bioenergy' are the FNDP and the pDDP.

The CDP and AUP refer to electricity generation activities rather than broader renewable energy activities. The CDP defines small or community-scale renewable electricity generation activities as renewable electricity generation activities while electricity generated by network utility operators is defined as a utility. The AUP defines electricity generation activities as including large scale windfarms, research and small scale energy

generation including electricity from renewable sources and roof top turbines less than 2.5m diameter and photovoltaic systems. Under the AUP the threshold for large scale windfarms is to be able to convey electricity to a substation for supply to the wholesale electricity market.

The FNDDP defines energy generation devices which convert natural resources into energy and includes specific definitions for in-stream hydro generation and solar photovoltaics. It also defines utility scale renewable energy (commercial scale facility) and wind energy facilities as being a cluster of turbines capable of generating more than 500kW of energy.

The proposed pDDP adopts a different approach of categorising renewable energy activities for hydro, solar, wind and biomass into 'on-site' (generated and used on the same site), 'community scale' (micro-generation serving smaller catchment which may be on the grid) and 'regional scale' (exceed the scale thresholds for community scale/on national grid) through a series of definitions some of which include size or capacity thresholds. The scale categories for each renewable energy generation source are grouped into small scale network utilities and large scale network utilities.

Both the AUP and the pDDP define research and exploratory-scale investigations for renewable electricity generation activities.

6.2.2 ASSESSMENT

The NPS-REG includes definitions of renewable electricity generation, renewable energy generation activities, and small and community-scale distributed electricity generation. The only relevant definition included in the Draft Planning Standards is *small scale renewable electricity generation*¹² which is defined differently to the NPS-REG¹³. No single case study provides definitions for all renewable energy types (hydro, wind, solar, geothermal and bioenergy) or all types of renewable energy infrastructure. While a range of definitions have been applied in other district plans ranging from extremely comprehensive to a more minimal approach, it is recommended that consideration is given to 'wrapping up' definitions into higher order definitions. For example, renewable energy can be defined more generally similar to the approach taken in the Victoria Planning Provisions rather than defining each type of renewable energy resource separately. The same approach could apply to renewable energy infrastructure so that all relevant renewable energy resources and types of infrastructure are defined without needing a separate definition for each term. Definitions could be used to refer to the scale of the infrastructure or activity.

6.3 OBJECTIVES AND POLICIES

6.3.1 OVERVIEW

All four case study district plans include objectives and policies addressing either renewable energy (FNDDP and pDDP) or electricity generation (AUP and CDP).

The CDP contains a single objective to increase renewable electricity generation activities and corresponding policy which provides for operation and development of utilities which generate electricity through renewable sources and promote small and community scale renewable electricity generation. In contrast the FNDDP includes much stronger objectives in section 12.9.3 as it aspires to become one of the most energy self-sufficient local authorities in New Zealand and to enable people in remote and isolated communities to provide for their own energy needs. Objectives in the AUP focus on enabling renewable energy generation. The pDDP also encourages increased local energy generation and

¹² means renewable electricity generation which does not exceed a power rating of 20kW.

¹³ means renewable electricity generation for the purpose of using electricity on a particular site, or supplying an immediate community, or connecting into the distribution network.

objectives in the FNDDP and PDDP also refer to managing the effects of renewable energy resources.

All four district plans contain policies which encourage development of renewable energy resources particularly in locations where adverse effects on the environment can be appropriately managed. Policy within the FNDDP is comprehensive as it encourages domestic and community scale renewable energy use and development and discourages utility scale renewable electricity generation within urban and semi-urban zones and within heritage precincts. It also contains policy on reverse sensitivity effects.

The pDDP contains policy to avoid regional scale energy generation and biomass generators outside rural or industrial zones which is not addressed in other plans. The pDDP is the only case study plan that has a strong policy position on this issue.

6.3.2 ASSESSMENT

The comprehensiveness of the policy approach in the pDDP and FNDDP is preferred over the approach in the other two plans. However, further simplification of these objectives and policies would rationalise the overall number of policies. Inclusion of the enabling policy focus in the AUP and the pDDP would ensure consistency with the NPS-REG. Consideration could be given to limiting regional scale energy generation and bioenergy generators outside rural or industrial zones as proposed in the pDDP.

6.4 RULES

6.4.1 OVERVIEW

The four case study district plans provide for permitted, restricted discretionary, discretionary and non-complying activities with the exception of FNDDP which does not have non-complying activities. None of the four district plans provide for controlled or prohibited activities.

The rules relevant to renewable electricity/electricity energy generation are listed under the 'utilities' chapters in each of their respective district plans. The rules that apply to renewable electricity generation (REG) activities within sensitive landscape areas are located in different sub-chapters of the AUP unlike in the CDP, FNDDP and the pDDP where all of these matters are addressed in the utilities section which applies to renewable energy generation activities.

6.4.2 SITE SUITABILITY INVESTIGATIONS

The four case study district plans provide permitted activity provisions for research and exploratory-scale investigations in some zones subject to meeting activity specific standards and when located outside any sensitive areas managed through overlays. This is a requirement under Policy G of the NPS-REG which enables identification of renewable electricity generation opportunities by existing and prospective generators. Time limits on these temporary activities are included in the CDP.

6.4.3 SMALL-SCALE RENEWABLE ENERGY GENERATION ACTIVITIES

The case study district plans provide for small-scale (domestic-scale/on-site energy generation) renewable electricity generation as permitted activities subject to meeting activity specific standards and built-form standards in relevant zones. Wind turbines are permitted in rural and industrial zones subject to meeting relevant activity and/or performance standards in the CDP and AUP. Other small-scale renewable electricity generation activities are provided for in almost all zones as there are tight controls around built-form standards and they are only permitted for on-site use.

Operation, repair and maintenance of existing network utilities is only provided for in the pDDP and AUP. The AUP and the pDDP do not provide for upgrading any existing network utilities as a permitted activity. Installation, maintenance, operation and upgrade of free-standing renewable energy devices and associated structures in Outstanding Natural Features, Outstanding Landscape Features or Outstanding Landscapes, Heritage Precinct, an Archaeological Site, Historic Building, Site or Object, Site of Cultural Significance to Maori are discretionary activities in the FNDP. Generation of electricity from solar and wind turbines located within sensitive landscape areas triggers NCA status in the CDP.

Hydro and solar panels for on-site energy generation located within sensitive areas are RDA in the pDDP which is less restrictive. Small-scale activities are assessed as discretionary activities in the Outstanding Natural Character and High Natural Character Overlay in the AUP. Non-complying activity status is triggered when small-scale REG activities are located in sensitive landscape areas in the pDDP.

6.4.4 COMMUNITY-SCALE RENEWABLE ENERGY GENERATION ACTIVITIES

The case study district plans provide for community-scale renewable electricity generation as permitted activities subject to meeting activity specific standards and built-form standards in relevant zones. Community-scale activities are generally provided for in rural, industrial and other zones (except residential) for both on-site and off-site use subject to meeting activity and built-form standards. Installation and operation of wind turbines for generation and use of electricity on a site or sites other than in rural or industrial zones are assessed as a restricted discretionary activity in the CDP.

Installation, maintenance, operation and upgrading of existing free standing and community-scale renewable energy activities is only provided for in the FNDP explicitly. Community-scale REG activities trigger restricted discretionary activity status in the FNDP in sensitive landscape areas. Construction, operation, maintenance and upgrade of community scale renewable electricity generation devices and associated structures in Outstanding Natural Features, Outstanding Landscape Features or Outstanding Landscapes, Heritage Precinct, an Archaeological Site, Historic Building, Site or Object, or Site of Cultural Significance to Maori in the FNDP are assessed as restricted discretionary activities. Generation of electricity from solar and wind turbines located within the sensitive landscape areas triggers non-complying activity status in the CDP. The non-complying activity status is triggered in CDP and pDDP for community-scale REG activities.

Community-scale REG activities in residential zones are restricted discretionary activities in the AUP. Community-scale electricity generation facilities that do not comply with permitted activity standards in High Natural Character (HNC) and Outstanding Natural Landscape (ONL) overlays in AUP are assessed as a restricted discretionary activity. Community-scale activities are assessed as discretionary activities in the Outstanding Natural Character and High Natural Character Overlay in the AUP. The AUP contains a less restrictive restricted discretionary activity status for community-scale REG activities when located in sensitive landscapes in comparison with the other three case studies where the activity status is discretionary in most cases and non-complying in some cases.

6.4.5 LARGE-SCALE REG ACTIVITIES

Wind farms and renewable electricity generation or development and use which is distributed off-site are a discretionary activity under the FNDP. Large-scale activities trigger DA status if located in sensitive areas in the FNDP. Discretionary activity status is triggered for solar and wind REG activities that serve more than 20 sites and which are commercial in nature in rural, commercial and industrial zones and if located outside the sensitive areas subject to meeting other relevant activity specific standards in the CDP.

The FNDDP and the pDDP are the only two district plans that provide for hydro energy investigation and electricity generation in rural and coastal zones in the FNDDP and rural and industrial zones in the pDDP. The non-complying activity (NCA) status is triggered in CDP and pDDP for large-scale REG activities. Non-complying activity status is triggered for large-scale REG activities if they are located in urban environments across the four district plans.

Electricity generation facilities that do not comply with permitted activity standards and that are not otherwise provided for in Outstanding Natural Character in the AUP trigger discretionary activity status. Electricity generation facilities not otherwise provided for in HNC and ONL overlays in the AUP trigger discretionary activity status. Non-complying activity status is triggered when large-scale REG activities are located in sensitive landscape areas in the pDDP. The AUP contains a less restrictive discretionary activity status for large-scale REG activities when located in sensitive landscapes in comparison with the other three case studies where the activity status is a discretionary in most cases and non-complying in some cases.

6.4.6 OTHER VARIATIONS BETWEEN THE FOUR PLANS

The CDP and the FNDDP do not have separate built-form standards within their relevant renewable energy sub-chapters but have incorporated them into the activity specific standards. The performance/built-form standards are listed separately for AUP and pDDP and not incorporated into the activity specific standards. The renewable electricity generation activities and rules in the FNDDP does not have listed non-complying activities or trigger non-complying activity status.

In terms of the CDP, compliance with relevant zone noise standards are required only for the installation and operation of equipment for assessing a site for suitability for renewable electricity generation and installation and operation of a wind turbine in Rural or Industrial Zones. Compliance with NZS 6808:2010 (Acoustics – Wind Farm Noise) is required for REG activities that serve more than 20 sites and is commercial in nature in rural zones. Relevant zone noise standards apply to REG activities in the AUP, FNDDP and pDDP with no reference to the NZS 6808:2010 (Acoustics – Wind Farm Noise).

On a broader level, the AUP and FNDDP appear to have taken the less restrictive approach with most REG activities being either permitted or a restricted discretionary activity.

6.4.7 ASSESSMENT

The approach of retaining all assessment matters for renewable energy in the same chapter used in the CDP, FNDDP and the pDDP is considered appropriate for plan useability.

The permitted activity provisions for research and exploratory-scale investigations in some zones subject to meeting activity specific standards and when located outside any sensitive overlays is consistent with the NPS-REG and is an appropriate approach.

The preferred approach to rules is that they relate to the scale of activities and related effects and relate to the sensitivity of locations.

Permitting small-scale (domestic-scale/on-site energy generation) renewable electricity generation and other smaller scale infrastructure subject to meeting activity specific standards and built-form standards in relevant zones is consistent with the enabling intent of the NPS-REG.

Requiring consents for large scale infrastructure, and smaller scale permanent infrastructure, in sensitive landscapes is preferred.

6.4.8 CONSISTENCY WITH NPS-REG

The best practice district plan review confirms that all the examples aim to comply with NPS-REG, although the FNDP predates NPS-REG. In a general sense, the objectives and policies are consistent with the requirements of the NPS-REG such as recognising the national significance of renewable electricity generation activities by incorporating relevant objectives, policies and rules that are consistent with the NPS-REG.

The case study district plans provide small and community-scale activities as permitted activities and activities associated with the investigation, identification and assessment of potential sites and energy sources for renewable electricity generation by existing and prospective generators consistent with the NPS-REG.

Overall, the objectives, policies and rules in the four case studies are consistent with the NPS-REG primarily as they are second generation district plans that were written after the NPS-REG came into effect with the exception of FNDP.

6.5 VICTORIA PLANNING PROVISIONS

The Victoria Planning Provisions (VPP) are a planning standard applied to all 79 Councils' in Victoria, Australia¹⁴. While there is scope in the VPP for local variation, standard definitions and rules apply to matters such as renewable energy across the State.

The definitions relate to high level terms such as 'renewable energy facility' which applies to renewable energy resources from the sun, wind, ocean, water flows, organic matters and the earth's heat and associated buildings and structures. With the exception of a 'wind energy facility', these terms are not defined any further.

Key objectives relate to facilitating appropriate development of energy supply infrastructure and promoting renewable energy while ensuring appropriate siting and design considerations are met.

Consent requirements permit anemometers (wind measuring devices) for less than 3 years and turbines principally used to supply electricity for domestic or rural use of the land regardless of their scale. Renewable energy facilities and utility installations (including transmitting power) generally require a consent. Wind energy facilities require a consent (including land owners consent of domestic dwellings within 1 kilometre of turbines) and are prohibited in sensitive locations.

A key learning is that having a broad, inclusive definition for renewable energy is a sound policy approach. The VPP approach focuses on the scale of the activity and the significance of effects by permitting temporary wind infrastructure for investigations and renewable energy for domestic or rural use and requiring a consent for larger scale activities with off-site generation.

¹⁴ Australia has state based planning systems which are different in each state or territory with no national standards or national planning legislation.

7.0 CONCLUSIONS AND NEXT STEPS

7.1 SUMMARY OF FINDINGS

A relatively small amount of renewable energy is generated within the Selwyn District with the most significant source being the Lake Coleridge Power Station.

Key future opportunities for renewable energy generation within the Selwyn District are;

- Repairs and operational improvements at Lake Coleridge Power Station for hydroelectricity;
- Small-scale in-stream or in-irrigation channel hydroelectricity generation;
- Wind turbines for on-site use for rural based industries and larger industrial buildings;
- Small-scale wind turbines for on-site use in rural locations;
- Increased solar PV connections for on-site use or for on-site use and connection back into the national grid; and
- Potential for bioenergy (dependent on feasibility).

Commercial wind farms are considered unlikely within the Selwyn District due to the lack of appropriate wind conditions relative to other localities, distance from electricity markets and capital costs. However, given the known effects of wind farms (noise, amenity, landscape, cultural, traffic, ecological), it is important to ensure that the proposed district plan provides a framework to manage the potential effects of commercial wind farms.

The Plan was prepared prior to the NPS-REG. It generally enables renewable energy and provides an appropriate approach of permitting smaller scale on-site energy generation activities with lesser environmental effects and requiring a resource consent for either a discretionary or a non-complying activity for more significant off-site energy generation activities. This approach has not prevented more renewable energy infrastructure from establishing within the District. The cost of establishing renewable energy infrastructure is more likely to have been a deterrent.

The Plan contains some objectives which are consistent with the NPS-REG by default but requires updating to achieve full compliance with the NPS-REG.

The four case studies of renewable energy policy in other district plans provide some valuable insights into developing renewable energy policy within the Selwyn District. For example, the approach of retaining all assessment matters for renewable energy in the same chapter used in the CDP, FNDP and the pDDP is considered appropriate for district plan useability. The approach of permitting small-scale (domestic-scale/on-site energy generation) renewable electricity generation and other smaller scale infrastructure subject to meeting activity specific standards and built-form standards in relevant zones is consistent with the enabling intent of the NPS-REG. The preferred approach to rules is that they relate to the scale of activities and related effects and the sensitivity of locations. The approach of requiring consents for large scale infrastructure, and smaller scale permanent infrastructure in sensitive landscapes and areas of cultural or historic significance is preferred.

7.2 MATTERS TO BE REFLECTED IN PROPOSED SELWYN DISTRICT PLAN

This assessment provides baseline information to assist Council to develop District Plan provisions to enable and manage renewable energy consistent with Part 2 of the RMA and the NPS-REG.

7.2.1 DEFINITIONS

While a range of definitions have been applied in other district plans ranging from extremely comprehensive to a more minimal approach, it is recommended that consideration is given to ‘wrapping up’ definitions into higher order definitions. For example, renewable energy can be defined more generally, similar to the approach taken in the Victoria Planning Provisions, rather than defining each type of renewable energy resource separately. The same approach could apply to renewable energy infrastructure. Definitions should be consistent with the NPS-REG and take into account the Draft Standards. Although it is noted that the Draft Standards have not been gazetted and may be subject to further change.

7.2.2 MATTERS TO BE INCLUDED IN POLICY AND RULES

This baseline assessment has identified a range of matters that should be reflected in policy and rules to meet the requirements of Part 2 of the Act, the NPS-REG, the Draft Planning Standards and best practice. Inclusion of a ‘small scale renewable electricity generation’ definition in the NPS-REG and Draft Standards also creates the potential for a framework of policies and rules based on scale of infrastructure. This approach is consistent with the NPS-REG enabling approach for renewable energy generation and would simplify interpretation of policies and rules.

Matters which should be reflected in policy and rules, and considered further in the Preferred Option Report phase, are summarised below.

GENERAL

- Enabling policy for the different types and varying scales of renewable energy generation activities and infrastructure where they are unlikely to adversely affect the environment.
- Policy encouraging regional scale renewable energy generation activities and infrastructure in rural or industrial zones (as proposed in the pDDP) and limiting it elsewhere.
- Rules managing the scale and effects of activities and infrastructure in sensitive landscapes.
- Rules managing reverse sensitivity effects of other activities on existing renewable energy generation.

HYDRO

- Enabling policy to support the maintenance and minor repair of infrastructure and heritage buildings at the Lake Coleridge Power Station.
- Enabling policy for small scale in-stream or in-channel hydroelectricity generation.
- Rules managing more significant upgrades to Lake Coleridge Power Station (new infrastructure and works).
- Rules managing reverse sensitivity effects of forestry on the continued operation of the Lake Coleridge Power Station.

BIOENERGY

- Policy managing bioenergy generation activities, and potential effects such as infrastructure, traffic, earthworks and dust which fall under district council functions.
- Rules to manage potential effects of larger scale bioenergy activities and infrastructure.

WIND

- Enabling policy for temporary wind energy resource monitoring activities and infrastructure.
- Enabling policy for on-site wind energy generation activities and infrastructure in rural and industrial locations provided they are not in areas with landscape, iwi or historic heritage significance.
- Policy limiting wind generation activities and infrastructure in residential or commercial areas.
- Policy managing potential adverse effects of commercial wind farms.
- Rules enabling wind turbines in industrial areas with appropriate standards (including noise, setbacks from zone boundaries).
- Rules managing potential adverse effects of commercial wind farm activities and infrastructure as a precautionary measure in case they are sought in the future.
- Rules/performance standards requiring compliance with New Zealand Standard 6808:2010 Acoustics - Wind farm noise.

SOLAR

- Enabling policy for solar panels for on-site and on-site/ grid use where potential environmental effects are minor.
- Rules/performance standards to avoid adverse amenity effects in residential areas (e.g. reflectivity and alignment of panel with roof).

Matters of discretion could relate to managing the following environmental effects:

- Visual (scale of buildings, infrastructure, reflectivity and overhead wires)
- Landscape (ridgelines, sensitive landscapes)
- Noise from wind turbines and consistency with NZS6608:2010
- Ecological values (removal of native vegetation and effect on habitat)
- Construction (earthworks, noise and traffic)
- Overshadowing (from large structures)
- Heritage (Lake Coleridge Power Station)
- Cultural (Ngai Tahu values and sites of cultural significance)

7.3 NEXT STEPS

Recommended next steps on the Energy Generation including Small Scale Energy Generation topic include:

- Consultation with Mahaanui Kurataiao and Ecan to inform the Preferred Option Report.
- Discussion with topic leads on interdependencies with other topics need to be addressed and managed.
- Prepare Preferred Option Report which identifies and assesses options for enabling and managing energy generation in the district and make recommendations for the content of objectives and policies and the scope of proposed rules.

8.0 LIMITATIONS

8.1 GENERAL

This report is for the use by Selwyn District Council only, and should not be used or relied upon by any other person or entity or for any other project.

This report has been prepared for the particular project described to us and its extent is limited to the scope of work agreed between the client and Harrison Grierson Consultants Limited. No responsibility is accepted by Harrison Grierson Consultants Limited or its directors, servants, agents, staff or employees for the accuracy of information provided by third parties and/or the use of any part of this report in any other context or for any other purposes.

9.0 REFERENCES

- Auckland Council. (2016). 'Auckland Unitary Plan Operative in Part 15 November 2016'. Retrieved from: http://unitaryplan.aucklandcouncil.govt.nz/pages/plan/Book.aspx?exhibit=AucklandUnitaryPlan_Print
- Bioenergy Association. (2018). 'Bioenergy – the future, naturally'. Retrieved from <https://www.bioenergy.org.nz/>
- Boffa Miskell. (2017). 'Effectiveness Review of Operative District Plan in managing visual amenity effects of network utilities and energy generating activities'.
- Christchurch City Council. 'Christchurch District Plan'. Retrieved from: <https://ccc.govt.nz/the-council/plans-strategies-policies-and-bylaws/plans/christchurch-district-plan/>
- Energy Efficiency and Conservation Authority. (EECA) (June 2018). Media release 'Environmental move could be the making of milk'.
- Energy Efficiency and Conservation Authority. (EECA) (2010). 'Domestic-scale distributed generation Guidance for local government from <https://www.eeca.govt.nz/assets/Resources-EECA/dg-guidance-for-local-govt-may-2010.pdf>
- Energy Efficiency and Conservation Authority. (EECA) (2013). 'National Policy Statement for Renewable Electricity Generation Technical Guide'. Retrieved from <https://www.eeca.govt.nz/assets/Resources-EECA/NPS-renewable-electricity-generation-feb-2013.pdf>
- Energy Efficiency and Conservation Authority. (EECA) (various). 'Renewable Energy Sources'. Retrieved from <https://www.eeca.govt.nz/energy-use-in-new-zealand/renewable-energy-resources/>
- Far North District Council. 'Far North District Plan'. Retrieved from: <https://www.fndc.govt.nz/services/the-far-north-district-plan/district-plan-electronic-version>
- Ministry for the Environment. (2018). 'Draft National Planning Standards'. Retrieved from: <https://www.mfe.govt.nz/publications/rma/draft-national-planning-standards>
- Mahaanui Kurataiao Limited. (2013). Mahaanui Iwi Management Plan. (2013). Retrieved from: <https://www.mkt.co.nz/iwi-management-plan/>
- Ministry of Business Innovation and Employment (MBIE). (2017). 'Energy in New Zealand'. Retrieved from <https://www.mbie.govt.nz/info-services/sectors-industries/energy/energy-data-modelling/publications/energy-in-new-zealand>
- New Zealand Government. (2011). 'National Policy Statement for Renewable Electricity Generation 2011'. Retrieved from <http://www.mfe.govt.nz/publications/rma/nps-renewable-electricity-generation-2011>
- NZ Geothermal Association. (2018). Retrieved from http://nzgeothermal.org.nz/elec_geo/
- Parliamentary Commissioner for the environment. (2012). Retrieved from <https://www.pce.parliament.nz/>

Proposed Dunedin District Plan, retrieved from:

<https://2gp.dunedin.govt.nz/2gp/index.html>

Stats NZ. (2017). 'Asset value of water and other renewables for electricity generation: 2007 15'. Retrieved from www.stats.govt.nz

Selwyn District Plan, retrieved from: <https://www.selwyn.govt.nz/property-And-building/planning/strategies-and-plans/selwyn-district-plan>

The Electricity Authority. (2018). 'Electricity in New Zealand'. Retrieved from: <https://www.ea.govt.nz/about-us/media-and-publications/electricity-nz/>

The New Zealand Wind Energy Association (NZWEA). (Year Various). Retrieved from <http://www.windenergy.org.nz/>

Trustpower. (2018). 'Coleridge Power Station'. Retrieved from <https://www.trustpower.co.nz/our-assets-and-capability/power-generation/coleridge>

Victorian Planning Provisions. Retrieved from <http://planningschemes.dpcd.vic.gov.au/schemes/vpps>

Various resource consents granted in the Selwyn District Council in relation to utilities

APPENDIX 1

OVERVIEW OF OTHER PLAN APPROACHES

APPENDIX 1: BEST PRACTICE REVIEW – ENERGY GENERATION (INCLUDING SMALL SCALE ENERGY GENERATION= WIND, SOLAR, HYDRO, BIOMASS)

SELWYN DISTRICT PLAN REVIEW

	CHRISTCHURCH DISTRICT PLAN	FAR NORTH DISTRICT PLAN	AUCKLAND UNITARY PLAN (OPERATIVE IN PART 15 NOVEMBER 2016)	PROPOSED DUNEDIN DISTRICT PLAN
Defined terms	<ul style="list-style-type: none">Renewable electricity generationRenewable electricity generation activitiesUtility	<ul style="list-style-type: none">Bio energyDomestic scale renewable energy devicesDistributed generationEnergy generating structureEnergy generation deviceHydro powerIn-stream hydro generation.Marine energyRenewable electricity generation deviceRenewable energySolar energySolar photovoltaicsUtility scale renewable energyWind energyWind energy facility	<ul style="list-style-type: none">Community scale electricity generationElectricity generation activitiesLarge-scale wind farmResearch and exploratory-scale investigations for renewable electricity generation activitiesSmall scale electricity generation	<ul style="list-style-type: none">Biomass Generators - On-site Energy GenerationBiomass Generators - Stand-aloneCommunity Scale Energy GenerationEnergy Resource Investigation DevicesHydro GeneratorsHydro Generators - Community ScaleHydro Generators - On-site Energy GenerationHydro Generators - Regional ScaleLarge Scale Network UtilitiesNetwork UtilitiesOn-site Energy GenerationRegional Scale Energy GenerationSmall Scale Network UtilitiesSolar Panels - Community ScaleSolar Panels - On-site Energy GenerationSolar Panels - Regional ScaleWind Generators - Community ScaleWind Generators - On-site Energy GenerationWind Generators - Regional Scale
Objectives	<p>11.2.1 Objective - Provision of utilities</p> <p>a) Effective and efficient provision of utilities in a manner that is integrated with land use and development in the District.</p> <p>b) The continued operation, maintenance, upgrade and development of utilities throughout the District.</p> <p>c) An increase in renewable electricity generation activities.</p>	<ul style="list-style-type: none">12.9.3.1 To become among the most energy self-sufficient local authorities in New Zealand through encouraging and promoting the efficient use of energy and the greater use and development of renewable energy while having appropriate regard to the special values of the District identified in the Plan.12.9.3.2 To recognise that some utility scale renewable energy resources of the District are restricted to specific locations and to encourage the use and development of these where positive effects can be optimised and adverse effects can be appropriately managed, through avoidance, remediation or mitigation as appropriate.12.9.3.3 To enable people, especially the remote and isolated communities of the District, to provide for their own energy needs in a	<p>(Regional Policy Statement)</p> <p>B3.4.1. Objectives</p> <ul style="list-style-type: none">(1) Existing and new renewable electricity generation is provided for.(2) Energy efficiency and conservation is promoted. <p>E26.2. Network utilities and electricity generation – All zones and roads</p> <p>E26.2.1. Objectives [rp/dp]</p> <ul style="list-style-type: none">(8) The use and development of renewable electricity generation is enabled.....	<p>Objective 2.2.2: Energy resilience</p> <ul style="list-style-type: none">Dunedin is well equipped to manage and adapt to any changes that may result from volatile energy markets or diminishing energy sources by having:increased local electricity generation;reduced reliance on private motor cars for transportation; andincreased capacity for local food production. <p>Objective 5.2.1</p> <ul style="list-style-type: none">Network utilities activities, including renewable energy generation activities, are able to operate efficiently and effectively, while minimising, as far as practicable, any adverse effects on the amenity and character of the zone; and, where located in an overlay zone, scheduled site, or mapped area,

	CHRISTCHURCH DISTRICT PLAN	FAR NORTH DISTRICT PLAN	AUCKLAND UNITARY PLAN (OPERATIVE IN PART 15 NOVEMBER 2016)	PROPOSED DUNEDIN DISTRICT PLAN
		<p>sustainable manner, including through the use and development of renewable energy resources.</p> <ul style="list-style-type: none"> 12.9.3.4 To encourage and promote renewable energy use and development proposals that provide significant local community benefit as well as regional and/or national benefit. 12.9.3.5 To achieve an integrated approach in terms of the responsibilities of the Far North District and Northland Regional Councils' management of renewable energy generation and energy efficiency. 12.9.3.6 To ensure that the people of the Far North are able to identify and plan for a sustainable energy future within their communities. 12.9.3.7 To manage activities that adversely affect renewable energy infrastructure including reverse sensitivity effects. 12.9.3.8 To ensure actual and potential adverse effects associated with renewable energy and energy efficiency are avoided, remedied or mitigated. 		meeting the relevant objectives and policies for those areas.
Policies	<p>11.2.1.3 – Renewable energy</p> <p>11.2.1.3 Policy - Renewable electricity generation</p> <p>a) Provide for the operation, maintenance, upgrade and development of utilities that derive or generate electricity through renewable sources by:</p> <ul style="list-style-type: none"> i. recognising the benefits to people and communities of renewable electricity generation; ii. acknowledging the implications and constraints associated with renewable electricity generation activities, including locational, operational and technical matters; iii. promoting small and community scale renewable electricity generation activities, such as from solar and wind energy; iv. reducing the use of finite resources for the generation of electricity; and 	<ul style="list-style-type: none"> 12.9.4.1 That the efficient use of energy and the greater use and development of renewable energy resources, including electricity generation and transmission, and the operation, maintenance and upgrading of existing and future renewable energy activities, is promoted, particularly where there is potential for national, regional or local community benefits, including increased security of supply and reduced greenhouse gas emissions. 12.9.4.2 That renewable energy use and development is facilitated in locations where significant adverse effects on the environment can be appropriately avoided, remedied or mitigated while also having regard to the local, regional and national benefits and positive effects (particularly any local benefits) associated with the proposed development. 12.9.4.3 That in assessing any specific renewable energy development proposal, the Council will consider the appropriateness of the proposal in terms of location, scale, and type of 	<p>(Regional Policy Statement)</p> <p>B3.4.2. Policies</p> <ol style="list-style-type: none"> Recognise the national, regional and local benefits to be derived from maintaining or increasing the level of electricity generated from renewable energy sources. Provide for renewable electricity generation activities to occur at different scales and from different sources to reduce reliance on non-renewable energy sources. Recognise the locational constraints in the development of large-scale renewable electricity generation activities. Provide for the development, operation and maintenance of small-scale renewable electricity generation, provided that adverse effects on the environment are avoided, remedied or mitigated. <p>E26.2. Network utilities and electricity generation – All zones and roads</p> <p>E26.2.2. Policies [rp/dp]</p>	<p>Policy 2.2.2.3</p> <ul style="list-style-type: none"> Enable renewable energy generation through policies and rules that: enable renewable on-site energy generation; and support the development of small and large scale renewable energy generation in appropriate locations. <p>Policy 2.2.5.1</p> <ul style="list-style-type: none"> Encourage domestic scale renewable energy generation through rules that enable these utilities. <p>Policy 5.2.1.1</p> <ul style="list-style-type: none"> Encourage the use and development of renewable energy generation. <p>Policy 5.2.1.5</p> <ul style="list-style-type: none"> Require network utilities structures to be of a scale, size, design and location that enables the provision of network utilities while: <p>a) minimising, as far as practicable, adverse effects on the amenity and character of the zone;</p>

	CHRISTCHURCH DISTRICT PLAN	FAR NORTH DISTRICT PLAN	AUCKLAND UNITARY PLAN (OPERATIVE IN PART 15 NOVEMBER 2016)	PROPOSED DUNEDIN DISTRICT PLAN
	<p>v. recognising the benefits of reducing greenhouse gas emissions that contribute to climate change.</p>	<p>proposal and in terms of the effects of any supporting infrastructure.</p> <ul style="list-style-type: none"> 12.9.4.4 That the Council discourages the location of activities associated with utility scale renewable electricity generation within areas identified on the District Plan Resource Maps; within urban and semi-urban zones; and within heritage precincts. 12.9.4.5 That the Council encourages early consultation and will work supportively with applicants in the planning stages for utility scale developments with the aim of identifying broader social and community benefits that can be considered early in the proposal development. 12.9.4.6 That domestic and community scale renewable energy use and development, including electricity generation, is encouraged throughout the District where there will be significant local benefits and the adverse effects are avoided, remedied or mitigated. 12.9.4.7 That subdivision and land use activities, undertaken in terms of Chapter 13 of the District Plan avoid, remedy or mitigate adverse effects on the efficient operation of consented or lawfully established renewable electricity generation activities and their supporting infrastructure. 12.9.4.8 That the Council encourages early engagement with the community, including Maori in the planning stages for energy developments with the aim of identifying community energy goals and objectives and any potential effects on Maori sacred sites and mauri around sites of significance to Maori. 12.9.4.9 That the technical and operational requirements for locating utility scale renewable energy electricity generation facilities and associated transmission works are recognised including by encouraging a rural location where appropriate. 	<p>New technologies</p> <p>(11) Provide flexibility for infrastructure operators to use new technological advances that:</p> <ul style="list-style-type: none"> improve access to, and efficient use of services; allow for the re-use of redundant services and structures where appropriate; result in environmental benefits and enhancements; and utilise renewable sources. <p>(12) Renewable electricity generation Provide for renewable electricity generation activities to occur at different scales and from different sources, including small and community-scale renewable electricity generation activities...</p>	<p>b) maintaining a high level of pedestrian amenity in pedestrian street frontages.</p> <p>Policy 5.2.1.10</p> <ul style="list-style-type: none"> Avoid regional scale energy generation and biomass generators - stand-alone outside the rural or industrial zones unless there will be no material adverse effects on the amenity of surrounding area. <p>Policy 5.2.1.11</p> <ul style="list-style-type: none"> Only allow network utility structures - large scale, regional scale energy generation in the rural zones, network utilities poles and masts - small scale (other than in the rural, rural residential or industrial zones), community scale energy generation, biomass generators - stand-alone, and biomass energy generation on-site energy generation and energy resource investigation devices (other than in the rural and industrial zones) where the activity is designed and located to avoid any significant adverse effects and minimise adverse effects, as far as practicable, including: <ul style="list-style-type: none"> a) effects on visual amenity and the character of the zone in which the activity is located; and b) effects on the amenity of any surrounding residential activities.
Permitted activities	<ul style="list-style-type: none"> Rule 11.6.1 (P1) - Installation and operation of equipment for assessing a site for suitability for renewable electricity generation subject to meeting activity specific standards. 	<ul style="list-style-type: none"> Rule 12.9.6.1.1 - Domestic scale renewable energy devices Rule 12.9.6.1.2 - In-stream hydro or ocean energy investigation and electricity generation in Rural Production, General Coastal, Conservation, Rural Living or Coastal Living 	<p>E26.2.3. Activity table</p> <ul style="list-style-type: none"> (A59) Small-scale electricity generation in all Zones except as below * for Roads, unformed roads and the Strategic Transport. <p>* solar electricity generation which is ancillary to network utilities located in roads and</p>	<ul style="list-style-type: none"> Rule 5.3.2 - Wind, hydro, solar panels on-site energy generators are permitted in Rural, Industrial and all other zones subject to meeting relevant performance standards. Rule 5.3.2 - Hydro generators community scale, energy resource investigation devices and

	CHRISTCHURCH DISTRICT PLAN	FAR NORTH DISTRICT PLAN	AUCKLAND UNITARY PLAN (OPERATIVE IN PART 15 NOVEMBER 2016)	PROPOSED DUNEDIN DISTRICT PLAN
	<ul style="list-style-type: none"> Rule 11.6.1 (P2) - Installation and operation of solar cells or array of cells or the generation and use of electricity subject to meeting activity specific standards Rule 11.6.1 (P3) - Substations, transformers, or buildings ancillary to electricity generation equipment subject to meeting activity specific standards. Rule 11.6.1 (P5) - Installation and operation of a wind turbine for the generation and use of electricity on a site or sites in Rural or Industrial Zones subject to meeting activity specific standards. 	<p>Zones if it complies with the permitted activity standards set out in Part 2 and Part 3 of the Plan or set out in the rules for permitted activities.</p> <ul style="list-style-type: none"> Rule 12.9.6.1.4 - Installation, maintenance, operation and upgrade of free standing renewable energy devices and associated structures excluding those associated with in-stream hydro or ocean investigation or electricity generation in Rural Production, Rural Living, General Coastal or Coastal Living Zone if it complies with the permitted activity standards set out in Part 2 and Part 3 of the Plan or set out in the rules for permitted activities. Rule 12.9.6.1.5 - construction, operation, maintenance and upgrade of community scale renewable electricity generation device(s) and associated structures in Rural Production Zone or General Coastal Zone if it complies with the permitted activity standards set out in Part 2 and Part 3 of the Plan or set out in the rules for permitted activities 	<p>unformed roads and Strategic Transport Corridor Zone</p> <ul style="list-style-type: none"> (A60)Community-scale electricity generation in rural zones, future urban zone and special purpose- Quarry Zone, coastal- Marina Zone (land) and Coastal- Minor Port Zone (land), Industrial Zones and the Business- General Business Zone. (A60) Community-scale solar electricity generation in Residential zones, Special Purpose – Māori Purpose Zone and Special Purpose – School Zone, Centres zones, Business – Mixed Use Zone, Special Purpose – Airports and Airfields Zone, Special Purpose – Major Recreation Facility Zone, Special Purpose – Healthcare Facility and Hospital Zone, Business – Business Park Zone and Special Purpose – Tertiary Education Zone, Open space zones and the Special Purpose – Cemetery Zone (A62)Research and exploratory scale investigations for renewable electricity generation activities in Rural Zones, Future Urban Zones and Special Purpose- Quarry Zone, Open space zones and the Special Purpose – Cemetery Zone (A64)Electricity storage facility that is not a minor utility structure Rural Zones, Future Urban Zones and Special Purpose- Quarry Zone and coastal- Marina Zone (land), Coastal- Minor Port Zone (land), Industrial Zones and the Business- General Business Zone. 	<p>biomass generators onsite energy generation in Rural and Industrial Zone subject to meeting relevant performance standards.</p> <ul style="list-style-type: none"> Rule 5.3.2.3- Operation, repair and maintenance of existing network utilities in all zones subject to meeting light spill performance standard.
Restricted discretionary	<ul style="list-style-type: none"> Rule 11.6.3 (RD4) - Installation and operation of a wind turbine for the generation and use of electricity on a site or sites other than in Rural or Industrial Zones that meet the activity specific standards Rule 11.6.6.3 (RD1-RD4, RD5-RD6 & RD8) - Permitted activities that do not meet some or all of the activity specific standards Rule 11.6.6.3 (RD7) - Installation and operation of a utility and associated pipes and structures for the generation of energy using waste products. 	<ul style="list-style-type: none"> Rule 12.9.6.2 (a) - Non-compliance with the permitted activity standards are assessed as a Restricted Discretionary Activity. 	<p>E26.2.3. Activity table</p> <ul style="list-style-type: none"> (A60) Community-scale electricity generation in Residential zones, Special Purpose – Māori Purpose Zone and Special Purpose – School Zone, Centres zones, Business – Mixed Use Zone, Special Purpose – Airports and Airfields Zone, Special Purpose – Major Recreation Facility Zone, Special Purpose – Healthcare Facility and Hospital Zone, Business – Business Park Zone and Special Purpose – Tertiary Education Zone, Open space zones and the Special Purpose – Cemetery Zone <p>* solar electricity generation</p>	<ul style="list-style-type: none"> Rule 5.3.2 - Hydro generators and solar panels on-site energy generation located within SNL, NCC, ONL, ASCV, SHS, and HP. Rule 5.3.2 - Community scale solar panels and wind generators are a restricted discretionary activity located within the rural and industrial zones subject to compliance with relevant performance standards and if located outside the overlays. Rule 5.3.2 - Energy resource investigation devices and Biomass generators onsite energy generation are a restricted discretionary activity if located outside the rural and industrial zones subject to compliance with relevant performance standards and if located within SNL, NCC, ONL, ASCV, SHS, HP.

	CHRISTCHURCH DISTRICT PLAN	FAR NORTH DISTRICT PLAN	AUCKLAND UNITARY PLAN (OPERATIVE IN PART 15 NOVEMBER 2016)	PROPOSED DUNEDIN DISTRICT PLAN
			<ul style="list-style-type: none"> (A61) Large scale wind farms in rural zones, future urban zone and special purpose- Quarry Zone, Industrial Zones and the Business- General Business Zone. (A64) Electricity storage facility that is not a minor utility structure in Roads, unformed roads and the Strategic Transport Corridor Zone, Residential zones, Special Purpose – Māori Purpose Zone and Special Purpose – School Zone, Centres zones, Business – Mixed Use Zone, Special Purpose – Airports and Airfields Zone, Special Purpose – Major Recreation Facility Zone, Special Purpose – Healthcare Facility and Hospital Zone, Business – Business Park Zone and Special Purpose – Tertiary Education Zone, Open space zones and the Special Purpose – Cemetery Zone. <p>Table E26.13.3.1 Activity table</p> <ul style="list-style-type: none"> (A192) Electricity generation facilities that do not comply with permitted activity standards in High Natural Character (HNC) and Outstanding Natural Landscape (ONL) overlays in AUP. 	
Discretionary	<ul style="list-style-type: none"> Rule 11.6.4 (D1 & D2) - Non-compliance with activity specific standard in terms of being ancillary to the principal use of the site or if supplying the electricity generated to more than 20 residential units and or commercial or industrial tenancies. Compliance with other activity specific standards is necessary. Rule 11.6.4 (D3) - Non-renewable electricity generated in Industrial Zones subject to complying with relevant Zone and General Noise standards. 	<ul style="list-style-type: none"> Rule 12.9.6.3.1 - Any wind energy facility (wind farm) Construction, maintenance, operation and upgrade of any wind energy facility (wind farm), including transmission to the national grid or local distribution network, is a discretionary activity. Rule 12.9.6.3.2 - Any other renewable electricity generation or renewable energy development and use activity The construction, operation and maintenance of any other renewable electricity generation or renewable energy use and development activity not meeting the standards for permitted or restricted discretionary activities as set out under Rules 12.9.6.1 and 12.9.6.2 or any activity not otherwise provided for elsewhere in the plan is a discretionary activity. 	<p>E26.2.3. Activity table</p> <ul style="list-style-type: none"> (A61) Large scale wind farms in Coastal – Marina Zone (land) and Coastal – Minor Port Zone (land), Centres zones, Business – Mixed Use Zone, Special Purpose – Airports and Airfields Zone, Special Purpose – Major Recreation Facility Zone, Special Purpose – Healthcare Facility and Hospital Zone, Business – Business Park Zone and Special Purpose – Tertiary Education Zone. (A62) Research and exploratory scale investigations for renewable electricity generation activities in Roads, unformed roads and the Strategic Transport Corridor Zone (A63) Other electricity generating facilities in Rural zones, Future Urban Zone and Special Purpose – Quarry Zone, Coastal – Marina Zone (land) and Coastal – Minor Port Zone (land), Industrial zones and the Business – General Business Zone, Centres zones, Business – Mixed Use Zone, Special Purpose – Airports and Airfields Zone, Special Purpose – Major 	<ul style="list-style-type: none"> Rule 5.3.2 - solar panels and hydro generators at community scale are discretionary activity if located within SNL, NCC, ONL, ASCV, SHS, HP. Rule 5.3.2 - Wind, hydro, solar panels at regional scale and stand-alone biomass generators are discretionary activity if located within Rural and Industrial Zone and not subject to any overlays. Rule 5.3.2 – Solar panels and hydro at community scale and stand-alone biomass generators are discretionary activity if located within Rural and Industrial Zone and not subject to any overlays.

	CHRISTCHURCH DISTRICT PLAN	FAR NORTH DISTRICT PLAN	AUCKLAND UNITARY PLAN (OPERATIVE IN PART 15 NOVEMBER 2016)	PROPOSED DUNEDIN DISTRICT PLAN
			<p>Recreation Facility Zone, Special Purpose – Healthcare Facility and Hospital Zone, Business – Business Park Zone and Special Purpose – Tertiary Education Zone.</p> <ul style="list-style-type: none"> • E26.13.3.1. Activity table • (A193) Network utilities and electricity generation facilities not otherwise provided for in HNC and ONL overlays. 	
Non-complying	<ul style="list-style-type: none"> • Rule 11.6.5 (NC1) - Any activity listed in Rule 11.6.1 P2 that does not meet activity specific standard (a) and is not provided for in Rule 11.6.4 D1. (Installation and operation of a solar cell or array of cells for the generation and use of electricity if located in ONL, ONF, SF, RAL, Area of Outstanding, or High and Very High, Natural Character in the Coastal Environment, dripline of significant tree, heritage item or heritage setting). • Rule 11.6.5 (NC2) - Any activity listed in Rule 11.6.1 P5 that does not meet activity specific standard (a) and is not provided for in Rule 11.6.4 D2. (Installation and operation of a wind turbine for the generation and use of electricity on a site or sites in Rural or Industrial Zones if located in ONL, ONF, SF, RAL, Area of Outstanding, or High and Very High, Natural Character in the Coastal Environment, dripline of significant tree, heritage item or heritage setting). • Rule 11.6.5 (NC3) - Non-renewable electricity generation activities not provided for in Rule 11.6.4 D3. 	<ul style="list-style-type: none"> • There are no non-complying activities. 	<p>E26.2.3. Activity table</p> <ul style="list-style-type: none"> • (A61) Large scale wind farms and other electricity generating facilities in Residential, Special Purpose-Maori, Special Purpose School Zone, Open space zones and Special Purpose-Cemetery Zone. • (A63) Other electricity generating facilities in Roads, unformed roads and the Strategic Transport Corridor Zone, Residential zones, Special Purpose – Māori Purpose Zone and Special Purpose – School Zone Open space zones and the Special Purpose- Cemetery Zone. <p>E26.13.3.1. Activity table</p> <ul style="list-style-type: none"> • (A192) Network utilities and electricity generation facilities that do not comply with permitted activity standards in E26.13.5.1 in Outstanding Natural Character. • (A193) Network utilities and electricity generation facilities not otherwise provided for in Outstanding Natural Character. 	<ul style="list-style-type: none"> • Rule 5.3.2 - Wind, hydro, solar panels at on-site energy generators scale; community scale and regional scale are non-complying if located within the Outstanding Natural Feature, High Natural Coastal Character and Outstanding Natural Coastal Character Overlay Zones. • Rule 5.3.2 - Wind generators at community scale; Wind, hydro, solar panels at regional scale; and stand-alone biomass generators are non-complying if located within the Significant Natural Landscape, Natural Coastal Character and Outstanding Natural Landscape Overlay Zones and Scheduled Area of Significant Conservation Value, Scheduled Heritage Site and Heritage precinct. • Rule 5.3.2 - Wind, hydro, solar panels at regional scale, and stand-alone biomass generators are non-complying if located outside Rural and Industrial Zone.
Prohibited	<ul style="list-style-type: none"> • There are no prohibited activities. 	<ul style="list-style-type: none"> • There are no prohibited activities. 	<ul style="list-style-type: none"> • There are no prohibited activities. 	<ul style="list-style-type: none"> • There are no prohibited activities.

APPENDIX 2

SELWYN DISTRICT PLAN OBJECTIVES AND POLICIES

APPENDIX 2: SELWYN DISTRICT PLAN

TABLE 1: OBJECTIVES AND POLICIES	
RURAL VOLUME- 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 B2.2.3	Avoid potential reverse sensitivity effects of activities on the efficient operation development, use and maintenance of established 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 B2.2.6	Require utility structures to be made of low reflective materials.
Policy B2.2.7	Encourage the co-siting of utilities, where practical.
Policy B2.2.8	Ensure utilities located in areas subject to flooding or slips, do not create or exacerbate natural hazards.
Policy B2.2.9	Encourage utilities located in road reserves to be installed, maintained and replaced with minimal adverse effects on traffic safety or flow.
Policy B2.2.10	Enable the provision of utility networks that serve extensive areas to be located in rural areas commensurate with operational requirements.

TABLE 2: OBJECTIVES AND POLICIES	
TOWNSHIP VOLUME- UTILITIES	
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 B2.2.4	Ensure provision is made for the ongoing maintenance and repair of utilities which do not vest in the Council, and that the users of these utilities are informed of any responsibility they have for ongoing maintenance or repair.
Policy B2.2.5	Avoid potential 'reverse sensitivity' effects of activities on the efficient development, use and maintenance of utilities.
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.

APPENDIX 3

SELWYN DISTRICT PLAN RULES

PART C

5 RURAL RULES - UTILITIES

Notes

1. The undergrounding or ducting of any utility is permitted subject to compliance with Rule 1- Earthworks, except where the provisions of Rule 1.6 (Earthworks and Protected Trees) apply.
2. The Rules in the Rural Volume of this Plan are applicable to activities generally, including utilities. However, the rules under Rule 3 Buildings, Rule 4 Roding and Rule 9.4 Scale of Non-Residential and Non-Rural Activities do not apply to utilities, except the following;

Rule 3 Buildings

- Rule 3.15.1 Relocated Buildings
- Rule 3.9.1.1 Access and Parking
- Rule 3.13.1.2 Line of sight – railway crossings

Rule 4 Roding

- Rules 4.5.1.2 – 4.5.1.5 Roads, Accessways and Vehicular Crossings.
- Rules 4.6 Parking
- Rule 4.1.1 Outstanding Landscapes

3. Work on utilities which are undertaken by requiring authorities under designations are not subject to the rules in this Plan.
4. All utility buildings and structures in the Porters Ski and Recreation Area shall be exempt from compliance with these rules.
5. PERMITTED ACTIVITIES do not require a resource consent. OTHER ACTIVITIES do require a resource consent.
6. Development contributions under the LTP Development Contribution Policy will be taken where network infrastructure, community infrastructure or reserves have to be constructed or expanded as a direct result of growth from development.

5.1 UTILITIES — ACTIVITIES

Permitted Activities — Utilities – Activities

The following existing utilities shall be permitted activities:

- 5.1.1 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. For the avoidance of doubt, the following activities are permitted:
 - 5.1.1.1 The replacement of support structure cross arms;
 - 5.1.1.2 The reconductoring or replacement of lines;
 - 5.1.1.3 The resagging of conductors or lines;
 - 5.1.1.4 The addition of longer or more efficient insulators or mountings;
 - 5.1.1.5 The addition of earth wires which may contain telecommunication lines, earthpeaks and lighting rods;
 - 5.1.1.6 The clearance and trimming of vegetation under lines or structures necessary to maintain security of electricity supply and telecommunication;
 - 5.1.1.7 Pole replacement;
 - 5.1.1.8 Where an existing electricity distribution line requires upgrading to improve the reliability of supply, the addition of one support structure cross arms;
 - 5.1.1.9 The substitution of low voltage (400 Volts) electricity distribution lines with Aerial Bundled Cable provided that the overall diameter of the bundle shall not exceed 40 mm;
 - 5.1.1.10 An increase in the voltage of a line, but only where the line was originally installed to operate at a higher voltage, but has been operating at a reduced voltage.
- 5.1.2 Any utility which meets the following provisions shall be a permitted activity:
 - 5.1.2.1 Any utility which emits electromagnetic radiation shall meet the following conditions:
 - (a) Exposures shall comply with NZS 2772.1:1999 Radio Frequency Fields Part 1: Maximum exposure levels 3kHz–300 GHz (“the New Zealand Standard”).
 - (b) Prior to commencing any radiofrequency emissions, the following shall be sent to and received by the Selwyn District Council:
 - (i) Written notice of the location of the facility or proposed facility; and
 - (ii) A report prepared by a radio engineer/technician or physical scientist containing a prediction or whether the New Zealand Standard will be complied with (note – this requirement shall not apply to the holder of an amateur radio licence).
 - (c) If the report provided to the Council under condition 5.1.2.1(b)(ii) predicts that emissions will exceed 25% of the exposure limit set for the general public in the New Zealand Standard, then within 3 months of radiofrequency emissions commencing, a report from National Radiation Laboratory (or Selwyn District Council, being an appropriately qualified organisation specifically identified in this rule), certifying compliance with the New Zealand Standard, based on measurements at the site, shall be provided to the Selwyn District Council.
 - 5.1.2.2 Any power frequency electric and magnetic fields created by a utility do not exceed 100 micro tesla and 5kV/m in areas which are accessible to the public. Note: Electric and magnetic fields are measured and assessed in accordance with the International Commission on Non Ionising Radiation Protection Guidelines.
 - 5.1.2.3 Any transformer, line or wire does not exceed a voltage of 110kV or a capacity of 100 MVA per circuit.
 - 5.1.2.4 The utility is not used for the generation of energy, apart from the generation of energy for use on the same site, or to enable continued supply during emergencies, maintenance or repairs. (This rule does not apply to solar, wind or petroleum based powered generators used to generate energy for use only on the

site on which they are located).

5.1.2.5 Open channels or waterbodies used to convey water, are limited to:

- (a) Maintenance of existing drains and stock water races.
- (b) Construction of new channels for drainage or irrigation purposes on any individual property which serve only that property.

5.1.2.6 Any pipe used for distribution of gas (manufactured or natural) does not exceed a gauge pressure of 2,000 kilopascals, including household connections and compressors.

Discretionary Activities — Utilities – Activities

5.1.3 Any activity which does not comply with Rules 5.1.2.2–5.1.2.6 shall be a discretionary activity.

Non-Complying Activities — Utilities – Activities

5.1.4 Any activity which does not comply with Rule 5.1.2.1 shall be a non-complying activity.

5.2 HEIGHT AND SETBACKS – UTILITY BUILDINGS

Permitted Activities — Height and Setbacks – Utility Buildings

- 5.2.1 Erecting any utility building, or any addition or alterations to, or modification or demolition of any utility building, if all of the following conditions are met:
- 5.2.1.1 The height of the utility building shall not exceed 12 metres.
- For Rule 5.2.1, the height of any utility building shall be measured from ground level at the base of the utility building, to the highest point on the building, but excluding any chimney, mast, aerial, or other structure which is attached to the outside of the utility building.
- 5.2.1.2 The utility building is set back a minimum distance of 10 metres from a strategic road, 5 metres from any other road, and 1 m from any property boundary.
- 5.2.1.3 The utility building is positioned so that it complies with the recession plane angles in Part E, Appendix 16.

Discretionary Activities — Height and Setbacks – Utility Buildings

- 5.2.2 Any utility building which does not comply with Rule 5.2.1 shall be discretionary activity.

5.3 HEIGHT – UTILITY STRUCTURES

Permitted Activities — Height – Utility Structures

- 5.3.1 Any utility structure which complies with all of the following conditions shall be a permitted activity:
- 5.3.1.1 The height of the utility structure shall not exceed 25m;
- 5.3.1.2 Any pole or mast shall not exceed 500mm in diameter beyond a height of 6m above ground level.
- 5.3.1.3 If any pole or mast exceeds 500mm in diameter beyond a height of 6m above ground level, it shall comply with the recession planes in Part E, Appendix 16.
- (For the avoidance of doubt, 5.3.1.2 and 5.3.1.3 do not apply to cross arms or antenna, except dish antenna);
- 5.3.1.4(a) Any dish antenna of less than 1.2m in diameter, shall not exceed a height of 25m, or if attached to a building shall not extend more than 2.5m above the point of attachment;
- 5.3.1.4(b) Any dish antenna of more than 1.2m but less than 4m in diameter on a site adjoining a Living zone, shall not exceed a height of 25m or 2.5m above the point of attachment to any building to which it is attached; and shall comply with the recession plane in Part E, Appendix 16;
- 5.3.1.4(c) Any dish antenna of more than 1.2m but less than 4m in diameter on a site not adjoining a Living zone, shall not exceed a height of 25m or 2.5m above the point of attachment.
- For the purposes of Rule 5.3.1.1 to 5.3.1.3, the maximum height of any utility structure is measured from the ground surface to the top of the highest point of the utility structure and includes any attachments. Where a utility structure is attached to a building or another structure, the height of the utility structure will still be measured from ground level.

Restricted Discretionary Activities — Height – Utility Structures

- 5.3.2 Any utility structure which does not comply with Rule 5.3.1.1 shall be a restricted discretionary activity.
- 5.3.3 Under Rule 5.3.2 the Council shall restrict the exercise of its discretion to consideration of:
- 5.3.3.1 Any adverse visual impacts or shading of neighbouring dwellings or living areas
- 5.3.3.2 Whether the facility (and its siting) is visually obtrusive having regard to the character of the surrounding environment.

Discretionary Activities — Height – Utility Structures

- 5.3.4 Any utility structure which does not comply with Rules 5.3.1.2 to 5.3.1.3 shall be a discretionary activity.

5.4 COLOUR — UTILITY STRUCTURES

Permitted Activities — Colour – Utility Structures

- 5.4.1 Any telecommunication or radiocommunication tower (excluding fittings) which is finished in a non-reflective colour (or a surface which weathers to a colour) in shades of green, brown, or grey shall be a permitted activity.

Discretionary Activities — Colour – Utility Structures

- 5.4.2 Any telecommunication or radiocommunication tower (excluding fittings) which does not comply with Rule 5.4.1 shall be a discretionary activity.

5.5 OUTSTANDING LANDSCAPE AREAS – UTILITY STRUCTURES

Permitted Activities — Outstanding Landscape Areas – Utility Structures

5.5.1 In any area shown on the Planning Maps as an Outstanding Landscape Area any utility structure which complies with the following conditions shall be a permitted activity:

5.5.1.1 Any utility structure erected does not exceed:

- (a) A gross floor area of 40m²;
- (b) A height of 8m with the horizontal dimension not exceeding 600mm above a height of 4m; and
- (c) A reflectance value of 37% (excluding fittings).

Note: For the purposes of Rule 5.5.1.1(b) the maximum height is measured from the ground surface to the tip of the highest point of the structure, and includes any mast, aerial or other attachment.

For the purposes of Rule 5.5.1.1(c), reflectance value applies to the exterior surfaces of any structure. The reflectance value of any exterior finish is measured using the reflectance value for the colour recorded on the paint chart for that paint. If the colour used does not have a reflectance value recorded in the paint chart, the Council will determine its reflectance value using the reflectance value recorded on the paint chart for a paint finish of the same colour.

5.5.1.2 Any cable is laid underground;

5.5.1.3 In the Outstanding Landscape Areas in the Malvern Hills and the High Country, no utility structure is positioned so that it protrudes into the skyline above any mountain range or isolated hill, as viewed from any road; and

5.5.1.4 In the Port Hills Area, no utility structure is positioned so that it protrudes above the summit of the Port Hills, as viewed from the Summit Road or any road on the Plains.

5.5.2 In any area shown on the Planning Maps as High Country:

5.5.2.1 Any cable is laid underground within 300m of SH73 or the Midland Railway.

Restricted Discretionary Activities — Outstanding Landscape Areas – Utility Structures

5.5.3 Any activity which does not comply with Rule 5.5.1 or 5.5.2 shall be a restricted discretionary activity if all of the following standards are met:

5.5.3.1 The utility structure is located in an area shown on the Planning Maps as:

- (a) An Area of Outstanding Natural Landscape in the High Country or the Malvern Hills; or
- (b) The Lower Slopes or Visual Amenity Landscape of the Port Hills; and
- (c) The road or utility structure has to be located within that area.

5.5.4 Under Rule 5.5.3, the Council shall restrict its discretion to consideration of the following matters:

5.5.4.1 Whether the site is appropriate for the utility structure and any associated infrastructure, considering the topography, stability and prominence of the site and the extent to which the site and surrounds have been modified by existing roads, buildings and utility structures;

5.5.4.2 The design and siting of the utility structure and any associated infrastructure;

5.5.4.3 The need for, species and design of any landscaping around the utility structure or any planting in the road reserve, to mitigate visual effects;

5.5.4.4 Whether there are alternative sites available for the utility structure and the costs, technical feasibility and practicality of using an alternative site;

5.5.4.5 Any positive effects which may offset any adverse effects;

5.5.4.6 Any monitoring or review conditions.

5.6 OUTSTANDING LANDSCAPE AREAS – UTILITY BUILDINGS

Permitted Activities — Outstanding Landscape Areas – Utility Buildings

- 5.6.1 In the areas shown on the Planning Maps as Outstanding Landscape Areas in the Port Hills, Malvern Hills and the High Country, any utility building which complies with the following conditions shall be a permitted activity:
- 5.6.1.1 A maximum gross floor area not exceeding 40m²;
 - 5.6.1.2 A maximum height not exceeding 4m; and
 - 5.6.1.3 A maximum reflectance not exceeding 37%.

Restricted Discretionary Activities — Outstanding Landscape Areas – Utility Buildings

- 5.6.2 Any building which does not comply with Rule 5.6.1 shall be a restricted discretionary activity if all of the following standards and terms are met:
- 5.6.2.1 The building is within the Lower Slopes or Visual Amenity Landscape on the Port Hills;
 - 5.6.2.2 In the areas shown on the Planning Maps as areas of Outstanding Landscape in the Malvern Hills and the High Country:
 - (a) The building is associated with an activity which is located within the area of Outstanding Landscape; and
 - (b) The building cannot effectively serve that activity if it is located on a site outside the area of Outstanding Landscape.
 - 5.6.3 Under Rule 5.6.2, the Council shall restrict its discretion to consideration of:
 - 5.6.3.1 The design of the building including height, size/scale, external finish, colour and reflectance value;
 - 5.6.3.2 The appropriateness of the building site having regard to geotechnical conditions and site stability;
 - 5.6.3.3 The visibility of the building from land which is publicly owned and freely accessible by the public, including any area of curtilage if the building is a dwelling;
 - 5.6.3.4 The extent to which the building or structure may:
 - (a) dominate or detract from openness, visual coherence, legibility or integrity of the landscape;
 - (b) include earthworks or new planting to assist in mitigation of any adverse landscape effects;
 - (c) use topography or vegetation to assist in mitigation or containment of visual effects;
 - (d) break the skyline or interrupt the form of any ridges, hills or prominent slopes;
 - (e) be visually prominent in an area characterised by high natural values;
 - (f) affect the amenity values of adjoining properties.
 - 5.6.3.5 Whether the landscape has further capacity to absorb change having regard to existing and consented development on adjoining sites and in the locality, and any benefits that can be obtained from clustering buildings or structures;
 - 5.6.3.6 Whether the proposal creates opportunities to protect open space, indigenous vegetation or nature conservation values;
 - 5.6.3.7 The design and siting of any access to the building or structure, and the visibility of that access, including any contrast with natural contours and the proposed revegetation of any earthworks;
 - 5.6.3.8 The siting of any utilities installed to serve the building, including whether any water storage tanks, cables or pipes are to be placed underground;
 - 5.6.3.9 Any positive effects to be created by the proposed building and its associated accessway;
 - 5.6.3.10 Any monitoring or review conditions.

Discretionary and Non-Complying Activities — Outstanding Landscape Areas – Utility Buildings

- 5.6.4 Any activity which does not comply with Rule 5.6.2.1 shall be a non-complying activity.
- 5.6.5 Any building which does not comply with Rule 5.6.2.2 shall be a non-complying activity.

5.7 RURAL CHARACTER – UTILITY BUILDINGS

Permitted Activities — Rural Character – Utility Buildings

- 5.7.1 In any areas shown on the Planning Maps as the High Country or the Malvern Hills (outside the areas shown as Areas of Outstanding Landscape), any utility building which complies with the following condition shall be a permitted activity:
- 5.7.1.1 The exterior finish of any utility building has a reflectance value not exceeding 37%, except for buildings which are clad in unpainted corrugated iron.

Discretionary and Non-Complying Activities — Rural Character – Utility Buildings

- 5.7.2 Erecting any utility building or any part of a utility building which does not comply with Rule 5.7.1 shall be a discretionary activity.

5.8 NATURAL HAZARDS – UTILITY STRUCTURES

Permitted Activities — Natural Hazards – Utility Structures

- 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.

Restricted Discretionary Activities — Natural Hazards – Utility Structures

- 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.

5.9 NATURAL HAZARDS — UTILITY BUILDINGS

Permitted Activities — Natural Hazards – Utility Buildings

- 5.9.1 Any new utility building which is not erected in any of the following areas shall be a permitted activity:
- 5.9.1.1 Any area shown on the Planning Maps as the Waimakariri Flood Category A area;
- 5.9.1.2 Seaward of the Coastal Hazard 1 Line as shown on the Planning Maps;
- 5.9.1.3 Between any waterbody and any stopbank designed to contain floodwater from that waterbody; and
- 5.9.1.4 The area shown on the Planning Maps as the Lower Plains flood or ponding areas; unless a minimum building floor level 300m above a 2% Annual Exceedence Probability (AEP) hazard event is identified;
- 5.9.1.5 The area shown on the Planning Maps as the Lake Ellesmere/Te Waihora flood area, unless a minimum building floor level of 3m above mean sea level (Lyttleton Datum 1937) is identified.

Note: *The Proposed Regional Coastal Environment Plan prohibits habitable buildings with floor areas in excess of 25m², including any extensions or alterations, seaward of the Hazard 1 line. If the Prohibited status remains once the Regional Plan is operative, then no consents will be granted for these activities.*

Refer to Council pamphlet “Building a House in the Rural Zone” in respect to Rules 5.9.1.4 or 5.9.1.5.

Restricted Discretionary Activities — Natural Hazards – Utility Buildings

- 5.9.2 Erecting any new utility building on any site in the areas stated in Rules 5.9.1.4 and 5.9.1.5, which does not have a minimum floor level which complies with Rules 5.9.1.4 and 5.9.1.5, shall be a restricted discretionary activity.
- 5.9.3 Under Rule 5.9.2, the Council shall restrict its discretion to consideration of:
- 5.9.3.1 The potential risk of the dwelling or other principal building being inundated and the extent of any flood damages; including its proximity to any adjacent stopbank where in the case of overtopping, breach or failure of a stopbank, the depth and velocity of that event (i.e. depth (m) x velocity (ms⁻¹) > 1) shall be taken into account.
- 5.9.3.2 The effectiveness of any mitigation measures proposed to reduce the risk of inundation or extent of flood damages;
- 5.9.3.3 Any effects of the dwelling or other principal building or the proposed flood mitigation measures on diverting or displacing floodwaters on to other property or increasing the potential level of floodwater on other properties;
- 5.9.3.4 Any other effects of any proposed mitigation measures on the environment;
- 5.9.3.5 Any positive effects which may offset any adverse effects; and
- 5.9.3.6 Any monitoring or review conditions.

Discretionary and Non-Complying Activities — Natural Hazards – Utility Buildings

- 5.9.4 Erecting any new utility building on any site in the areas listed in Rules 5.9.1.1 and 5.9.1.3, shall be a non-complying activity.

5.10 UTILITY STRUCTURES AND SITES OF SIGNIFICANCE TO TĀNGATA WHENUA

Permitted Activities — Utility Structures and Sites of Significance to Tāngata Whenua

- 5.10.1 Any utility structure which meets the following conditions shall be a permitted activity:
- 5.10.1.1 Within any area listed in Appendix 5 and shown on the Planning Maps as a Silent File Area, any earthworks associated with any utility structure is limited to the disturbance of soil over areas and to depths where that soil has been previously disturbed by cultivation, planting (trees, pasture or crops), building or earthworks;
- 5.10.1.2 In the area listed in Appendix 5 and shown on the Planning Maps as Wāhi Taonga Management Area C39(a), any earthworks associated with any utility structure is limited to the disturbance of soil over areas where that soil has been previously disturbed by cultivation, planting (trees, pasture or crops), building or earthworks. Any disturbance within those areas shall be limited to a maximum depth of 20cm;
- 5.10.1.3 Within any area listed in Appendix 5 and shown on the Planning Maps as a Wāhi Taonga Site or any Wāhi Taonga Management Area not listed in 5.10.1.2, the construction, maintenance, upgrading or replacement of any utility structure does not involve the disturbance, damage to, removal or destruction of any object, artefact or other symbol of pre-European settlement, occupation or use of that site; and
- 5.10.1.4 Within any area listed in Appendix 5 and shown on the Planning Maps as a Mahinga Kai site, any damage to, or removal of, indigenous vegetation associated with the construction, maintenance, upgrading or replacement of any utility structure is limited to that undertaken by Tāngata Whenua for Mahinga Kai purposes.

Restricted Discretionary Activities — Utility Structures and Sites of Significance to Tāngata Whenua

- 5.10.2 Any activity which does not comply with Rules 5.10.1.1 to 5.10.1.4 shall be a restricted discretionary activity.
- 5.10.3 Under Rule 5.10.2, the Council shall restrict its discretion to the following matters:
- 5.10.3.1 Any inappropriate disturbance or other potential adverse effects on any site of significance within a Silent File Area, as advised by local Rūnanga;
- 5.10.3.2 In the area listed in Appendix 5 and shown on the Planning Maps as Wāhi Taonga Management Area C39(a), any inappropriate disturbance or other potential adverse effects on any site of significance, object, remnant or artefact, as advised by local Rūnanga and the New Zealand Historic Places Trust Pouhere Taonga;
- 5.10.3.3 Any damage to, destruction or removal of, any object, remnant or artefact contained within a Wāhi Taonga Site or any Wāhi Taonga Management Area not listed in 5.10.3.2, as advised by local Rūnanga; or
- 5.10.3.4 Any adverse effects of the proposed activity on any Mahinga Kai site, as advised by local Rūnanga;
- 5.10.3.5 Other than in Wāhi Taonga Management Area C39(a), any potential costs to the landholder of not being able to undertake the proposed activity on that site;
- 5.10.3.6 Any alternative options available to undertake the activity in another form or on another site and the costs and practicality of these options;
- 5.10.3.7 Any positive effects which may offset any adverse effects; and
- 5.10.3.8 Any monitoring or review conditions.

5.11 UTILITY BUILDINGS AND SITES OF SIGNIFICANCE TO Tāngata WHENUA

Permitted Activities —Utility Buildings and Sites of Significance to Tāngata Whenua

- 5.11.1 Any utility building which meets the following conditions shall be a permitted activity:
- 5.11.1.1 In any area listed in Appendix 5 and shown on the Planning Maps as a Silent File Area, any earthworks associated with the building is limited to the disturbance of soil over areas and to depths where that soil has been previously disturbed by cultivation, planting (trees, pasture or crops), building or earthworks.
- 5.11.1.2 In the area listed in Appendix 5 and shown on the Planning Maps as Wāhi Taonga Management Area C39(a), any earthworks associated with the building is limited to the disturbance of soil over areas where that soil has been previously disturbed by cultivation, planting (trees, pasture or crops), building or earthworks. Any disturbance within those areas shall be limited to a maximum depth of 20cm;
- 5.11.1.3 In any area listed in Appendix 5 and shown on the Planning Maps as a Wāhi Taonga Site or any Wāhi Taonga Management Area not listed in 5.11.1.2, the construction, maintenance, upgrading or replacement of the building does not involve the disturbance, damage to, removal or destruction of any object, artefact or other symbol of pre-European settlement, occupation or use of that site.
- 5.11.1.4 In any area listed in Appendix 5 and shown on the Planning Maps as a Mahinga Kai site, any damage to or removal of indigenous vegetation associated with the construction, maintenance, upgrading or replacement of any utility building is limited to that undertaken by Tāngata whenua for mahinga kai purposes.^{PC28}

Restricted Discretionary Activities — Utility Buildings and Sites of Significance to Tāngata Whenua

- 5.11.2 Any activity which does not comply with Rules 5.11.1.1 to 5.11.1.4 shall be a restricted discretionary activity
- 5.11.3 Under Rule 5.11.2, the Council shall restrict its discretion to all of the following matters:
- 5.11.3.1 Any inappropriate disturbance or other potential adverse effects on any site of significance within a Silent File Area, as advised by local Rūnanga;
- 5.11.3.2 In the area listed in Appendix 5 and shown on the Planning Maps as Wāhi Taonga Management Area C39(a), any inappropriate disturbance or other potential adverse effects on any site of significance, object, remnant or artefact, as advised by local Rūnanga and the New Zealand Historic Places Trust Pouhere Taonga;
- 5.11.3.3 Any damage to, destruction or removal of any object, remnant or artefact contained within a Wāhi Taonga Site or any Wāhi Taonga Management Area not listed in 5.11.3.2, as advised by local Rūnanga;
- 5.11.3.4 Any adverse effects of the proposed activity on any Mahinga Kai site, as advised by local Rūnanga;
- 5.11.3.5 Any potential costs to the landholder of not being able to undertake the proposed activity on that site;
- 5.11.3.6 Any alternative options available to undertake the activity in another form or on another site and the costs and practicality of these options;
- 5.11.3.7 Any positive effects which may offset any adverse effects; and
- 5.11.3.8 Any monitoring or review conditions.

5.12 WEST MELTON AIRFIELD AND HORORATA DOMAIN – UTILITY STRUCTURES AND UTILITY BUILDINGS

Permitted Activities — West Melton Airfield and Hororata Domain – Utility Structures and Utility Buildings

- 5.12.1 Any utility structure or utility building which complies with the maximum height requirements in the approach paths to the runways at West Melton Airfield and Hororata Domain, as shown in Appendix 19 shall be a permitted activity.

Note: *For Rule 5.12.1, the maximum height of any building is measured from ground level at the base of the building, to the highest point on the building. It includes any chimney, aerial, mast, satellite dish or other structure which is attached to and protrudes above the roof height of the building.*

Non-Complying Activities — West Melton Airfield and Hororata Domain – Utility Structures and Utility Buildings

- 5.12.2 Any utility structure or utility building or any part of any utility structure or utility building which does not comply with Rule 5.12.1 shall be a non-complying activity.

5.13 WATERBODY SETBACKS – UTILITY STRUCTURES AND UTILITY BUILDINGS

Permitted Activities — Waterbody Setbacks – Utility Buildings

5.13.1 Any utility building which is setback at least the following minimum distances shall be a permitted activity:

5.13.1.1 100m from the edge of any lake or any wetland which adjoins a lake; and

5.13.1.2 20m from the edge of any waterbody listed in Appendix 17 other than a lake; and

5.13.1.3 10m from the edge of any other waterbody (excluding aquifers).

Note: *For the purposes of Rule 5.13.1.1 the edge of any lake is measured from:*

- *The edge of the space of water which the lake covers at its annual highest level without exceeding its margin; or*
- *If the lake level is controlled by artificial means, the space of land which the waters of the lake cover at its maximum permitted operating level.*

For the purposes of Rules 5.13.1.2 to 5.13.1.3 the edge of any waterbody is measured from the edge of the bed of the river. The bed is defined in section 2 of the Act as-

“the space of land which the waters of the river cover at its fullest flow, without overtopping its banks.”.

Permitted Activities — Waterbody Setbacks – Utility Structures

5.13.2 Any utility structure which is setback at least the following minimum distances shall be a permitted activity:

5.13.2.1 100m from the edge of any lake; and

5.13.2.2 20m from the edge of any waterbody listed in Appendix 17 other than a lake; and

5.13.2.3 10m from the edge of any other waterbody (excluding aquifers).

Discretionary Activities — Waterbody Setbacks – Utility Structures and Utility Buildings

5.13.3 Any activity which does not comply with Rule 5.13.1 or 5.13.2 shall be a discretionary activity.

5.14 HERITAGE BUILDINGS – UTILITY STRUCTURES AND UTILITY BUILDINGS

Permitted Activities — Heritage Buildings – Utility Structures and Utility Buildings

- 5.14.1 The maintenance of any utility building, structure or site listed in Appendix 3 shall be a permitted activity. For the purposes of this rule the term “maintenance” means:
- 5.14.1.1 Replacement of any materials which do not form part of the original heritage features of the building, structure, or site;
- 5.14.1.2 The replacement of any materials which form part of the original heritage values of the buildings, structure, or site, provided that these materials are of the same or similar appearance and character as the original material;
- 5.14.1.3 Any repainting of existing painted surfaces;
- 5.14.1.4 Any cleaning or washing of external heritage features provided this does not involve the use of abrasive materials or techniques, such as sandblasting.

Restricted Discretionary Activities — Heritage Buildings – Utility Structures

- 5.14.2 Any activity which involves the addition to, or alteration or modification of, any utility structure listed in Appendix 3 as a Heritage Site shall be a restricted discretionary activity.
- 5.14.3 Under Rule 5.14.2, the Council shall restrict its discretion to consideration of:
- 5.14.3.1 The heritage value(s) of the utility structure or site, and the extent to which it has already been modified by additions or alterations;
- 5.14.3.2 Whether the proposed additions, alterations or modifications will adversely affect the heritage values of the utility structure or site;
- 5.14.3.3 Any positive effects of the additions, alterations or modifications on the heritage values of the utility structure or site, including (but not limited to): any restoration or enhancement of heritage features or values; works which improve the efficiency or desirability of the utility structure for ongoing use; and any proposal to provide public access to the heritage utility structure or site.

Discretionary and Non-Complying Activities — Heritage Buildings – Utility Structures

- 5.14.4 Any demolition or removal of any utility structure or site, or any part of any utility structure or site, listed in Appendix 3 (except as set out under Rule 5.14.5 below) shall be a discretionary activity.
- 5.14.5 Any demolition or destruction of any utility structure or part of any utility structure which is listed as “Category 1” under the HPT Category in Appendix 3 as a Heritage Building shall be a non-complying activity.

Restricted Discretionary Activities — Heritage Buildings – Utility Buildings

- 5.14.6 Any activity which involves the addition to, or alteration or modification of, any building or any part of any building listed in Appendix 3 as a Heritage Building shall be a restricted discretionary activity.
- 5.14.7 Under Rule 5.14.6, the Council shall restrict its discretion to consideration of:
- 5.14.7.1 The heritage value(s) of the listed building, and the extent to which it has already been modified by additions or alterations;
- 5.14.7.2 Whether the proposed additions, alterations or modifications will adversely affect the heritage values of the building;
- 5.14.7.3 Any positive effects of the additions, alterations or modifications on the heritage values of the building, including (but not limited to): any restoration or enhancement of heritage features or values; works which improve the efficiency or desirability of the building for ongoing use; and any proposal to provide public access to the heritage building;
- 5.14.7.4 The costs to the applicant or owner of not allowing the modifications, additions or alterations to the building;

- 5.14.7.5 Any alternative options which may better maintain the heritage values of the building and the relative costs of the alternatives;
- 5.14.7.6 Any other works the applicant has undertaken or proposes to undertake to maintain or enhance heritage values on the site or elsewhere in the District and the appropriateness of such works as a mitigation measure; and
- 5.14.7.7 Any monitoring or review conditions.

Discretionary Activities — Heritage Buildings – Utility Buildings

- 5.14.8 Any demolition or removal of any building or part of any utility building which is listed in Appendix 3 (except any building or part of any building which is listed as “Category 1” under the HPT Category in Appendix 3) as a Heritage Building shall be a discretionary activity.

Non-Complying Activities — Heritage Buildings – Utility Buildings

- 5.14.9 Any demolition or removal of any building or part of any utility building which is listed as “Category 1” under the HPT Category in Appendix 3 shall be a non-complying activity.

Reasons for Rules

Rule 5 manages effects of establishing, maintaining, upgrading and replacing utilities on the environment. These rules should be read in conjunction with Rule 1 – Earthworks and Rule 3 – Buildings. Cross references to other relevant rules are provided at the beginning of Rule 5.

Many activities involving utilities are undertaken by requiring authorities, using designations. In these cases, the District Plan rules may not apply. However, it is still necessary to have rules in the Plan, because:

- (a) Not all utilities are managed by requiring authorities;
- (b) Often utilities are installed by private developers as part of subdivisions or land uses. Some utilities may vest in the Council. The Plan needs to have rules for the undertaking of these activities, so the Council can manage the standard of utilities which will vest in the Council;
- (c) If rules in the District Plan allow activities as permitted activities, it may reduce the need for network utility operators to designate land; and
- (d) It is consistent with Part II and section 32 of the Act to provide for activities which have only minor effects on the environment as permitted activities.

The Outstanding Landscapes of the Port Hills, Malvern Hills and High Country are equally managed with only very small buildings and utility structures provided for as a permitted activity. In relation to the Port Hills, utilities are a restricted discretionary activity in the Lower Slopes and Visual Amenity Landscape of the Port Hills and a non-complying activity in the Upper Slopes. This is consistent with the rule structure for dwellings, where the Plan provides for a more lenient housing density within the Lower Slopes and Visual Amenity Landscape to encourage development to this part of the Port Hills and to maintain relatively open Upper slopes.

Rules 5.1 and 5.1.2.2 address potential effects from electromagnetic radiation and power frequency electric and magnetic fields. The rules are firmly based on recognised national standards concerning these effects.

Rule 5.1.2.3 concerns cables and lines. The rules encourage undergrounding of such lines where this is a realistic expectation. New high voltage lines will require consent and assessment given their potentially significant visual impacts, with particular eye to siting.

Rule 5.1.2.4 discourages on-site energy production (subject to specific exemptions) because of potential adverse effects of such activities.

Rule 5.1.2.5 provides for small scale drainage and irrigation facilities which would not raise issues in respect to wider effects on water resources, where resource consent would be required.

Rule 5.1.2.6 provides for reticulated gas supplies of a scale appropriate to a residential or light industrial environment.

Rule 5.2 relates to utility buildings. It allows them to be of the same scale as rural buildings generally, but also recognising that functionally they do not require as much surrounding space as dwellings. Setback and recession plane requirements are set in place to protect neighbours and any adjoining Living zone from the bulk of utility buildings.

Rule 5.3 relates to utility structures which comprise very small buildings, or poles, masts, pylons and antenna. For operational efficiency these are allowed to be higher than buildings, but also require compliance with recession planes on Living zone

boundaries where a utility support structure has a “thick” profile of more than 500 mm.

Rule 5.4 requires that telecommunication or radiocommunication towers (but not their attached fittings) be finished in colours which are (or weather to) shades which will not be visually obtrusive in the rural environment.

Rules 5.5 and 5.6 address buildings in the Areas of Outstanding Landscapes shown on the Planning Maps. These areas have been identified as having very special landscape values (see Part B Section 1.4). The landscapes they contain have been modified by human activities, particularly by the clearance of indigenous scrub or forest, but they remain mostly free of large structures or buildings. The rules allow very small structures or buildings, such as tramping huts or water tanks, as permitted activities, provided they are finished in materials with low reflectivity values. The Plan allows larger buildings to be erected in these areas if they need to be located there, for example, a skifield development. These buildings require a resource consent, and the Council maintains discretion over the location, siting and design of the building and associated infrastructure. Buildings which do not need to locate in an area of Outstanding Landscape, such as a house which could be located on a property outside the area of Outstanding Landscape, are non-complying activities and are discouraged from locating there.

The provisions are slightly different for the Port Hills. The Port Hills landscape has been subject to greater levels of residential development than the areas in the Malvern Hills and High Country. The Plan provisions allows for low level residential development on the Port Hills but controls the siting, design and density of houses and other buildings, to reduce potential visual effects. The Plan provisions protect the area located between the summit and a distance of 30.46m vertically below the Summit Road. This approach is similar to the existing protection given under the Summit Road (Canterbury) Protection Act 2001. The Plan policies recognise that there may be some sites within the Upper Slopes where a dwelling could be erected with only minor visual effects. However, most residential development is encouraged to locate in the Lower Slopes. Erecting houses in the Upper Slopes is therefore a non-complying activity and may be publicly notified. Erecting houses within the Lower Slopes is a restricted discretionary activity, to manage design and siting, and resource consent applications are non-notified.

Rule 5.7 recognises the role of rural areas surrounding areas of Outstanding Landscape in providing a quality backdrop. The rules manage the reflectivity of new buildings, to help maintain the appearance of a pre-dominance of vegetation cover in these areas. The rules for residential density (Rule 3.10), site coverage (Rule 3.11) and tree planting (Rule 2) also help to maintain the ‘rural character’ of these areas.

Rules 5.8 and 5.9 identify areas where dwellings and other principal buildings should not be erected as a permitted activity because of potential flooding unless where indicated identified floor levels are met. The rules apply to dwellings and principal buildings, because these buildings are the ones likely to contain valuable assets which are not easily moved beyond reach of floodwaters. The rules do not apply to accessory buildings such as hay barns and implement sheds. In the Waimakariri Flood Category A area, seaward of the Coastal Hazard Line, and between any waterbody and any stopbank, floodwaters move at such a velocity that buildings are prone to both inundation and scouring of foundations. Therefore, dwellings and principal buildings are non-complying activities in these areas. They are strongly discouraged. The activity is not a prohibited activity due to the coarseness of the mapping, which means some land may be included in the flood areas (particularly around the edges) where the flood risk is minor. Flooding in the area covered by the Lower Plains and the Lake Ellesmere/Te Waihora flood areas, includes areas which are at risk from flooding based on the best available information. These areas may be subject to one or more forms of flooding, including ponding, stormwater, windlash and overland flow. Therefore, dwellings and principal buildings may be allowed if the building is appropriately designed or raised to reduce the risk of inundation or the level of damage from inundation, otherwise they are restricted discretionary activities (need resource consent). Specific consideration is required where development is proposed in close proximity to a stopbank due to the greater risk of damage to property and potential loss of human life from increased water velocity associated with a stopbank breach.

Rules 5.10 and 5.11 manage the effects of erecting buildings in Silent File Areas and Wāhi Taonga Management Areas, and on Wāhi Taonga Sites and Mahinga Kai sites. Activities which may disturb these areas and sites require a resource consent, so the Council can assess whether the activity will affect any culturally or archaeologically important site, as advised by local Rūnanga and in the case of the Wāhi Taonga Management Area which comprises the Rakaia River Mouth Moa Hunter Site (C39(a) and C39(b)), the New Zealand Historic Places Trust Pouhere Taonga.

The Council has a policy to consider reducing or waiving resource consent processing fees for activities in such areas (see Part B, Section 3.3). For further information on these areas and sites, refer to the Reasons for the Earthworks Rules.

Rule 5.12 manages the effects of tall buildings and other structures within the height restriction areas around West Melton airfield and Hororata Domain. Height restrictions apply to land which lies underneath the approach paths to the runway. Any breach of the height restrictions is a non-complying activity. The approach paths need to be clear of obstacles to ensure aircraft can take off or land safely. The height restrictions are shown in Appendix 19. They are drafted to accommodate the current use of the existing runways at both airfields. Height restrictions affect the range of land uses able to occur on surrounding properties. Therefore, any further restrictions on building height to accommodate further use of these airfields, would need to be considered alongside any proposal to increase use of either airfield.

Rule 5.14 manages additions or alterations to, and demolition of, heritage buildings. The buildings listed in Appendix 3 have been identified as having important heritage values. The process and criteria used to identify these buildings is outlined in Part B, Section 3.3. General cleaning and maintenance of these buildings does not require a resource consent but additions and

alterations do. The Plan policies allow for additions and alterations because they are necessary to provide for their ongoing use and retention. The policies require alterations and additions to maintain or enhance the heritage values of the building, where practical. Demolition of heritage buildings also requires a resource consent. Demolition is not encouraged, although Plan policies recognise that in some cases there may be no practical, affordable alternative. The demolition or removal of listed buildings having a Category 1 classification under the HPT system is a non-complying activity recognising the particular significance of such buildings.

PART C

6 LIVING ZONE RULES — UTILITIES

Notes

1. The undergrounding or ducting of any utility is permitted subject to compliance with Rule 2 (Earthworks), except where the provisions of Rule 3 (Heritage) apply.
2. The rules in this Plan are applicable to activities generally, including utilities. However, the following rules do not apply to utilities:

Land Use Rules for Living Zones:

- Rule 4.15 (Setbacks from Waterbodies)
- Rule 11 (Landscape Management, Alpine Villages)
- Rule 4.2 (Landscaping)
- Rule 4.8 (Building Height)
- Rule 4.9 (Building Position)
- Rule 4.7 (Site Coverage)

Rules in respect to the above matters are contained in the following rules on utilities

- 3 Work on utilities which are undertaken by requiring authorities under designations are not subject to the rules in this Plan.
- 4 Earthworks affecting any archaeological sites require the consent of the New Zealand Historic Places Trust Pouhere Taonga (refer to Part B, Section 3.3, "Archaeological Sites").
- 5 Development contributions under the LTP Development Contribution Policy will be taken where network infrastructure, community infrastructure or reserves have to be constructed or expanded as a direct result of growth from development. Refer to Section B4.4 for further information on development contributions.

6.1 UTILITIES — ACTIVITIES

Permitted Activities — Utilities – Activities

- 6.1.1 Any utility which meets the following provisions and complies with all other relevant rules shall be a permitted activity:
- 6.1.1.1 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. For the avoidance of doubt, the following activities are permitted:
- (a) The replacement of support structure cross arms;
 - (b) The reconductoring or replacement of lines;
 - (c) The resagging of conductors or lines;
 - (d) The addition of longer or more efficient insulators or mountings;
 - (e) The addition of earth wires which may contain telecommunication lines, earthpeaks and lighting rods;
 - (f) The clearance and trimming of vegetation under lines or structures necessary to maintain security of electricity supply and telecommunication;
 - (g) Pole replacement;
 - (h) Where an existing electricity distribution line requires upgrading to improve the reliability of supply, the addition of one support structure cross arms;
 - (i) The substitution of low voltage (400 Volts) electricity distribution lines with Aerial Bundled Cable provided that the overall diameter of the bundle shall not exceed 40 mm;
 - (j) An increase in the voltage of a line, but only where the line was originally installed to operate at a higher voltage, but has been operating at a reduced voltage.
- 6.1.1.2 Any utility which emits electromagnetic radiation that meets the following conditions:
- (a) Exposures comply with NZS2772.1:1999 Radio Frequency Fields Part 1: Maximum exposure levels 3kHz–300 GHz ("the New Zealand Standard").
 - (b) Prior to commencing any radiofrequency emissions, the following is sent to and received by the Selwyn District Council:
 - Written notice of the location of the facility or proposed facility; and
 - A report prepared by a radio engineer/technician or physical scientist containing a prediction of whether the New Zealand standard will be complied with (note – this requirement shall not apply to the holder of an amateur radio license).
 - (c) If the report provided to the Council under condition Rule 6.1.1.2(b) predicts that emissions will exceed 25% of the exposure limit set for the general public in the New Zealand Standard, then within three months of radiofrequency emissions commencing, a report from National Radiation Laboratory (or Selwyn District Council, being an appropriately qualified organisation specifically identified in this rule), certifying compliance with the New Zealand Standard, based on measurements at the site, shall be provided to the Selwyn District Council.
- 6.1.1.3 Any power frequency electric and magnetic fields created which do not exceed 100 micro tesla and 5kV/m in areas which are accessible to the public.
- Note:** Electric and magnetic fields are measured and assessed in accordance with the International Commission on Non Ionising Radiation Protection Guidelines
- 6.1.1.4 Any transformer, line or wire does not exceed a voltage of 110kV or a capacity of 100 MVA per circuit.

- 6.1.1.5 Any new cable or line is laid underground; except for the provision of additional service connections to a maximum of three additional poles within, areas where services are already above ground.
- 6.1.1.6 The utility is not used for the generation of energy, apart from the generation of energy for use on the same site, or to enable continued supply during emergencies, maintenance or repairs.

(This rule does not apply to solar, wind or petroleum based powered generators used to generate energy for use only on the site on which they are located).

- 6.1.1.7 The digging of channels or ditches to convey water is limited to maintenance or minor realignment of existing drains and stock water races.
- 6.1.1.8 Any pipe used for distribution of gas (manufactured or natural) does not exceed a gauge pressure of 2000 kilopascals, including household connections and compressors.
- 6.1.1.9 The utility may involve the maintenance, operation, and improvement of existing coastal protection works, flood protection and river maintenance works, including the planting and harvesting of trees.
- 6.1.1.10 The utility does not involve the treatment of sewage or effluent, apart from the treatment and disposal of effluent on site.
- 6.1.1.11 The utility does not involve the treatment or disposal of solid waste, apart from solid waste permitted in terms of Rule 9.
- 6.1.1.12 Any pipe to convey water, sewerage or gas, is laid underground.

Restricted Discretionary Activities — Utilities – Activities

- 6.1.2 Any activity which does not comply with Rule 6.1.1.5 shall be a restricted discretionary activity.
- 6.1.3 Under Rule 6.1.2 the Council shall restrict its discretion to:
- 6.1.3.1 whether surrounding sites have overhead or underground cables;
- 6.1.3.2 if surrounding sites have overhead cables, the time frame with which they are likely to be replaced with underground cables;
- 6.1.3.3 any physical or technical difficulties with laying cables underground to the site.

Discretionary Activities — Utilities – Activities

- 6.1.4 Any activity which does not comply with Rules 6.1.1.4, Rule 6.1.1.7, Rule 6.1.1.8, Rule 6.1.1.9 and 6.1.1.12 shall be a discretionary activity.

Non-Complying Activities — Utilities – Activities

- 6.1.5 Any activity which does not comply with Rules 6.1.1.2, Rule 6.1.1.3, Rule 6.1.1.6, Rule 6.1.1.10 and Rule 6.1.1.11 shall be a non-complying activity.

6.2 HEIGHT AND SETBACKS – UTILITY BUILDINGS

Permitted Activities — Height and Setbacks – Utility Buildings

- 6.2.1 Erecting any utility building, or any addition or alterations to, or modification of any utility building which complies with all of the following conditions shall be a permitted activity.
- 6.2.1.1 The height of the utility building shall not exceed 8m. For Rule 6.2.1.1, the height of any building shall be measured from ground level at the base of the building, to the highest point on the building, but excluding any chimney, mast, aerial, or other structure which is attached to the outside of the building.
- 6.2.1.2 Except as specified under subclauses (a) or (b) below, the utility building is setback a minimum distance of 4 metres from a road boundary, and 2 metres from an internal property boundary except that a utility building may be sited along the internal boundary of a site if the boundary shares a common wall with another building.

(a) Prebbleton

Any utility building in the Living 1A Zone at Prebbleton shall be set back from the road boundary of Trices Road by not less than 10 metres, provided that the 10 metre area is landscaped.

Any utility building shall be set back not less than 6 metres from the north east or north west zone boundaries of the Living 1A2 Zone at Prebbleton.

(b) Castle Hill

Any utility building shall be set back not less than 6m from the south eastern boundaries of Lots 1 and 2 DP 22544 in the Living 1A Zone at Castle Hill Village.

Any building or structure shall be set back not less than 1.5 metres from all internal and road boundaries within the Living 1A zone at Castle Hill, except that:

- along the Living 1A zone boundaries the minimum setback shall be 3 metres; and
- where an internal boundary is also the boundary of a reserve (other than a road reserve) exceeding 1 metre in width or of an access lot or right of way there shall be no minimum setback.

- 6.2.1.3 The utility building is positioned so that it complies, at the property boundary with the recession plane angles in Appendix 11.

Restricted Discretionary Activities: Height and Setbacks — Utility Buildings

- 6.2.2 Any activity which does not comply with Rule 6.2.1.2 shall be a restricted discretionary activity.
- 6.2.3 Under Rule 6.2.2 the Council shall restrict its discretion to:
- 6.2.3.1 Internal Boundary

Any adverse effects on:

- (a) Privacy;
- (b) Outlook;
- (c) Shading; or
- (d) Amenity values of the adjoining property, it's occupiers and their activities; and

6.2.3.2 Road Boundary

Any adverse effects on:

- (a) The character of the street;
- (b) Safety and visibility of pedestrians, cyclists and motorists, and;

-
- (c) Shading of the road or footpath in winter.

Discretionary Activities: Height and Setbacks — Utility Buildings

- 6.2.4 Any activity which does not comply with Rules 6.2.1.1 and Rule 6.2.1.3 shall be a discretionary activity.

6.3 HEIGHT — UTILITY STRUCTURES

Note: For the purposes of Rules 6.3.1, Rule 6.3.2, Rule 6.3.3 and Rule 6.3.4, the maximum height of any utility structure is measured from the ground surface to the top of the highest point of the utility structure and includes any attachments. Where a utility structure is attached to a building or another structure, the height of the utility structure will still be measured from the ground level.

Permitted Activities — Height – Utility Structures

- 6.3.1 Any utility structure (except dish antenna) which complies with all of the following conditions shall be a permitted activity:
 - 6.3.1.1 The structure does not exceed a height of 15 metres; or in the case of an aerial or antenna attached to a building, does not extend more than 2.5 metres above the point of attachment on the building to which it is attached.
 - 6.3.1.2 The structure comprises any pole or mast which does not exceed 500mm in diameter beyond a height of 6m above ground level
 - 6.3.1.3 The structure comprises any pole or mast which exceeds 500mm in diameter beyond a height of 6 m above ground level, provided it complies with the recession planes in Appendix 11 as if that pole or mast were a building.

For the avoidance of doubt, Rules 6.3.1.2 and Rule 6.3.1.3 do not apply to cross arms or antenna.

- 6.3.2 Any dish antenna which complies with the relevant following condition shall be a permitted activity.
 - 6.3.2.1 A dish antenna of not more than 1.2m diameter shall not exceed a height of 8m, or if attached to a building, it shall not extend more than 2.5m above the point of attachment.
 - 6.3.2.2 A dish antenna of more than 1.2m but not more than 2m in diameter shall not exceed a height of 8m, or if attached to a building, it shall not extend more than 2.5m above the point of attachment. It shall not be located in the front yard of any dwelling; and shall comply with the recession plane in Appendix 11.

Restricted Discretionary Activities — Height – Utility Structures

- 6.3.3 Any dish antenna which complies with the following condition shall be a restricted discretionary activity:
 - 6.3.3.1 A dish antenna of more than 2m but less than 4m in diameter shall not exceed a height of 8m, shall not be located in the front yard of any dwelling; and shall comply with the recession plane in Appendix 11).
- 6.3.4 Any resource consent application made under Rule 6.3.3 shall not be notified and shall not require the written approval of affected parties. The exercise of discretion shall be restricted to consideration of:
 - 6.3.4.1 The colour and reflectivity of the structure; and
 - 6.3.4.2 The type of materials used, taking into account the technical requirements of the dish antenna; and
 - 6.3.4.3 The design and scale of the structure; and
 - 6.3.4.4 The technical suitability of the dish antenna position; and
 - 6.3.4.5 The integration of the dish antenna within the site and with the surrounding environment including, but not limited to, the extent of any landscaping where this is appropriate.

Discretionary Activities — Height – Utility Structures

- 6.3.5 Any utility structure which does not comply with Rule 6.3.1, Rule 6.3.2 or Rule 6.3.3 shall be a discretionary activity.

6.4 LANDSCAPE MANAGEMENT ALPINE VILLAGES — UTILITIES

Arthurs Pass and Castle Hill

Permitted Activities — Landscape Management Alpine Villages – Utilities

6.4.1 The following activities shall be permitted activities in Arthurs Pass and Castle Hill Alpine Villages:

Utility Structures

6.4.1.1 Any utility pipe or cable laid underground.

6.4.1.2 Any dish antenna less than 0.75 metres in diameter, the height of which does not exceed that of the building or structure to which it is attached.

Antennas and Masts

6.4.1.3 Any antenna (other than a dish antenna) or mast no part or element of which exceeds a height of 10.5 metres above the ground immediately below.

Utility Building and Utility Structure Materials and Colour

6.4.1.4 Any utility building or utility structure which is constructed using one or more of the following materials:

- (a) Timber;
- (b) Stone of the same type as that found in the local area; or
- (c) Coloured corrugated metal sheeting (Arthur's Pass only).

6.4.1.5 Any building or structure is painted or coloured having a reflectivity value between 0 and 37% inclusive.

Restricted Discretionary Activities — Landscape Management Alpine Villages – Utilities

6.4.2 Any activity which does not comply with Rules 6.4.1.1 to Rule 6.4.1.5 shall be a restricted discretionary activity, which shall not be notified and shall not require the written approval of affected parties.

6.4.3 Under Rule 6.4.2 the Council shall restrict its discretion to:

- 6.4.3.1 The effects of the activity on the landscape values of the area.
- 6.4.3.2 Whether the proposed activity reflects the design of any heritage buildings or general heritage values of the area.
- 6.4.3.3 The cost to the applicant and practicality of modifying the proposed activity to better complement the landscape values of the area.
- 6.4.3.4 Any compensatory works proposed to enhance the landscape values elsewhere in the village and the appropriateness of this work as a mitigation measure.
- 6.4.3.5 For dwellings and principal buildings erected at Castle Hill, the appropriateness of the design of the building in relation to the 'chalet or alpine theme' of the village.

6.5 LANDSCAPING — UTILITY BUILDINGS

Permitted Activities — Landscaping — Utility Buildings

6.5.1 Any utility building shall be a permitted activity if the following conditions are met:

6.5.1.1 The area between the road boundary and the utility building is:

- (a) Planted in lawn, and/or
- (b) Paved or sealed, and/or
- (c) Dressed with bark chips or similar material

Note: *Except that fences on boundaries adjoining reserve areas, cycleways or pedestrian accessways identified in the Outline Development Plan for Lincoln in Appendix 18 shall not exceed 1.2m in height.*

Discretionary Activities — Landscaping — Utility Buildings

6.5.2 Any activity which does not comply with Rule 6.5.1 shall be a discretionary activity.

6.6 SETBACK FROM WATERWAYS — UTILITIES

Permitted Activities — Setback from Waterways – Utilities

- 6.6.1 Any utility building or other structure shall be a permitted activity if it is sited in accordance with the following setbacks:
- 6.6.1.1 Not less than 20 metres from the edge of any waterbody listed in Appendix 12; or
- 6.6.1.2 Not less than 10 metres from the edge of any other waterbody (excluding aquifers).

Discretionary Activities — Setback from Waterways – Utilities

- 6.6.2 Any activity which does not comply with Rule 6.6.1 shall be a discretionary activity.

Notes on Rule 6.6

- 1 Rule 6.6.1 does not apply to walkway facilities; utility structures attached to existing buildings or structures; or signs which are permitted activities under Rule 19.
- 2 The edge of any waterbody is measured from the edge of the bed of the river. The bed is defined in section 2 of the Act as “the space of land which the waters of the river cover at its fullest flow, without overtopping its banks”.
- 3 Rule 6.6 shall not apply on any allotment adjoining an esplanade reserve or strip along a waterbody where the reserve or strip has previously been vested in the Council.

Reasons for Rules

Rule 6 manages the effects of establishing, maintaining, upgrading and replacing utilities on the environment.

Many activities involving utilities are undertaken by requiring authorities, using designations. In these cases, the District Plan rules may not apply. However, it is still necessary to have rules in the Plan, because:

- (a) Not all utilities are managed by requiring authorities;
- (b) Often utilities are installed by private developers as part of subdivisions or land uses. Some utilities may vest in the Council. The Plan needs to have rules for the undertaking of these activities, so the Council can manage the standard of utilities which will vest in the Council;
- (c) If the rules in the District Plan allow activities as permitted activities, it may reduce the need for network utility operators to designate land; and
- (d) It is consistent with Part II and Section 32 of the Act to provide for activities which have only minor effects on the environment as permitted activities

The Plan clarifies situations where the upgrading, maintenance and replacement of utilities can occur as of right, to provide legal certainty. The rules for the height and bulk of utility structures and building are specific to those activities, and rules applicable to other buildings do not apply in most cases. This reflects the specialised (and usually minor) scale of buildings and structures such as poles, masts and antenna associated with utilities. However the sensitivity of important landscapes and living environments is recognised in the thresholds rule set in the Plan. Rules 6.1.1.2 and Rule 6.1.1.3 address potential effects from electromagnetic radiation and power frequency electric and magnetic fields. The rules are firmly based on recognised national standards concerning these effects.

Rules 6.1.1.4 and Rule 6.1.1.5 concern cables and lines. The rules encourage undergrounding of such lines where this is a realistic expectation. New high voltage lines will require consent and assessment given their significant visual impacts, with particular regard to siting.

Rules 6.1.1.6 and Rule 6.1.1.11 discourage on site energy production or treatment of solid waste (subject to specific exemptions) because of potential adverse effects of such activities in Living Zones.

Rule 6.1.1.7 provides for drains and channels of a small scale which would not raise issues in respect to wider effects on water resources, where resource consent would be required.

Rule 6.1.1.8 provides for reticulated gas supplies of a scale appropriate to a residential or light industrial environment.

Rule 6.2 relates to utility buildings. It allows them to be at the same scale as buildings in Living Zones generally, but also recognising that they do not require as much surrounding space as dwellings. Setback and recession plane requirements are set in place to protect neighbours and any Living zone, from the bulk of utility buildings.

Rule 6.3 relates to utility structures which comprise very small buildings, or poles, masts, pylons and antenna. For operational efficiency these are allowed to be higher than buildings, but also require compliance with recession planes on Living Zone boundaries where a utility support structure has a “thick” profile of more than 500mm. The rules relate to the sensitivity of the receiving zone environment.

PART C

18 BUSINESS ZONE RULES — UTILITIES

Notes

- 1 The undergrounding or ducting of any utility is permitted subject to compliance with Rule 14 (Earthworks), except where the provisions of Rule 15 (Heritage) apply.
- 2 The rules in this Plan are applicable to activities generally, including utilities. However, the following rules do not apply to utilities:

Land Use Rules for Business Zones:
 - Rule 23 (Landscape Management, Alpine Villages)
 - Rule 16.1 (Buildings and Landscaping)
 - Rule 16.6 (Building Height)
 - Rule 16.7 (Building Position)
Rules in respect to the above matters are contained in the following rules on utilities.
- 3 Work on utilities which are undertaken by requiring authorities under designations are not subject to the rules in this Plan.
- 4 Earthworks affecting any archaeological sites require the consent of the New Zealand Historic Places Trust Pouhere Taonga (refer to Part B, Section 3.3, “Archaeological Sites”).
- 5 Development contributions under the LTP Development Contribution Policy will be taken where network infrastructure, community infrastructure or reserves have to be constructed or expanded as a direct result of growth from development. Refer to Section B4.4 for further information on development contributions.

18.1 UTILITIES — ACTIVITIES

Permitted Activities — Utilities Activities

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

18.1.1.1 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. For the avoidance of doubt, the following activities are permitted:

- (a)
 - The replacement of support structure cross arms;
- (b)
 - The reconductoring or replacement of lines;
- (c)
 - The resagging of conductors or lines;
- (d)
 - The addition of longer or more efficient insulators or mountings;
- (e)
 - The addition of earth wires which may contain telecommunication lines, earthpeaks and lighting rods;
- (f)
 - The clearance and trimming of vegetation under lines or structures necessary to maintain security of electricity supply and telecommunication;
- (g)
 - Pole replacement;
- (h)
 - Where an existing electricity distribution line requires upgrading to improve the reliability of supply, the addition of one support structure cross arms;
- (i)
 - The substitution of low voltage (400 Volts) electricity distribution lines with Aerial Bundled Cable provided that the overall diameter of the bundle shall not exceed 40 mm;
- (j)
 - An increase in the voltage of a line, but only where the line was originally installed to operate at a higher voltage, but has been operating at a reduced voltage.

18.1.1.2 Any utility which emits electromagnetic radiation that meets the following conditions:

- (a)
 - Exposures comply with NZS2772.1:1999 Radio Frequency Fields Part 1: Maximum exposure levels 3kHz–300 GHz (“the New Zealand Standard”).
- (b)
 - Prior to commencing any radiofrequency emissions, the following is sent to and received by the Selwyn District Council:

- Written notice of the location of the facility or proposed facility; and
- A report prepared by a radio engineer/technician or physical scientist containing a prediction of whether the New Zealand standard will be complied with.

Note: this requirement shall not apply to the holder of an amateur radio license.

(c)

- If the report provided to the Council under condition 18.1.1.2(b) predicts that emissions will exceed 25% of the exposure limit set for the general public in the New Zealand Standard, then within three months of radiofrequency emissions commencing, a report from National Radiation Laboratory (or Selwyn District Council, being an appropriately qualified organisation specifically identified in this rule), certifying compliance with the New Zealand Standard, based on measurements at the site, shall be provided to the Selwyn District Council.

18.1.1.3 Any power frequency electric and magnetic fields created do not exceed 100 micro tesla and 5kV/m in areas which are accessible to the public.

Note: Electric and magnetic fields are measured and assessed in accordance with the International Commission on Non Ionising Radiation Protection Guidelines.

18.1.1.4 Any transformer, line or wire does not exceed a voltage of 110kV or a capacity of 100 MVA per circuit.

18.1.1.5 Any new cable or line is laid underground; except for the provision of additional service connections to a maximum of three additional poles within, areas where services are already above ground.

18.1.1.6 The utility is not used for the generation of energy, apart from the generation of energy for use on the same site, or to enable continued supply during emergencies, maintenance or repairs.

Note: this rule does not apply to solar, wind or petroleum based powered generators used to generate energy for use only on the site on which they are located.

18.1.1.7 Any pipe used for distribution of gas (manufactured or natural) does not exceed a gauge pressure of 2000 kilopascals, including household connections and compressors.

18.1.1.8 Any pipe to convey water, sewage or gas, is laid underground.

18.1.1.9 The construction and use of a rail siding undertaken in the area identified on the Outline Development Plan at Appendix 43.

Restricted Discretionary Activities — Utilities Activities

18.1.2 Any activity which does not comply with Rule 18.1.1.5 shall be a restricted discretionary activity.

18.1.3 Under Rule 18.1.2 the Council shall restrict its discretion to:

18.1.3.1 Whether surrounding sites have overhead or underground cables;

18.1.3.2 If surrounding sites have overhead cables, the time frame with which they are likely to be replaced with underground cables;

18.1.3.3 Any physical or technical difficulties with laying cables underground to the site;

Discretionary Activities — Utilities Activities

18.1.4 Any activity which does not comply with Rules 18.1.1.4, 18.1.1.7 and 18.1.1.8 shall be a discretionary activity.

Non-Complying Activities — Utilities Activities

18.1.5 Any activity which does not comply with Rules 18.1.1.2, 18.1.1.3 and 18.1.1.6 shall be a non-complying activity.

18.2 HEIGHT AND SETBACKS – UTILITY BUILDINGS

Permitted Activities — Height and Setbacks – Utility Buildings

18.2.1 Erecting any utility building, or any addition or alterations to, or modification of any utility building which complies with all of the following conditions shall be a permitted activity.

18.2.1.1 The height of the utility building shall not exceed the following standards:

- (a) Business 1A Zone; 8m
- (b) Business 1 Zone; 10m
- (c) Business 2 Zone; 15m
- (d) Business 2A and 2B Zones; 15m
- (e) Business 3 Zone; 25m

For Rule 18.2.1.1, the height of any building shall be measured from ground level at the base of the building, to the highest point on the building, but excluding any chimney, mast, aerial, or other structure which is attached to the outside of the building.

18.2.1.2 The setback of the utility building shall not be less than the following standards:

- (a) Business 1A Zone – 6m from a road boundary, or from the boundary of Lots 1 and 2 DP 22544.
- (b) Business 2 Zone: 2m from a road boundary, or any boundary adjoining a Living Zone.
- (c) Business 2A Zone:

- Road Boundaries: 10m

- Internal Boundaries: adjoining a rural zoned property: 10m, except that this requirement shall be 15m in those locations identified on the Outline Development Plan attached at Appendix 22.

(d) Business 2B Zone:

- Road Boundaries: 5m

- Internal Boundaries: adjoining a rural zoned property: 3m, adjoining a Living Z zone: 50m,

(e) Business 3 Zone: 10m from a road boundary or a Living Zone boundary.

(f) In all Business Zones, the building shall be positioned so that it complies on a Living Zone boundary, with the recession plane angles in Appendix 11.

Restricted Discretionary Activities — Height and Setbacks – Utility Buildings

18.2.2 Any activity which does not comply with Rule 18.2.1.2 (a) – (e) shall be a restricted discretionary activity.

18.2.3 Under Rule 18.2.2 the Council shall restrict the exercise of its discretion to consideration of:

18.2.3.1 Any adverse effects of shading on any adjoining property owner; or on any road or footpath during winter.

18.2.3.2 Road Boundary

Any adverse effects on:

- (a) Roadscape; and
- (b) Landscaping potential; and
- (c) Shading of the adjoining road.

18.2.3.3 Internal Boundary

Any adverse effects on:

- (a) Privacy; and
- (b) Outlook; and
- (c) shading; and
- (d) any other amenity values of the adjoining property.

Discretionary Activities — Height and Setbacks – Utility Buildings

18.2.4 Any activity which does not comply with Rule 18.2.1.1 or 18.2.1.2(e) shall be a discretionary activity.

18.3 HEIGHT – UTILITY STRUCTURES

Note: For the purposes of Rules 18.3.1 and 18.3.2, the maximum height of any utility structure is measured from the ground surface to the top of the highest point of the utility structure and includes any attachments. Where a utility structure is attached to a building or another structure, the height of the utility structure will still be measured from the ground level.

Permitted Activities — Height – Utility Structures

- 18.3.1 Any utility structure (except dish antenna) which complies with all of the following conditions shall be a permitted activity:
- 18.3.1.1 The structure does not exceed the following heights:
- (a) Business 1 and 2 Zones: 25m
 - (b) Business 1A Zone: 20m
 - (c) Business 2A and 2B Zones: 25m
 - (d) Business 3 Zone: 30m
- 18.3.1.2 The structure comprises any pole or mast which does not exceed 500mm in diameter beyond a height of 6m above ground level; or
- 18.3.1.3 The structure comprises any pole or mast which exceeds 500mm in diameter beyond a height of 6m above ground level, provided it complies with the recession planes in Appendix 11 as if that pole or mast were a building.
- Note:** For the avoidance of doubt, Rules 18.3.1.2 and 18.3.1.3 do not apply to cross arms or antenna.
- 18.3.2 Any dish antenna which complies with the relevant following condition shall be a permitted activity.
- 18.3.2.1 A dish antenna of less than 1.2m in diameter shall not exceed a height of 25m; or if attached to a building, it shall not extend more than 2.5m above the point of attachment.
- 18.3.2.2 A dish antenna of more than 1.2m but less than 4m in diameter, on a site adjoining a Living Zone, shall not exceed a height of 25m; or if attached to a building, it shall not extend more than 2.5m above the point of attachment. It shall also comply with the recession plane in Appendix 11.
- 18.3.2.3 A dish antenna of more than 1.2m in diameter but less than 4m, on a site not adjoining a Living Zone, shall not exceed a height of 25m; or if attached to a building, it shall not extend more than 2.5m above the point of attachment.

Discretionary Activities — Height – Utility Structures

- 18.3.4 Any utility structure which does not comply with Rule 18.3.1 or 18.3.2 shall be a discretionary activity.

18.4 LANDSCAPE MANAGEMENT ALPINE VILLAGES (ARTHUR'S PASS AND CASTLE HILL) – UTILITIES

Permitted Activities — Landscape Management Alpine Villages (Arthur's Pass and Castle Hill) – Utilities

18.4.1 The following activities shall be permitted activities in the Arthur's Pass and Castle Hill Alpine Villages:

Utility Structures

18.4.1.1 Any utility pipe or cable laid underground.

18.4.1.2 Any dish antenna less than 0.75 metres in diameter, the height of which does not exceed that of the building or structure to which it is attached.

Antennas and Masts

18.4.1.3 Any antenna (other than a dish antenna), mast or utility or other structure that is not a building, no part or of which exceeds a height of 15 metres above the ground immediately below.

Building Materials and Colour for Utility Buildings and Utility Structures

18.4.1.4 Any utility building or utility structure which is constructed using one or more of the following materials:

(a) Timber; or

(b) Stone of the same type as that found in the local area, provided that it complies with all other "relevant" rules, and

18.4.1.5 The exterior roof and wall colour(s) of any utility building or utility structure, except for trim items, has a reflectivity value between 0 and 37% (inclusive).

Restricted Discretionary Activities — Landscape Management Alpine Villages (Arthur's Pass and Castle Hill) – Utilities

18.4.2 Any activity which is not listed in Rules 18.4.1.1 to 18.4.1.5 shall be a restricted discretionary activity, which shall not be notified and shall not require the written approval of affected parties.

18.4.3 Under Rule 18.4.2 the Council shall restrict its discretion to:

18.4.3.1 The effects of the activity on the landscape values of the area.

18.4.3.2 Whether the proposed activity reflects the design of any heritage buildings or general heritage values of the area.

18.4.3.3 The cost to the applicant and practicality of modifying the proposed activity to better complement the landscape values of the area.

18.4.3.4 Any compensatory works proposed to enhance the landscape values elsewhere in the village and the appropriateness of this work as a mitigation measure.

18.4.3.5 For principal buildings erected, the appropriateness of the design of the building in relation to the 'chalet or alpine theme' of the village.

18.5 LANDSCAPING – UTILITY BUILDINGS

Permitted Activities — Landscaping Utility Buildings

18.5.1 Any utility building shall be a permitted activity if the following conditions are met:

18.5.1.1 The area between the road boundary and the utility boundary is:

- (a) Paved or sealed; or
- (b) Planted in lawn; or
- (c) Landscaped with shrubs, bark chips or similar materials
- (d) For the purpose of screening in the Business 2, 2B and 3 zones, landscaping methods listed in (a)–(c) can be employed.

18.5.2 Any principal building in the Business 2A Zone shall be a permitted activity if the following standard is met:

18.5.2.1 A landscaping strip of at least 3 metres width shall be provided along every road frontage, except along the frontage with Railway Road. The landscaping shall meet the following standards:

- (a) The landscaping shall consist of only those species listed in Appendix 21. Planting for each allotment shall include:
 - A minimum of two trees from Group A for every 10 metres of road frontage. For boulevard roads the species selected shall match any Group A species in the adjacent road.
 - At least 35% of the required area shall be planted in species from Group C.
 - At least 10% of the required area shall be planted in species from Group D.
 - Group B and C species shall be used when screening blank walls and vehicle courts.
- (b) All plants shall be of the following maximum spacings:
 - Group B – 1.5 metre centres;
 - Group C – 1.5 metre centres;
 - Group D – 700mm centres.

(c) The landscaping planted shall be maintained and if dead, diseased or damaged shall be removed and replaced.

(d) No fences or structures shall be erected within the 3 metre landscaping strip. Footpaths of up to 1.5m in width and generally at right angles to the road frontage may be provided in the landscape strip.

(e) All new planting areas shall be mulched.

18.5.3 Any utility building within the Business 2B Zone shall be a permitted activity, if the following standards are met:

18.5.3.1 A landscape strip of at least 5m width shall be established and maintained along the Springs Road frontage of every site, comprising one Podocarpus totara tree for every 5m of the road frontage, 1.5m high (when planted), which is capable of growing to at least 15m height at maturity.

- 18.5.3.2 A landscape strip of at least 3m width shall be established and maintained along all other boundaries of the Business 2B and Outer Plains zone, comprising one Podocarpus totara tree for every 10m, 1.5m high (when planted), which is capable of growing to at least 15m height at maturity, with spacing of no less than 5m and no greater than 15m.
- 18.5.3.3 Before any utility building is erected on any parcel of land subject to Rule 16.1.5.1 to 16.1.5.3, all of the landscape planting on that allotment shall be completed.
- 18.5.3.4 The landscaping planted shall be maintained, and if dead, diseased or damaged, shall be removed and replaced.

Discretionary Activities — Landscaping – Utility Buildings

- 18.5.4 Any activity which does not comply with Rule 18.5.1, 18.5.2 or 18.5.3 shall be a discretionary activity.

Reasons for Rules

Rule 18 manages effects of establishing, maintaining, upgrading and replacing utilities on the environment.

Many activities involving utilities are undertaken by requiring authorities, using designations. In these cases, the District Plan rules may not apply. However, it is still necessary to have rules in the Plan, because:

- (a) Not all utilities are managed by requiring authorities;
- (b) Often utilities are installed by private developers as part of subdivisions or land uses. Some utilities may vest in the Council. The Plan needs to have rules for the undertaking of these activities, so the Council can manage the standard of utilities which will vest in the Council;
- (c) If the rules in the District Plan allow activities as permitted activities, it may reduce the need for network utility operators to designate land; and
- (d) It is consistent with Part II and Section 32 of the Act to provide for activities which have only minor effects on the environment as permitted activities.

The Plan clarifies situations where the upgrading, maintenance and replacement of utilities can occur as of right, to provide legal certainty. The rules for the height and bulk of utility structures and building are specific to those activities, and rules applicable to other buildings do not apply in most cases. This reflects the specialised (and usually minor) scale of buildings and structures such as poles, masts and antenna associated with utilities. However the sensitivity of important landscapes and living environments is recognised in the thresholds rule set in the Plan. Rules 18.1.1.2 and 18.1.1.3 address potential effects from electromagnetic radiation and power frequency electric and magnetic fields. The rules are firmly based on recognised national standards concerning these effects.

Rules 18.1.1.4 and 18.1.1.5 concern cables and lines. The rules encourage undergrounding of such lines where this is a realistic expectation. New high voltage lines will require consent and assessment given their significant visual impacts, with particular regard to siting.

Rule 18.1.1.6 discourages on site energy production or treatment of solid waste (subject to specific exemptions).

Rule 18.1.1.7 provides for reticulated gas supplies of a scale appropriate to a residential or light industrial environment.

Rule 18.2 relates to utility buildings. It allows them to be at the same scale as buildings in Living Zones generally, but also recognising that they do not require as much surrounding space as dwellings. Setback and recession plane requirements are set in place to protect neighbours and any Living zone, from the bulk of utility buildings.

Rule 18.3 relates to utility structures which comprise very small buildings, or poles, masts, pylons and antenna. For operational efficiency these are allowed to be higher than buildings, but also require compliance with recession planes on Living Zone boundaries where a utility support structure has a “thick” profile of more than 500mm. The rules relate to the sensitivity of the receiving zone environment.

APPENDIX 4

REGIONAL POLICY STATEMENT OBJECTIVES AND POLICIES

APPENDIX 4: CANTERBURY REGIONAL POLICY STATEMENT 2013

TABLE 1: OBJECTIVES AND POLICIES	
CHAPTER 5- LAND-USE AND INFRASTRUCTURE	
5.2.1 Location, design and function of development (Entire Region)	<p>Development is located and designed so that it functions in a way that:</p> <ol style="list-style-type: none"> 1. achieves consolidated, well designed and sustainable growth in and around existing urban areas as the primary focus for accommodating the region's growth; and 2. enables people and communities, including future generations, to provide for their social, economic and cultural well-being and health and safety; and which: <ol style="list-style-type: none"> (a) maintains, and where appropriate, enhances the overall quality of the natural environment of the Canterbury region, including its coastal environment, outstanding natural features and landscapes, and natural values; (b) provides sufficient housing choice to meet the region's housing needs; (c) encourages sustainable economic development by enabling business activities in appropriate locations; (d) minimises energy use and/or improves energy efficiency; (e) enables rural activities that support the rural environment including primary production; (f) is compatible with, and will result in the continued safe, efficient and effective use of regionally significant infrastructure; (g) avoids adverse effects on significant natural and physical resources including regionally significant infrastructure, and where avoidance is impracticable, remedies or mitigates those effects on those resources and infrastructure; (h) facilitates the establishment of papakāinga and marae; and (i) avoids conflicts between incompatible activities
5.2.2 Integration of land-use and regionally significant infrastructure (Wider Region)	<p>In relation to the integration of land use and regionally significant infrastructure:</p> <ol style="list-style-type: none"> 1. To recognise the benefits of enabling people and communities to provide for their social, economic and cultural well-being and health and safety and to provide for infrastructure that is regionally significant to the extent that it promotes sustainable management in accordance with the RMA. 2. To achieve patterns and sequencing of land-use with regionally significant infrastructure in the wider region so that: <ol style="list-style-type: none"> (a) development does not result in adverse effects on the operation, use and development of regionally significant infrastructure. (b) adverse effects resulting from the development or operation of regionally significant infrastructure are avoided, remedied or mitigated as fully as practicable. (c) there is increased sustainability, efficiency and liveability.
5.3.1 Regional growth (Wider Region)	<p>To provide, as the primary focus for meeting the wider region's growth needs, sustainable development patterns that:</p>

TABLE 1: OBJECTIVES AND POLICIES**CHAPTER 5- LAND-USE AND INFRASTRUCTURE**

	<ol style="list-style-type: none"> 1. ensure that any <ol style="list-style-type: none"> (a) urban growth; and (b) limited rural residential development occur in a form that concentrates, or is attached to, existing urban areas and promotes a coordinated pattern of development; 2. encourage within urban areas, housing choice, recreation and community facilities, and business opportunities of a character and form that supports urban consolidation; 3. promote energy efficiency in urban forms, transport patterns, site location and subdivision layout; 4. maintain and enhance the sense of identity and character of the region's urban areas; and 5. encourage high quality urban design, including the maintenance and enhancement of amenity values.
5.3.2 Development conditions (Wide Region)	<p>5.3.2 Development conditions (Wider Region) To enable development including regionally significant infrastructure which:</p> <ol style="list-style-type: none"> 1. ensure that adverse effects are avoided, remedied or mitigated, including where these would compromise or foreclose : <ol style="list-style-type: none"> (a) existing or consented regionally significant infrastructure; (b) options for accommodating the consolidated growth and development of existing urban areas; (c) the productivity of the region's soil resources, without regard to the need to make appropriate use of soil which is valued for existing or foreseeable future primary production, or through further fragmentation of rural land; (d) the protection of sources of water for community supplies; (e) significant natural and physical resources; 2. avoid or mitigate: <ol style="list-style-type: none"> (a) natural and other hazards, or land uses that would likely result in increases in the frequency and/or severity of hazards; (b) reverse sensitivity effects and conflicts between incompatible activities, including identified mineral extraction areas; and 3. integrate with: <ol style="list-style-type: none"> (a) the efficient and effective provision, maintenance or upgrade of infrastructure; and (b) transport networks, connections and modes so as to provide for the sustainable and efficient movement of people, goods and services, and a logical, permeable and safe transport system.

TABLE 2: OBJECTIVES AND POLICIES	
CHAPTER 6- RECOVERY AND REBUILDING OF GREATER CHRISTCHURCH	
6.2.1 Recovery framework	<p>Recovery, rebuilding and development are enabled within Greater Christchurch through a land use and infrastructure framework that:</p> <ol style="list-style-type: none"> 1. identifies priority areas for urban development within Greater Christchurch; 2. identifies Key Activity Centres which provide a focus for high quality, and, where appropriate, mixed-use development that incorporates the principles of good urban design; 3. avoids urban development outside of existing urban areas or greenfield priority areas for development, unless expressly provided for in the CRPS; 4. protects outstanding natural features and landscapes including those within the Port Hills from inappropriate subdivision, use and development; 5. protects and enhances indigenous biodiversity and public space; 6. maintains or improves the quantity and quality of water in groundwater aquifers and surface water bodies, and quality of ambient air; 7. maintains the character and amenity of rural areas and settlements; 8. protects people from unacceptable risk from natural hazards and the effects of sea-level rise; 9. integrates strategic and other infrastructure and services with land use development; 10. achieves development that does not adversely affect the efficient operation, use, development, appropriate upgrade, and future planning of strategic infrastructure and freight hubs; 11. optimises use of existing infrastructure; and 12. provides for development opportunities on Māori Reserves in Greater Christchurch.
6.2.3 Sustainability	<p>Recovery and rebuilding is undertaken in Greater Christchurch that:</p> <ol style="list-style-type: none"> 1. provides for quality living environments incorporating good urban design; 2. retains identified areas of special amenity and historic heritage value; 3. retains values of importance to Tangata Whenua; 4. provides a range of densities and uses; and 5. is healthy, environmentally sustainable, functionally efficient, and prosperous.
6.3.5 Integration of land use and infrastructure	<p>Recovery of Greater Christchurch is to be assisted by the integration of land use development with infrastructure by:</p> <ol style="list-style-type: none"> 1. Identifying priority areas for development to enable reliable forward planning for infrastructure development and delivery; 2. Ensuring that the nature, timing and sequencing of new development are co-ordinated with the development, funding, implementation and operation of transport and other infrastructure in order to: <ol style="list-style-type: none"> (a) optimise the efficient and affordable provision of both the development and the infrastructure; (b) maintain or enhance the operational effectiveness, viability and safety of existing and planned infrastructure;

TABLE 2: OBJECTIVES AND POLICIES**CHAPTER 6- RECOVERY AND REBUILDING OF GREATER CHRISTCHURCH**

	<p>(c) protect investment in existing and planned infrastructure; and</p> <p>(d) ensure new development does not occur until provision for appropriate infrastructure is in place;</p> <p>3. Providing that the efficient and effective functioning of infrastructure, including transport corridors, is maintained, and the ability to maintain and upgrade that infrastructure is retained;</p> <p>4. Only providing for new development that does not affect the efficient operation, use, development, appropriate upgrading and safety of existing strategic infrastructure, including by avoiding noise sensitive activities within the 50dBA Ldn airport noise contour for Christchurch International Airport, unless the activity is within an existing residentially zoned urban area, residential greenfield area identified for Kaiapoi, or residential greenfield priority area identified in Map A (page 6-28); and</p> <p>5. Managing the effects of land use activities on infrastructure, including avoiding activities that have the potential to limit the efficient and effective, provision, operation, maintenance or upgrade of strategic infrastructure and freight hubs.</p>
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TABLE 3: OBJECTIVES AND POLICIES**CHAPTER 12- LANDSCAPE**

12.2.2 Identification and management of other landscapes	<p>The identification and management of other important landscapes that are not outstanding natural landscapes.</p> <p>Other important landscapes may include:</p> <ol style="list-style-type: none"> 1. natural character 2. amenity 3. historic and cultural heritage
12.2.3 Consistency of assessment and management	<p>Ensure consistency of assessment and promote consistency of management of outstanding natural features and landscapes across the Canterbury region.</p>

TABLE 3: OBJECTIVES AND POLICIES	
CHAPTER 16- ENERGY	
16.2.2 Promote a diverse and secure supply of energy	<p>Reliable and resilient generation and supply of energy for the region, and wider contributions beyond Canterbury, with a particular emphasis on renewable energy, which:</p> <ol style="list-style-type: none"> 1. provides for the appropriate use of the region's renewable resources to generate energy; 2. reduces dependency on fossil fuels; 3. improves the efficient end-use of energy; 4. minimises transmission losses; 5. is diverse in the location, type and scale of renewable energy development; 6. recognises the locational constraints in the development of renewable electricity generation activities; and <p>(a) avoids any adverse effects on significant natural and physical resources and cultural values or where this is not practicable, remedies or mitigates; and</p> <p>(b) appropriately controls other adverse effects on the environment.</p>
Policy 16.3.2 Small and community scale distributed renewable electricity generation	<p>Encourage and provide for the operation maintenance and development of small and community scale distributed renewable electricity generation provided that:</p> <ol style="list-style-type: none"> 1. any adverse effects on significant natural and physical resources or cultural values are avoided, or where this is not practicable, remedied or mitigated; and 2. other adverse effects on the environment are appropriately controlled
16.3.3 Benefits of renewable energy generation facilities	<p>To recognise and provide for the local, regional and national benefits when considering proposed or existing renewable energy generation facilities, having particular regard to the following:</p> <ol style="list-style-type: none"> 1. maintaining or increasing electricity generation capacity while avoiding, reducing or displacing greenhouse gas emissions; 2. maintaining or increasing the security of supply at local and regional levels, and also wider contributions beyond Canterbury; by diversifying the type and/or location of electricity generation; 3. using renewable natural resources rather than finite resources; 4. the reversibility of the adverse effects on the environment of some renewable electricity generation facilities; 5. avoiding reliance on imported fuels for the purposes of generating electricity; and 6. assisting in meeting international climate obligations.
Policy 16.3.5 — Efficient, reliable and resilient electricity generation within Canterbury	<p>To recognise and provide for efficient, reliable and resilient electricity generation within Canterbury by:</p> <ol style="list-style-type: none"> 1. avoiding subdivision, use and development which limits the generation capacity from existing or consented electricity generation infrastructure to be used, upgraded or maintained; 2. enabling the upgrade of existing, or development of new electricity generation infrastructure, with a particular emphasis on encouraging the operation, maintenance and upgrade of renewable electricity generation activities and associated infrastructure;

TABLE 3: OBJECTIVES AND POLICIES**CHAPTER 16- ENERGY**

- a) having particular regard to the locational, functional, operational or technical constraints that result in renewable electricity generation activities being located or designed in the manner proposed;
- (b) provided that, as a result of site, design and method selection:
 - (i) the adverse effects on significant natural and physical resources or cultural values are avoided, or where this is not practicable remedied, mitigated or offset; and
 - (ii) other adverse effects on the environment are appropriately controlled.
- 3. providing for activities associated with the investigation, identification and assessment of potential sites and energy sources for renewable electricity generation;
- 4. maintaining the generation output and enabling the maximum electricity supply benefit to be obtained from the existing electricity generation facilities within Canterbury, where this can be achieved without resulting in additional significant adverse effects on the environment which are not fully offset or compensated.

APPENDIX 5

IWI MANAGEMENT PLAN OBJECTIVES AND POLICIES

APPENDIX 5: MAHAANUI IWI MANAGEMENT PLAN

TABLE 1: OBJECTIVES AND POLICIES	
5.4 PAPATŪĀNUKU- ENERGY	
Ngā Kaupapa / Policy	<p>P17.1 Ngāi Tahu must have a strategic and influential role in decisions about energy extraction and generation in the region, as a Treaty partner with specific rights and interests in resources used for energy generation, particularly water.</p> <p>P17.2 To continue to engage with the energy sector and build constructive and enduring relationships.</p> <p>P17.3 To require that the energy sector engage with Ngāi Tahu at the concept development stage, rather than at the resource consent stage and to support the use of Cultural Impact Assessment (CIA) reports to assess potential and actual effects of proposals on Ngāi Tahu values.</p> <p>P17.4 To require that local authorities develop and implement effective policies requiring the use of renewable energy and energy saving measures in residential, commercial, industrial and other developments.</p> <p>P17.5 To support in principle the use of wind and solar energy generation in the region (see Section 5.7, Issue TAW1).</p>

TABLE 2: OBJECTIVES AND POLICIES	
5.7 TĀWHIRIMĀTEA	
Ngā Kaupapa / Policy	<p>TAW1.1 To assess and evaluate the cultural implications of any wind farm proposal in the takiwā with particular regard to:</p> <p>(a) Location:</p> <p>(i) Proximity and visibility in relation to culturally significant sites, places, features, and landforms; and</p> <p>(ii) Relationship of site to wider Ngāi Tahu cultural landscape.</p> <p>(b) Nature, extent and significance of cultural landscape values in the area, including:</p> <p>(i) Historic and contemporary mahinga kai associations;</p> <p>(ii) Tribally significant landforms;</p> <p>(iii) Indigenous flora and fauna, including plants and insects;</p> <p>(iv) Wāhi tapu and wāhi taonga, including archaeological sites;</p> <p>(v) Waterways, wetlands, waipuna; and</p> <p>(vi) Natural character (i.e. degree of existing modification of site).</p> <p>(c) Size of the wind farm (i.e. would a smaller wind farm have less impact?);</p> <p>(d) Ability of the wind farm to reduce pressure on water resources through providing alternative source of energy;</p> <p>(e) Opportunities to enhance cultural landscape values (e.g. enhancement of indigenous biodiversity); and</p> <p>(f) Robust assessment of alternatives.</p> <p>TAW1.2 To promote co-operative and constructive relationships between the energy sector and Ngāi Tahu, over and above RMA 1991 consultation, to facilitate consideration of effects of wind farms on tāngata whenua values and interests.</p> <p>TAW1.3 To require the protection of key cultural landscape values, as identified by tāngata whenua, from activities associated with the development and operation of wind farms.</p> <p>TAW1.4 To require, where a proposal has the potential for significant effects on tāngata whenua values, one or more of the following, at the discretion of the Papatipu Rūnanga:</p> <p>(a) Cultural Impact Assessment (CIA), as part of the Assessment of Environmental Effects;</p> <p>(b) Site visit;</p> <p>(c) Archaeological assessment, by a person nominated by the Papatipu Rūnanga;</p> <p>(d) Provision of accurate graphic representations of proposals to enable tāngata whenua to clearly visualise; projects on the landscape; and</p> <p>(e) Cultural monitoring during earthworks.</p> <p>TAW1.5 To require that consultation with tāngata whenua and assessments of actual and potential effects on cultural values occur as part of feasibility assessments, alongside other technical impact assessment reports (e.g. landscape, ecology).</p>

TABLE 3: OBJECTIVES AND POLICIES**5.8 NGĀ TŪTOHU WHENUA**

Ngā Paetae Objectives	<p>(1) Cultural landscapes are recognised and provided for as a planning tool to protect wāhi tapu and wāhi taonga, the multiple values associated with these sites and places (traditional and contemporary), and the relationship of tāngata whenua to them.</p> <p>(2) The Ngāi Tahu cultural heritage mapping project is completed and used to effectively protect and manage wāhi tapu and wāhi taonga in a manner consistent with tikanga Ngāi Tahu.</p> <p>(3) Wāhi tapu and wāhi taonga are protected from inappropriate use, subdivision and development.</p> <p>(4) Ngāi Tahu whānui have access to sites of cultural significance in the takiwā.</p> <p>(5) Good working relationships are maintained with those agencies involved in the protection of Ngāi Tahu cultural and historic heritage, including the New Zealand Historic Places Trust Pouhere Taonga (NZHPT).</p>
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APPENDIX 6

VICTORIA PLANNING PROVISIONS

APPENDIX 6: VICTORIA PLANNING PROVISIONS

TABLE 1: VICTORIA PLANNING PROVISIONS - ENERGY		
DEFINED TERMS	DEFINITION	CONSENT REQUIREMENTS
Anemometer	A wind measuring device.	Permitted if less than 3 years.
Renewable energy Facility (includes wind energy facility)	<p>Land used to generate energy using resources that can be rapidly replaced by an ongoing natural process. Renewable energy resources include the sun, wind, the ocean, water flows, organic matter and the earth's heat.</p> <p>It includes any building or other structure or thing used in or in connection with the generation of energy by a renewable resource.</p> <p>It does not include a renewable energy facility principally used to supply energy for an existing use of the land.</p>	Various as outlined in zones
Utility installation	<p>Land used:</p> <ul style="list-style-type: none"> a) for telecommunications; b) to transmit or distribute gas, oil, or power; c) to collect, treat, transmit, store, or facility distribute water; or d) to collect, treat, or dispose of storm or flood water, sewage, or sullage. <p>It includes any associated flow measurement device or a structure to gauge waterway flow.</p>	Various as outlined in zones
Wind energy facility	<p>Land used to generate electricity by wind force. It includes land used for:</p> <p>Wind energy facility</p> <ul style="list-style-type: none"> a) any turbine, building or other structure or thing used in or in connection with the generation of electricity by wind force b) an anemometer. <p>It does not include turbines principally used to supply electricity for domestic or rural use of the land.</p>	<p>Permit required</p> <p>Prohibited in listed sensitive locations</p> <p>(permitted)</p>
CLAUSE	OBJECTIVES	RELEVANT STRATEGIES
19.01-1S- Energy supply	To facilitate appropriate development of energy supply infrastructure.	<p>Support the development of energy facilities in appropriate locations where they take advantage of existing infrastructure and provide benefits to industry and the community.</p> <p>Support transition to a low-carbon economy with renewable energy and greenhouse emission reductions including geothermal, clean coal processing and carbon capture and storage.</p>

		Facilitate local energy generation to help diversify the local economy and improve sustainability outcomes.
19.01-2S – Renewable energy	To promote the provision of renewable energy in a manner that ensures appropriate siting and design considerations are met.	<p>Facilitate renewable energy development in appropriate locations.</p> <p>Protect energy infrastructure against competing and incompatible uses.</p> <p>Develop appropriate infrastructure to meet community demand for energy services.</p> <p>Set aside suitable land for future energy infrastructure.</p> <p>Consider the economic and environmental benefits to the broader community of renewable energy generation while also considering the need to minimise the effects of a proposal on the local community and environment.</p> <p>Recognise that economically viable wind energy facilities are dependent on locations with consistently strong winds over the year.</p>
19.01-2R – Renewable energy metropolitan Melbourne		<p>Facilitate the uptake of renewable energy technologies on a site-by-site and neighbourhood level</p> <p>during the master planning of new communities and in green wedge and peri-urban areas.</p>
19.01-2R - Renewable energy - Wimmera Southern Mallee		Support the development of locally generated renewable energy, including bioenergy clusters.

Renewable energy generation – communications and engagement summary plan

Key messages

(as of 26 November 2018)

Background

- As part of the Selwyn District Plan Review, policies and rules related to energy and infrastructure are being reviewed.
- Purpose of reviewing energy and infrastructure provisions in the current District Plan is:
 - ensuring that the District Plan policies and rules recognise the importance of infrastructure and its essential role for the community and business,
 - ensuring that rules for infrastructure enable it to be repaired and maintained without significant delays,
 - protecting significant infrastructure from encroachment by activities that may restrict or inhibit its operation,
 - where new infrastructure is proposed, ensuring that it’s responsive to environmental values and any adverse effects are mitigated or remedied.
- There are two preferred option reports covering the energy and infrastructure topic: Renewable energy generation and Network utilities. This plan covers the former subtopic.
- It’s a national and regional regulatory requirement to recognise and provide for renewable energy generation activities in the district plan.
- A relatively small amount of renewable energy is currently generated within the Selwyn district, with the most significant source being from the hydroelectric Coleridge Power Station owned by Trustpower. Solar and wind energy generated within the district is only sufficient for on-site domestic or business use.

Current District Plan

- Renewable energy generation eg solar or wind is permitted on a single site, where the energy is for use on that site and performance standards are met.
- The District Plan does not distinguish between community scale renewable energy generation and large scale commercial energy generation, requiring consents as discretionary and non-complying activities.
- Discretionary consent is required for upgrading, maintenance and operation of the Lake Coleridge Power Station.
- Key issues:
 - current District Plan is unreasonably restrictive for some renewable energy generation activities, such as off-site distribution and the operation and maintenance of Lake Coleridge Hydro Electric Power Station.
 - Current District Plan does not enable renewable energy generation activities in accordance with the National Policy Statement for Renewable Energy Generation.

About preferred option

Key proposed changes include:

- Enable solar energy generation in residential zones, and solar and wind energy generation in business and rural zones where that energy serves the site.
- Develop more permissive rules which would enable an increase in renewable energy activities, including for community scale energy generation, and permitting activities with minor effects.
- Require a resource consent for commercial scale activities and renewable energy generation activities in sensitive locations in the district.
- Enable minor repairs, maintenance and small upgrades to buildings at the Coleridge Power Station as a permitted activity but retain a requirement for a discretionary activity resource consent for significant expansion to ensure effects on the environment are able to be managed.

Audiences¹

Internal	Partners	Key stakeholders ²	Landowners /occupiers ³	General public
DPC	ECan	Trustpower	N/A	Selwyn ratepayers
Selwyn District Council Assets Team	Te Taumutu Rūnanga (represented by Mahaanui Kurataiao)	Energy3		News media
	Te Ngāi Tuāhuriri Rūnanga (represented by Mahaanui Kurataiao)			Wider public

Legend	High level of interest/ High level of influence (“Manage closely”)	High level of interest/ Low level of influence (“Keep informed”)	Low level of interest/ high level of influence (“Keep satisfied”)	Low level of interest/ Low level of influence (“Watch only”)

¹ “...Differing levels and forms of engagement may be required during the varying phases of consideration and decision-making on an issue, and for different community groups or stakeholders. The Council will review the appropriateness and effectiveness of the engagement strategy and methods as the process proceeds.” [Significance and Engagement Policy: Adopted 26 November 2014; p.6]

² Key stakeholders are “the organisations requiring engagement and information as the preferred options for the Draft District Plan are being prepared.” (District Plan Review Community Engagement Implementation Plan; p.6) Key stakeholders “...will advocate for or against decisions that will need to be made...” and “For the District Plan Review, stakeholders include any party that can influence decisions or be influenced by decisions made on policies or rules.” (DPR Engagement Framework)

³ Landowners are “the individuals and businesses that could be affected by the proposed changes in the District Plan.” (District Plan Review Community Engagement Implementation Plan; p.6)

Engagement during review phases

Review phases	Internal	ECan	Rūnanga	Key stakeholders	Landowners/occupiers	General public
Baseline assessments						
Preferred option development						
Preferred option consultation						

2018/2019 communications and engagement key tasks/milestones per month

(more detailed action plans to be developed for each major milestone or as required)

Audiences	Pre-December	December
ECan	Consulted on preferred option report	Endorsed preferred option report is shared
Rūnanga	Consulted on preferred option report	Endorsed preferred option report is shared
Key stakeholders	Consulted on preferred option report	Endorsed preferred option report is shared
Landowners/occupiers		
General public		Endorsed preferred option report is published on Your Say Selwyn website
DPC		Preferred option report goes to DPC for endorsement

7. Update on Preferred Option and Communications and Engagement Summary Plan for Network Utilities

Author:	Nicola Rykers, Consultant Planner
Contact:	(03) 347 1854

Purpose

To brief the Committee on the Preferred Options Report, which provides an update on the topic of network utilities, including an explanation of issues that have arisen, and recommendations on the preferred direction for the scope of provisions.

The attached Communications and Engagement Summary Plan is to inform the Committee of the engagement activities to be undertaken in relation to the 'Network Utilities' topic.

Recommendation

“That the Committee notes the report.”

“That the Committee endorses the Preferred Option for ‘Network Utilities’ for further development and engagement.

“That the Committee notes the updated summary plan.”

Attachments

‘Up-date on provision for Network Utilities in the Proposed District Plan’

‘Energy and Infrastructure: Network Utilities – communications and engagement summary plan’

PREFERRED OPTION REPORT TO DISTRICT PLAN COMMITTEE

DATE: 5 December 2018

TOPIC NAME: Energy and Infrastructure

SCOPE DESCRIPTION: Up-date on provision for Network Utilities in the Proposed District Plan

TOPIC LEAD: Nicola Rykers

PREPARED BY: Nicola Rykers

EXECUTIVE SUMMARY

<i>Issue(s)</i>	<ol style="list-style-type: none"> <i>1. How to enable network utilities that are nationally and regionally important to ensure their operation is efficient.</i> <i>2. What is the best approach to manage the environmental effects of network utilities on sensitive environments</i> <i>3. How to manage the safety risks associated with the presence of network utilities for electricity distribution and transmission.</i>
<i>Preferred Option</i>	<i>To progress the recommendations made in Section 7.0 of this report.</i>
<i>Recommendation to DPC</i>	<i>That the Preferred Option for “Network Utilities” is endorsed for further development and engagement.</i>
<i>DPC Decision</i>	

1.0 Introduction

This report provides an up-date on the topic of network utilities for the District Plan Committee including an explanation of issues that have arisen, and recommendations on the preferred direction for the scope of provisions.

There is overlap between the Network Utilities and Transport topics, but generically it has been agreed that the Network Utility Chapter of the District Plan will address those matters related to the road as an asset and its use for network utilities within the road corridor (as distinct from the safety and efficiency aspects of vehicular and pedestrian use of the road corridor). It is noted that roads owned and managed by NZTA are typically designated, which provides the agency with the ability to establish and operate its infrastructure without relying on district plan rules.

2.0 Summary of Issues

The scope and content of provisions necessary to enable network utilities that are nationally and regionally significant to operate efficiently.

Ensuring the environmental effects of network utilities on the environment are appropriately managed.

How to manage the safety risks and operational requirements associated with network utilities for electricity distribution and transmission.

3.0 Statement of Operative District Plan Approach

An overview of the Operative District Plan is provided as follows:

The Operative District Plan provides a definition of Utilities as follows:

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

- (a) The generation, transformation and/or transmission of energy;*
- (b) Any telecommunication facility or telecommunication line;*
- (c) Any radio communication facility;*
- (d) The conveyance, storage, treatment or distribution of water for supply, including (but not limited) irrigation and stockwater;*
- (e) The drainage, reticulation or treatment of stormwater, water or sewage;*
- (f) Transport infrastructure, including (but not limited to roads, accessway, railways, airports and navigational aids;*
- (g) Work to mitigate potential natural hazards, including (but not limited to) stopbanks, groynes and gabions;*
- (h) Meteorological facilities for the observation, recording and communication of weather information.*

The Operative Plan also defines “Utility Building” and “Utility Structure”, which can be overlapping and confusing. It is understood that the definition of “Utility Structure” is intended to capture antenna, masts, poles or pylons as distinct from a building.

These definitions are no longer fit for purpose for the following reasons:

- They do not align with the definition of Infrastructure in the Resource Management Act (and which is also anticipated to be used in the National Planning Standards to be Gazetted in April 2019);
- They do not align with the terminology and definitions in the Canterbury Regional Policy Statement; and
- They are too broad, encompassing domestic utilities in addition to the utility networks provided by national and regional utility companies. The “enabling” regulation developed for national and regional utility companies is not intended to apply to domestic and farm utilities. The Draft National Planning Standards identify, through definitions, that the Network Utility Chapter is intended to apply to Network Utility Operators. Domestic utilities such as water tanks, and on-farm utilities should therefore be provided for within the relevant zone chapter.

The rules of the Operative District Plan generally provide for:

- The up-grading, maintenance, operation and replacement of existing utilities primarily associated with telecommunications and electricity transmission and distribution.
- Radio frequency emissions in accordance with the New Zealand Standards
- Limited excavation for drains and stock water races
- Coastal, flood and river protection works
- Underground pipes

Utilities unable to achieve compliance with standards default to either restricted discretionary or full discretionary activity status, with those activities with potentially more adverse environmental effects being identified as full discretionary.

Standards generally provide for:

Height of utility building	8m to 15m depending on zone
Setback of utility building	4m to 10m from the road, 2m other site boundaries, 10m from residential zone boundaries
Height of Utility structures	15m to 30m depending on the zone, or for antenna 2.5m above buildings
Dish antenna	1.2m, 4m diameter and height 8m to 25m depending on zone
Landscape treatment	To be planted, sealed or dressed with bark chips
Setback from waterways	10m to 100m depending on water body concerned
Utility structures colour	Limited to non-reflective, green, brown and grey

Utility structures in ONLs	Limited to 40m ² , 8m height and 37% reflectance
Utility buildings in ONLs	Limited to 40m ² , 4m height and 37% reflectance
Natural Hazards	Buildings and structures to be located outside identified hazard areas, non-compliance defaults to restricted discretionary status
Cultural Management Areas	Provisions limited to earthworks, non-compliance defaults to restricted discretionary status

More restrictive limits are imposed in the Alpine Villages and in specific locations such as Prebbleton and the Business 3 Zone (reflecting provisions inserted through plan change processes).

With respect to the National Grid Corridor the rules require a developer in living and business zones to demonstrate compliance with the New Zealand Code of Electrical Practice provisions. In the Rural Zone the subdivision design, earthworks and planting are matters of discretion applying to subdivision within 20 metres of the centreline of a transmission line. These provisions do not meet the requirements of the National Environmental Standards for Electricity Transmission.

The report “Effectiveness Review of Operative District Plan in Managing Visual Amenity Effects of Network Utilities and Energy Generating Activities” prepared by Boffa Miskell in September 2017 made the following observations:

- *With respect to business zones the provisions are more complex than is warranted. Business areas are the least sensitive environment where there is greater demand for particular network utilities.*
- *With respect to residential zones the height standards for structures (masts, towers, poles) appear to be reasonable, but the standard for buildings is more permissive than other plans.*
- *With respect to the rural zones, additional height for masts or poles will not adversely impact rural character, but there should be additional controls on building scale.*
- *For sensitive areas such as the Outstanding Landscapes or Alpine Villages more restrictive provisions should be retained.*

Overall, the Boffa Miskell report concluded that the Operative Plan is moderately effective in protecting the visual amenity values of the District. Recommendations relating to the provisions of the Operative District Plan made by Boffa Miskell included the following:

- The definitions in the Operative Plan should be consolidated.
- Introduction of a limit on the size/footprint of utility buildings (which currently is only required in Outstanding Natural Landscapes where a threshold of 40m² is applied). The absence of a size limit is permissive compared with other district plans. It is recommended that the scale of utility buildings in rural areas is kept visually secondary to rural buildings.

- The height standards for utilities in the Operative District Plan are complex and could be standardised. The requirement for compliance with recession planes should be removed for buildings.
- Introduce/maintain controls on network utilities in sensitive locations including riparian areas, the coast, cultural landscapes, heritage sites, Outstanding Natural Landscapes etc.
- Introduce rules to encourage clustering or co-location of network utilities.

These recommendations will need to be considered alongside the regulatory controls specified in National Environmental Standards and (Draft) National Planning Standards, with which Council must comply in drafting the Proposed District Plan.

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

The relevant statutory and/or policy context relating to network utilities is provided within the following statutes and regulations. These provisions will be explained in more detail as appropriate in the later sections of this report.

Resource Management Act 1991:

- Defines a network utility operator
- Defines infrastructure (which is duplicated in the Draft National Planning Standards)
- Provides the statutory basis for national policy statements and national environmental standards
- Requires “particular regard” be given to the efficient use and development of natural and physical resources (network utilities are a physical resource),

National Policy Statements

There is one applicable National Policy Statement which must be complied with:

- National Policy Statement on Electricity Transmission

National Environmental Standards:

There are two relevant Environmental Standards that must be complied with:

- Resource Management (National Environmental Standards for Electricity Transmission Activities) Regulations 2009
- Resource Management (National Environmental Standards for Telecommunication Facilities) Regulations 2016

Canterbury Regional Policy Statement 2013

The Canterbury Regional Policy Statement defines Regionally Significant Infrastructure, Critical Infrastructure and Strategic Infrastructure. These definitions are set out in full in **Appendix 1** to this report.

The network utilities discussed in this report would fall within the definitions of Critical and Regionally Significant Infrastructure and potentially Strategic Infrastructure.

The relevant objectives and policies for network utilities are contained in Chapter 5 Land Use and Infrastructure and Chapter 6 Recovery and Rebuilding of Greater Christchurch, of the Canterbury Regional Policy Statement. At a highly summarised level these provisions require recognition of the benefits of regionally significant infrastructure (Policy 5.2.2); and the continuation of existing regionally significant infrastructure, including its maintenance and operation (Policy 5.3.9). The expansion of existing infrastructure and development of new infrastructure is required to avoid adverse effects on significant natural and physical resources and cultural values, but where this is not practicable, to remedy or mitigate these effects (Policy 5.3.9).

There are policies specific to particular network utilities which relate to telecommunication infrastructure (Policy 5.3.10), and community-scale irrigation, stockwater and rural drainage infrastructure (Policy 5.3.11).

The Canterbury Regional Policy Statement consistently requires the Council to engage with Ngāi Tahu on these matters, including by recognising iwi management plans. Reference to the Mahaanui Iwi Management Plan is set out below.

Mahaanui Iwi Management Plan 2013

The Mahaanui Iwi Management Plan identifies that Ngāi Tahu has a particular interest in energy generation and in respect of transport, that sites of significance and indigenous biodiversity are protected from transport infrastructure. This matter is discussed in the “Sites and Areas of Significance” report which advises “that in order to protect Tangata Whenua values, development and construction of transport infrastructure should avoid sites and areas identified as wāhi tapu, wāhi taonga and silent files”. Other matters identified in the report concerns earthworks and structures which encroach on riparian margins. The report goes on to recommend¹ that all development proposals from network utility companies, Councils and requiring authorities, demonstrate through engagement and cultural impact assessments that the design, location and installation of utilities are appropriate from a cultural perspective. The report also recommends that there is a policy requiring network utility operators to engage with mana whenua in relation to notices of requirement, outline plans and resource consent applications.

Appendices to the Sites and Areas report outline the possible activity status for network utilities in cultural landscapes. These range from a permitted activity status for general maintenance, operation or repair of network utilities through to restricted discretionary activity status for extensions, replacements or additions within cultural landscapes and full discretionary activity status for new utility structures. These recommendations will be considered through the drafting process and are acknowledged as consistent with the policies in the Canterbury Regional Policy Statement.

¹ Page 34, Sites and Areas of Significance Report, Selwyn District Plan Review

Additional Legislation

Additional legislation that impacts on the provision and operation of network utilities includes:

Utilities Access Act 2010

National Code of Practice for Utility Operators' Access to Transport Corridors

Telecommunications Act 2001

New Zealand Code of Practice for Electrical Safe Distances (NZECP34)

Electricity (Hazards from Trees) Regulations 2003

5.0 Summary of alternative management responses – Other Districts

The report “Effectiveness Review of Operative District Plan in Managing Visual Amenity Effects of Network Utilities and Energy Generating Activities” prepared by Boffa Miskell in September 2017 included a review of alternative management responses in Hurunui, Christchurch, Ashburton and Waimakariri District Plans. The report makes the following observations:

Generally, the review of other District Plan shows a wide variety of approaches being undertaken.

It would appear that many of the rules in the various plans have come about due to local circumstances with provisions developed to address these directly.

All of the plans recognise the need for up-grading, maintenance, continued operation and replacement of existing utilities and generally this is provided for as a permitted activity. Usually this is restricted however to ensure that this is not of significant scale or where it could lead to a different character or nature of activity. There is also a consistent recognition of the appropriateness of placing new pipes, lines and cables underground wherever possible.

Above ground lines, buildings and structures are always subject to bulk and location rules. These vary significantly between the plans, for example:

- *Utility building height limits vary from 3.5m to 25m*
- *Utility structure height vary from 10m to 80m*
- *Setback from roads vary from 0m to 75m*
- *Setback from internal boundaries vary from 0m to 2m*
- *Maximum scale ranges from no maximum to 50m²*
- *Scale of dish antenna from 0.8m to 5m*

When comparing Selwyn to the other districts there were many consistencies. The key differences were:

- Selwyn building height rules are more complex than other plans and more permissive

- Selwyn structure height rules (towers, masts, poles) were more restrictive
- Selwyn setback provisions were more complex
- Selwyn does not have a maximum footprint for buildings and applies recession planes (others do not)
- Selwyn's maximum scale for dish antenna is more restrictive

6.0 Summary of Network Utility Approaches

6.1 National Electricity Transmission Lines/National Grid

Transpower New Zealand Ltd is a State Owned Enterprise that plans, builds, maintains and operates New Zealand's National Grid or high voltage transmission network. The National Grid links directly to electricity distribution companies (Orion) and major industrial users. The National Grid is comprised of towers, poles, lines, cables, substations, a telecommunications network and other ancillary equipment. Nationally it includes approximately 12,000km of transmission lines, 170 substations and 300 telecommunication sites. Transpower is central to New Zealand's electricity industry and as a Grid owner must reliably and efficiently transport electricity. It describes its system as ever-developing and responding to changes in supply, demand, growth, reliability and security needs. Within Selwyn District Transpower has overhead transmission lines, substation and telecommunications assets. The transmission lines are shown on the plan in **Appendix 2** and traverse approximately 1,596.4km. They are described as follows:

Line	Voltage (kV)
Benmore-Haywards A Double Circuit on steel towers	350
Benmore-Islington A Single Circuit on steel towers	220
Brackendale-Hororata A Double Circuit on steel towers	66
Bromley-Islington A Double Circuit on steel towers	220
Christchurch-Twizel A Double Circuit on steel towers	220
Coleridge-Brackendale D Double Circuit on single poles	66
Coleridge-Otira A Double Circuit on pi poles	66
Hororata-Islington E Double Circuit on single poles	110
Kimberley-Tee A Double Circuit on single poles	66
Roxburgh-Islington A Single Circuit on steel towers	220

It is relevant to note that these lines were all commissioned prior to January 2010 and are therefore deemed to be "existing lines" under the National Environmental Standards for Electricity Transmission Activities Regulations. These Regulations control how existing lines are developed and maintained rather than the District Plan which does not apply.

Substations/Tee Lines	
Arthurs Pass	Substation
Castle Hill	Substation
Coleridge	Substation
Hororata	Substation
Springston	Substation
Kimberley	Substation
Round Top	Comms
Kimberley Tee	Tee Line
Christchurch Tee	Tee Line
Brackendale	Tee Line

The Coleridge, Arthurs Pass, Castle Hill and Hororata substations are all designated in the Operative District Plan.

The National Policy Statement for Electricity Transmission 2008 (NPSET) confirms the national significance of the National Grid and establishes national policy direction to recognise its benefits, manage its effects and to manage development in its proximity. The objective of the NPSET is:

To recognise the national significance of the electricity network by facilitating the operation, maintenance and upgrade of the existing transmission network and the establishment of new transmission resources to meet the needs of present and future generations, while:

- *Managing the adverse environmental effects of the network; and*
- *Managing the adverse effects of other activities on the network.*

Policies 10 and 11 of the NPSET require the Council, to the extent reasonably possible, to manage activities to avoid reverse sensitivity effects on the electricity transmission network and to ensure that operation, maintenance, up-grading and development is not compromised. In addition, local authorities must consult with Transpower to identify an appropriate buffer corridor within which it can be expected that sensitive activities will generally not be provided for.

There have been several meetings and discussion with Transpower through this phase of the District Plan Review process. As part of that consultation, Transpower has provided the Council with its Model Provisions which can be found attached as **Appendix 3** to this report. These model provisions include suggested objectives and policies as well as rules for buffer corridors where restrictions on activities including subdivision, earthworks, planting and buildings apply.

The Model Provisions have been shared with Federated Farmers and Horticulture New Zealand who have both commented and sought clarification on particular matters e.g., clarification on the buildings and structures associated with intensive farming that may be appropriate in the Corridor and the implications for irrigation equipment within the Corridor. Both organisations are concerned with the potential impact of restrictions on productive farming activities. Any restriction on land uses imposes costs on landowners in terms of loss of flexibility in land use whilst continuing to maintain the land and pay rates. Copies of the organisations' feedback can be found in **Appendix 7**.

The Model Provisions have also been shared with Central Plains Water who has sought clarification from Transpower on protocols that would apply where the two networks intersect.

The Model Provisions have not been translated or transferred in to the Proposed District Plan drafting template. At this stage they represent a developed starting point and it is expected that editing of the provisions will occur as they are integrated into the Network Utilities Chapter.

The key components of Transpower's approach are:

- A transmission yard of 12 metres either side of the centreline of transmission lines and a 12 metre setback from the outer edge of transmission support structures
- Within the yard sensitive activities (defined in the NPSET to include residential buildings, schools, hospitals) are non-complying activities
- Earthworks within the 12 metre yard are permitted if they comply with the NZ Code of Practice for Electrical Safe Distances 2001, otherwise the works become a non-complying activity.
- In urban areas new buildings for sensitive activities and new sensitive activities are non-complying activities within the yard. Other buildings and uses are permitted.
- On all other sites (rural), all new sensitive activities and buildings are non-complying except for un-inhabitable farm buildings (excluding intensive farming) and horticultural structures.
- Car parking, non-intensive farming activities, non-inhabitable accessory buildings, crop protection structures, small sheds and fences are generally permitted.
- Vegetation must comply with the Electricity (Hazards from Trees) Regulations 2003, under the Electricity Act 1992.
- Subdivision is a restricted discretionary activity between 14 and 39m either side of the centreline of transmission lines, and building platforms must be located outside the yard.

The approach does not:

- Require the removal or modification of existing buildings and structures, subdivisions or earth formations. It seeks to control future land development.
- Authorise new transmission liens and facilities. These still require approval under the RMA along with negotiated access arrangements and compensation payments.

Recommendation

It is recommended that the Model Provisions are taken as the basis for transmission line rules in the Proposed District Plan. Drafting should consider the feedback on wording provided by Federated Farmers and Horticulture New Zealand.

Liaison will also be required with Topic Leads for chapters relating to subdivision, earthworks, Outstanding Natural Landscapes, Significant Ecological Areas, water and cultural landscapes.

6.2 Electricity Distribution Lines

Orion provides approximately 4,500km of overhead electricity network in the Selwyn District as shown in the map contained in **Appendix 4**. The entire Orion network covers 8,000 square kilometres and the Company delivers electricity to more than 201,000 homes and businesses in Christchurch City and Selwyn District. It has the third largest connection base within New Zealand. For comparison, Mainpower serves 39,000 customers, Westpower 13,500 and Electricity Ashburton 19,268.

In Selwyn District the sub-transmission network consists of 66kV and 33kV lines connecting 22 zone substations. These have been designed as circuits and connect with the lower order 11kV distribution system. The Synlait and Fonterra Plants have a significant impact on network operations in Selwyn District and have required new substations to be established at Dunsandel and Kimberley. Irrigation related to dairying and agriculture within the district has also impacted on the electricity network in terms of demand.

As noted above, the Operative District Plan provides for the operation, maintenance and upgrading of this network. Orion has 11 designations for its substations at Lincoln, Rolleston, Annat, Bankside, Brookside, Darfield, Hills Road, Motukarara, Springston, Weedons and Prebbleton.

New Planning Provisions

Orion is seeking additional planning provisions in the Proposed District Plan. These would apply to its sub-transmission lines only, as shown in the map contained in **Appendix 5**. These cover a distance of approximately 250km, the majority of which is located in the road reserve. Specifically, Orion is seeking the introduction of Electricity Protection Corridors for these sub-transmission lines, similar to the National Grid yards described above. A copy of the provisions sought by Orion and an accompanying statement in support is attached as **Appendix 6**.

Orion has acknowledged that its assets have a degree of legislative protection in the form of the New Zealand Code of Practice for Electrical Safe Distances (NZECP34) and the Electricity (Hazards from Trees) Regulations 2003. Orion is however no longer confident that these regulations provide appropriate protection in terms of safety where buildings and activities encroach on its lines, and do not ensure access for maintenance and operational purposes.

Specifically, Orion has stated that it requires corridor protection benefits for the following reasons:

- Safety – allowing buildings or some activities near to or underneath the line may put people and electrical supply at risk;
- Access 24/7 to lines and support structures for on-going operation and maintenance;
- Ensuring activities do not pose an operational risk to the electricity infrastructure;
- Ensuring activities do not pose an unacceptable risk to electromagnetic field levels.

Protection corridors for Orion's sub-transmission lines have been introduced into the Christchurch City Plan. As an infrastructure provider that crosses territorial boundaries, Orion seeks similar

provisions in the Proposed Selwyn District Plan to those adopted in the City. These are summarised as follows:

- In urban zones sensitive activities and buildings within 10m of the centreline of a double circuit sub-transmission line or support structure, or 5m of a single circuit sub-transmission line or support structure is a non-complying activity. This would also apply to fences of conductive materials, and trees that grow to over 3m.
- In Rural zones commercial greenhouses, wintering barns, produce packing buildings, milking/dairy sheds or structures associated with irrigation infrastructure (excluding mobile irrigators) must be located outside of the 10m centreline of a double circuit sub-transmission line or 5m of a single-circuit sub-transmission electricity distribution line. A resource consent for a non-complying activity is required where the standards are not achieved.
- Specific standards are proposed for the depth of earthworks within specified distances of the centreline of the sub-transmission line.

Similar provisions are included in the Hurunui District Plan where sensitive activities and buildings (only) are required to be setback from electricity distribution lines by 5m and 10m. Otherwise the Hurunui District Plan includes an advice note that compliance is required with the New Zealand Code of Practice for Electrical Safe Distances (NZECP34) and the Electricity (Hazards from Trees) Regulations 2003.

It is understood that the New Zealand Code of Practice for Electrical Safe Distances (NZECP34) was developed in 1993 with the purpose of protecting people, property and mobile plant by providing a physical separation from towers/poles and distribution lines. It was never developed or intended to provide for operational, maintenance or up-grading requirements of the distribution lines.

Orion advises that in practice, the Code is not effective. For example, it relies upon individual property owners being aware that if there is an electricity distribution line crossing their property that there is a Code that they must comply with. This information is not registered on titles or included on LIMs. Accordingly, many landowners have no awareness of the requirements of the Code.

If a private landowner seeks a building consent for a new building close to or under a line, the onus (under the Building Act) is on the landowner to advise the Council that the proposed building complies with the Electricity Act. If the landowner doesn't know the Code exists, then that declaration is not made. There is no statutory requirement for Council to check if the applicant complies with the Code. Accordingly, if the landowner is not aware of the Code and the Council has no awareness of the line, there is the potential for buildings to be erected too close to electricity lines in Selwyn District. From consultation with Council's Building Manager it is understood that this scenario has arisen in the District and there are two locations where houses sit under lines.

In these circumstances, once a building is in place it cannot be left in a non-complying situation. The solution typically involves relocation of the electricity line at the cost of the landowner, which can involve substantive amounts of money.

In addition, Orion cites Health and Safety legislation which has prompted it to seek further measures for protection. Particularly in relation to the “step and touch potential and conductivity of structures and fences close to structures and overhead lines and underground cables”. Verbally both Orion and Transpower have given examples where farm equipment has touched wires resulting in electrification of fences and buildings. Orion notes that any outage of the sub-transmission electricity network has potential consequences for people’s wellbeing and economic productivity. Examples of incidents and further information on the nature and significance of potential effects, including economic effects, will be required for a s32 assessment. Orion has indicated it is able to assist Council with data and information for this assessment.

Orion advises that in Christchurch City the rules now in place in the Christchurch District Plan have resulted in subdivision developers applying for resource consents to demonstrate how they are complying with safe electrical distances and Orion has provided input to the design of the subdivision.

Orion emphasises that the proposed provisions do not introduce any standards which exceed the requirements of the New Zealand Code of Practice for Electrical Safe Distances (NZECP34) and the Electricity (Hazards from Trees) Regulations 2003. What is being requested is already a regulatory obligation on landowners but the issue is that landowners have low or no awareness of these requirements. The Proposed District Plan provides a mechanism for informing a landowner of the requirements and if avoidance of the Protection Corridor is not an option selected by the landowner they would be required to apply for a resource consent. In that scenario the District Council would notify Orion as an affected party. The District Council would be the decision-maker on the proposal.

Feedback

Federated Farmers and Horticulture New Zealand have raised a high level of concern with respect to the introduction of Protection Corridors for electricity distribution lines. Copies of feedback from both organisations is attached as **Appendix 7** to this report. A summary of the concerns raised include:

- The inclusion of protection corridors in the Christchurch District Plan does not set a precedent for the Proposed Selwyn District Plan. The Christchurch Plan was developed under special legislation with wider considerations and to which there were no rights of appeal. Accordingly, Federated Farmers and Horticulture New Zealand had no opportunity to further challenge the provisions.
- The provisions in the Christchurch District Plan were developed for the residential zone and then “rolled over” into the rural zone without appropriate assessment of whether the provisions were “fit for purpose” in the rural context.
- The extent of horticulture and agriculture in Christchurch City is less than in Selwyn District.
- A question is raised whether Orion’s electricity distribution lines meet the criteria for Strategic Infrastructure and if the directions of the Canterbury Regional Policy Statement necessitate a Protection Corridor.

- The proposed rules for trees, fences and structures are not necessary as New Zealand Code of Practice for Electrical Safe Distances (NZECP34) and Electricity (Hazards from Trees) Regulations 2003 already provide appropriate regulation.
- Reverse sensitivity effects on electricity distribution lines could be addressed through policies and assessment matters in the district plan.
- The proposed provisions “catch” fixed irrigation in orchards which would become a non-complying activity.
- More specific comments have been made on Orion’s preferred draft provisions as attached in **Appendix 7**, at the end of Horticulture New Zealand’s feedback.

Recommendation and Options

The draft provisions provided by Orion have not been translated or transferred in to the Proposed District Plan drafting template. At this stage they represent a starting point for discussion as to whether protection corridors are necessary in the District Plan.

Based on the information provided by Orion and the policies and direction in the Canterbury Regional Policy Statement it is recommended to the District Plan Committee that some form of recognition of electricity distribution lines is incorporated into the Proposed District Plan. The mapping of the sub-transmission lines on planning maps would inform landowners of the presence of these lines and potentially avoid scenarios where building consents are issued too close to lines. The key question is whether this mapping should be accompanied by:

- rules as sought by Orion; or
- policies and assessment matters only as suggested by Horticulture New Zealand (which would likely only apply at the time of subdivision or as a consequence of a non-compliance on another general rule); or
- advice notes that the New Zealand Code of Practice for Electrical Safe Distances (NZECP34) and Electricity (Hazards from Trees) Regulations 2003 apply.

Federated Farmers and Horticulture New Zealand have raised concerns that do require further consideration. For example, testing of the Orion provisions in relation to fixed irrigation for horticulture. The writer agrees that further analysis of a protection corridor, in particular where it crosses private property should occur. This would identify the nature of existing land use and inform further consideration of the effect of the corridor on rural uses. Further information has been requested from Orion to enable this further investigation to occur.

In addition, it is agreed an assessment of the sub-transmission line in relation to the criteria for Strategic Infrastructure in the Canterbury Regional Policy Statement should be completed. On this basis it is recommended that the further assessment is undertaken before a Preferred Option is reported to the Committee.

6.3 Telecommunication Facilities

In 2016 Connected Canterbury and the Canterbury Mayoral Forum released the Canterbury Digital Strategy, a work programme arising from the Canterbury Regional Economic Development Strategy. This strategy is based on the principle that digital connectivity is a key infrastructure and fundamental to achievement of all other regional work programmes. Its central role is illustrated in Figure 1 below. A key action arising from the strategy is to “review telecommunications consents barriers and consistency of approach across Canterbury Councils”. It is therefore appropriate to consider the provisions for telecommunication facilities in this context in the District Plan Review.



Figure 1: Digital Connectivity central to other economic goals²

There have been several meetings with Spark on the District Plan Review, with the company representing the interests of all of the telecommunication companies on district plan standards nationwide.

As noted above, telecommunication facilities are enabled by the Resource Management (National Environmental Standards for Telecommunication Facilities) Regulations 2016. The Regulations set out the nationally consistent technical standards or requirements for particular activities and decision-making processes. The Council is required to observe the NES and enforce the standards set out.

² Canterbury Digital Strategy 2016 A Work Programme of the Canterbury Regional Economic Development Strategy, Connected Canterbury and the Canterbury Mayoral Forum. Page 1

The 2008 NESTF provided for:

- The installation and operation of telecommunication facilities that generate radio frequency fields as a permitted activity where complying with the New Zealand Standards
- Installation and operation of telecommunication equipment cabinets in road reserves as a permitted activity subject to size, location and noise emissions;
- Installation or replacement of masts and antennas on existing structures in the road reserve subject to specified conditions on height and size.

The 2016 NESTF has now extended the range of telecommunication facilities that can be provided for both within and outside of road reserves. It provides for the following activities as permitted activities where standards are met:

- Cabinets in the road reserve, outside the road reserve and servicing antenna on buildings
- Antennas on existing poles in the road reserve
- Antennas on new poles in the road reserve
- Replacement, up-grading and co-location of existing poles and antennas outside road reserves
- New poles in and antennas in rural areas
- Antennas on buildings above a permitted height in residential areas
- Small-cell units on existing structures
- Telecommunication lines (underground, surface mounted and overhead)

Within road reserves the NESTF also increases the size envelope for antennas on poles, the height of replacement poles and allowing for replacement cabinets before existing cabinets are removed. The provisions are intended to be enabling whilst ensuring effects on the environment are managed appropriately.

The NESTF does not regulate:

- New poles and antennas not located in the road reserve or in rural zones
- The installation, operation and maintenance of a self-contained power unit that generates power for the facility and any associated earthworks
- New telecommunication lines and associated support structures
- Telecommunication exchanges

The NESTF does increase the places and sites where the District Plan can impose more stringent controls on telecommunication facilities. These include visual amenity overlays, historic heritage sites, outstanding natural landscapes, the coast and ecological areas.

The NESTF introduces a level of complexity not present in the Operative District Plan. Some potential guidance on appropriate rules for the Proposed District Plan has been provided by the telecommunication companies through the document "*National Planning Standards: Network Utilities*" prepared by an Infrastructure Working Group.

Adopting this guidance would involve the introduction of a number of new or up-dated definitions from the Operative District Plan e.g.,

- Antenna

- Customer Connection
- Headframe
- Pole
- Self-contained power units
- Small cell unit
- Telecommunication kiosk
- Telecommunications pole

Adoption of these definitions and suggested provisions from the Infrastructure Working Group would assist in achieving alignment with the NESTF.

It is relevant to note that s44A of the Resource Management Act states that a district plan cannot duplicate a provision in a National Environmental Standard. The telecommunication companies have however emphasised, that in their opinion, it is necessary for the district plan to provide for these activities (even if this could be considered to be duplication) for the following reasons³. The key point is that there are providers of telecommunications networks who have not been aware of the need to register with MBIE and as a consequence are unable to take advantage of the NESTF provisions.

To be entitled to use the provisions of the NESTF 2016 an organisation is required to meet the definition of a 'facility operators', which are defined in NESTF 2016 regulation 4 as:

- *a network operator (as defined in section 5 of the Telecommunications Act 20012)*
- *the Crown (as defined in section 2(1) of the Public Finance Act 1989)*
- *a Crown agent (as defined in section 10(1) of the Crown Entities Act 2004).*

Information on which companies or organisation have registered as network operators can be found on the Ministry of Business, Innovation and Employment website. www.mbie.govt.nz/info-services/sectors-industries/technology-communications/communications/telecommunications-broadcasting-network-operators Most of the telecommunication companies/organisations are registered as a network operator and rely the NESTF 2016 being a registered as a network operator is voluntary.

It would be simpler for District Plan to be able to rely on all providers of telecommunication activities using the NESTF 2016 and district Plans only having to provide for the activities and standards not covered by the NESTF 2016. The voluntary nature of the NESTF means that District Plans need to enable telecommunication facilities even though this is duplication of the NESTF. In our experience the key users of the telecommunication activities not registered as a network operator under the Telecommunication Act include:

³ Evidence of Graeme McCarrison, Engagement and Planning Manager Spark NZ, Hurunui District Plan Review April 2016

- *Regional and local government e.g. traffic management, civil defence, flood and water management services, wifi services, streetlight management etc*
- *Local or small telecommunication providers*
- *Emergency services*

Some of the reasons for not relying on the NESTF include:

1. *District Plans provide a comprehensive set of activities and standards. One place to go to understand the regulatory requirements for a local provider that may only operate in the district or city is simpler than relying on 2 documents i.e. the NESTF and/or District Plan*
2. *District Plan provisions are often tailored to local needs*
3. *Perception that the NESTF is not relevant to non-telecommunication providers*
4. *Simpler administration and training for local organisations. NESTF is seen as complex and difficult to apply.*

In summary, unless organisations pro-actively seek registration (which can apply to a broad range of organisations and not just the commercial telecommunication companies), they are unable to make use of the NESTF as its provisions will only apply to the listed organisations. It is noted that neither Orion nor Central Plains Water are registered operators and would therefore be reliant on the District Plan provisions. Spark has suggested that if some telecommunication users are unable to take advantage of the NESTF through the District Plan then the Commerce Commission may consider this restricting access and competition in the telecommunications industry.

This is not directly a district plan concern, however it would appear to be similar to the issue of electricity protection corridors, where despite the presence of regulation outside the district plan, it is not “seen” or used by the community and the district plan is viewed as the more accessible and useful tool for disseminating information. In summary, whilst there is a statutory requirement not to duplicate the NESTF in the District Plan, there are examples where rules are being duplicated to provide consistent regulation for all telecommunication providers. It is proposed that a legal opinion is sought on the scope of rules included within the Proposed District Plan as a next step.

From discussion with Council’s resource consent team it is understood that the NESTF is found to be complex, and it would be preferable to have clear distinction between the two regulatory frameworks (the NESTF and District Plan).

The Infrastructure Working Group also suggests the introduction of a Canterbury Plains Geographic Area. This Area would refer to land eastward of, and below an elevation of 400 metres above mean sea level. It is understood from discussion with the Telecommunications Companies that the flatness of the Canterbury Plains presents a unique challenge for telecommunication facilities, as connectivity can be disrupted by trees up to 40m high. To overcome this barrier the Mayoral Forum recommended that the Canterbury Planning Managers investigate and confirm if

they could support in principle a 40m height limit for telecommunication masts in rural areas of their districts (subject to standards and excluding sensitive areas). It is understood that agreement in principle was provided by the Canterbury Planning Managers and that this height has been incorporated into both the Christchurch and Hurunui District Plans. Guidance from the Infrastructure Working Group suggests a 35m height limit, increasing to 40m where facilities are co-located.

Spark has also provided further information on this matter, noting that in the past a cell phone tower was designed to reach as many customers as possible from a single site, as evidenced by the number of sites constructed on hill tops. With the change to smart phones companies are now providing enhanced coverage by locating cell sites closer to where they are used. As a consequence, in Canterbury newly established sites are on the Plains and the hilltops are being avoided. On the Plains trees attenuate radio signals, meaning a signal will fade quickly if the mast does not exceed the height of the trees. Evidence produced by Spark at the Hurunui District Plan hearing shows that the height of masts on the Canterbury Plains ranges between 34.8 and 48m. Generally, a mast height of 36m has been effective in providing line of site coverage to customers.

It is relevant to understand that the NESTF and the District Plan control the **type of utility** that can be located in a road reserve. Exactly where and how the utility is installed in the road reserve is a decision of the road controlling authority that is exercised through the National Code of Practice for Utility Operators' Access to Transport Corridors. There is guidance in the Code for the location of utility structures. Where that guidance is not achievable then the Utility Operator must discuss and agree an alternative solution with the Corridor Manager. Accordingly, the Council as a road controlling authority will always retain the power to control the location of structures within the road reserve.

In summary, the Council is legally required to comply with the NESTF 2016. It is noted that the Selwyn District Council has through the Canterbury Mayoral Forum contributed to and supported the Canterbury Digital Strategy which recognises the need to enable telecommunication facilities as a key platform for achieving other regional economic and social aims. This included a specific recommendation to reduce consenting barriers. This aim is further supported by policies in the Canterbury Regional Policy Statement relating to critical infrastructure, regionally significant infrastructure and strategic infrastructure.

There does however seem to be considerable variation in the manner and extent to which different Councils have provided for telecommunication facilities. Some Councils, such as Christchurch City prepared their Plans before the latest NESTF took effect. Accordingly, Christchurch cannot be considered to be the most up-to-date in terms of content and approach. Hurunui District has a relatively simple list of permitted activities, which defaults to restricted discretionary where standards cannot be achieved.

It is also relevant to note that a number of telecommunication companies have designations in the Operative District Plan. There are 19 designations providing for telecommunication, radiocommunication and ancillary purposes. Typically, these are buildings previously used as telephone exchanges.

Recommendation

Having regard to the above, it is recommended that the District Plan Committee provide for telecommunication facilities in the Proposed District Plan as follows:

- Obtain a legal opinion to clarify to what extent, if at all, the District Plan can duplicate the requirements of the NESTF 2016.
- Provide policies and rules for telecommunication facilities and activities in the District Plan that fall outside the scope of the NESTF 2016.
- Draft rules which focus on the nature and scale of activities and facilities having regard to the guidance provided by the Infrastructure Working Group and the recommendations of the Boffa Miskell 2017 report. This includes incentives for co-locating of facilities, adoption of the 40m height for telecommunication masts in the rural zone, simplification of the variable mast/tower heights and introduction of standardised footprints for buildings.
- Ensure that the policies, activity status and rules for telecommunication facilities in Outstanding Natural Landscapes, Visual Amenity Landscapes, Cultural Landscapes, Coastal Areas and Significant Ecological Areas address the effects of those facilities and activities on the significant values of those locations.

6.4 Community Scaled Irrigation

Central Plains Water is the only Network Utility Operator providing a community-scaled irrigation scheme in Selwyn District.

There have been a number of meetings with Central Plains Water on the approach to irrigation in the Proposed District Plan.

As noted in Section 3.0 the Operative District Plan includes “the conveyance, storage, treatment or distribution of water for supply including to irrigation”. This definition would appear to apply to any person installing a water pipe whereas the Network Utilities chapter should be more specifically providing for Network Utility Operators who establish and operate significant infrastructure either under specific legislation e.g., a National Policy Statement or as a Requiring Authority with responsibility for significant community infrastructure under the provisions of the RMA.

The Canterbury Regional Policy Statement uses the term “community-scaled irrigation infrastructure” and is defined to mean “any community scale intake, canal, pipe, drain, pumps and overflow network, including associated structures, necessary to convey and store water for enhancing primary productivity and that serves multiple properties and is centrally administered.

It is understood that in addition to providing water for irrigation, parts of the Central Plains Water network is also used to supply water for community domestic water supply and fire-fighting purposes. This is understood to be part of an inter-agency approach towards access to water resources in a way that benefits the community through efficiency and network resilience.

Central Plains Water has a designation for the construction and operation of the intake structures for water from the Rakaia River, the headrace and canal. Bridges and earthworks have been authorised for on-farm works, through a global resource consent while pumping stations are subject to easements. The size of the pumping stations is variable, and Council is awaiting confirmation of the range in scale (to inform and test future rules) . These buildings are understood to be consistent with the scale and form of other network utility buildings and generally smaller than farm accessory buildings found in the rural environment.

Protection of Irrigation Infrastructure from encroachment.

Those components of the Central Plains Water Scheme contained within the designation are assumed to be protected from encroachment by other activities i.e., an appropriate setback or buffer was built into the size of the designated area to protect the asset from third party activities.

Assets outside the designation are identified on individual properties by easements, which are assumed to be known to land owners. It is understood that generally, easements have been successful in informing new landowners of the presence of Central Plains Water infrastructure and clauses applied during the conveyancing process require Central Plains Water to be notified when a change in ownership occurs. Of concern to Central Plains Water is that this process has not been full-proof and there are examples where the conveyancing process has failed to notify Central Plains Water of the new landowner and the new landowner has not been informed of the easement and its conditions.

For the majority of irrigation infrastructure outside of the designation this is not a significant issue. For example, a pump station is visible to the new owner. An area of potential vulnerability is however the presence of a Glass Reinforced Pipe (GRP) of up to 2.5m diameter and conveying 12 cumecs of water at high velocity. This pipe traverses approximately 26km of land outside the designation between Hororata and Darfield and is buried at a depth of 2m underground. Whilst the GRP is sufficiently deep to avoid being struck by normal farming activities, any potential rupture of this pipe has serious and significant implications for the network and the safety of people and property.

These consequences include:

- The volume and force of the water has the potential to fatally injure a person and inundate and damage property in the vicinity.
- Result in the emergency shut-down of the network, which if it exceeds a period of 48 to 72 hours has the potential to significantly impact on rural productivity with a loss in farm, district and regional earnings.

Central Plains Water has queried if the GRP was shown on the Planning Maps, then its presence would be noted on LIM's increasing landowner awareness. A rule could also be introduced which required any earthworks below a specified depth to require consent . Whilst this approach has potential merit in terms of protecting a network utility asset and protecting people and property, Central Plains Water has not confirmed that it wishes to pursue this option and has not provided

information that would assist the Council to define the location of the GRP, the extent of any buffer, the nature of the rule in relation to earthworks and the economic costs and benefits. On this basis, whilst recorded as a matter raised during consultation, this report does not progress with any recommendations for provisions relating to the GRP.

It is anticipated that Central Plains Water will “roll-over” its designations into the Proposed District Plan.

Recommendations:

It is recommended that the provisions of the proposed Network Utilities Chapter:

- Specifically identify community scaled irrigation schemes managed by network utility operators in the policies.
- Have rules which enable the maintenance and operation of existing irrigation infrastructure which is owned and operated by a network utility operator as defined in s166 of the RMA.
- Ensure that the rules for network utility buildings and structures will enable pumping sheds and other minor scaled irrigation infrastructure as of right.
- Telecommunication facilities associated with the management of irrigation infrastructure should be encompassed and enabled by the standards for Telecommunications facilities.
- Apply the same standard for earthworks as the balance of the Rural Zone generally – i.e., network utilities comply with the same standard as rural activities. Noting that large-scaled earthworks are likely to be authorised through a designation or global consents which may be renewed.
- Maintain requirements for resource consents for earthworks in areas of environmental or cultural sensitivity such as streams, rivers and wāhi tapu sites, but ensuring that the assessment matters address the importance of network utilities to the continuation of business activity and community social and economic wellbeing.

6.5 District Assets

The District Council provides the following network utilities and infrastructure. These include:

- The storage, treatment and supply of water
- The storage and treatment of wastewater
- Land drainage
- Stormwater capture, treatment and storage
- Stock water races
- Roads including footpaths and cycleways, bridges, lighting and street furniture
- Solid waste management

Council has designations in the Operative District Plan for water supply, wastewater treatment and disposal, pumping stations, solid waste and a resource recovery park. It is anticipated that these designations will be “rolled over” into the Proposed District Plan, but there are some utilities which will not be subject to a designation such as land drainage networks and water races where the rules of the District Plan and resource consents will potentially continue to be required for future

works. It is understood that the Council's Assets Department does not intend to designate its roads.

The Proposed District Plan will need to be clear on the types of utilities provided for within the road reserve and if consents are required. There is significant reliance on the road corridor for installation of utilities by network utility operators and there can be uncertainty as to whether District Plan provisions apply to works and structures in the road corridor. If the road is not designated or zoned as a Transport Zone and the provisions of the adjoining zone apply, these may not be sufficiently enabling for utilities. It is recommended that the Proposed District Plan clarify the status of works and utilities within the road reserve.

Engagement with the Planner acting on behalf of Council Assets has advised that generally the provisions of the Operative District Plan have not presented any significant issues for establishing and operating assets. The Assets Department is supportive of rules which provide for the on-going operation and maintenance of existing utilities, including minor extensions to those networks as permitted activities. Where new utilities are proposed, it is preferred that an activity status is applied which recognises the importance of the utility to the community's economic and social wellbeing ie controlled, restricted discretionary or discretionary.

For example, the Assets Department is generally supportive of the earthwork standards for the relevant zone being applied and it is acknowledged that some environmental overlays may be more restrictive, for example, in Outstanding Natural Landscapes or Significant Ecological Areas. More enabling provisions should however be provided for works and utilities within the road reserve, discouraging utilities in other locations and where Council itself locates a significant number of assets.

Water bodies and riparian margins are sensitive environments where there may be some tension between enabling rules for utilities and management of potential effects on the environment. Utilities such as water races or drains can involve structures on the surface of water or in riparian margins where resource consent may be appropriate to assess the scale of the utility and nature of the works and their effect on the environment. In this scenario it would be appropriate to have a threshold which requires consideration of effects, but the status of the infrastructure as regionally significant or critical can be acknowledged and a clear consenting pathway is provided.

The Assets Department is less supportive of rules which involve a high level of specificity eg on the size and dimension of pipes, ducts, cables, wires and support structures, with a preference for ease of understanding and administration.

It is understood that whilst the Council intends to designate many of its utilities, it still seeks that these utilities are provided for by way of rules for any future scenario where a resource consent process may be required.

Recommendations

It is recommended that the Proposed Network Utilities Chapter should:

- Provide for the maintenance, operation and minor extension of established Council utilities as of right.

- Enable works in the road reserve to be conducted as permitted activities or via less onerous activity status, noting that the Council is able to control the works through the National Code of Practice for Utility Operators' Access to Transport Corridors.
- Enable Council infrastructure and utilities through an activity status which recognises the regional or critical importance of the infrastructure and the level of control necessary to manage potential adverse effects on more sensitive environments. Depending on the scale and nature of the infrastructure this may be permitted where effects are known to be minor but would otherwise be restricted discretionary or discretionary.
- Apply discretionary status for activities with potentially significant adverse effects eg wastewater treatment facilities.

6.6 Navigation Aids

Early engagement with the Civil Aviation Authority in 2016 confirmed that the Authority did not wish to be involved in consultation on the Network Utility provisions. The Airways Corporation of New Zealand has a designation for a surveillance radar/VHF Transmitter on the Port Hills.

It is recommended that the Proposed District Plan includes provision for navigational aids to be permitted except in specifically identified sensitive landscapes and environments.

7.0 Summary of Recommendations

The following list collates recommendations made throughout this report:

1. Use Transpower's Model Provisions as the basis for transmission line rules in the Proposed District Plan. Drafting should consider the feedback on wording provided by Federated Farmers and Horticulture New Zealand.
2. Map the Orion sub-transmission lines on the planning maps.
3. Undertake further assessment of the proposed rules for electricity protection corridors for sub-transmission lines in relation to agricultural and horticultural activities and an assessment of the sub-transmission lines as Strategic Infrastructure as defined in the CRPS.
4. Obtain a legal opinion to clarify to what extent, if at all, the District Plan can duplicate the requirements of the NESTF 2016.
5. Depending on the outcome of Recommendation 4., draft rules for telecommunication activities and facilities based on the guidance provided by the Infrastructure Working Group and the recommendations of the Boffa Miskell 2017 report.
6. In drafting the provisions for network utilities adopt the recommendations of the Boffa Miskell 2017 report to include incentives for co-locating of facilities, adoption of the 40m height for telecommunication masts in the rural zone, simplification of the variable mast/tower heights and introduction of standardised footprints for buildings.
7. Ensure that the policies, activity status and rules for all network utilities in Outstanding Natural Landscapes, Visual Amenity Landscapes, Cultural Landscapes, Coastal Areas, Alpine Villages

and Significant Ecological Areas set thresholds that ensure that the effects of the network utilities on the significant values of those locations are able to be taken into account.

8. Specifically identify community scaled irrigation schemes, land drainage and stock water races in the policies.
9. Have rules which enable the maintenance and operation of existing network utilities as permitted activities.
10. Ensure that the rules for network utility buildings and structures will enable minor extensions and smaller buildings as permitted activities.
11. Adopt the same earthworks standard for network utilities as the Zone where the utility is located, except where works are being undertaken within a road reserve where more permissive standards can apply (as the road controlling authority can control the works through other regulatory means).
12. Maintain requirements for resource consents for earthworks in sensitive areas but ensuring that the assessment matters address the importance of network utilities to the community.

8.0 Recommendations for further engagement

It is recommended that:

- the draft provisions are provided to network utility providers to provide feedback before a final draft is considered at a Council workshop in late March 2018;
- the draft provisions are discussed and developed in consultation with Mahaanui Kurataiao;
- consider further engagement with landowners where the electricity distribution lines traverse private property following further consideration of the additional assessment to be completed on the proposed protection corridors.

Appendix 1

Canterbury Regional Policy Statement

Definitions

Definitions for Greater Christchurch

Strategic Infrastructure

Means those necessary facilities, services and installations which are of greater than local importance and can include infrastructure that is nationally significant. The following are examples of strategic infrastructure:

- Strategic infrastructure
- Strategic transport networks
- Christchurch International Airport
- Rangiora Airfield
- Port of Lyttelton
- Bulk fuel supply infrastructure including terminals, wharf lines and pipelines
- Defence facilities including Burnham Military Camp and West Melton Military Training Area
- Strategic telecommunications facilities
- The electricity transmission network
- Other strategic network utilities

Definitions Entire Region

Community-scale irrigation, stockwater and rural drainage infrastructure

Any community scale intake, canal, pipe, drain, pumps and overflow network, including associated structures, necessary to convey and store water for enhancing primary productivity and that serves multiple properties and is centrally administered.

Critical Infrastructure

Infrastructure necessary to provide services which, if interrupted, would have a serious effect on the communities within the Region or a wider population, and which would require immediate reinstatement. This includes any structures that support, protect or form part of critical infrastructure. Critical infrastructure includes:

1. regionally significant airports
2. regionally significant ports
3. gas storage and distribution facilities
4. electricity substations, networks, and distribution installations, including the electricity distribution network
5. supply and treatment of water for public supply
6. storm water and sewage disposal systems
7. telecommunications installations and networks
8. strategic road and rail networks (as defined in the Regional Land Transport Strategy)
9. petroleum storage and supply facilities
10. public healthcare institutions including hospitals and medical centres
11. fire stations, police stations, ambulance stations, emergency coordination facilities

Essential Structure

Structures that support or form part of:

1. a maritime, road or rail transport network or service;
2. water supply, including irrigation infrastructure;
3. a telecommunications or radio-communication network;
4. an energy generation, supply or transmission facility or network;

5. a flood-protection work or facility;
 6. water containment, flow or diversion infrastructure;
 7. a water level or flow-measurement facility;
 8. a drainage or sewerage system; or
 9. the infrastructure forming parts of other network utilities.
- This includes any structures that support essential infrastructure.

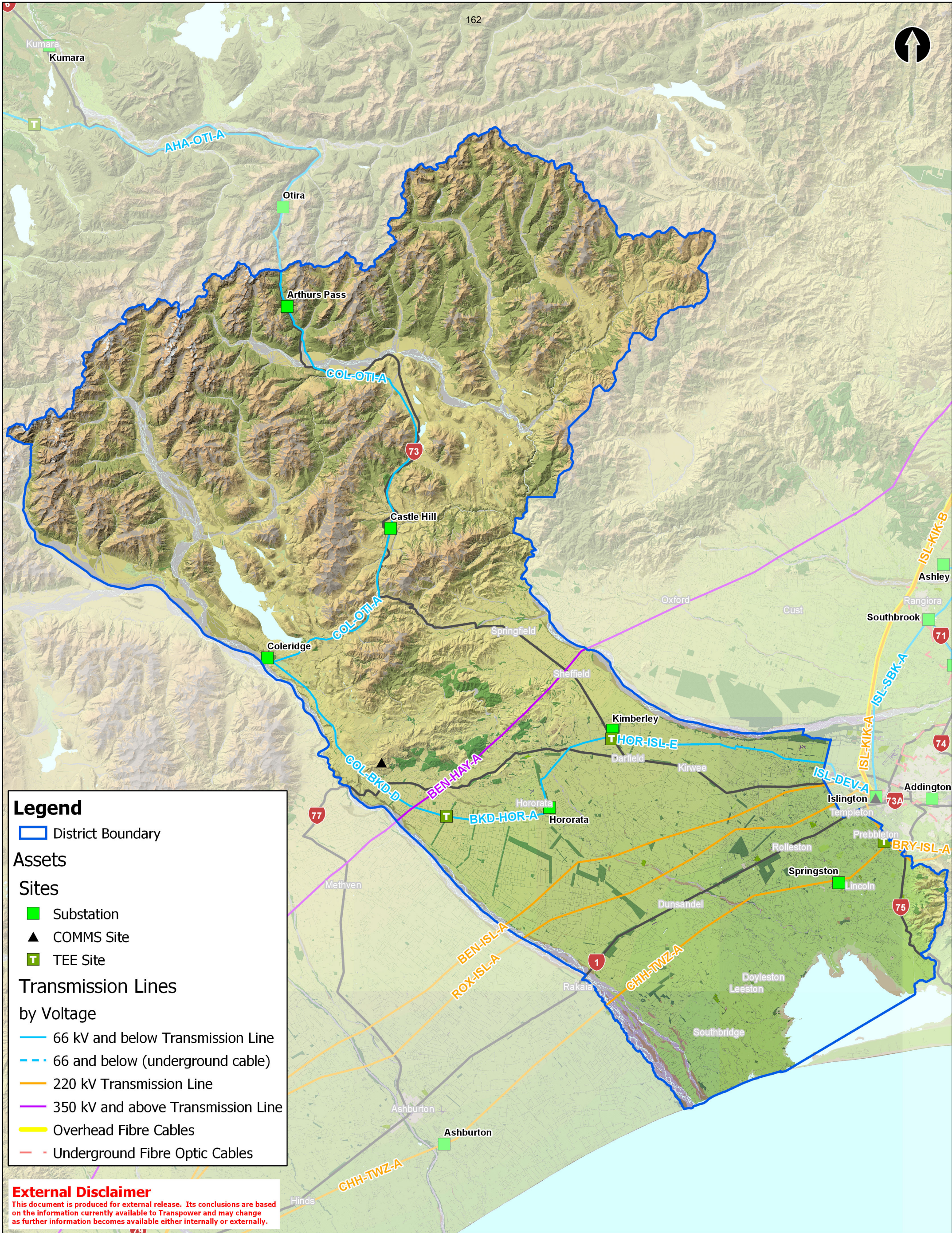
Regionally Significant Infrastructure

Regionally significant infrastructure is:

1. Strategic land transport network and arterial roads
 2. Timaru Airport
 3. Port of Timaru
 4. Commercial maritime facilities at Kaikōura
 5. Telecommunication facilities
 6. National, regional and local renewable electricity generation activities of any scale
 7. The electricity transmission network
 8. Sewage collection, treatment and disposal networks
 9. Community land drainage infrastructure
 10. Community potable water systems
 11. Established community-scale irrigation and stockwater infrastructure
 12. Transport hubs
 13. Bulk fuel supply infrastructure including terminals, wharf lines and pipelines.
 14. Electricity distribution network
 15. Infrastructure defined as 'strategic infrastructure' in this regional policy statement.
- Note: For the avoidance of doubt, this infrastructure is also referred to as 'infrastructure that is regionally significant'.

Appendix 2

Transpower Assets in Selwyn District



Legend

▭ District Boundary

Assets

Sites

- Substation
- ▲ COMMS Site
- TEE Site

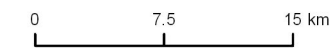
Transmission Lines

by Voltage

- 66 kV and below Transmission Line
- - 66 and below (underground cable)
- 220 kV Transmission Line
- 350 kV and above Transmission Line
- Overhead Fibre Cables
- - Underground Fibre Optic Cables

External Disclaimer
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**Transpower Assets
Selwyn District**



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Appendix 3

Transpower Model Provisions

Selwyn District Plan Review 2018: Transpower Model National Grid Provisions

District Objectives

1. Enable the operation, maintenance, upgrading and development of the National Grid, whilst managing any adverse effects on the environment;
2. Manage subdivision, use and development to ensure that the operation, maintenance, upgrading and development of the National Grid is not compromised.

District Policies

1. Enable the operation, maintenance, upgrading and development of the National Grid, by recognising its operational, functional and technical constraints, the complexity of the interconnectedness of networks, and its role in servicing existing and planned development.
2. Recognise the benefits provided by the National Grid to people and communities, and require these to be weighed in assessing the adverse effects of proposals.
3. Recognise that significant infrastructure including the National Grid may require a location within sensitive natural environments where there are no practicable alternatives available, and the infrastructure will result in significant social and/or economic benefits.
4. Avoid, remedy or mitigate the adverse effects arising from the operation, maintenance, upgrading and development of the National Grid.
5. Manage the effects of subdivision, land use and development on the safe, effective and efficient operation, maintenance, upgrading and development of the National Grid by ensuring that:
 - a. National Grid Corridors and National Grid Yards are identified in the District Plan to establish safe buffer distances for managing subdivision and land use development near National Grid lines including support structures;
 - b. Sensitive activities and buildings and structures that may compromise the National Grid, including those associated with intensive farming activities, are excluded from establishing within National Grid Yards;
 - c. Subdivision is managed within National Grid Corridors to avoid subsequent land use from restricting the operation, maintenance, upgrading and development of the National Grid; and
 - d. Changes to existing activities within a National Grid Yard do not further restrict the operation, maintenance, upgrading and development of the National Grid.

Commented [DH1]: These are provided as a placeholder at this stage, to highlight the need for policies that enable the National Grid and manage its adverse effects. Transpower will be able to provide further and more meaningful input once more is known about the approach to generic infrastructure/network utilities provisions and how these will be framed by council to give effect to the RPSs.

Policy 5 is a more settled approach that is derived from recent District Plan processes elsewhere in NZ.

District Plan methods

1. The National Grid transmission network will be identified on the planning maps

Commented [DH2]: This only applies to Policies 10 and 11 of the NPSET (i.e. effects of others' activities on the National Grid). Presumably Council will use other methods to implement the enabling objectives and policies for the National Grid.

Methods, including rules

Bold text indicates potentially defined terms, which are listed at the end of this document. Rules relating to buildings/structures in the National Grid Yard (urban and non-urban), subdivision, and earthworks are set out under red sub-headings below. With regard to the rules for buildings and structures within the National Grid Yard, there are several ways in which these could be expressed, as we have seen in various District Plans over the years. Ultimately how these are expressed will depend on a number of factors, including the intended approach within this District Plan. One critical assumption we have made is that the National Grid corridor rules would be set out within a specific "network utilities" or "infrastructure" chapter in the District Plan, as opposed to being nested within a District Plan's zone chapters. However, this can be amended to suit the council's preference, noting that at present the vast majority of the current underlying zoning traversed by National Grid lines in Selwyn District is rural.

Our observation of the National Grid lines across the Selwyn District is that the lines do not currently traverse any urban areas, and there is no indication that the lines have been subject to urban “underbuild”. Underbuild is where inappropriate urban development has taken place directly beneath the transmission lines. We would be interested in any new growth areas that council may be considering and whether these are traversed by National Grid assets. In the mean time we have suggested one set of rules to give effect to the policies (unlike some more urban councils where the existing urban and rural/future urban provisions are split).

The provisions set out below are intended for discussion purposes initially and we assume that they will be refined further, especially if National Grid lines traverse any future urban zones.

Rules: Buildings, structures and sensitive activities in all zones within the National Grid Yard

Transpower’s approach to implementation of the National Policy Statement on Electricity Transmission (NPSET) is to ensure that it only seeks the minimum district plan restrictions necessary to ensure the NPSET is given effect to. Under this approach, Transpower seeks different size setbacks depending on the asset type (for example whether it is on poles or towers). There are a range of transmission lines (varying voltages and structure types) in Selwyn District, which are set out in a table at the end of this document. Activities are considered very specifically, so that only those activities which have a real potential to compromise the integrity of the Grid are sought to be non-complying, with everything else permitted (except subdivision).

Rule 1 National Grid Yard Permitted Activities

1. The following buildings and structures are permitted within the **National Grid Yard**, provided these comply with the safe electrical clearance distances set out in the New Zealand Code of Practice for Electrical Safe Distances (NZECP34:2001) and provided those in (d)-(i) below are set back 12 metres from any National Grid support structure:
 - a. **Network Utilities** (other than for the reticulation and storage of water in canals, dams or reservoirs including for irrigation purposes) undertaken by network utility operators as defined in the RMA;
 - b. Fences no greater than 2.5m high and no closer than 6m from the nearest National Grid support structure;
 - c. Artificial crop protection and support structure between 8m and 12m from a single pole or pi pole support structure and any associated guy wire (but not tower) that:
 - a. Meets the requirements of NZECP34:2001 for separation distances from the conductor;
 - b. Is no more than 2.5m high;
 - c. Is removable or temporary, to allow clear working space 12 metres from the pole when necessary for maintenance and emergency repair purposes; and
 - d. Allows all weather access to the pole and a sufficient area for maintenance equipment, including a crane.
 - d. Any new non-habitable building less than 2.5 metres high and 10 square metres in floor area;
 - e. Non-habitable buildings or structures used for agricultural and horticultural activities provided they are not a milking shed/dairy shed (excluding the stockyards and ancillary platforms), wintering barn, or building for intensive farming activities, or a commercial greenhouse;
 - f. Mobile irrigation equipment used for agricultural and horticultural activities;
 - g. Other than reticulation and storage of water in dams or reservoirs in Rule 1a, reticulation and storage of water for irrigation purposes provided that it does not permanently physically obstruct vehicular access to a National Grid support structure;

Commented [DH3]: There are a number of ways that this can be expressed, e.g. by having a list of permitted activities under the wires and a separate list of permitted activities around the structures. The approach here has been to combine the two.

- h. Building alterations and additions to an existing **building** or structure that does not involve an increase in the building height or footprint;
- i. A building or structure where Transpower has given written approval in accordance with clause 2.4.1 of NZECP34:2001.

Rule 2 Non-Complying Activities:

1. The following activities are non-complying within the **National Grid Yard**:
 - a. Any activity that permanently physically impedes vehicular access to a National Grid support structure
 - b. Any new building for a **sensitive activity**.
 - c. Any change of use to a **sensitive activity** or the establishment of a new sensitive activity
 - d. Dairy/milking sheds or buildings for intensive farming or wintering barns
 - e. Any hazardous facility that involves the storage and handling of hazardous substances with explosive or flammable intrinsic properties [exceeding the aggregate quantity or HFSP permitted activity quantity or threshold in the Hazardous Substances section of the District Plan] within 12m of the centreline of a National Grid **Transmission Line**.
 - f. Any building or structure not permitted by Rule 1 above (permitted activity rules).

Advice notes:

1. Vegetation to be planted around the National Grid should be selected and/or managed to ensure that it will not result in that vegetation breaching the Electricity (Hazards from Trees) Regulations 2003.
2. The New Zealand Electrical Code of Practice for Electrical Safe Distances (NZECP 34:2001) contains restrictions on the location of structures and activities in relation to electricity lines, including transmission lines, and it is mandatory to comply with it. Compliance with the permitted activity standards of the Plan does not ensure compliance with the NZECP34:2001.

Rules: Subdivision of land in any zone in the National Grid Corridor:

Subdivision sets the framework for future land use, and careful regulation of subdivision can prevent the creation of unusable (or severely constrained) lots.

Rule SBD1 Restricted Discretionary Activity

1. Subdivision of land in any zone within the **National Grid Subdivision Corridor** is a restricted discretionary activity:
 - a. Where all resulting allotments are capable of accommodating a building platform for the likely principal building(s) and any building(s) for sensitive activities, outside the National Grid Yard, other than where the allotments are for roads, accessways and network utilities.

Council will restrict the exercise of its discretion to the following matters when considering applications made under Rule SBD1.1:

- a. The subdivision layout and design, in terms of how this may impact on the operation, maintenance, upgrading and development of the National Grid.
- b. The ability to provide a complying building platform(s) outside of the National Grid Yard
- c. The risk of electrical hazards affecting public or individual safety, and the risk of property damage.

- d. The nature and location of any vegetation to be planted in the vicinity of National Grid transmission lines
- 2. New buildings for sensitive activities within XX metres of the boundary of XXX substation is a restricted discretionary activity.

Council will restrict the exercise of its discretion to the following matters when considering applications under Rule SBD1.2:

- a. Effects of the development on the efficient operation, maintenance, upgrade and development of the substation;
- b. Risk of electrical hazards affecting public or individual safety, and the risk of property damage; and
- c. Technical advice from an Electrical Engineer.

Rule SBD2: Non-Complying Activities:

Any subdivision of land in any zone within the National Grid Corridor which does not comply with the restricted discretionary activity standards under Rule SBD1.

Rules: Earthworks, Quarries and Landfills

Rule EA1 Permitted Activities:

Earthworks within the National Grid Yard are a permitted activity subject to compliance with the following standards:

- a. Around **National Grid** support towers:
 - i. depth shall be no greater than 300mm within 6m of the outer visible edge of the foundation of the support structure; and
 - ii. depth shall be no greater than 3m between 6m and 12m of the outer visible edge of the foundation support structure.
- b. Around **National Grid** support poles and stay wires:
 - i. depth shall be no greater than 300mm within 2.2m of the pole or stay wire; and
 - ii. depth shall be no greater than 750mm between 2.2m and 5m of the pole or stay wire.
- c. Shall not compromise the stability of a **National Grid** support structure; and
- d. Shall not result in a reduction in the ground to conductor clearance distances below what is required by Table 4 of NZECP34:2001; and
- e. Shall not result in vehicular access to a **National Grid** support structure being permanently obstructed.

Provided that, the following are exempt from Rule EA1(a) above:

- i. Earthworks that are undertaken by a network utility operator (other than for the reticulation and storage of water in canals, dams or reservoirs including for irrigation purposes, as defined by the RMA);
- ii. Earthworks undertaken as part of agricultural or domestic cultivation, or repair, sealing or resealing of a road, footpath, driveway or farm track;
- iii. Earthworks for which a dispensation has been granted by Transpower under NZECP34:2001.

Rule EA2 Restricted Discretionary Activities:

- 1. Within the **National Grid Yard**, any earthworks not permitted by Rule EA1(a) above (permitted activity rules).
- 2. On sites containing **National Grid** transmission line support structures:

Commented [DH4]: Substation setbacks will vary on a site by site basis. One of the main effects that this rule seeks to control is "earth potential rise" from the substation.

- a. Any quarry or land fill activity on the same site as any National Grid transmission line support structures.

Council will restrict the exercise of its discretion to the following matters when considering applications made under Rule EA2.1 and/or EA2.2:

- a. Impacts on the operation, maintenance, upgrading and development of the **National Grid**;
- b. The risk to the structural integrity of the affected **National Grid** support structure(s);
- c. Any impact on the ability of the **National Grid** owner (Transpower) to access the **National Grid**; and
- d. The risk of electrical hazards affecting public or individual safety, and the risk of property damage.

Rule EA3 Non-Complying Activities:

Within the National Grid Yard, any earthworks not permitted by Rule EA1.b, EA1.c or EA1.d.

Notification Statement:

Where an activity requires resource consent solely because it is within a **National Grid Subdivision Corridor** or **National Grid Yard** then the application need not be publicly notified and need not be served on any affected party apart from Transpower New Zealand Limited who will be considered an affected party.

National Grid Yard and National Grid Corridor definitions

The general principle of the National Grid Yard and National Grid Corridor approach is based on the approach used in District Plans around NZ.

Building: Transpower has no firm view on the wording of the definition of 'building'. However, Transpower seeks to ensure that all rules applying to the National Grid Yards and Corridors apply to buildings and structures. If the District Plan does not include a definition of 'building' and/or refers to the Building Act definition, all rules above need to refer to "buildings and structures". If the definition of 'building' includes 'structures', then the rules do not need to refer to 'structures' as well.

NZEC P34:2001: Means the New Zealand Electrical Code of Practice for Electrical Safe Distances 34:2001 ISSN 0114-0663.

National Grid: means the same as in the National Policy Statement on Electricity Transmission 2008.

National Grid Yard means:

- the area located 12 metres in any direction from the outer visible foundation of a National Grid support structure; and
- the area located 12 metres either side of the centreline of an overhead National Grid line on towers (and steel tubular monopoles where these replace towers), and 10 metres either side of an overhead National Grid line on single poles.

This diagram can be used to aid interpretation of the National Grid Yard and Subdivision Corridor definitions, but is not essential to implementation of the rules.

National Grid Subdivision Corridor means the area measured:

- 39 metres either side of the centreline of 350kV National Grid transmission lines on towers (and tubular steel monopoles where these replace towers);
- 37 metres either side of the centreline of 220kV National Grid transmission lines on towers (and tubular steel monopoles where these replace towers).
- 14 metres either side of the centreline of 66kV National Grid transmission lines.

National Grid Substation Corridor: means the area measured XX m from the boundary of XXXX National Grid substations (may need to insert table for list of substations).

Commented [DH5]: Distances to be confirmed. These will vary on a site by site basis.

Sensitive activities: Includes any school, residential building or hospital.

Commented [RE6]: This is the NPSET definition. Transpower will generally seek to incorporate the definitions from within the District Plan that relate to these broad activities.

Tower: In relation to the National Grid has the same meaning as the definition in the Resource Management (National Environmental Standards for Electricity Transmission Activities) Regulations 2009.

Transmission line: In relation to the National Grid has the same meaning as the definition in the Resource Management (National Environmental Standards for Electricity Transmission Activities) Regulations, 2009.

Transpower: Means the owner and operator of the National Grid – Transpower New Zealand Limited.

Wintering barns: [To the extent that this is relevant in Selwyn]

National Grid assets in Selwyn District

Transmission lines

Transpower reference	Line description	Voltage (kV)
BEN-HAY-A	Benmore-Haywards A Double Circuit on steel towers	350
BEN-ISL-A	Benmore-Islington A Single Circuit on steel towers	220
BKD-HOR-A	Brackendale-Hororata A Double Circuit on steel towers	66
BRY-ISL-A	Bromley-Islington A Double Circuit on steel towers	220
CHH-TWZ-A	Christchurch-Twizel A Double Circuit on steel towers	220
COL-BKD-D	Coleridge-Brackendale D Double Circuit on single poles	66
COL-OTI-A	Coleridge-Otira A Double Circuit on pi poles	66
HOR-ISL-E	Hororata-Islington E Double Circuit on single poles	110
KBY-TEE-A	Kimberley-Tee A Double Circuit on single poles	66
ROX-ISL-A	Roxburgh-Islington A Single Circuit on steel towers	220

Substations / Tee Lines

Transpower reference	Site Name	Site Type
APS	Arthurs Pass	Substation
CLH	Castle Hill	Substation
COL	Coleridge	Substation
HOR	Hororata	Substation
SPN	Springston	Substation
KBY	Kimberley	Substation
RTP	Round Top	Comms
KBT	Kimberley Tee	Tee line
CHH	Christchurch Tee	Tee line
BKD	Brackendale	Tee line

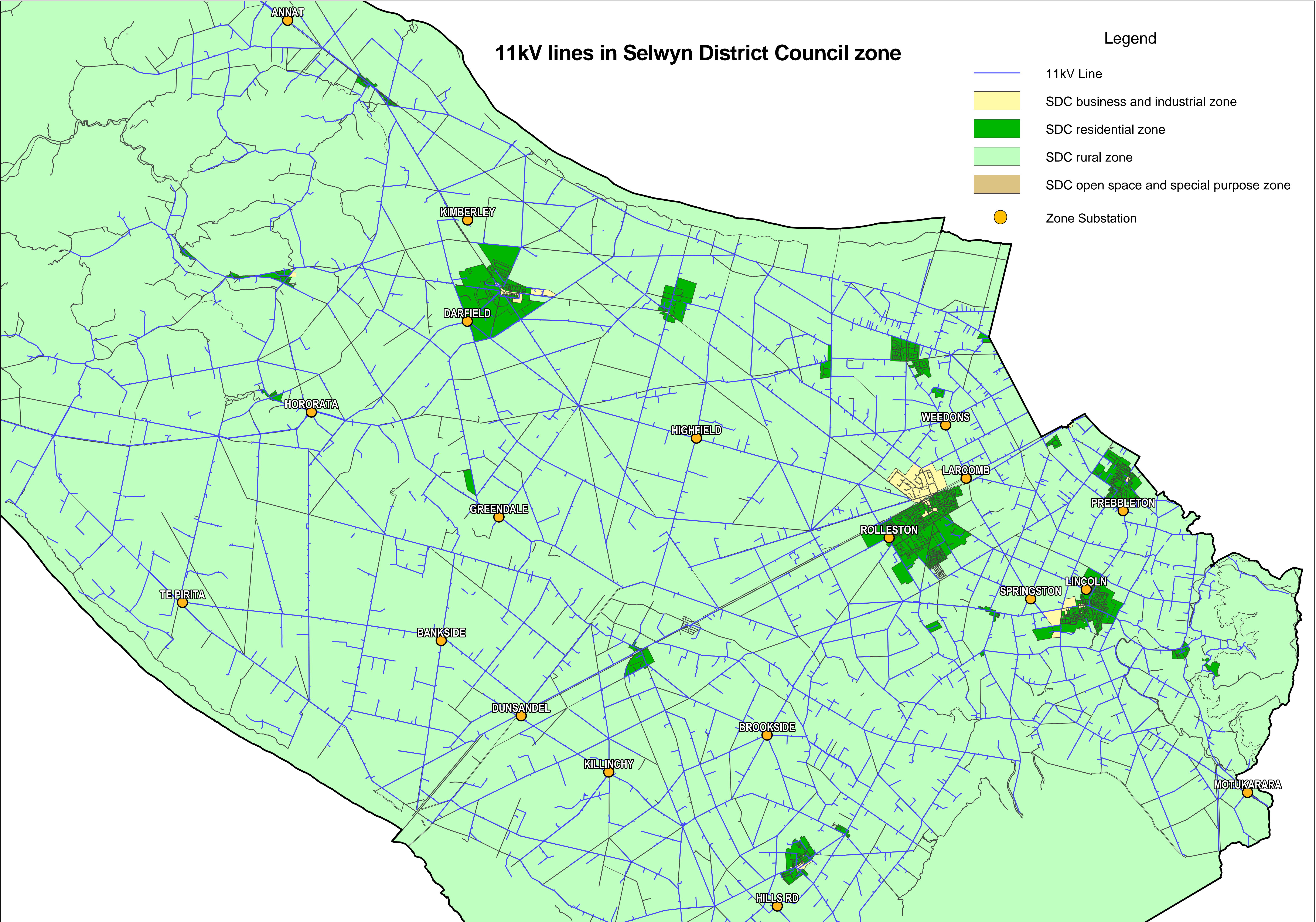
Appendix 4

Orion Electricity Distribution Network

11kV lines in Selwyn District Council zone

Legend

- 11kV Line
- SDC business and industrial zone
- SDC residential zone
- SDC rural zone
- SDC open space and special purpose zone
- Zone Substation



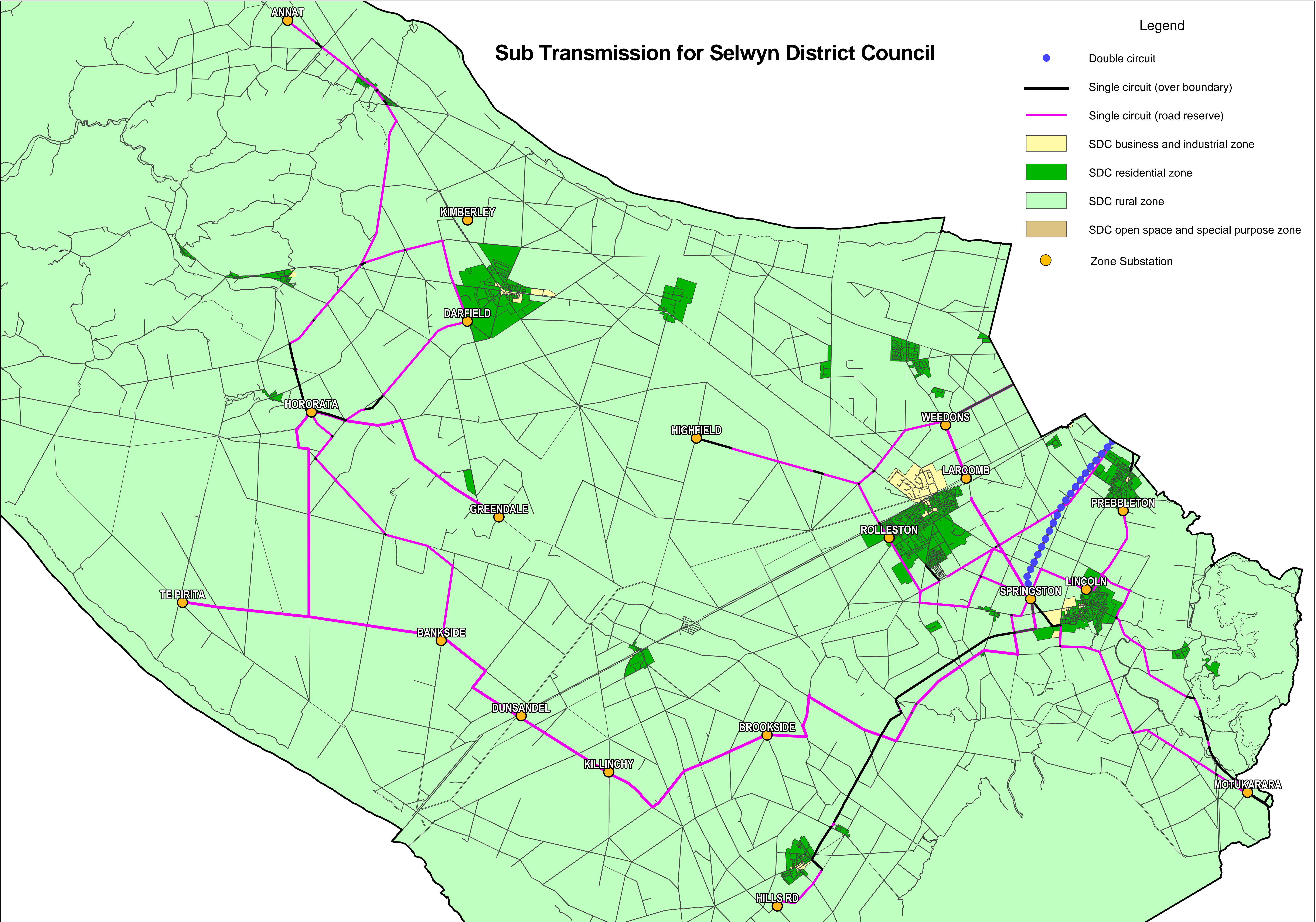
Appendix 5

Orion Sub-Transmission Lines

Sub Transmission for Selwyn District Council

Legend

- Double circuit
- Single circuit (over boundary)
- Single circuit (road reserve)
- SDC business and industrial zone
- SDC residential zone
- SDC rural zone
- SDC open space and special purpose zone
- Zone Substation



Appendix 6:

Orion Submission and Proposed Rules

ORION NEW ZEALAND LIMITED

Selwyn District Plan Supporting Document – Corridor Protection

Overview:

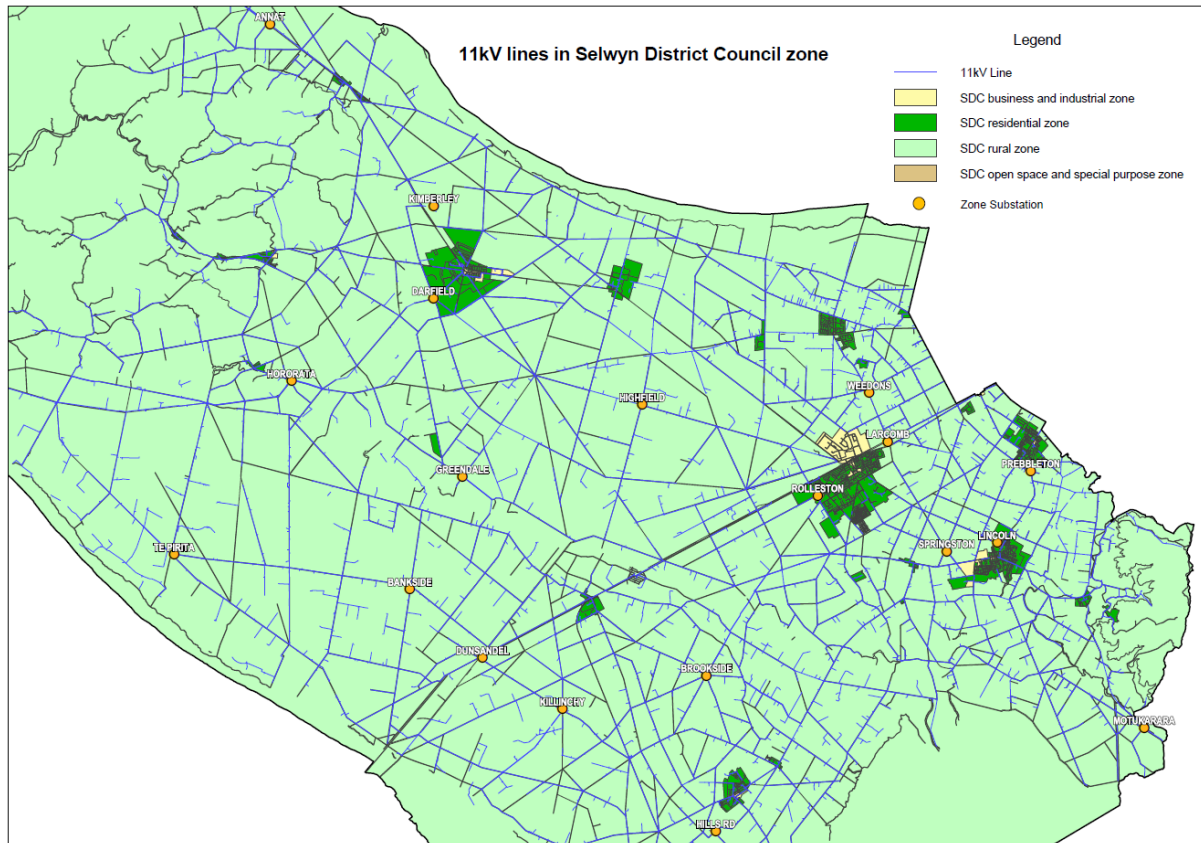
Orion has taken a considered approach in our application for the Selwyn District Council district plan review.

With 4,500km of overhead electricity network in the Selwyn District Council area (refer to Map 1) our application only covers 250km of sub-transmission lines, with the greater majority in the road reserve (refer to Map 2).

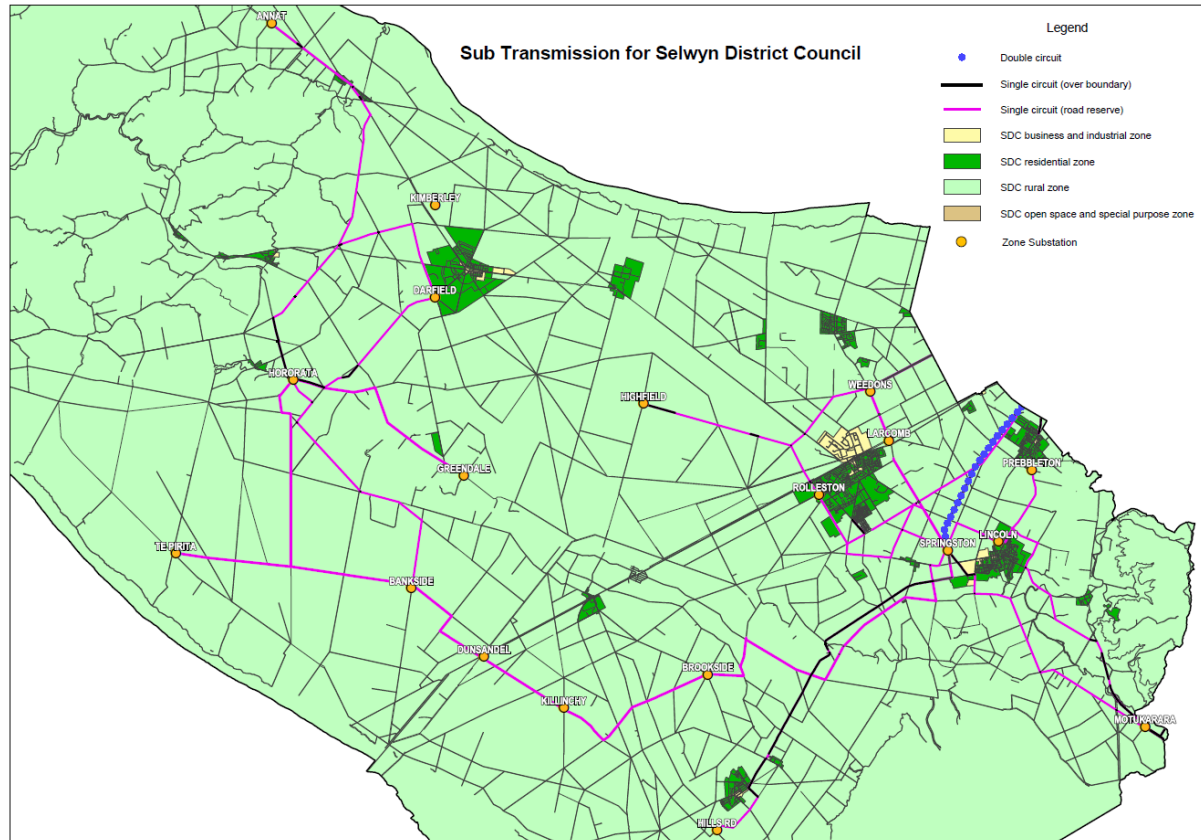
Of the 250km (known as the Islington to Springston line and shown as a double circuit on Map 2) 10 km had legislative protection in the form of the National Policy Statement when the line was owned by Transpower NZ Ltd. As Transpower has sold off its 'spur assets' in 2014 this line was purchased by Orion. For the end user (i.e. electricity customers in the Selwyn District Council area) the transfer of ownership was seamless and the function and criticality of the line did not change, however the status has changed from 'transmission' to 'sub-transmission' and therefore no longer has a 'protected status'.

The remaining 240km of lines in our application is also sub-transmission, however it has always been in the ownership of Orion (or previous incarnations of Orion). The sub-transmission electricity lines (technically known as circuits) operate at 33,000 or 66,000 Volts. These circuits are effectively the arteries of Orion's network as they inter-connect Orion's Zone Substations and allow for the efficient transfer of electricity between and subsequently distributed to the end electricity consumer or customer. Much like the arteries of a human body, if there are any significant issues it can have a severe impact.

Orion acknowledges that all of our assets have a degree of legislative protection in the form of the Electricity Act, Electricity (Safety) Regulations, the NZ Electricity Codes of Practice (NZECP 34 for electrical safe distances) and the Electricity (Hazards from Trees) Regulations. This degree of legislative protection no longer adequately address the changing level of significance of sub-transmission, with the recent developments around Health and Safety as well the push for distributed generation. Orion have considered this in determining which assets to include in this submission. Sub-transmission was therefore set as threshold, as it was deemed to be the appropriate level of cost benefit that warranted being in the 'district plan' because of the significant consequences of breaches. The consequences being in the form of health and safety, operability and cost to landowner to remedy. It should be noted that currently where there is a cost to Orion to mitigate or remedy any consequence, in the first instance it is recovered from the person who caused the breach or failing this it is born across all of Orion's electricity customers.



Map 1



Map 2

ORION NEW ZEALAND LIMITED

Selwyn District Plan Supporting Document – Corridor Protection

Orion owns and operates the electricity distribution network in central Canterbury. As one of the largest electricity distribution networks in New Zealand we cover remote rural areas, regional towns and the city of Christchurch.

Orion is responsible for the operation, maintenance, upgrade and development of its network, which comprises underground cables, overhead lines, substations, transformers and associated structures. These activities are directed by National Industry Codes of Practice and Electricity Network Technical Specification Standards, as well as district and regional planning requirements.

Our network covers 8,000 square kilometres across central Canterbury between the Waimakariri and Rakaia Rivers and from the Canterbury Coast to Arthur's Pass. We deliver electricity to more than 201,000 homes and businesses in Christchurch City and Selwyn District. Orion has the 3rd largest connection base of distribution lines companies in New Zealand. In comparison Mainpower have 39,000 customers, Westpower 13,500 and Electricity Ashburton 19,268.

In the Selwyn District our network consists of both a 66kV and a 33kV sub-transmission system that supplies 22 zone substations from Transpower's Islington, Hororata and Kimberley Grid Exit Points (GXP's). Orion's network is designed with interconnecting sub-transmission between GXP's to allow for resilience should a failure occur on the network. It is designed to meet strong load growth. The distribution system consists of 11kV overhead radial feeders from our zone substations and three small Transpower GXP's at Coleridge, Castle Hill and Arthur's Pass. Growth in the rural townships (Lincoln & Rolleston) and high growth in irrigation loads has meant some sub-transmission has reached its design capacity and we are building additional substations and lines to meet demand.

The double circuit line runs from Islington GXP to Springston GXP's over approximately 10km. These lines are supported by tower structures. This line was previously owned by Transpower and still carries out the same function.

Two rural milk processing plants have a significant impact on our network operations within the Selwyn District. The Synlait Ltd plant located at Dunsandel was commissioned during 2008. Its load required a new zone substation at Dunsandel providing enhanced security. Similarly, the Fonterra Ltd plant at Darfield commissioned during 2012 also required a new zone substation (Kimberley) to provide enhanced security.

Irrigators (agricultural and dairy) are one customer group that significantly impacts on the operation and asset management of our network in the rural area. Irrigation growth over the last 20 years has required substantial reinforcement of our network.

Corridor Protection benefits

The corridor protection we have requested to insert in the Selwyn District plan is to protect Orion's infrastructure and prevent incompatible activities or development near Orion power lines or support structures.

- Safety is paramount; allowing building or some activities near to or underneath the lines may put both people and the electrical supply at risk;
- Orion needs permanent 24/7 access to its lines and associated support structures for on-going operation and maintenance;
- Ensure activities to not pose an operational risk to Orion's infrastructure;
- Ensure activities do not pose an unacceptable risk to electromagnetic field levels.

Christchurch City Plan Effectiveness

The corridor protection we have embedded in the Christchurch City Plan is to protect the safety of landowners and allows Orion access to the lines and associated support structures for on-going operation and maintenance.

Recent subdivision developers have consulted with Orion through the resource consent process to ensure they are meeting the required safe electrical distances with buildings and vegetation. We have given advice at the design stage to ensure safety guidelines are met.

NZEC34 – New Zealand Electrical Code of Practice for Electrical Safe Distances

The purpose of NZEC34 is to protect people, property and mobile plant by providing a physical separation from support structures (towers/poles) and distribution lines. NZEC34 does not consider the operational, maintenance (access) and upgrading requirements of the distribution lines.

NZEC34 was first published in 1993 and amended in 2001. Increased knowledge around Health and Safety requirements has prompted Orion to request further protection from the minimum requirements within NZEC34. Deficiencies include the step and touch potential and conductivity of structures and fences close to structures and overhead lines and underground cables.

Trees within the road reserve

Planting of vegetation within the road reserve has been included to provide awareness to land owners to ensure vegetation planted does not breach the Electricity (Hazards from Trees) Regulations. The government's 2015 infrastructure plan included a review of the effectiveness of the tree regulations and this is timetabled to be carried out in the 2017-19 financial years. The Electricity Network Association (ENA) is encouraging this review to begin as soon as possible, so that more effective ways of managing trees can be out in place.

On the Orion network 10-20% of all unplanned power outages are caused by trees contacting lines. Orion's tree management programme is largely governed by the Electricity (Hazards from Trees) Regulations. This involves monitoring and pruning or removal of trees that threaten to come into contact with overhead lines. This is a significant cost to Orion and land owners. To mitigate the ongoing costs and future power outages we recommend species of shrubs and trees that at full maturity don't grow above 3 metres.

Commerce Commission

The Commerce Commission sets measures for network reliability around the frequency and duration of power outages, and Orion strives to achieve increasingly stringent levels of reliability. Orion's ability to meet these reliability targets is a testament to continued investment in the network through proactive renewal, maintenance and managing vegetation.

15th October 2018

Orion's Proposed Corridor Protection Rules

Non-complying activities	SDC Business and Industrial Zone rules
	<ul style="list-style-type: none"> a. Sensitive activities and buildings <ul style="list-style-type: none"> i. within 10 metres of the centre line of a double circuit sub transmission electricity distribution line or within 10 metres of a foundation of an associated support structure. ii. within 5 metres of the centre line of a single circuit sub transmission electricity distribution line or within 5 metres of a foundation of an associated support structure. b. Fences of conductive materials shall not be installed within 5 metres of a sub-transmission electricity distribution line support structure foundation of an identified electricity distribution line except where it meets the requirements of Clause 2.3.2 or 2.3.3 of NZECP34:2001. c. Trees within the road reserve: no species of trees are to be planted within 5 metres from the centre line of a sub-transmission electricity distribution line or to the boundary whichever is lesser that at full maturity grow above 3 metres. d. Any application arising from (a)-(c) shall not be publicly notified and shall, in the absence of a written approval, be limited notified only to Transpower New Zealand Limited and/or Orion New Zealand Limited or other electricity distribution network operator. <p>Advice note:</p> <ul style="list-style-type: none"> 1. The single and double circuit sub-transmission electricity distribution lines are shown on the planning maps. 2. Vegetation to be planted around the National Grid or electricity distribution lines should be selected and/or managed to ensure that it will not result in that vegetation breaching the Electricity (Hazards from Trees) Regulations 2003. 3. The New Zealand Electrical Code of Practice for Electrical Safe Distances (NZECP 34:2001) contains restrictions on the location of structures and activities in relation to the National Grid transmission lines and electricity distribution line. Buildings and activities in the vicinity of National Grid transmission lines or electricity distribution lines must comply with the NZECP 34:2001.

Definitions:

Sensitive Activity as defined in the Selwyn District Plan

Double Circuit Sub-transmission electricity distribution line: the 66 kV double circuit line and associated support structures connecting Islington GXP to Springston Zone substation

Single Circuit Sub-transmission electricity distribution line: the 33kV or 66 kV lines and associated support structures which interconnect Zone or Substations. Single circuit sub-transmission electricity distribution lines may also support other lesser voltages, i.e. 11kV and/or 400V.

Non-complying activities	SDC Residential zones
	<ul style="list-style-type: none"> a. Sensitive activities and buildings (excluding accessory buildings associated with an existing activity): <ul style="list-style-type: none"> i. within 10 metres of the centre line of a double circuit sub transmission electricity distribution line or within 10 metres of a foundation of an associated support structure. ii. within 5 metres of the centre line of a single circuit sub transmission electricity distribution line or within 5 metres of a foundation of an associated support structure. b. Fences of conductive materials shall not be installed within 5 metres of a sub-transmission electricity distribution line support structure foundation of an identified electricity distribution line except where it meets the requirements of Clause 2.3.2 or 2.3.3 of NZECP34:2001. c. Trees within the road reserve: no species of trees are to be planted within 5 metres from the centre line of a sub-transmission electricity distribution line or to the boundary whichever is lesser that at full maturity grow above 3 metres. d. Any application arising from (a)-(c) shall not be publicly notified and shall, in the absence of a written approval, be limited notified only to Transpower New Zealand Limited and/or Orion New Zealand Limited or other electricity distribution network operator. <p>Advice note:</p> <ul style="list-style-type: none"> 1. The single and double circuit sub-transmission electricity distribution lines are shown on the planning maps. 2. Vegetation to be planted around the National Grid or electricity distribution lines should be selected and/or managed to ensure that it will not result in that vegetation breaching the Electricity (Hazards from Trees) Regulations 2003. 3. The New Zealand Electrical Code of Practice for Electrical Safe Distances (NZECP 34:2001) contains restrictions on the location of structures and activities in relation to the National Grid transmission lines and electricity distribution line. Buildings and activities in the vicinity of National Grid transmission lines or electricity distribution lines must comply with the NZECP 34:2001.

Definitions:

Sensitive Activity as defined in the Selwyn District Plan

Double Circuit Sub-transmission electricity distribution line: the 66 kV double circuit line and associated support structures connecting Islington GXP to Springston Zone substation

Single Circuit Sub-transmission electricity distribution line: the 33 or 66 kV lines and associated support structures which interconnect Zone Substation

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Permitted Activities	SDC Rural Zones	
	Farming	<p>a. Fences of conductive materials shall be located a minimum of 5 metres from a support structure foundation of an identified electricity distribution line except where it meets the requirements of Clause 2.3.2 or 2.3.3 of NZECP34:2001.</p> <p>Advice note:</p> <p>1. The identified electricity distribution lines are shown on the planning maps.</p>
	Farm building	<p>a. Commercial greenhouses, wintering barns, produce packing buildings, milking/dairy sheds or structures associated with irrigation infrastructure (excluding mobile irrigators) shall not be located within the following corridors:</p> <ul style="list-style-type: none"> i. Within 10metres of the centre line of a double circuit sub-transmission electricity distribution line; or ii. Within 5 metres of the centre line of a single circuit sub-transmission electricity distribution line. <p>b. Farm buildings and horticultural structures, except where they meet the requirements of clause 2.4.1 of NZECP34:2001, shall not be located:</p> <ul style="list-style-type: none"> i. Within 10 metres of a foundation of a double circuit sub-transmission electricity distribution line; or ii. Within 5 metres of a foundation of a single circuit sub-transmission electricity distribution line.
Non-complying activities		<p>a. Buildings and horticultural structures not permitted above and any sensitive activities:</p> <ul style="list-style-type: none"> i. within 10 metres of the centre line of a double circuit sub-transmission electricity distribution line; or ii. Within 5 metres of the centre line of a single circuit sub-transmission electricity distribution line. <p>b. Fencing: Fences that do not meet permitted rule above.</p> <p>c. Trees within the road reserve: no species of trees are to be planted within 5 metres from the centre line of a sub-transmission electricity distribution line or to the boundary whichever is lesser that at full maturity grow above 3 metres.</p> <p>d. Any application arising from this rule shall not be publicly notified and shall be limited notified only to Orion New Zealand Limited or other electricity distribution network operator (absent its written approval).</p> <p>Advice note:</p>

		<ol style="list-style-type: none">1. The sub-transmission distribution lines are shown on the planning maps.2. Vegetation to be planted around the electricity distribution lines should be selected and/or managed to ensure that it will not result in that vegetation breaching the Electricity (Hazards from Trees) Regulations 2003.3. The New Zealand Electrical Code of Practice for Electrical Safe Distances (NZECP 34:2001) contains restrictions on the location of structures and activities in relation to electricity distribution lines. Buildings and activities in the vicinity of electricity distribution lines must comply with the NZECP 34:2001.
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Permitted activities	SDC Earthworks rules	
	Earthworks in the vicinity of a double circuit electricity distribution line.	<p>a. Earthworks within 10 metres of the centre line of a double circuit sub-transmission electricity distribution line shall:</p> <ul style="list-style-type: none"> i. meet the requirements of Clause 2.2.1 and/or 2.2.3 (as applicable) of the New Zealand Electrical Code of Practice for Electrical Safe Distances (NZECP34: 2001); or ii. meet the following requirements: <ul style="list-style-type: none"> A. be no deeper than 300mm within 6 metres of a foundation of a double circuit sub-transmission electricity distribution line support structure; and B. be no deeper than 3m between 6 and 10 metres from the foundation of a double circuit sub-transmission electricity distribution line support structure; and C. not destabilise an electricity distribution line support structure; and D. not result in a reduction in the ground to conductor clearing distances below what is required by Table 4 in the NZECP 34:2001. <p>b. Activity standard a.ii.A. (above) shall not apply to:</p> <ul style="list-style-type: none"> i. Earthworks for a network utility, as part of an electricity distribution activity; ii. Earthworks undertaken as part of agricultural or domestic cultivation, or repair, sealing or resealing of a road, footpath, drive or farm track.
	Earthworks in the vicinity of a single circuit electricity distribution line.	<p>c. Earthworks within 5 metres of the centre line of a single circuit sub-transmission electricity distribution line shall:</p> <ul style="list-style-type: none"> i. meet the requirements of Clause 2.2.1 of the New Zealand Electrical Code of Practice for Electrical Safe Distances (NZECP34: 2001); or ii. meet the following requirements: <ul style="list-style-type: none"> A. be no deeper than 300mm within 2.2 metres of a foundation of a single circuit sub-transmission electricity distribution line support structure; and B. be no deeper than 0.75m between 2.2 and 5 metres from the foundation of a single circuit sub-transmission electricity distribution line support structure; and C. not destabilise an electricity distribution line support structure; and D. not result in a reduction in the ground to conductor clearing distances below what is required by Table 4 in the NZECP 34:2001. <p>d. Activity standard a.ii.A. (above) shall not apply to:</p> <ul style="list-style-type: none"> i. Earthworks for a network utility, as part of an electricity distribution activity;

		ii. Earthworks undertaken as part of agricultural or domestic cultivation, or repair, sealing or resealing of a road, footpath, drive or farm track.
Non-complying activities	Any activity that does not meet the standard above.	

Restricted discretionary activities	SDC Subdivision Rules	
	<p>Subdivision of any site (other than an allotment to provide for a network utility) located within the following corridors:</p> <p style="padding-left: 40px;">a. 32 metres of the centre line of a sub-transmission electricity distribution line as shown on planning maps;</p> <p>except as otherwise specified in:</p> <p>Other discretionary or non-complying rules.</p>	<p>a. A building platform for the principal building shall be identified on each allotment that is:</p> <p style="padding-left: 40px;">1. greater than 10 metres from the centre line of a sub-transmission electricity distribution line or a foundation of an associated support structure.</p>
Non-complying activities	Subdivision that does not meet any one or more of the relevant standards listed above.	

Assessment Matter:

The extent to which the subdivision design and construction allows for earthworks, buildings and structures to comply with the New Zealand Code of Practice for electrical Safe Distances (NZECP 34:2001).

Non-complying activities	SDC Hazardous Substances
	<p>a. Any new storage or use of hazardous substances with explosive or flammable properties within:</p> <ol style="list-style-type: none"> 1. 10 metres of the centre line of a sub-transmission electricity distribution line; or <p>b. For the purpose of (a), the definition of hazardous substances excludes the following activities, facilities and quantities:</p> <ol style="list-style-type: none"> 1. storage of substances in or on vehicles being used in transit on public roads; 2. installations where the combined transformer oil capacity of the electricity transformers is less than 1,000 litres; 3. fuel in mobile plant, motor vehicles, boats and small engines; 4. gas and oil pipelines and associated equipment that are part of a utility; 5. retail activities selling domestic scale usage of hazardous substances, such as supermarkets, trade suppliers, and pharmacies; 6. the accessory use and storage of hazardous substances in minimal domestic scale quantities; 7. fire-fighting substances, and substances required for emergency response purposes on emergency service vehicles and at emergency service facilities; 8. activities involving substances of Hazardous Substances and New Organisms (HSNO) sub-classes 1.4, 1.5, 1.6, 6.1D, 6.1E, 6.3, 6.4, 9.1D and 9.2D unless other hazard classification applies; 9. the temporary storage, handling and distribution of national or international cargo containers; 10. waste treatment and disposal facilities (not within High Flood Hazard Management Areas and Flood Management Areas), and waste in process in the Council's trade waste sewers, municipal liquid waste treatment and disposal facilities (not within High Flood Hazard Management Areas and Flood Management Areas) which may contain hazardous substance residues; 11. vehicles applying agrichemicals and fertilisers for their intended purpose.

Appendix 7

Federated Farmers and Horticulture New Zealand Feedback on Transpower and Orion Submissions

Selwyn District Plan Review 2018: Transpower Model National Grid Provisions

District Objectives

1. Enable the operation, maintenance, upgrading and development of the National Grid, whilst managing any adverse effects on the environment;
2. Manage subdivision, use and development to ensure that the operation, maintenance, upgrading and development of the National Grid is not compromised to the extent reasonably possible

District Policies

1. Enable the operation, maintenance, upgrading and development of the National Grid, by recognising its operational, functional and technical constraints, the complexity of the interconnectedness of networks, and its role in servicing existing and planned development.
2. Recognise the benefits provided by the National Grid to people and communities, and require these to be weighed in assessing the adverse effects of proposals.
3. Recognise that significant infrastructure including the National Grid may require a location within sensitive natural environments where there are no practicable alternatives available, and the infrastructure will result in significant social and/or economic benefits.
4. Avoid, remedy or mitigate the adverse effects arising from the operation, maintenance, upgrading and development of the National Grid.
5. Manage the effects of subdivision, land use and development to the extent reasonably possible on the safe, effective and efficient operation, maintenance, upgrading and development of the National Grid by ensuring that:
 - a. National Grid Subdivision Corridors and National Grid Yards are identified in the District Plan to establish safe buffer distances for managing subdivision and land use development near National Grid lines including support structures;
 - b. Sensitive activities and buildings and structures associated with intensive farming activities that may could compromise the National Grid, including those associated with intensive farming activities, are excluded from establishing within National Grid Yards;
 - c. Subdivision is managed within National Grid Corridors to avoid subsequent land use from restricting the operation, maintenance, upgrading and development of the National Grid; and
 - d. Changes to existing activities within a National Grid Yard do not further restrict the operation, maintenance, upgrading and development of the National Grid.

Commented [DH1]: These are provided as a placeholder at this stage, to highlight the need for policies that enable the National Grid and manage its adverse effects.

Transpower will be able to provide further and more meaningful input once more is known about the approach to generic infrastructure/network utilities provisions and how these will be framed by council to give effect to the RPSS.

Policy 5 is a more settled approach that is derived from recent District Plan processes elsewhere in NZ.

Commented [LW1]: To the extent reasonably possible – to be consistent with Policy 10

Commented [LW2]: The provision should be more precise – buildings and structures that may compromise the National Grid' does not provide clear guidance. Should be consistent with Rule 1 e)

District Plan methods

1. The National Grid transmission network will be identified on the planning maps

Commented [DH2]: This only applies to Policies 10 and 11 of the NPSET (i.e. effects of others' activities on the National Grid). Presumably Council will use other methods to implement the enabling objectives and policies for the National Grid.

Commented [LW3]: If National Grid is defined then 'transmission network' is not required.

Methods, including rules

Bold text indicates potentially defined terms, which are listed at the end of this document. Rules relating to buildings/structures in the National Grid Yard (urban and non-urban), subdivision, and earthworks are set out under red sub-headings below. With regard to the rules for buildings and structures within the National Grid Yard, there are several ways in which these could be expressed, as we have seen in various District Plans over the years. Ultimately how these are expressed will depend on a number of factors, including the intended approach within this District Plan. One critical assumption we have made is that the National Grid corridor rules would be set out within a specific "network utilities" or "infrastructure" chapter in the District Plan, as opposed to being nested within a District Plan's zone chapters. However, this can be amended to suit the council's preference, noting that at present the vast majority of the current underlying zoning traversed by National Grid lines in Selwyn District is rural.

Our observation of the National Grid lines across the Selwyn District is that the lines do not currently traverse any urban areas, and there is no indication that the lines have been subject to urban "underbuild". Underbuild is where inappropriate urban development has taken place directly beneath the transmission lines. We would be interested in any new growth areas that council may be considering and whether these are traversed by National Grid assets. In the mean time we have suggested one set of rules to give effect to the policies (unlike some more urban councils where the existing urban and rural/future urban provisions are split).

The provisions set out below are intended for discussion purposes initially and we assume that they will be refined further, especially if National Grid lines traverse any future urban zones.

Rules: Buildings, structures and sensitive activities in all zones within the National Grid Yard

Transpower's approach to implementation of the National Policy Statement on Electricity Transmission (NPSET) is to ensure that it only seeks the minimum district plan restrictions necessary to ensure the NPSET is given effect to. Under this approach, Transpower seeks different size setbacks depending on the asset type (for example whether it is on poles or towers). There are a range of transmission lines (varying voltages and structure types) in Selwyn District, which are set out in a table at the end of this document. Activities are considered very specifically, so that only those activities which have a real potential to compromise the integrity of the Grid are sought to be non-complying, with everything else permitted (except subdivision).

Rule 1 National Grid Yard Permitted Activities

1. The following buildings and structures are permitted within the **National Grid Yard**, provided these comply with the safe electrical clearance distances set out in the New Zealand Code of Practice for Electrical Safe Distances (NZECP34:2001) and provided those in (d)-(i) below are set back 12 metres from any National Grid support structure:
 - a. **Network Utilities** (other than for the reticulation and storage of water in canals, dams or reservoirs including for irrigation purposes where they impede access to a National Grid Support Structure) undertaken by network utility operators as defined in the RMA;
 - b. Fences no greater than 2.5m high and no closer than 6m from the nearest National Grid support structure;
 - c. Artificial crop protection and support structure between 8m and 12m from a single pole or pl pole support structure and any associated guy wire (but not tower) that:
 - a. Meets the requirements of NZECP34:2001 for separation distances from the conductor;
 - b. Is no more than 2.5m high;
 - c. Is removable or temporary, to allow clear working space 12 metres from the pole when necessary for maintenance and emergency repair purposes; and
 - d. Allows all weather access to the pole and a sufficient area for maintenance equipment, including a crane.
 - d. Any new non-habitable building other than provided for in e) less than 2.5 metres high and 10 square metres in floor area;
 - e. Non-habitable buildings or structures used for agricultural and horticultural activities provided they are not a milking shed/dairy shed (excluding the stockyards and ancillary platforms), wintering barn, or building for intensive farming activities, or a commercial greenhouse;
 - ~~f. Mobile irrigation equipment used for agricultural and horticultural activities;~~
 - ~~g. Other than reticulation and storage of water in dams or reservoirs in Rule 1a, reticulation of water in canals and races and storage of water for irrigation purposes provided that it does not permanently physically obstruct vehicular access to a National Grid support structure;~~

Commented [DH3]: There are a number of ways that this can be expressed, e.g. by having a list of permitted activities under the wires and a separate list of permitted activities around the structures. The approach here has been to combine the two.

Commented [LW4]: NZECP has 5m setback for fences for 66kV and more

Commented [LW5]: Seeking clarification from Transpower

Commented [LW6]: This would mean that irrigation in orchards would not be permitted. Only limitation should be on irrigation races and canals within the NG Yard where it impedes access to a NG Support Structure.

- h-g.** Building alterations and additions to an existing **building** or structure that does not involve an increase in the building height or footprint;
- h-h.** A building or structure where Transpower has given written approval in accordance with clause 2.4.1 of NZECP34:2001.

Rule 2 Non-Complying Activities:

1. The following activities are non-complying within the **National Grid Yard**:
 - a. ~~Any activity that permanently physically impedes vehicular access to a National Grid support structure~~
 - b. Any new building for a **sensitive activity**.
 - c. Any change of use to a **sensitive activity** or the establishment of a new sensitive activity
 - d. Dairy/milking sheds or buildings for intensive ~~farming~~ or wintering barns
 - e. Any hazardous facility that involves the storage and handling of hazardous substances with explosive or flammable intrinsic ~~properties~~ ~~exceeding the aggregate quantity~~ or HFSP permitted activity quantity or threshold in the Hazardous Substances section of the District ~~Plan~~ within 12m of the ~~centreline~~ of a National Grid **Transmission Line**.
 - f. Any building or structure not permitted by Rule 1 above (permitted activity rules).

Commented [LW7]: This is new. Transpower has never sought this provision before. Access is addressed through the Electricity Act. Would it be 'existing' access or 'any' access?

Commented [LW8]: Depends on definition of sensitive activities

Commented [LW9]: Depends on definition of intensive farming.

Commented [LW10]: Should be based on HSNO Classes 3-5

Commented [LW11]: Why reference to HFSP – is that in the Plan?

Advice notes:

1. Vegetation to be planted around the National Grid should be selected and/or managed to ensure that it will not result in that vegetation breaching the Electricity (Hazards from Trees) Regulations 2003.
2. The New Zealand Electrical Code of Practice for Electrical Safe Distances (NZECP 34:2001) contains restrictions on the location of structures and activities in relation to electricity lines, including transmission lines, and it is mandatory to comply with it. Compliance with the permitted activity standards of the Plan does not ensure compliance with the NZECP34:2001.

Rules: Subdivision of land in any zone in the National Grid Corridor:

Subdivision sets the framework for future land use, and careful regulation of subdivision can prevent the creation of unusable (or severely constrained) lots.

Rule SBD1 Restricted Discretionary Activity

1. Subdivision of land in any zone within the **National Grid Subdivision Corridor** is a restricted discretionary activity:
 - a. Where all resulting allotments are capable of accommodating a building platform for the likely principal building(s) and any building(s) for sensitive activities, outside the National Grid Yard, other than where the allotments are for roads, accessways and network utilities.

Council will restrict the exercise of its discretion to the following matters when considering applications made under Rule SBD1.1:

- a. The subdivision layout and design, in terms of how this may impact on the operation, maintenance, upgrading and development of the National Grid.
- b. The ability to provide a complying building platform(s) outside of the National Grid Yard
- c. The risk of electrical hazards affecting public or individual safety, and the risk of property damage.

- d. The nature and location of any vegetation to be planted in the vicinity of National Grid transmission lines

- 2. New buildings for sensitive activities within XX metres of the boundary of XXX substation is a restricted discretionary activity.

Council will restrict the exercise of its discretion to the following matters when considering applications under Rule SBD1.2:

- a. Effects of the development on the efficient operation, maintenance, upgrade and development of the substation;
- b. Risk of electrical hazards affecting public or individual safety, and the risk of property damage; and
- c. Technical advice from an Electrical Engineer.

Rule SBD2: Non-Complying Activities:

Any subdivision of land in any zone within the National Grid Corridor which does not comply with the restricted discretionary activity standards under Rule SBD1.

Rules: Earthworks, Quarries and Landfills

Rule EA1 Permitted Activities:

Earthworks within the National Grid Yard are a permitted activity subject to compliance with the following standards:

- a. Around **National Grid** support towers:
 - i. depth shall be no greater than 300mm within 6m of the outer visible edge of the foundation of the support structure; and
 - ii. depth shall be no greater than 3m between 6m and 12m of the outer visible edge of the foundation support structure.
- b. Around **National Grid** support poles and stay wires:
 - i. depth shall be no greater than 300mm within 2.2m of the pole or stay wire; and
 - ii. depth shall be no greater than 750mm between 2.2m and 5m of the pole or stay wire.
- c. Shall not compromise the stability of a **National Grid** support structure; and
- d. Shall not result in a reduction in the ground to conductor clearance distances below what is required by Table 4 of NZECP34:2001; and
- e. Shall not result in vehicular access to a **National Grid** support structure being permanently obstructed.

Provided that, the following are exempt from Rule EA1(a) above:

- i. Earthworks that are undertaken by a network utility operator (other than for the reticulation and storage of water in canals, dams or reservoirs including for irrigation purposes, as defined by the RMA);
- ii. Earthworks undertaken as part of agricultural or domestic cultivation, or repair, sealing or resealing of a road, footpath, driveway or farm track;
- iii. Earthworks for which a dispensation has been granted by Transpower under NZECP34:2001.

Rule EA2 Restricted Discretionary Activities:

- 1. Within the **National Grid Yard**, any earthworks not permitted by Rule EA1(a) above (permitted activity rules).
- 2. On sites containing **National Grid** ~~transmission line~~ support structures:

Commented [DH4]: Substation setbacks will vary on a site by site basis. One of the main effects that this rule seeks to control is "earth potential rise" from the substation.

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- a. Any quarry or land fill activity on the same site as any National Grid transmission line support structures.

Council will restrict the exercise of its discretion to the following matters when considering applications made under Rule EA2.1 and/or EA2.2:

- a. Impacts on the operation, maintenance, upgrading and development of the **National Grid**;
- b. The risk to the structural integrity of the affected **National Grid** support structure(s);
- c. Any impact on the ability of the **National Grid** owner (Transpower) to access the **National Grid**; and
- d. The risk of electrical hazards affecting public or individual safety, and the risk of property damage.

Rule EA3 Non-Complying Activities:

Within the National Grid Yard, any earthworks not permitted by Rule EA1.b, EA1.c or EA1.d.

Notification Statement:

Where an activity requires resource consent solely because it is within a **National Grid Subdivision Corridor** or **National Grid Yard** then the application need not be publicly notified and need not be served on any affected party apart from Transpower New Zealand Limited who will be considered an affected party.

National Grid Yard and National Grid Corridor definitions

The general principle of the National Grid Yard and National Grid Corridor approach is based on the approach used in District Plans around NZ.

Building: Transpower has no firm view on the wording of the definition of 'building'. However, Transpower seeks to ensure that all rules applying to the National Grid Yards and Corridors apply to buildings and structures. If the District Plan does not include a definition of 'building' and/or refers to the Building Act definition, all rules above need to refer to "buildings and structures". If the definition of 'building' includes 'structures', then the rules do not need to refer to 'structures' as well.

NZEC P34:2001: Means the New Zealand Electrical Code of Practice for Electrical Safe Distances 34:2001 ISSN 0114-0663.

National Grid: ~~means the same as in the National Policy Statement on Electricity Transmission 2008.~~

~~Means the assets owned and operated by Transpower NZ and includes transmission lines, cables, support structures (towers and poles), Stations and substations and other works used to connect grid connection and exit points to convey electricity.~~

National Grid Yard means:

- the area located 12 metres in any direction from the outer visible foundation of a National Grid support structure; and
- the area located 12 metres either side of the centreline of an overhead National Grid line on towers (and steel tubular monopoles where these replace towers), and 10 metres either side of an overhead National Grid line on single poles.

This diagram can be used to aid interpretation of the National Grid Yard and Subdivision Corridor definitions, but is not essential to implementation of the rules.

National Grid Subdivision Corridor means the area measured:

- 39 metres either side of the centreline of 350kV National Grid transmission lines on towers (and tubular steel monopoles where these replace towers);
- 37 metres either side of the centreline of 220kV National Grid transmission lines on towers (and tubular steel monopoles where these replace towers);
- 14 metres either side of the centreline of 66kV National Grid transmission lines.

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National Grid Substation Corridor: means the area measured XX m from the boundary of XXXX National Grid substations (may need to insert table for list of substations).

Sensitive activities: includes any school, residential building or hospital.

Tower: In relation to the National Grid has the same meaning as the definition in the Resource Management (National Environmental Standards for Electricity Transmission Activities) Regulations 2009.

Transmission line: In relation to the National Grid has the same meaning as the definition in the Resource Management (National Environmental Standards for Electricity Transmission Activities) Regulations, 2009.

Transpower: Means the owner and operator of the National Grid – Transpower New Zealand Limited.

Wintering barns: [To the extent that this is relevant in Selwyn]

National Grid assets in Selwyn District

Transmission lines

Transpower reference	Line description	Voltage (kV)
BEN-HAY-A	Benmore-Haywards A Double Circuit on steel towers	350
BEN-ISL-A	Benmore-Islington A Single Circuit on steel towers	220
BKD-HOR-A	Brackendale-Hororata A Double Circuit on steel towers	66
BRY-ISL-A	Bromley-Islington A Double Circuit on steel towers	220
CHH-TWZ-A	Christchurch-Twizel A Double Circuit on steel towers	220
COL-BKD-D	Coleridge-Brackendale D Double Circuit on single poles	66
COL-OTI-A	Coleridge-Otira A Double Circuit on pi poles	66
HOR-ISL-E	Hororata-Islington E Double Circuit on single poles	110
KBY-TEE-A	Kimberley-Tee A Double Circuit on single poles	66
ROX-ISL-A	Roxburgh-Islington A Single Circuit on steel towers	220

Substations / Tee Lines

Transpower reference	Site Name	Site Type
APS	Arthurs Pass	Substation
CLH	Castle Hill	Substation
COL	Coleridge	Substation
HOR	Hororata	Substation
SPN	Springston	Substation
KBY	Kimberley	Substation
RTP	Round Top	Comms
KBT	Kimberley Tee	Tee line
CHH	Christchurch Tee	Tee line
BKD	Brackendale	Tee line

Commented [DH5]: Distances to be confirmed. These will vary on a site by site basis.

Commented [RE6]: This is the NPSET definition. Transpower will generally seek to incorporate the definitions from within the District Plan that relate to these broad activities.

Commented [LW12]: Would be better to put in the Plan.

Commented [LW13]: Would be better to specify in Plan



FEEDBACK ON NETWORK UTILITY PROVISIONS

Monday 12th November

TO: Selwyn District Council

NAME OF SUBMITTER: Horticulture New Zealand



CONTACT FOR SERVICE:

Rachel McClung
Environmental Policy Advisor – South Island
Horticulture New Zealand
172 High Street, Rangiora
PO Box 10-232 WELLINGTON
Ph: 027 582 7474
Email: rachel.mcclung@hortnz.com

HortNZ comments on Network Utility Provisions

Orion is seeking Selwyn District Council to include special provisions for electricity distribution lines within the Selwyn District Plan, similar to that sought by Transpower for the National Grid. The rationale for the National Grid provision is provided in the NPSET, which does not include local distribution lines.

Relevant to consideration of such an approach are:

1. Christchurch Replacement District Plan (CRDP).
2. Canterbury Regional Policy Statement 2013 (RPS)
3. National guidance
4. What is sought by Orion in the Selwyn District Plan

1. Christchurch Replacement District Plan (CRDP)

Part of the basis for the Orion approach is that such provisions were included in the Christchurch Replacement District Plan (CRDP).

The question is then: Should the Christchurch Replacement District Plan provisions set a precedent for the Selwyn District Plan?

HortNZ considers that there are significant differences between the two processes that should be taken into account when considering whether there is any precedent effect.

These differences include:

- The CRDP was developed under special legislation that took into account a wider range of matters than that required in the RMA Schedule 1 process
- The CRDP had no right of appeal – only appeal on points of law.
- How provisions for Orion were included in the CRDP
- Extent of horticulture in Christchurch City so lack of consideration of the effects of changes on this sector.

1.1 Christchurch Replacement District Plan (CRDP) Special legislation

The CRDP was developed under the Canterbury Earthquake (Christchurch Replacement District Plan) Order 2014, (OIC) which was promulgated under s71 of the Canterbury Earthquake Recovery Act 2011.

The OIC qualified how the Resource Management Act 1991 (RMA) was to apply and modified some of the RMA's provisions, both as to the decision-making criteria and processes. It required compliance with s23 of the Canterbury Earthquake Recovery Act 2011 (CER Act) and also specified additional matters for consideration, including the Christchurch Central Recovery Plan (CCRP) and the Land Use Recovery Plan (known as the LURP), to which the CRDP was to be 'not inconsistent with'.

The CRDP Hearing Panel Decision 1 on Strategic Directions and Strategic Outcomes describes the process and notes (Para 27):

- (a) *We must hold a hearing on submissions, and make and report our decision. Our decision must provide reasons, including for accepting or rejecting submissions (although we are not required to address individual submissions). If a proposal to which our decision relates would*

replace any parts of the existing district plan, our decision must identify what it would replace. Our capacity to change a proposal is not limited by the scope of submissions made on the proposal. Rather, we can make any changes we determine appropriate. However, if we consider changes to a proposal are needed to deal with matters that are materially outside the scope of the notified proposal, we must direct the Council to prepare and notify a new proposal, and invite submissions on that new proposal.

Therefore, the scope provided to the Hearing Panel was greater than a Schedule 1 RMA process.

The decision also identifies that particular regard was to be had to the Statement of Expectations in Schedule 4 of the OIC. The Council in evidence identified that the OIC Statement of Expectations “is a notable difference from the usual RMA process and considerations”.

Therefore, the decisions in the CRDP process have taken into account a wider range of matters than will be considered by Selwyn District Council in the development of a new district plan. This matter is relevant to the inclusion of provisions for the Orion network.

1.2 No rights of appeal

The special legislation for the CRDP removed rights of appeal to the Environment Court, with only limited rights of appeal on points of law.

Consequently, even if a submitter disagreed with a decision there were very limited opportunities to appeal the decision.

The provisions that were included for the electricity distribution network were therefore not able to be tested through an appeal process.

1.3 Inclusion of provisions for Orion in CRDP

The Proposed CRDP did not include provisions for electricity distribution lines. The Orion submission sought that provisions be included similar to those proposed for the National Grid across a number of zones in the Plan.

HortNZ and Federated Farmers made further submissions opposing the inclusion of such provisions. HortNZ considered that the regulations in NZECP34:2001 adequately provided for the electricity distribution lines.

The Orion submission seeking provisions for electricity distribution lines were first considered in the Residential hearings, during March and April 2015 in which HortNZ was not involved. Decisions on the Residential chapter were notified on 10 December 2015 and discuss the Orion submissions in detail (Para 257 – 282). Consideration had also been given to the matter in the Temporary Activities hearing, to which HortNZ was not a party.

The Rural hearings were held in November 2015, prior to the Residential decisions being notified. The Rural decisions were notified on 12 August 2016. The Residential decision stated (Para 275) that FFNZ and HortNZ concerns were related to impacts on the Rural zone and they would be considered in that context. However, the Rural hearings did not assess the rural context or impacts. The Rural decision simply stated (Para 31): “In the case of Orion the protection is necessary because we have determined earlier that their transmission lines are included within Strategic Infrastructure”.

The Rural decision did not consider the effects on rural, as opposed to residential, areas or the appropriateness or costs and benefits of such an approach in rural areas. It simply transferred the Residential decision to different zones. The decision resulted in rules limiting buildings, fences and activities around electricity distribution lines and structures with certain activities non-complying within 5 metres of the centre line of a 33kV electricity distribution line.

The decision was based on the determination that Orion's 66kV, 33kV and 11kV Lyttelton distribution lines are Strategic Infrastructure, (Refer to RPS section for definition of Strategic Infrastructure). As it was considered that the lines were of strategic importance on a regional basis, they deserved appropriate protection by avoiding adverse effects from incompatible activities, including reverse sensitivity effects. Decision 1 had included Strategic Direction Objective 3.3.12 and this objective was used as the basis for inclusion of the provisions.

The Council and Hearing Panel acknowledged during the Residential hearing that there had been little in the way of a s32 evaluation to support the corridor protection rules sought but allowed Orion to file additional evidence to support the corridor provisions, but HortNZ was never given the opportunity to respond to that additional evidence.

It was also acknowledged at the Residential hearing that Orion assets in the residential areas were primarily on public land rather than private land. However, the same may not apply to the rural area.

HortNZ considers that the pathway used for inclusion of provisions for electricity distribution lines in the rural area of the CRDP did not give due consideration of the impacts on the rural area. The decision was also dependent on the interpretation of Strategic Infrastructure in the context of Christchurch City and Strategic Direction Objective 3.3.12. Any consideration for inclusion of such provisions in the Selwyn District Plan would need to be assessed in the context of Selwyn District.

As such the decision in the CRDP should not form a precedent for the Selwyn District Plan.

1.4 Horticulture in Christchurch City

There is very limited horticulture in Christchurch City so the ability to demonstrate the effects of the provisions on horticulture were very limited. The CRDP process was very urban focused with little horticulture input so the concerns were not considered. The situation in Selwyn District is different with considerable areas in horticulture production so the effects of any corridor provisions on horticulture would need to be assessed for the Selwyn District Plan.

2. Canterbury Regional Policy Statement 2013 (RPS)

The Selwyn District Plan is required to give effect to the RPS, which includes provisions relating to infrastructure. The policy framework is important in considering the most appropriate methods for the SDP. The RPS has a separate policy framework and definitions for the Greater Christchurch area, some of which is located in the Selwyn District. Provisions also differentiate between the 'Entire Region' which includes the Greater Christchurch area, while provisions for the 'Wider Region' relate to the area outside the Greater Christchurch area. Therefore, the applicability of the RPS will vary depending on the location and the scope of provisions.

Relevant provisions in the RPS are:

- Definitions

- Ch. 5 Land use and infrastructure
- Ch 6 Recovery and rebuilding of Greater Christchurch

2.1 Definitions

General Definitions:

- Critical infrastructure – Infrastructure necessary to provide services, which interrupted, would have a serious effect on the communities within the Region or a wider population, and which would require immediate reinstatement. This includes any structures that support, protect or form part of critical infrastructure. Critical infrastructure includes electricity substations, networks, and distribution installations including the electricity distribution network.
- Regionally significant infrastructure has a specific list and includes the electricity distribution network.

Electricity distribution network is not defined in the RPS.

Infrastructure is also not defined in the RPS, so the RMA definition would apply, which includes lines used to convey electricity and support structures used to convey electricity. The definition in the RMA for infrastructure relates to its use in s30 Functions of regional councils who in clause (ga) have to consider the strategic integration of infrastructure with land use through objectives, policies and methods.

The Orion electricity distribution network in Selwyn would be both critical infrastructure and regionally significant infrastructure under these definitions.

While all the Orion electricity distribution network would be regionally significant infrastructure and critical infrastructure across the district the use of the definitions in the policy framework determines the extent of application.

Specific definitions for Greater Christchurch:

- Strategic infrastructure – means those necessary facilities, services and installations which are of greater than local importance, and can include infrastructure that is nationally significant. The definition then provides ‘examples’ of strategic infrastructure including the electricity transmission network (National Grid) but not electricity distribution networks. ‘Other strategic network utilities’ are listed but no examples provided.

Given the definition the Orion electricity distribution network in Greater Christchurch section of Selwyn District would not be ‘Strategic Infrastructure’ unless it is, or parts of it are, of ‘greater than local importance’. Note that the CRDP decision considered that some of the Orion lines are strategic infrastructure, including the 11kV Lyttelton distribution line. An assessment would need to be undertaken for the electricity distribution network in the Greater Christchurch part of Selwyn District to determine if any of the Orion network meets the definition of strategic infrastructure in the RPS.

2.2 Chapter 5 Land use and infrastructure

Relevant provisions are:

- Objective 5.2.1
- Objective 5.2.2
- Policies 5.3.1 and 5.3.2
- Policy 5.3.9

Objective 5.2.1 Location, design and function of development (Entire Region): The objective sets out how development is to be achieved, including that it is compatible with and will result in the continued safe, efficient and effective use of regional significant infrastructure. The objective also seeks that rural activities are enabled to support the rural environment and primary production.

Objective 5.2.2 Integration of land use and regional significant infrastructure (Wider Region): The objective seeks to provide for infrastructure that is of regional significance to the extent that it promotes sustainable management in accordance with the RMA. It also seeks that development does not result in adverse effects on the operation use and development of regionally significant infrastructure and that adverse effects from the operation of regionally significant infrastructure are avoided, remedied or mitigated. The explanation states that recognition of the importance of regionally significant infrastructure will lead to greater weight being given to its requirements. Note that this objective does not apply to the Greater Christchurch area.

Policies 5.3.1 and 5.3.2 relate to development in the Wider Region and recognition of regionally significant infrastructure in development.

Policy 5.3.9 Regionally significant infrastructure (Wider Region): The policy sets out a range of factors to consider in relation to regionally significant infrastructure, including development which would constrain the ability of the infrastructure to be used, including reverse sensitivity.

The relevant method requires that TA's will set out objectives and policies in district plans which:

- Avoid sensitive and incompatible land uses within proximity of regionally significant infrastructure where the quality of current or future environment is incompatible with the health requirements and amenity expectations of people adjacent or within part of the receiving environment of activities undertaken by regionally significant infrastructure.
- Avoid land uses that directly adversely affect the safe operation of regionally significant infrastructure
- Avoid, remedy or mitigate the adverse effects of regionally significant infrastructure on the environment.

The Explanation focuses on the sensitivity of activities near regionally significant infrastructure such as airports and transport hubs, particularly in residential areas. There is no specific mention of electricity distribution networks. Note that this policy does not apply to the Greater Christchurch area.

The AER is that regionally significant infrastructure provides safe, effective and efficient services to people and communities.

Chapter 5 also includes a range of policies relating to rural production (Policy 5.3.12 and 5.3.11) and related methods which recognise the importance of rural production in the Wider Region.

2.3 Chapter 6 Recovery and Rebuilding of Greater Christchurch

Chapter 6 was included in the RPS as directed by the Land Use Recovery Plan for Greater Christchurch and focuses on the urban area and includes the towns of Lincoln, Prebbleton and Rolleston and rural areas between them.

Objective 6.2.1 sets out the Recovery Framework that includes a land use and infrastructure framework that integrates strategic and other infrastructure and services with land development to optimise existing infrastructure. In relation to strategic infrastructure it seeks to achieve development that does not adversely affect the efficient operation, use, development, appropriate upgrade and future planning of strategic infrastructure.

Policy 6.3.5 Integration of land use and infrastructure: The policy sets the framework for providing for infrastructure with a focus on urban growth and intensification and managing the effects of land use activities on infrastructure, including avoiding activities that have the potential to limit the efficient and effective provision, operation, maintenance or upgrade of strategic infrastructure.

The relevant method states that TA's will include objectives, policies and rules in district plans to manage reverse sensitivity effects between strategic infrastructure and subdivision, use and development, including for residential and rural residential activities.

2.4 Giving effect to the RPS provisions in the Selwyn District Plan for electricity distribution networks

The SDP will need to differentiate between the area within the Greater Christchurch area and the area outside of Greater Christchurch because there are different RPS provisions for the respective areas, including the classification of the electricity distribution lines.

While Chapter 5 provides for regionally significant infrastructure outside of Greater Christchurch, Chapter 6 for Greater Christchurch does not include provisions for regionally significant infrastructure, but rather refers to Strategic Infrastructure. The provisions in Ch 6 are dependent on the assessment of 'Strategic infrastructure' as to whether the Orion electricity network would meet the criteria in the definition. Ch 6 also has provisions that apply to 'infrastructure' that would include the Orion network.

The methods in both Ch 5 and 6 require the district council to include objectives, policies and methods relating to infrastructure relating to incompatible land uses and ensuring the safe operation of regionally significant infrastructure.

The question then is: Do the RPS objectives, policies and methods necessitate a 'corridor protection' approach in order to give effect to the RPS.

There is no specific reference to 'corridors' or 'protection' for electricity distribution networks in the RPS.

Corridors are one method to achieve the objectives and policies, but are not a stipulated method, and may not be the most appropriate method to achieve the objectives and policies when the costs and benefits are considered.

While Orion achieved a 'corridor protection' method for some of its lines in Christchurch such an approach may not be appropriate in Selwyn where the land use is less urban, the existence of primary production activities and lines located on private property.

NZCEP34:2001 The New Zealand Electrical Code of Practice for Electrical Safe Distances is regulation under the Electricity Act and sets out required setback distances from overhead lines and support structures. The required distances vary according to the voltage and type of structure to protect persons, property, vehicles and mobile plant from harm or damage from electrical hazards and also provide access for maintenance.

HortNZ considers that the mandatory distances set out in NZCEP provide a framework for distances that would assist in achieving the objectives and policies in the RPS so it is not necessary for the district plan to have additional requirements such as corridor protection, particularly through rural areas. Orion has previously argued that the NZCEP is difficult to enforce and so preferred provisions in the district plan. Enforcement of NZCEP is the responsibility of MBIE. Inclusion of corridor provisions in the district plan places the responsibility for enforcement on the district council, rather than MBIE under the Electricity Act.

If provisions are included in the district plan, they should focus on activities which are sensitive to the electricity distribution network which could lead to reverse sensitivity issues. Such sensitive activities would generally be residential activities and location and proximity to lines could be included as a policy and consent assessment matter.

Inclusion of any provisions for the electricity distribution network would need to consider the costs and benefits, including for landowners who would be affected by such provisions, and consideration as to whether such provisions are necessary to be efficient and effective in achieving the objectives and policies of the plan.

3. National Guidance

When the Board of Inquiry was considering the NPSET a number of electricity supply companies sought that the provisions apply to distribution lines as well as the National Grid, as owned and operated by Transpower. In its report the Board of Inquiry stated:

“Some supply companies considered that the policy statement should be extended to apply to all high tension lines, whether or not they were part of the national grid. We were not persuaded that this would be appropriate. It is the New Zealand –wide nature of the grid that is one of the principal reasons for it being of national significance. The same cannot be said of supply lines which in most cases are contained within one region. Problems of cut-off points also arise.” (Board of Inquiry Report 2008)

A group of infrastructure providers are currently working of a Draft Infrastructure National Planning Standard which they have been discussing with MfE and the potential for it to be a Planning Standard that is applied across the country, although the Ministry has not accepted the approach thus far. The group includes the electricity network providers.

The Orion approach is similar to the Draft National Planning Standard for Infrastructure that has been developed by the Infrastructure Group.

HortNZ has had some discussion with the Infrastructure Group but are concerned about the approach that is being sought, in particular in relation to electricity distribution lines.

4. What is sought by Orion in the Selwyn District Plan

Selwyn District Council has provided HortNZ with a draft of Orion's Proposed Corridor Protection rules and maps identifying lines that would be included.

The provisions are based on a two-tier approach:

- Double circuit sub-transmission electricity distribution lines being the 66kV double circuit line and associated support structures connecting Islington GXP to Springston Zone substation
- Single circuit sub-transmission electricity distribution lines being the 33kV or 66kV lines and associated support structures which interconnect Zone or Substations.

The proposal includes rules in the Rural area which limit:

- sensitive activities and buildings within 10 metres of a Double circuit sub-transmission electricity distribution line or 5 metres of a single circuit sub-transmission electricity distribution line
- Fences within 5 metres of a sub-transmission electricity distribution line support structure
- Trees within the road reserve
- Commercial greenhouses, wintering barns, produce packing buildings, milking/dairy sheds or structures associated with irrigation infrastructure (excluding mobile irrigators) within 10 metres of a double circuit sub-transmission electricity distribution line or 5 metres of a single circuit sub-transmission electricity distribution line
- Farm buildings and horticultural structures unless they meet the requirements of clause 2.4.1 of NZECP34.

If the permitted activity standard is not met the activity would be non-complying.

There are also rules relating to earthworks.

HortNZ does not consider that these requirements are necessary because:

- The Electricity (Hazard from Tree) Regulations apply so it is not necessary to require a tree limitation
- Fences are addressed in NZECP34:2001
- Distances for buildings are set out in NZECP34. A note could be included in the District Plan to advise that NZECP34 needs to be complied with.
- Reverse sensitivity is likely to be a matter that is included in the district plan and the sensitivity of specified activities to electricity distribution lines could be included within the wider context, including a policy framework and assessment matters.
- NZECP has clear provisions for earthworks and there is no need to replicate in the district plan.
- The limitation on a range of specified structures is not necessary as the NZECP requirements need to be met.
- The provisions would mean that irrigation in an orchard would be non-complying as it is not mobile. It is not considered that this irrigation infrastructure is incompatible with electricity distribution lines.

Also, for your reference, we have included comments on the attached version of Orion's proposed provisions.

**Attachment 1 – Orion Draft Corridor Protection Provision
15/10/18 – HortNZ comments**

15th October 2018

Orion's Proposed Corridor Protection Rules – Rural on Page 4

Non-complying activities	SDC Business and Industrial Zone rules
	<p>a. <u>Sensitive activities</u> and buildings</p> <ul style="list-style-type: none"> i. within 10 metres of the centre line of a double circuit sub transmission <u>electricity distribution line</u> or within 10 metres of a foundation of an associated <u>support structure</u>. ii. within 5 metres of the centre line of a single circuit sub transmission <u>electricity distribution line</u> or within 5 metres of a foundation of an associated support structure. <p>b. Fences of conductive materials shall not be installed within 5 metres of a sub-transmission <u>electricity distribution line support structure</u> foundation of an identified <u>electricity distribution line</u> except where it meets the requirements of Clause 2.3.2 or 2.3.3 of NZECP34:2001.</p> <p>c. Trees within the road reserve: no species of trees are to be planted within 5 metres from the centre line of a sub-transmission <u>electricity distribution line</u> or to the boundary whichever is lesser that at full maturity grow above 3 metres.</p> <p>d. Any application arising from (a)-(c) shall not be publicly notified and shall, in the absence of a written approval, be limited notified only to Transpower New Zealand Limited and/or Orion New Zealand Limited or other <u>electricity distribution</u> network operator.</p> <p>Advice note:</p> <ul style="list-style-type: none"> 1. The single and double circuit sub-transmission <u>electricity distribution lines</u> are shown on the planning maps. 2. Vegetation to be planted around the <u>National Grid</u> or <u>electricity distribution lines</u> should be selected and/or managed to ensure that it will not result in that vegetation breaching the <u>Electricity (Hazards from Trees) Regulations 2003</u>. 3. The <u>New Zealand Electrical Code of Practice for Electrical Safe Distances (NZECP 34:2001)</u> contains restrictions on the location of structures and activities in relation to the <u>National Grid transmission lines</u> and <u>electricity distribution line</u>. <u>Buildings</u> and activities in the vicinity of <u>National Grid transmission lines</u> or <u>electricity distribution lines</u> must comply with the <u>NZECP 34:2001</u>.

Definitions:

Sensitive Activity as defined in the Selwyn District Plan

Double Circuit Sub-transmission electricity distribution line: the 66 kV double circuit line and associated support structures connecting Islington GXP to Springston Zone substation

Single Circuit Sub-transmission electricity distribution line: the 33kV or 66 kV lines and associated support structures which interconnect Zone or Substations. Single circuit sub-transmission electricity distribution lines may also support other lessor voltages, i.e. 11kV and/or 400V.

Non-complying activities	SDC Residential zones
	<p>a. <u>Sensitive activities</u> and buildings (excluding accessory buildings associated with an existing activity):</p> <ol style="list-style-type: none"> within 10 metres of the centre line of a double circuit sub transmission <u>electricity distribution line</u> or within 10 metres of a foundation of an associated <u>support structure</u>. within 5 metres of the centre line of a single circuit sub transmission <u>electricity distribution line</u> or within 5 metres of a foundation of an associated support structure. <p>b. Fences of conductive materials shall not be installed within 5 metres of a sub-transmission <u>electricity distribution line support structure</u> foundation of an identified <u>electricity distribution line</u> except where it meets the requirements of Clause 2.3.2 or 2.3.3 of NZECP34:2001.</p> <p>c. Trees within the road reserve: no species of trees are to be planted within 5 metres from the centre line of a sub-transmission <u>electricity distribution line</u> or to the boundary whichever is lesser that at full maturity grow above 3 metres.</p> <p>d. Any application arising from (a)-(c) shall not be publicly notified and shall, in the absence of a written approval, be limited notified only to Transpower New Zealand Limited and/or Orion New Zealand Limited or other <u>electricity distribution</u> network operator.</p> <p>Advice note:</p> <ol style="list-style-type: none"> The single and double circuit sub-transmission <u>electricity distribution lines</u> are shown on the planning maps. Vegetation to be planted around the <u>National Grid</u> or <u>electricity distribution lines</u> should be selected and/or managed to ensure that it will not result in that vegetation breaching the <u>Electricity (Hazards from Trees) Regulations 2003</u>. <u>The New Zealand Electrical Code of Practice for Electrical Safe Distances (NZECP 34:2001)</u> contains restrictions on the location of structures and activities in relation to the <u>National Grid transmission lines</u> and <u>electricity distribution line</u>. <u>Buildings</u> and activities in the vicinity of <u>National Grid transmission lines</u> or <u>electricity distribution lines</u> must comply with the <u>NZECP 34:2001</u>.

Definitions:

Sensitive Activity as defined in the Selwyn District Plan

Double Circuit Sub-transmission electricity distribution line: the 66 kV double circuit line and associated support structures connecting Islington GXP to Springston Zone substation

Single Circuit Sub-transmission electricity distribution line: the 33 or 66 kV lines and associated support structures which interconnect Zone Substation

Permitted Activities	SDC Rural Zones
Farming	<p>a. Fences of conductive materials shall be located a minimum of 5 metres from a <u>support structure</u> foundation of an identified <u>electricity distribution line</u> except where it meets the requirements of Clause 2.3.2 or 2.3.3 of NZECP34:2001.</p> <p>Advice note:</p> <p>1. The identified <u>electricity distribution lines</u> are shown on the planning maps.</p>
	<p>Farm building</p> <p>a. Commercial <u>greenhouses</u>, wintering barns, produce packing <u>buildings</u>, milking/dairy sheds or structures associated with irrigation infrastructure (excluding <u>mobile irrigators</u>) shall not be located within the following corridors:</p> <p>i. Within 10metres of the centre line of a double circuit sub-transmission <u>electricity distribution line</u>; or</p> <p>ii. Within 5 metres of the centre line of a single circuit sub-transmission <u>electricity distribution line</u>.</p> <p>b. Farm buildings and horticultural structures, except where they meet the requirements of clause 2.4.1 of NZECP34:2001, shall not be located:</p> <p>i. Within 10 metres of a foundation of a double circuit sub-transmission <u>electricity distribution line</u>; or</p> <p>ii. Within 5 metres of a foundation of a single circuit sub-transmission <u>electricity distribution line</u>.</p>
Non-complying activities	<p>a. Buildings and horticultural structures not permitted above and any <u>sensitive activities</u>:</p> <p>i. within 10 metres of the centre line of a double circuit sub-transmission <u>electricity distribution line</u>; or</p> <p>ii. Within 5 metres of the centre line of a single circuit sub-transmission <u>electricity distribution line</u>.</p> <p>b. Fencing: Fences that do not meet permitted rule above.</p> <p>c. Trees within the road reserve: no species of trees are to be planted within 5 metres from the centre line of a sub-transmission <u>electricity distribution line</u> or to the boundary whichever is lesser that at full maturity grow above 3 metres.</p>

Commented [LW1]: No policy framework is provided so it is unclear what policy may be sought. The rules are intended to achieve the policy framework so needs to be considered as a package.

Commented [LW2]: This is in NZECP so why required here?

Commented [LW3]: This would include irrigation in orchards which is fixed

Commented [LW4]: These activities will not generate reverse sensitivity effects. Irrigation would include all irrigation on orchards which is fixed but not 'sensitive'

	<p>d. Any application arising from this rule shall not be publicly notified and shall be limited notified only to Orion New Zealand Limited or other <u>electricity distribution</u> network operator (absent its written approval).</p> <p>Advice note:</p> <ol style="list-style-type: none"> 1. The sub-transmission distribution lines are shown on the planning maps. 2. Vegetation to be planted around the <u>electricity distribution lines</u> should be selected and/or managed to ensure that it will not result in that vegetation breaching the <u>Electricity (Hazards from Trees) Regulations 2003</u>. 3. <u>The New Zealand Electrical Code of Practice for Electrical Safe Distances (NZECP 34:2001)</u> contains restrictions on the location of structures and activities in relation to <u>electricity distribution lines</u>. <u>Buildings</u> and activities in the vicinity of <u>electricity distribution lines</u> must comply with the <u>NZECP 34:2001</u>.
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Commented [LW5]: Not needed because provided for in NZECP

Permitted activities	SDC Earthworks rules	
Earthworks in the vicinity of a double circuit electricity distribution line.	<p>a. <u>Earthworks</u> within 10 metres of the centre line of a double circuit sub-transmission <u>electricity distribution line</u> shall:</p> <ul style="list-style-type: none"> i. meet the requirements of Clause 2.2.1 and/or 2.2.3 (as applicable) of the <u>New Zealand Electrical Code of Practice for Electrical Safe Distances (NZECP34: 2001)</u>; or ii. meet the following requirements: <ul style="list-style-type: none"> A. be no deeper than 300mm within 6 metres of a foundation of a double circuit sub-transmission <u>electricity distribution line support structure</u>; and B. be no deeper than 3m between 6 and 10 metres from the foundation of a double circuit sub-transmission <u>electricity distribution line support structure</u>; and C. not destabilise an <u>electricity distribution line support structure</u>; and D. not result in a reduction in the ground to conductor clearing distances below what is required by Table 4 in the <u>NZECP 34:2001</u>. <p>b. Activity standard a.ii.A. (above) shall not apply to:</p> <ul style="list-style-type: none"> i. <u>Earthworks</u> for a network <u>utility</u>, as part of an <u>electricity distribution</u> activity; ii. <u>Earthworks</u> undertaken as part of agricultural or domestic cultivation, or repair, sealing or resealing of a <u>road</u>, footpath, drive or farm track. 	
Earthworks in the vicinity of a single circuit electricity distribution line.	<p>c. <u>Earthworks</u> within 5 metres of the centre line of a single circuit sub-transmission <u>electricity distribution line</u> shall:</p> <ul style="list-style-type: none"> i. meet the requirements of Clause 2.2.1 of the <u>New Zealand Electrical Code of Practice for Electrical Safe Distances (NZECP34: 2001)</u>; or ii. meet the following requirements: <ul style="list-style-type: none"> A. be no deeper than 300mm within 2.2 metres of a foundation of a single circuit sub-transmission <u>electricity distribution line support structure</u>; and B. be no deeper than 0.75m between 2.2 and 5 metres from the foundation of a single circuit sub-transmission <u>electricity distribution line support structure</u>; and C. not destabilise an <u>electricity distribution line support structure</u>; and D. not result in a reduction in the ground to conductor clearing distances below what is required by Table 4 in the <u>NZECP 34:2001</u>. <p>d. Activity standard a.ii.A. (above) shall not apply to:</p>	

Commented [LW6]: These are similar to NZECP so why are they needed?

Commented [LW7]: As above

		<ul style="list-style-type: none"> i. <u>Earthworks</u> for a network <u>utility</u>, as part of an <u>electricity distribution</u> activity; ii. <u>Earthworks</u> undertaken as part of agricultural or domestic cultivation, or repair, sealing or resealing of a <u>road</u>, footpath, drive or farm track.
Non-complying activities	Any activity that does not meet the standard above.	

Restricted discretionary activities	SDC Subdivision Rules	
	<p>Subdivision of any site (other than an allotment to provide for a network utility) located within the following corridors:</p> <ul style="list-style-type: none"> a. 32 metres of the centre line of a sub-transmission electricity distribution line as shown on planning maps; <p>except as otherwise specified in:</p> <p>Other discretionary or non-complying rules.</p>	<ul style="list-style-type: none"> a. A <u>building</u> platform for the <u>principal building</u> shall be identified on each <u>allotment</u> that is: <ul style="list-style-type: none"> 1. greater than 10 metres from the centre line of a sub-transmission <u>electricity distribution line</u> or a foundation of an associated <u>support structure</u>.
Non-complying activities	<u>Subdivision</u> that does not meet any one or more of the relevant standards listed above.	

Assessment Matter:

The extent to which the subdivision design and construction allows for earthworks, buildings and structures to comply with the New Zealand Code of Practice for electrical Safe Distances (NZECP 34:2001).

Non-complying activities	SDC Hazardous Substances
	<p>a. Any new storage or use of <u>hazardous substances</u> with explosive or flammable properties <u>within</u>:</p> <ol style="list-style-type: none"> 1. 10 metres of the centre line of a sub-transmission electricity distribution line; or <p>b. For the purpose of (a), the definition of <u>hazardous substances</u> excludes the following activities, facilities and quantities:</p> <ol style="list-style-type: none"> 1. storage of <u>substances</u> in or on vehicles being used in transit on public <u>roads</u>; 2. installations where the combined transformer oil capacity of the electricity transformers is less than 1,000 litres; 3. fuel in mobile plant, motor vehicles, boats and small engines; 4. gas and oil pipelines and associated equipment that are part of a <u>utility</u>; 5. <u>retail activities</u> selling domestic scale usage of <u>hazardous substances</u>, such as <u>supermarkets</u>, <u>trade suppliers</u>, and pharmacies; 6. the <u>accessory</u> use and storage of <u>hazardous substances</u> in minimal domestic scale quantities; 7. fire-fighting <u>substances</u>, and <u>substances</u> required for <u>emergency</u> response purposes on <u>emergency</u> service vehicles and at <u>emergency service facilities</u>; 8. activities involving <u>substances</u> of Hazardous Substances and New Organisms (HSNO) sub-classes 1.4, 1.5, 1.6, 6.1D, 6.1E, 6.3, 6.4, 9.1D and 9.2D unless other hazard classification applies; 9. the temporary storage, handling and distribution of national or international cargo containers; 10. waste treatment and disposal facilities (not within High Flood Hazard Management Areas and <u>Flood Management Areas</u>), and waste in process in the <u>Council's</u> trade waste sewers, municipal liquid waste treatment and disposal facilities (not within High Flood Hazard Management Areas and <u>Flood Management Areas</u>) which may contain <u>hazardous substance</u> residues; 11. vehicles applying agrichemicals and fertilisers for their intended purpose.

Commented [LW8]: Should refer to HSNO Classes 3-5

Commented [LW9]: Limited to Class 3-5 substances



Federated Farmers of New Zealand

Feedback on Preferred Network Utility Provisions
Developed by Transpower & Orion
For Selwyn District Plan Review

15 November 2018

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FEEDBACK ON PREFERRED NETWORK UTILITY PROVISIONS
DEVELOPED BY TRANSPOWER & ORION
FOR SELWYN DISTRICT PLAN REVIEW

To: Selwyn District Council
nicola.rykers@selwyn.govt.nz

Submission on: Preferred Options proposed by Transpower & Orion
For the Selwyn District Plan Review

Date: 15 November 2018

Contact: **ELISHA YOUNG-EBERT**
POLICY ADVISOR & IN-HOUSE COUNSEL

Federated Farmers of New Zealand
PO BOX 20448
CHRISTCHURCH 8543

P 021 615 278
E eyoungebert@fedfarm.org.nz

This is our feedback to Selwyn District Council on preferred options presented by Transpower & Orion for the Selwyn District's Network Utility Chapter.

FEEDBACK ON PREFERRED NETWORK UTILITY PROVISIONS DEVELOPED BY TRANSPOWER & ORION FOR SELWYN DISTRICT PLAN REVIEW

1 Introduction

- 1.1 North Canterbury Federated Farmers (Federated Farmers) thanks the Selwyn District Council (the Council) for giving the Federation an opportunity to comment on initial, preferred options developed by Transpower and Orion for the Network Utility chapter of the Council's district plan review (DPR).
- 1.2 Federated Farmers represents the collective views of our members in Selwyn, where we have over 350 listed members. Selwyn is a district that has seen considerable urban development but it remains a predominantly rural community. Crucially, farming families are a primary driver of the district's social and economic wellbeing.
- 1.3 We are grateful to Nicola Rykers, planning consultant overseeing the Network Utility work stream of the Council's DPR, for initiating contact and proactively engaging with us on this critical section of the DPR. We have attended a preliminary meeting with her and Horticulture New Zealand (HortNZ), and we confirm we work closely with HortNZ on network utility provisions across all district plans in Canterbury.
- 1.4 Accordingly, we ask the Council to present our views to the DPR Committee in tandem with the feedback given by HortNZ.
- 1.5 This feedback document includes our comments on:
 - I. how higher resource management instruments, including the National Policy Statement on Electricity Emissions and the Canterbury Regional Policy Statement (RPS), should inform the way local council rules are constructed to address network utility needs
 - II. the use of the rules that emerged from Christchurch Replacement District Plan (CRDP)
 - III. the recent preferred options presented to the Council by Transpower and Orion.

2. The Canterbury RPS and the Christchurch Replacement District Plan

- 2.1 Federated Farmers concur with the comments and conclusions provided by HortNZ in relation to their appraisal of the Canterbury RPS.
- 2.2 We note Orion's advice that their proposals are justified, on the basis that these were included within the CRDP.
- 2.3 HortNZ has provided reasons why the Selwyn review process and that of Christchurch City are distinguishable, and we agree with their conclusions, including the following:
 - The CRDP was developed under special legislation that took into account a wider range of matters than what is normally required under the RMA Schedule 1 process
 - Matters were fast-tracked, with onerous resourcing requirements placed on submitters – including the need to find representation at caucusing, evidence exchange, cross-examination, rebuttal, hearings on a significant rolling plan review basis. Ultimately, it

became survival of the most resourced, with many parties physically unable to submit to or field representation on every chapter of the CRDP.

- Appeal against decision from the CRDP was strictly limited to points of law. Therefore, while a number of parties were unhappy with outcomes, and would have appealed to the Environment Court had the process not been under special legislation, they were restricted on only challenging errors in law.
- Because of the acute devastation of the earthquakes, the impetus was on rebuilding under extreme urgency, and removing roadblocks and further protecting remaining utilities was key to that. This was not 'business as usual'.

- 2.4 During the CRDP process, Orion sought new provisions via their submissions with no appropriate section 32 analysis of costs/benefits. Hearings on residential chapters were heard first; but, ultimately, the Independent Hearings Panel extended issues from the Residential Zones onto other zones. This is simply not appropriate and is not replicated anywhere else in New Zealand. Elsewhere, there is acceptance that there are distinct differences between built-up urban areas and that of rural zones, and differences between the appropriateness of restrictions on public land versus that of privately owned land.
- 2.5 In our view, Orion capitalised the opportunity to get nuanced protection for their assets under this process in a way they would not successfully manage elsewhere. This perceived precedent, we believe, is relevant only to cases where there is a similar process under special legislation.
- 2.6 Accordingly, we advise the Council treats Orion's suggestion of adopting the CRDP approach with extreme caution.

3 National Guidance

- 3.1 When the Board of Inquiry was considering the National Policy Statement – Electricity Transmissions, a number of electricity supply companies sought for the provisions to apply to distribution lines as well as the National Grid, as owned and operated by Transpower.
- 3.2 In its report the Board of Inquiry stated:
- "Some supply companies considered that the policy statement should be extended to apply to all high-tension lines, whether or not they were part of the national grid. We were not persuaded that this would be appropriate. It is the New Zealand –wide nature of the grid that is one of the principal reasons for it being of national significance. The same cannot be said of supply lines which in most cases are contained within one region. Problems of cut-off points also arise."* (Board of Inquiry Report 2008)
- 3.3 While a Utilities Group has been set up to work on utilities provisions for a National Planning Standard in this area, our understanding is that this has not been progressed for a number of reasons.
- 3.4 Furthermore, the NZECP34 addresses matters of safety, protection and maintenance – for buildings, earthworks and other structures. It is appropriate for Council to reference the need for plan users to ensure compliance with the NZECP34 at all times. There is no need for duplication or contradiction.

4 Impact of network utility rules on the protection of biodiversity in Selwyn

- 4.1 Federated Farmers is a key member of the biodiversity working group of the Biodiversity work stream of the Council's district plan review. Our fellow members include Forest & Bird, ECan, Te Rūnanga o Ngāi Tahu, Fish & Game, DoC and a selection of landowners.
- 4.2 As a group we have, in principle and unanimously, agreed to exclude rules concerning network utilities in biodiversity chapter of the next generation Selwyn District plan.

5 Specific comments on the proposed provisions from Transpower

- 5.1 We have added our comments to HortNZ's, on the proposed provisions regarding the National Grid provided by Transpower; it is attached as Appendix A.
- 5.2 We are, on the whole, comfortable with the lines given by Transpower.

6 Comments on the proposed provisions from Orion

- 6.1 Federated Farmers notes Orion's proposal does not include a policy framework from which their proposed rules should meet. Without a clear framework we cannot establish if the rules do or do not meet objectives. If Orion has left this open for the Council to decide then our comments directly below on the company's proposed rules are provisional.
- 6.2 We wholly disagree with the proposed rules put forward by Orion; we consider them unnecessary. For example, all references to the New Zealand Electrical Code of Practice should be duly noted but not replicated in the rules.
- 6.3 Likewise, the section on Hazardous Substances, the proposed rules are covered by the Hazardous Substances and New Organisms Classes 3 to 5. References can be made to the relevant legal provisions but not duplicated in the rules.
- 6.4 We do not support the proposed rules on farm buildings in the Permitted Activities section of the Rural Zone chapter. It is far more restrictive than for the National Grid, which adheres to the National Policy Statement – Electricity Transmissions.
- 6.5 The lines drawn by Orion, thus far, are a real concern to us. We have requested Orion give us a copy of their 'shape file' so Federated Farmers may conduct its own GNS assessment to ascertain the impact their lines will have on landowners across Selwyn.
- 6.6 If there are specified lines that meet a threshold for regionally significant or critical, Orion must lay out evidence to show that is the case. For all other lines on their map that do not meet this threshold, we think Orion should approach potentially affected landowners personal to discuss options, including purchase of land.
- 6.7 The necessary rules and restrictions for urban/industrial zones should not be unilaterally applied to rural areas, where most buildings are non-inhabitable and activities are not condense around lines.

7 Conclusion

- 7.1 Federated Farmers appreciates this opportunity to comment on the initial preferred options put forward by Transpower and Orion.
- 7.2 While we understand the Council has a responsibility to ensure there is sufficient infrastructure to support its communities, network utility companies should not be allowed,

through rules, to unduly impinge on landowners' right to reasonable enjoyment and use of their land. Electricity providers must continue to deal with landowners in good faith.

- 7.3 The Resource Management Act requires that all land uses should avoid, remedy or mitigate their adverse effects in order to attain sustainable management. Network utilities are not, under the RMA, afforded special status over and above any other land use. They are required to meet the same standards where any activity they seek to undertake generates a level of adverse effect that requires a robust assessment to ensure sustainable management principles are upheld.
- 7.4 The NZECP34:2001 addresses matters of safety, access for maintenance and protection of the assets. Where private landowners host infrastructure assets, as a first port of call the Infrastructure provider must ensure there is suitable awareness of NZECP requirements.
- 7.5 If the NZECP34 is inadequate in any area, it is the responsibility of the electricity industry to address that through promoted changes at a national level.
- 7.6 Local council rules should be not abused by electricity companies looking to enable ease of their own operations. For example, maintenance and servicing of assets is carried out rarely – maintenance schedules indicate around every 25 years for most assets. There should not be restrictions 365 days a year on farming activities simply to make "once in 25 years" maintenance easier.

ENDS

Selwyn District Plan Review 2018: Transpower Model National Grid Provisions

District Objectives

1. Enable the operation, maintenance, upgrading and development of the National Grid, whilst managing any adverse effects on the environment;
2. Manage subdivision, use and development to ensure that the operation, maintenance, upgrading and development of the National Grid is not compromised to the extent reasonably possible

District Policies

1. Enable the operation, maintenance, upgrading and development of the National Grid, by recognising its operational, functional and technical constraints, the complexity of the interconnectedness of networks, and its role in servicing existing and planned development.
2. Recognise the benefits provided by the National Grid to people and communities, and require these to be weighed in assessing the adverse effects of proposals.
3. Recognise that significant infrastructure including the National Grid may require a location within sensitive natural environments where there are no practicable alternatives available, and the infrastructure will result in significant social and/or economic benefits.
4. Avoid, remedy or mitigate the adverse effects arising from the operation, maintenance, upgrading and development of the National Grid.
5. Manage the effects of subdivision, land use and development to the extent reasonably possible on the safe, effective and efficient operation, maintenance, upgrading and development of the National Grid by ensuring that:
 - a. National Grid Subdivision Corridors and National Grid Yards are identified in the District Plan to establish safe buffer distances for managing subdivision and land use development near National Grid lines including support structures;
 - b. Sensitive activities and buildings, and specified structures associated with intensive farming activities that may compromise the National Grid, are excluded from establishing within National Grid Yards;
 - c. Subdivision is managed within National Grid Corridors to avoid subsequent land use from restricting the operation, maintenance, upgrading and development of the National Grid; and
 - d. Changes to existing activities within a National Grid Yard do not further restrict the operation, maintenance, upgrading and development of the National Grid.

District Plan methods

1. The National Grid will be identified on the planning maps

Methods, including rules

Bold text indicates potentially defined terms, which are listed at the end of this document. Rules relating to buildings/structures in the National Grid Yard (urban and non-urban), subdivision, and earthworks are set out under red sub-headings below. With regard to the rules for buildings and structures within the National Grid Yard, there are several ways in which these could be expressed, as we have seen in various District Plans over the years. Ultimately how these are expressed will depend on a number of factors, including the intended approach within this District Plan. One critical assumption we have made is that the National Grid corridor rules would be set out within a specific "network utilities" or "infrastructure" chapter in the District Plan, as opposed to being nested within a District Plan's zone chapters. However, this can be amended to suit the council's preference, noting that at present the vast majority of the current underlying zoning traversed by National Grid lines in Selwyn District is rural.

Commented [DH1]: These are provided as a placeholder at this stage, to highlight the need for policies that enable the National Grid and manage its adverse effects.

Transpower will be able to provide further and more meaningful input once more is known about the approach to generic infrastructure/network utilities provisions and how these will be framed by council to give effect to the RPSS.

Policy 5 is a more settled approach that is derived from recent District Plan processes elsewhere in NZ.

Commented [LW1]: To the extent reasonably possible – to be consistent with Policy 10

Commented [KR2]: I prefer MAY.

Commented [LW3]: The provision should be more precise – buildings and structures that may compromise the National Grid' does not provide clear guidance. Should be consistent with Rule 1 e)

Commented [KR4R3]: This restriction does not apply to ALL structures associated with intensive farming, just those referenced in the rules. For instance, there will be many accessory buildings and other structures associated with intensive farming that are perfectly appropriate. It is just the identified intensive farm building itself that should be captured.

Commented [LW5]: If National Grid is defined then 'transmission network' is not required.

Commented [DH2]: This only applies to Policies 10 and 11 of the NPSET (i.e. effects of others' activities on the National Grid). Presumably Council will use other methods to implement the enabling objectives and policies for the National Grid.

Our observation of the National Grid lines across the Selwyn District is that the lines do not currently traverse any urban areas, and there is no indication that the lines have been subject to urban "underbuild". Underbuild is where inappropriate urban development has taken place directly beneath the transmission lines. We would be interested in any new growth areas that council may be considering and whether these are traversed by National Grid assets. In the mean time we have suggested one set of rules to give effect to the policies (unlike some more urban councils where the existing urban and rural/future urban provisions are split).

The provisions set out below are intended for discussion purposes initially and we assume that they will be refined further, especially if National Grid lines traverse any future urban zones.

Rules: Buildings, structures and sensitive activities in all zones within the National Grid Yard

Transpower's approach to implementation of the National Policy Statement on Electricity Transmission (NPSET) is to ensure that it only seeks the minimum district plan restrictions necessary to ensure the NPSET is given effect to. Under this approach, Transpower seeks different size setbacks depending on the asset type (for example whether it is on poles or towers). There are a range of transmission lines (varying voltages and structure types) in Selwyn District, which are set out in a table at the end of this document. Activities are considered very specifically, so that only those activities which have a real potential to compromise the integrity of the Grid are sought to be non-complying, with everything else permitted (except subdivision).

Rule 1 National Grid Yard Permitted Activities

1. The following buildings and structures are permitted within the **National Grid Yard**, provided these comply with the safe electrical clearance distances set out in the New Zealand Code of Practice for Electrical Safe Distances (NZECP34:2001) and provided those in (d)-(i) below are set back 12 metres from any National Grid support structure:
- a. **Network Utilities** (other than for the reticulation and storage of water in canals, dams or reservoirs including for irrigation purposes where they permanently physically impede access to a National Grid Support Structure) undertaken by network utility operators as defined in the RMA;
 - b. Fences no greater than 2.5m high and no closer than 6m from the nearest National Grid support structure;
 - c. Artificial crop protection and support structure between 8m and 12m from a single pole or pi pole support structure and any associated guy wire (but not tower) that:
 - a. Meets the requirements of NZECP34:2001 for separation distances from the conductor;
 - b. Is no more than 2.5m high;
 - c. Is removable or temporary, to allow clear working space 12 metres from the pole when necessary for maintenance and emergency repair purposes; and
 - d. Allows all weather access to the pole and a sufficient area for maintenance equipment, including a crane.
 - d. Any new non-habitable building, less than 2.5 metres high and 10 square metres in floor area;
 - e. Non-habitable buildings or structures used for agricultural and horticultural activities provided they are not a milking shed/dairy shed (excluding the stockyards and ancillary platforms), wintering barn, or building for intensive farming activities, or a commercial greenhouse;
 - f. Other than reticulation and storage of water in dams or reservoirs in Rule 1a, reticulation of water in canals and races and storage of water for irrigation purposes provided that it does not permanently physically obstruct vehicular access to a National Grid support structure;

Commented [DH3]: There are a number of ways that this can be expressed, e.g. by having a list of permitted activities under the wires and a separate list of permitted activities around the structures. The approach here has been to combine the two.

Commented [KR6]: The restriction is to capture those permanently physically impeding access to the assets.

Commented [LW7]: NZECP has 5m setback for fences for 66kV and more

Commented [LW8]: Seeking clarification from Transpower

Commented [KR9]: This change isn't necessary.

Commented [KR10]: We need to know what this specifically is defined as before we can agree to this.

Commented [LW11]: This would mean that irrigation in orchards would not be permitted. Only limitation should be on irrigation races and canals within the NG Yard where it impedes access to a NG Support Structure.

Commented [KR12R11]: I agree with Lynette. Provided such mobile equipment complies with NZECP, clearing heights etc, there shouldn't be any difficulties. We haven't accepted this inclusion elsewhere?

- g. Building alterations and additions to an existing **building** or structure that does not involve an increase in the building height or footprint;
- h. A building or structure where Transpower has given written approval in accordance with clause 2.4.1 of NZECP34:2001.

Rule 2 Non-Complying Activities:

1. The following activities are non-complying within the **National Grid Yard**:
 - a. ~~Any activity that permanently physically impedes vehicular access to a National Grid support structure~~
 - b. Any new building for a **sensitive activity**.
 - c. Any change of use to a **sensitive activity** or the establishment of a new sensitive activity
 - d. Dairy/milking sheds (excluding stock yards and ancillary buildings) or buildings for intensive farming or wintering barns
 - e. Any hazardous facility that involves the storage and handling of hazardous substances with explosive or flammable intrinsic properties [exceeding the aggregate quantity or HFSP permitted activity quantity or threshold in the Hazardous Substances section of the District Plan] within 12m of the centreline of a National Grid **Transmission Line**.
 - f. Any building or structure not permitted by Rule 1 above (permitted activity rules).

Advice notes:

1. Vegetation to be planted around the National Grid should be selected and/or managed to ensure that it will not result in that vegetation breaching the Electricity (Hazards from Trees) Regulations 2003.
2. The New Zealand Electrical Code of Practice for Electrical Safe Distances (NZECP 34:2001) contains restrictions on the location of structures and activities in relation to electricity lines, including transmission lines, and it is mandatory to comply with it. Compliance with the permitted activity standards of the Plan does not ensure compliance with the NZECP34:2001.

Rules: Subdivision of land in any zone in the National Grid Corridor:

Subdivision sets the framework for future land use, and careful regulation of subdivision can prevent the creation of unusable (or severely constrained) lots.

Rule SBD1 Restricted Discretionary Activity

1. Subdivision of land in any zone within the **National Grid Subdivision Corridor** is a restricted discretionary activity:
 - a. Where all resulting allotments are capable of accommodating a building platform for the likely principal building(s) and any building(s) for sensitive activities, outside the National Grid Yard, other than where the allotments are for roads, accessways and network utilities.

Council will restrict the exercise of its discretion to the following matters when considering applications made under Rule SBD1.1:

- a. The subdivision layout and design, in terms of how this may impact on the operation, maintenance, upgrading and development of the National Grid.
- b. The ability to provide a complying building platform(s) outside of the National Grid Yard
- c. The risk of electrical hazards affecting public or individual safety, and the risk of property damage.

Commented [LW13]: This is new. Transpower has never sought this provision before. Access is addressed through the Electricity Act. Would it be 'existing' access or 'any' access?

Commented [KR14R13]: I agree. Is this direct access? Or all access? I haven't seen this in other plans anywhere.

Commented [LW15]: Depends on definition of sensitive activities

Commented [KR16R15]: Entirely agree. Must be consistent with NPSET.

Commented [LW17]: Depends on definition of intensive farming.

Commented [KR18]: This isn't consistent with approach taken elsewhere. If specifying as done here, need to be care taken to provide certainty. It is only the intensive farm building itself that is captured not any buildings for that purpose. Wintering barns would need to be defined if this approach taken.

Commented [LW19]: Should be based on HSNO Classes 3-5

Commented [LW20]: Why reference to HFSP – is that in the Plan?

- d. The nature and location of any vegetation to be planted in the vicinity of National Grid transmission lines

2. New buildings for sensitive activities within XX metres of the boundary of XXX substation is a restricted discretionary activity.

Commented [DH4]: Substation setbacks will vary on a site by site basis. One of the main effects that this rule seeks to control is "earth potential rise" from the substation.

Commented [KR21]: Need more details of distances and intent here.

Council will restrict the exercise of its discretion to the following matters when considering applications under Rule SBD1.2:

- a. Effects of the development on the efficient operation, maintenance, upgrade and development of the substation;
- b. Risk of electrical hazards affecting public or individual safety, and the risk of property damage; and
- c. Technical advice from an Electrical Engineer.

Rule SBD2: Non-Complying Activities:

Any subdivision of land in any zone within the National Grid Corridor which does not comply with the restricted discretionary activity standards under Rule SBD1.

Rules: Earthworks, Quarries and Landfills

Rule EA1 Permitted Activities:

Earthworks within the National Grid Yard are a permitted activity subject to compliance with the following standards:

- a. Around **National Grid** support towers:
 - i. depth shall be no greater than 300mm within 6m of the outer visible edge of the foundation of the support structure; and
 - ii. depth shall be no greater than 3m between 6m and 12m of the outer visible edge of the foundation support structure.
- b. Around **National Grid** support poles and stay wires:
 - i. depth shall be no greater than 300mm within 2.2m of the pole or stay wire; and
 - ii. depth shall be no greater than 750mm between 2.2m and 5m of the pole or stay wire.
- c. Shall not compromise the stability of a **National Grid** support structure; and
- d. Shall not result in a reduction in the ground to conductor clearance distances below what is required by Table 4 of NZECP34:2001; and
- e. Shall not result in vehicular access to a **National Grid** support structure being permanently obstructed.

Provided that, the following are exempt from Rule EA1(a) above:

- i. Earthworks that are undertaken by a network utility operator (other than for the reticulation and storage of water in canals, dams or reservoirs including for irrigation purposes, as defined by the RMA);
- ii. Earthworks undertaken as part of agricultural or domestic cultivation, or repair, sealing or resealing of a road, footpath, driveway or farm track;
- iii. Earthworks for which a dispensation has been granted by Transpower under NZECP34:2001.

Rule EA2 Restricted Discretionary Activities:

1. Within the **National Grid Yard**, any earthworks not permitted by Rule EA1(a) above (permitted activity rules).
2. On sites containing **National Grid transmission line** support structures:

- a. Any quarry or land fill activity on the same site as any National Grid transmission line support structures.

Council will restrict the exercise of its discretion to the following matters when considering applications made under Rule EA2.1 and/or EA2.2:

- a. Impacts on the operation, maintenance, upgrading and development of the **National Grid**;
- b. The risk to the structural integrity of the affected **National Grid** support structure(s);
- c. Any impact on the ability of the **National Grid** owner (Transpower) to access the **National Grid**; and
- d. The risk of electrical hazards affecting public or individual safety, and the risk of property damage.

Rule EA3 Non-Complying Activities:

Within the National Grid Yard, any earthworks not permitted by Rule EA1.b, EA1.c or EA1.d.

Notification Statement:

Where an activity requires resource consent solely because it is within a **National Grid Subdivision Corridor** or **National Grid Yard** then the application need not be publicly notified and need not be served on any affected party apart from Transpower New Zealand Limited who will be considered an affected party.

National Grid Yard and National Grid Corridor definitions

The general principle of the National Grid Yard and National Grid Corridor approach is based on the approach used in District Plans around NZ.

Building: Transpower has no firm view on the wording of the definition of 'building'. However, Transpower seeks to ensure that all rules applying to the National Grid Yards and Corridors apply to buildings and structures. If the District Plan does not include a definition of 'building' and/or refers to the Building Act definition, all rules above need to refer to "buildings and structures". If the definition of 'building' includes 'structures', then the rules do not need to refer to 'structures' as well.

NZEC P34:2001: Means the New Zealand Electrical Code of Practice for Electrical Safe Distances 34:2001 ISSN 0114-0663.

National Grid: means the same as in the National Policy Statement on Electricity Transmission 2009.

Means the assets owned and operated by Transpower NZ and includes transmission lines, cables, support structures (towers and poles) Stations and substations and other works used to connect grid connection and exit points to convey electricity.

National Grid Yard means:

- the area located 12 metres in any direction from the outer visible foundation of a National Grid support structure; and
- the area located 12 metres either side of the centreline of an overhead National Grid line on towers (and steel tubular monopoles where these replace towers), and 10 metres either side of an overhead National Grid line on single poles.

This diagram can be used to aid interpretation of the National Grid Yard and Subdivision Corridor definitions, but is not essential to implementation of the rules.

National Grid Subdivision Corridor means the area measured:

- 39 metres either side of the centreline of 350kV National Grid transmission lines on towers (and tubular steel monopoles where these replace towers);
- 37 metres either side of the centreline of 220kV National Grid transmission lines on towers (and tubular steel monopoles where these replace towers).

- 14 metres either side of the centreline of 66kV National Grid transmission lines.

National Grid Substation Corridor: means the area measured XX m from the boundary of XXXX National Grid substations (may need to insert table for list of substations).

Sensitive activities: Includes any school, residential building or hospital.

Tower: In relation to the National Grid has the same meaning as the definition in the Resource Management (National Environmental Standards for Electricity Transmission Activities) Regulations, 2009.

Transmission line: In relation to the National Grid has the same meaning as the definition in the Resource Management (National Environmental Standards for Electricity Transmission Activities) Regulations, 2009.

Transpower: Means the owner and operator of the National Grid – Transpower New Zealand Limited.

Wintering barns: [To the extent that this is relevant in Selwyn]

National Grid assets in Selwyn District

Transmission lines

Transpower reference	Line description	Voltage (kV)
BEN-HAY-A	Benmore-Haywards A Double Circuit on steel towers	350
BEN-ISL-A	Benmore-Islington A Single Circuit on steel towers	220
BKD-HOR-A	Brackendale-Hororata A Double Circuit on steel towers	66
BRY-ISL-A	Bromley-Islington A Double Circuit on steel towers	220
CHH-TWZ-A	Christchurch-Twizel A Double Circuit on steel towers	220
COL-BKD-D	Coleridge-Brackendale D Double Circuit on single poles	66
COL-OTI-A	Coleridge-Otira A Double Circuit on pi poles	66
HOR-ISL-E	Hororata-Islington E Double Circuit on single poles	110
KBY-TEE-A	Kimberley-Tee A Double Circuit on single poles	66
ROX-ISL-A	Roxburgh-Islington A Single Circuit on steel towers	220

Substations / Tee Lines

Transpower reference	Site Name	Site Type
APS	Arthurs Pass	Substation
CLH	Castle Hill	Substation
COL	Coleridge	Substation
HOR	Hororata	Substation
SPN	Springston	Substation
KBY	Kimberley	Substation
RTP	Round Top	Comms
KBT	Kimberley Tee	Tee line
CHH	Christchurch Tee	Tee line
BK	Brackendale	Tee line

Commented [DH5]: Distances to be confirmed. These will vary on a site by site basis.

Commented [KR22]: This is new to me?

Commented [RE6]: This is the NPSET definition. Transpower will generally seek to incorporate the definitions from within the District Plan that relate to these broad activities.

Commented [LW23]:
Would be better to put in the Plan.

Commented [LW24]: Would be better to specify in Plan

EI201 Energy and infrastructure: Network utilities – communications and engagement summary plan

Key messages

(as of 26 November 2018)

Background

- As part of the Selwyn District Plan Review, policies and rules related to energy and infrastructure are being reviewed.
- Purpose of reviewing energy and infrastructure provisions in the current District Plan is to:
 - ensure that the District Plan policies and rules recognise the importance of infrastructure and its essential role for the community and business,
 - ensure that rules for infrastructure enable it to be repaired and maintained without significant delays,
 - protect significant infrastructure from encroachment by activities that may restrict or inhibit its operation,
 - ensure that where new infrastructure is proposed, it’s responsive to environmental values and any adverse effects are mitigated or remedied.
- There are two preferred option reports covering the energy and infrastructure topic: Renewable energy generation and Network utilities. This plan covers the latter subtopic, with the exception of electricity distribution lines which will be covered by another preferred option report. Network utilities usually covers electricity transmission and distribution lines, telecommunications facilities, community-scaled irrigation, Council-owned assets and navigation aids.
- Within the Selwyn district there are National Electricity Transmission Lines, also called National Grid, which are managed by Transpower New Zealand, and Electricity Distribution Lines which are managed by Orion.
- The National Grid links directly to electricity distribution companies, such as Orion, and major industrial users. The National Grid is comprised of towers, poles, lines, cables, substations, a telecommunications network and other ancillary equipment.
- Within Selwyn district Transpower has almost 1,600 km of overhead transmission lines.
- The Synlait and Fonterra Plants, as well as irrigation related to dairying and agriculture, have a significant impact on network operations in Selwyn district.
- Central Plains Water is the only network utility operator providing a community-scaled irrigation scheme in Selwyn district.

Current District Plan

Electricity transmission lines

- Selwyn landowners currently have to comply with national regulations, such as New Zealand Code of Electrical Practice and National Environmental Standards for Electricity Transmission Activities.
- Transmission lines are shown on planning maps in the current District Plan and on property’s Land Information Memorandum report.
- Coleridge, Arthurs Pass, Castle Hill and Hororata substations are all designated in the current District Plan.

Other network utilities and infrastructure

- Current District Plan has 19 designations providing for telecommunication, radio communication and ancillary purposes. Typically, these are buildings previously used as telephone exchanges.
- Central Plains Water has a designation for the construction and operation of the intake structures for water from the Rakaia River, the headrace and canal. Bridges and earthworks have been authorised for on-farm works, through a global resource consent, while pumping stations are subject to easements.
- The Airways Corporation of New Zealand has a designation for a surveillance radar/VHF Transmitter on the Port Hills.
- The Council has designations in the current District Plan for water supply, wastewater treatment and disposal, pumping stations, solid waste and a resource recovery park

About preferred option

National Electricity Transmission Lines/National Grid

Key proposed change is using Transpower’s Model Provisions as the basis for transmission line rules in the Proposed District Plan. Drafting should consider the feedback on wording provided by Federated Farmers and Horticulture New Zealand to date.

Audiences¹

Internal	Partners	Key stakeholders ²	Landowners /occupiers ³	General public
DPC	ECan	Electricity transmission and distribution: Transpower and Orion	<i>[engagement to be managed through Federated Farmers and Horticulture NZ]</i>	Selwyn ratepayers
Selwyn District Council Assets Team	Te Taumutu Rūnanga (represented by Mahaanui Kurataiao)	Energy generation: Trustpower	<i>[future engagement with landowners with sub-transmission lines on their private property to be determined in a further preferred option report]</i>	News media
	Te Ngāi Tuāhuriri Rūnanga (represented by Mahaanui Kurataiao)	Telecommunication companies: Chorus, Spark, Kordia and Two Degrees Mobile		Wider public
		Federated Farmers		
		Horticulture NZ		
		Central Plains Water		
		Network Utilities Group		

Legend	High level of interest/ High level of influence (“Manage closely”)	High level of interest/ Low level of influence (“Keep informed”)	Low level of interest/ high level of influence (“Keep satisfied”)	Low level of interest/ Low level of influence (“Watch only”)

¹ “...Differing levels and forms of engagement may be required during the varying phases of consideration and decision-making on an issue, and for different community groups or stakeholders. The Council will review the appropriateness and effectiveness of the engagement strategy and methods as the process proceeds.” [Significance and Engagement Policy: Adopted 26 November 2014; p.6]

² Key stakeholders are “the organisations requiring engagement and information as the preferred options for the Draft District Plan are being prepared.” (District Plan Review Community Engagement Implementation Plan; p.6))Key stakeholders “...will advocate for or against decisions that will need to be made...” and “For the District Plan Review, stakeholders include any party that can influence decisions or be influenced by decisions made on policies or rules.” (DPR Engagement Framework)

³ Landowners are “the individuals and businesses that could be affected by the proposed changes in the District Plan.” (District Plan Review Community Engagement Implementation Plan; p.6)

Other network utilities and infrastructure*

- Update the Proposed District Plan to give effect to the National Environmental Standards for telecommunication facilities.
- Navigational aids to be permitted except in specifically identified sensitive landscapes and environments.
- Enable the maintenance and operation of existing network utilities, along with minor extensions, as permitted activities.
- Enable works in the road reserve to be conducted as permitted activities or via less onerous activity status, noting that the Council is able to control the works through the National Code of Practice for Utility Operators’ Access to Transport Corridors.
- Provide for community scaled irrigation, stock water races and land drainage.
- Ensure that network utilities are responsive to their effects on sensitive environments.

*Provisions relating to electricity distribution lines will be covered by another preferred option report.

Engagement during review phases

Review phases	Internal	ECan	Rūnanga	Key stakeholders	Landowners/occupiers	General public
Baseline assessments						
Preferred option development						
Preferred option consultation						

2018/2019 communications and engagement key tasks/milestones per month

(more detailed action plans to be developed for each major milestone or as required)

Audiences	Pre-December	December	December 2018 – March 2019
ECan	Consulted on preferred option report		Endorsed preferred option report is shared
Rūnanga	Consulted on preferred option report		Endorsed preferred option report is shared
Key stakeholders	Consulted on preferred option report		Endorsed preferred option report is shared
Landowners/occupiers			<i>[future engagement with landowners with sub-transmission lines on their private property to be determined in a further preferred option report]</i>
General public			Endorsed preferred option report is published on Your Say Selwyn website
DPC		Preferred option report goes to DPC for endorsement	

8. Post Engagement Report and updated Communications and Engagement Summary Plan for Alpine Villages

Author:	Jocelyn Lewes, Strategy & Policy Planner
Contact:	(03) 347 1809

Purpose

To brief the Committee on the post engagement report for the ‘Alpine Villages’ Topic, which summarises and analyses the feedback received and recommends any change to the Preferred Option(s).

The attached Communications and Engagement Summary Plan has been updated to outline the proposed communication and engagement activities from the time of initial public consultation through to the formal notification of the Proposed District Plan.

Recommendation

“That the Committee notes the report.”

“That the preferred options previously endorsed by DPC be amended as follows:

- ***That the requirement for a 40° roof pitch in Arthur’s Pass not be carried forward into the Proposed District Plan;***
- ***That the alignment of the zone boundary between Living 1A and Business 1A land in Castle Hill be amended to reflect the underlying subdivision, approved by resource consent.”***

“That the updated Preferred Options described above progresses to the ‘Drafting and Section 32 Evaluation Phase.’

“That the Committee notes the updated summary plan.”

Attachments

‘Post Engagement Report for: Alpine Villages’

‘Alpine Villages – communications and engagement summary plan (post engagement report)’

POST ENGAGEMENT PREFERRED OPTION UPDATE REPORT TO DISTRICT PLAN COMMITTEE

DATE: 5 December 2018

TOPIC NAME: Residential

SCOPE DESCRIPTION: Alpine Villages (RE012)

TOPIC LEAD: Jocelyn Lewes

PREPARED BY: Jocelyn Lewes (Strategy and Policy Planner)

EXECUTIVE SUMMARY

<i>Summary of Preferred Option Endorsed by DPC for Further Engagement:</i>	That the Proposed District Plan retain the specific management provisions for the Alpine Villages of Arthur's Pass and Castle Hill, with minor modifications. That Lake Coleridge not be identified as an Alpine village in the Proposed District Plan.
<i>Summary of Feedback Received:</i>	Feedback from community committees and major landowners indicating general support for preferred approaches, but seeking minor amendments to reflect existing conditions.
<i>Recommended Option Post Engagement:</i>	That the preferred options previously endorsed by DPC be amended as follows: <ul style="list-style-type: none"> • That the requirement for a 40° roof pitch in Arthur's Pass not be carried forward into the Proposed District Plan; • That the alignment of the zone boundary between Living 1A and Business 1A land in Castle Hill be amended to reflect the underlying subdivision, approved by resource consent; That the updated Preferred Option described above progresses to the 'Drafting and Section 32 Evaluation Phase'.
<i>DPC Decision:</i>	



1.0 Introduction

1.1 Overview of Preferred Options Endorsed by DPC

The preferred option endorsed by DPC on 10th October 2018 involved including specific objectives, policies and rules in the Proposed District Plan to retain the special and distinct character of Arthur's Pass and Castle Hill Villages and to manage the effects of these villages on the surrounding alpine and high country environment and in particular the Arthur's Pass National Park.

This option also concluded that specific management provisions not be applied to Lake Coleridge as this village did not demonstrate clear and distinct special characteristics that warranted additional consideration.

It was noted that the precise drafting of the objectives and policies should be considered in conjunction with the ONL Overlay workstream to determine the extent to which the effects of the Villages on the surrounding environment and particularly the National Park need to be addressed through the specific management provisions for the Villages.

2.0 Summary of Feedback Received

The preferred option has been subject to targeted consultation with community committees, the Department of Conservation and the two major landowners at Castle Hill.

2.1 Department of Conservation

No feedback was received from DoC in relation to the preferred options report for Alpine Villages. DoC had previously provided feedback on the Outstanding Landscapes and Natural Features workstreams in which they indicated that the present schedule of prohibited plants unable to be planted at Arthur's Pass village should be retained.

2.2 Arthur's Pass

Feedback was received from the **Arthur's Pass Community Centre Committee** in relation to the preferred options for Alpine Villages. This committee noted that the existing minimum 40° roof pitch rule included in the operative district plan is out of character for Arthur's Pass Village. They requested that this be varied.

The **Arthur's Pass Association Committee** did not provide any feedback on the preferred options report for Alpine Villages. However this committee had provided feedback during the initial public consultation period in relation to signage, night sky, water, wildfire and geotechnical risk. This feedback has been incorporated into the relevant workstreams.

2.3 Lake Coleridge

No formal feedback was received from the **Lake Coleridge Community Committee**. The committee did seek clarification as to what the implication of the endorsed approach of not recognising the village as an

Alpine Village would be. Following clarification that no specific management provisions would be lost as none currently exist no further feedback was received.

2.4 Castle Hill

Castle Hill Village Community Association

The **Castle Hill Community Association** advised that they were unable to respond to the preferred option within the timeframe provided, despite an extension of time being offered.

It is noted that the minutes of the meeting of the committee on 5th November 2018 did acknowledge receipt of correspondence from Council in relation to the District Plan Review. However the minutes seem to reflect that discussions were more around the process than the content.

Castle Hill Landowners

Feedback was received from two major landowners at Castle Hill, both of which indicated that they were generally supportive of the preferred approach, but requested minor amendments.

Both landowners enjoy the benefit of resource consents over their land. One landowner, within the village boundary, requested that the underlying zone boundary be realigned to reflect the recent subdivision consent. The other landowner requested that the DPR process consider providing additional protection of these consent rights by the inclusion of a special precinct or overlay for ‘tourism and accommodation development’ over the land, which is located outside of the township boundary, in the Rural (High County) Zone.

Both landowners also requested minor changes to the existing rules – one in relation to an increase in height within the Business 1A zone and the other to provide greater control over the reflectivity of building materials, specifically chimney flues.

One landowner also raised concerns that the combination of the current provisions around bulk and scale (e.g. site coverage, roof pitch, height and recession planes), section sizes and the slope of sections may result in some sections being unable to be built upon with a complying dwelling. While the landowner requested that Council undertake further investigations into these aspects, they also indicated that they were supportive of the current provisions. It is therefore unclear what relief it is that they seek.

3.0 Analysis of Feedback Received

All of the feedback received is considered to be supportive of the approaches endorsed in the preferred option reports, however there were a number of minor issues raised that could have an impact on the subsequent drafting of provisions in the Proposed District Plan. These are discussed below.

3.1 Arthur’s Pass – Roof Pitch

The character and amenity assessment undertaken as part of the baseline report concluded that, overall, the building design in Arthur’s Pass does not follow a strict alpine character theme, but is more an agglomeration of styles that have some common features, being rectangular built form, pitched roofs, small footprints, painted exterior and an overall seasonal/ temporary nature. The lack of coherent design

most likely stems from the fact that a lot of the development has occurred before any design guidance was in place. As such, the current built form characteristics could be associated with any other holiday hut accommodation type, regardless of its location.

While the report noted that there are a variety of roof structure present within the village including some mono-pitch associated with newer buildings, the low scale nature of development allows the built development to integrate rather stand out within the surrounding landscape.

This issue was discussed with Council's building staff who advised that, due to the alpine location of the village, every application for building is assessed against performance standards. AS/NZS 11.70 Structure Design Actions – Wind Actions indicates that a minimum roof pitch of 20° is appropriate in this location.

Given that a steep roof pitch is not required by the Building Code and that the character and amenity assessment indicate that development within the village is varied but is predominately low scale in nature, it is recommended that the requirement for a 40° roof pitch in Arthur's Pass not be carried forward into the Proposed District Plan.

3.2 Castle Hill – Zones and Zone Boundaries

As noted above, both major landowners in Castle Hill sought to have they existing resource consents recognised within the Proposed District Plan by changes to zone boundaries or the inclusion of an overlay or precinct.

It is considered that the DPR process is an appropriate time to consider the suitability of zone boundaries, in light of development or resource consents. As such, it is considered that the location of the existing boundary between the Living 1A and Business 1A zone within the village boundary should be amended to align with the underlying subdivision consent through the DPR process.

It is not considered necessary to include an overlay or special precinct over land outside of the village for 'tourism and accommodation' as this land enjoys the benefit of a resource consent for this purpose. As the value gained by such an overlay would be outweighed by the cost of creating of it, it is recommended that this request should not be progressed further through the DPR process.

3.3 Castle Hill – Built Form Provisions

In relation to the request for additional controls over the reflectivity of materials within the village, it is considered that the existing provisions are sufficient. These provisions, in both the Living and Business Zone, require consideration of the reflectivity of both buildings and structures. It is considered that this would capture chimney flues. It is noted that staff are not aware of any complaints regarding the reflectivity of any buildings or structures in Castle Hill. As such, it is recommended that this issue does not need to be considered further through the DPR process.

As addressed above, one landowner raised concerns that the combination of the current provisions around bulk and scale, section sizes and the slope of land may result in some sections being unable to built upon with a complying dwelling. The area of the village where this may be an issue has been the subject of a recent subdivision consent which has created section sizes between 460m² and 6000m². It is unclear whether the layout of the subdivision considered the impact that the slope of the land may have on the

ability of the site to accommodate a complying dwelling, however this has now been identified by the landowner as an issue for some sites, but the number and specific location of these sites was not identified.

As the landowner has indicated that they were supportive of the current provisions, it is unclear what relief it is that they seek through the DPR process. It is noted that the resource consent process is available to any applicant proposing development that would give rise to the breach of a rule within the district plan. Therefore, it is considered that this issue does not need to be considered as part of the DPR process.

Appropriate height of buildings within Business zones is being considered as part of the broader business workstream and will likely be reflective of the scale and compatibility with surrounding activities.

4.0 Recommended Option Post Engagement

The Project Team recommends that the Preferred Option previously endorsed by DPC is amended as follows:

- That the requirement for a 40° roof pitch in Arthur's Pass not be carried forward into the Proposed District Plan;
- That the alignment of the zone boundary between Living 1A and Business 1A land in Castle Hill be amended to reflect the underlying subdivision, approved by resource consent;
- The updated Preferred Option described above progresses to the 'Drafting and Section 32 Evaluation Phase'.

RE012 Alpine villages – communications and engagement summary plan (post engagement report)

Key messages

(as of 26 November 2018)

Background

- As part of the Selwyn District Plan Review, policies and rules managing the villages of Arthur’s Pass, Castle Hill and Lake Coleridge, collectively referred to as alpine villages in the current District Plan, are being reviewed.
- Related to this topic is the future management of the Existing Development Areas (EDA) located in the High Country. These are Terrace Downs, Grasmere and Bealey Spur.
- The Malvern Area Plan Mahere-ā-Rohe 2031, adopted by the Council in September 2016, didn’t identify any new areas within the alpine villages which would need to be rezoned for residential or, in the case of Castle Hill, business, to accommodate growth.
- Following the Council’s District Plan Committee’s endorsement of the preferred option report, the Council undertook targeted consultation on draft changes with key stakeholders.
- It is not yet clear where the detailed provisions will be found in the Proposed Plan.

Current District Plan

- Current District Plan sets up a somewhat complicated approach to the management of the three villages. They are subject to the various zoning provisions that apply, but Arthur’s Pass and Castle Hill are also subject to specific rules and/or policies related to their alpine nature. No specific rules apply to Lake Coleridge Village.
- Key issues include:
 - whether all three alpine villages should continue to be managed by specific provisions in the Proposed District Plan to protect the alpine character and values of these areas.
 - inconsistencies and ambiguities of objectives and policies.
 - since National Planning Standards are currently being finalised, we cannot propose what zoning and spatial planning tools should be applied to the alpine villages.
 - how do proposed changes to Outstanding Natural Landscapes affect alpine villages?
 - should Bealey Spur be considered an alpine village? Currently it’s an EDA but all EDAs are proposed to be removed from the Proposed Plan and there’s no alternative method proposed to manage Bealey Spur.

About the endorsed preferred option

- Key proposed changes include:
 - applying specific objectives, policies and rules through the introduction of separate precincts for the Arthur’s Pass and Castle Hill villages. However, the proposed provisions can only be confirmed once the final version of the National Planning Standards has been released, and proposed changes to zones and the Outstanding Natural Landscapes overlay are considered.
 - Not having specific management provisions for Lake Coleridge Village as the review identified that this village, despite its location, does not demonstrate clear and distinct special characteristics in terms of its built form that require additional provisions.

Recommended changes following consultation on endorsed preferred option

- The endorsed preferred option is updated to reflect the following changes as a result of feedback received from key stakeholders and major landowners:
 - remove current requirement for a 40° roof pitch in Arthur’s Pass from the Proposed District Plan, given that a steep roof pitch is not required by the Building Code and that the character and amenity assessment indicate that development within the village is varied but is predominately low scale in nature.
 - Align the zone boundary between Living 1A and Business 1A land in Castle Hill to reflect the underlying subdivision plan, approved by a recent resource consent.

Audiences¹

Internal	Partners	Key stakeholders ²	Landowners /occupiers ³	General public
DPC	ECan	Department of Conservation	N/A	Selwyn ratepayers
Consent, building and compliance teams	Te Ngāi Tuāhuriri Rūnanga (represented by Mahaanui Kurataiao)	Castle Hill Village Community Association		News media
	Te Taumutu Rūnanga (represented by Mahaanui Kurataiao)	Arthur's Pass Association Committee		Wider public
		Arthur's Pass Community Centre Committee		
		Lake Coleridge Community Committee		

Legend	High level of interest/ High level of influence (“Manage closely”)	High level of interest/ Low level of influence (“Keep informed”)	Low level of interest/ high level of influence (“Keep satisfied”)	Low level of interest/ Low level of influence (“Watch only”)

¹ “...Differing levels and forms of engagement may be required during the varying phases of consideration and decision-making on an issue, and for different community groups or stakeholders. The Council will review the appropriateness and effectiveness of the engagement strategy and methods as the process proceeds.” [Significance and Engagement Policy: Adopted 26 November 2014; p.6]

² Key stakeholders are “the organisations requiring engagement and information as the preferred options for the Draft District Plan are being prepared.” (District Plan Review Community Engagement Implementation Plan; p.6) Key stakeholders “...will advocate for or against decisions that will need to be made...” and “For the District Plan Review, stakeholders include any party that can influence decisions or be influenced by decisions made on policies or rules.” (DPR Engagement Framework)

³ Landowners are “the individuals and businesses that could be affected by the proposed changes in the District Plan.” (District Plan Review Community Engagement Implementation Plan; p.6)

Engagement until early 2020
(from the time initial public consultation period finishes and Proposed District Plan is notified)

Review phases	Internal	ECan	Rūnanga	Key stakeholders	Landowners/occupiers	General public
Preferred option consultation						
Post engagement report update						
Draft provisions consultation						
Proposed District Plan formal public consultation						

2018 – 2020 communications and engagement approach

Audiences	November 2018 (post PO report’s endorsement by DPC)	December 2018 (engagement following endorsement of post engagement report)	January – May 2019 (engagement on detailed draft provisions)	Early 2020 (Proposed District Plan gets notified for formal public consultation)
ECan	Direct contact via email, phone and face to face meetings	Direct contact via email, phone and face to face meetings	Direct contact via email, phone and face to face meetings	
Rūnanga	Direct contact via email, phone and face to face meetings	Direct contact via email, phone and face to face meetings	Direct contact via email, phone and face to face meetings	
Key stakeholders	Direct contact via email/letter	Direct contact via email/letter	Direct contact via email/letter	
Landowners/occupiers				
General public		Post engagement report published on Your Say Selwyn		
DPC			DPC workshop	

9. Post Engagement Report and updated Communications and Engagement Summary Plan for Vegetation Planting

Author:	Robert Love, Strategy & Policy Planner
Contact:	(03) 347 1821

Purpose

To brief the Committee on the post engagement report for the 'Vegetation Planting' Topic, which summarises and analyses the feedback received and recommends any change to the Preferred Option(s).

The attached Communications and Engagement Summary Plan has been updated to outline the proposed communication and engagement activities from the time of initial public consultation through to the formal notification of the Proposed District Plan.

Recommendation

"That the Committee notes the report."

"That the preferred option previously endorsed by DPC progresses to the 'Drafting and Section 32 Evaluation Phase'."

"That the Committee notes the updated summary plan."

Attachments

'Post Engagement Report for: Vegetation Planting'

'Vegetation Planting – communications and engagement summary plan (post engagement report)'

POST ENGAGEMENT PREFERRED OPTION UPDATE REPORT TO DISTRICT PLAN COMMITTEE

DATE: 05 December 2018

TOPIC NAME: Rural

SCOPE DESCRIPTION: Vegetation Planting

TOPIC LEAD: Robert Love

PREPARED BY: Robert Love

EXECUTIVE SUMMARY

<i>Summary of Preferred Option Endorsed by DPC for Further Engagement:</i>	<i>Revising existing provisions to allow for greater clarity and effectiveness, and to take into account the National Environmental Standards for Plantation Forestry.</i>
<i>Summary of Feedback Received:</i>	<i>Feedback was received for and against the preferred option, but the majority were generally supportive.</i>
<i>Recommended Option Post Engagement:</i>	<i>The Preferred Option previously endorsed by DPC progresses to the 'Drafting and Section 32 Evaluation Phase'.</i>
<i>DPC Decision:</i>	



1.0 Introduction

1.1 Overview of Preferred Option Endorsed by DPC

With the presence of the National Environmental Standards for Plantation Forestry (NES-PF) some changes to the Operative District Plan (ODP) are mandatory. On top of these mandatory changes, other amendments that should be considered for the Proposed District Plan include:

Definitions:

- Currently the delineation between ‘amenity plantings’ and ‘plantations’ is four hectares. It may be appropriate to reduce this area size from four to one, or less than one hectare. For instance a three hectare woodlot is not an ‘amenity planting’ and should not be captured under that rule. With whatever the threshold is the ‘plantation’ classification should cover all significant areas of vegetation, while not controlling people’s ability to plant gardens (amenity plantings) around their dwellings.
- Given the NES-PF introduction of a ‘plantation forestry’ term, to avoid confusion, the current district plan term ‘plantation’ should be renamed to another term.
- A new ‘plantation forestry’ definition should be included, which mirrors that of the NES-PF. This could also be carried out with a ‘forestry quarrying’ definition as well. This is for the purposes of clarity between the two documents to assist plan users.
- To increase the maximum shelterbelt width as specified in the definition from 20 metres to 30 metres, or to have this quantum reflected in a permitted activity rule. This would make it consistent with what is considered to be a ‘plantation forestry’ within the terms definition in the NES-PF.

Rules:

- To provide an exception within the Proposed District Plan for forestry quarrying within any quarrying rules as this has been provided for under the NES-PF.
- Provisions addressing setbacks from waterways can be removed as this aspect is dealt with by the regional council as required by the NES-PF.
- To maintain rail and road crossing intersection line of sight restrictions across all planting types, with any distances to be reviewed and amended as required by the Transport Scope.
- To maintain height restrictions for all plantings when in close proximity to runway vectors, with any heights and locations being dealt with as part of the Airfields Scope.
- Regarding planting within the current Port Hills Summit Road Protection Area, this will continue to be classified as non-complying.
- Conditions for rules dealing with the planting of vegetation will continue to be similar to those that currently exist, including but not limited to:
 - o Species restrictions.
 - o Whether the purpose is for beautification, and uses local native plants.
 - o If the planting is to manage wilding tree spread.
 - o For the purpose of soil conservation.
 - o If the plantings will be harvested.
 - o The type of planting in specific areas.
 - o The presence of particular landscape features or other areas of specific value (e.g. Cooper’s Knob, Gibraltar Rock)

- Most vegetation activities will have a permitted, restricted discretionary, non-complying hierarchy depending on the type of planting, the location of the planting, and conditional matters. More specifically:
 - o Amenity plantings and Shelterbelts would generally be permitted unless located in an Outstanding Natural Landscape (ONL), then depending on the characteristics of the activity would either be restricted discretionary or non-complying. Regarding planting within a Visual Amenity Landscape (VAL), this would be permitted, but subject to conditions.
 - o Other plantations would generally be permitted unless located in an ONL or VAL, then depending on the characteristics of the activity (e.g. orchards and vineyards may be less restricted than woodlots) would either be restricted discretionary or non-complying in an ONL. Activities within a VAL would be controlled. Generally if the plantings are native then the activity would be permitted.
 - o Plantation Forestry would generally be permitted unless located within a VAL where it would be controlled, or an ONL where it would be non-complying.
 - o It should be noted that the final rule structure form will be developed and integrated with the ongoing ONL workstream.
- Strong policy protection would need to accompany these activity classifications, for instance an 'avoid' policy which seeks to prevent the establishment of any new plantations (depending on attributes) or plantations forestry in ONL areas.
- Rules dealing with Plantation Forestry in and around Significant Natural Areas (SNAs) will be removed as this is covered by the NES-PF. It would be appropriate for similar rules as to those contained within the NES-PF be included in the Proposed District Plan addressing non-NES-PF plantings. These will need to be developed in conjunction with the indigenous vegetation workstream.
- Forestry exclusion zones should be removed from any future plans as they conflict with the NES-PF. This conflict arises as the NES-PF does not allow the district plan to be more restrictive unless expressly authorised by the NES-PF to do so.
- Provisions controlling wilding tree spread would see the addition of the European Larch to the restricted species list, as an additional species of risk as indicated by the NES-PF. Species restrictions and any other wilding tree spread provisions would extend their area of control to the Malvern Hills area to reflect the area of containment specified in the Pest Management Strategy.
- A potential tie in with the Wildfire Risk Management Scope is to make it a requirement to obtain an approved fire management plan as a condition of establishing a permitted NES-PF plantation forestry or other plantation activity.
- As transportation is not covered by the NES-PF, this aspect will need either specific provisions addressing the potential effect of transport movements from forestry sites, or to ensure that the general transport provisions cover this.
- Removal of all plantation forestry earthworks rules as these are covered by the NES-PF, but retain them in some form for other activities.
- As per the above, all noise and vibration rules dealing with plantation forestry will need to be removed, but retained in some form to cover noise and vibrating causing activities such as quarrying. If a plantation forest were to breach the permitted noise standard in the NES-PF then it becomes a restricted discretionary activity. This classification may require the Proposed District Plan to include some matters of discretion or conditions. However, this aspect is best addressed via the Noise and Vibration Scope.

- Any plantings within a noted cultural site should be restricted discretionary. However, this component will be development in coordination with the Scope dealing with Site and Areas of Cultural Significance.

2.0 Summary of Feedback Received

2.1 Landowner/ Public Feedback

These parties had the following comments:

- That shelterbelts should be permitted within ONLs to allow for the sheltering of stock, and to benefit other aspects of sustainable management.
- Avoid or control exotic plantings within the ONL, including amenity plantings, vineyards, and orchards.
- That forests are not restricted within ONLs.
- That the amenity planting limit be kept at 4 ha.
- That amenity plantings should be 1 ha or less.
- That the amenity planting limit should be between 1-2 ha.
- The location and type of planting should be taken into consideration as part of any classification of an 'amenity planting'.
- Support for the preferred option approach to restrict plantings in ONLs and VALs.
- That tree restrictions align with national planning framework.
- Support to allow having any visually appealing species within the ONL, not necessarily just native species.
- Restrict any non-native species within an ONL or VAL.
- Have a list of banned wilding species.

2.2 Partner/Stakeholder Feedback

Canterbury Regional Council

This Partner had the following comments:

- Would like to see alignment with the Canterbury Pest Management Plan;
- Supports the enabling of significant ecological vegetation planting;
- Supports restrictions on certain vegetation within ONL/VALs.

Mahaanui Kurataiao Limited

This Partner wished to have the planting of plantation forestry consistent with the approach in the Sites and Areas of Significance Report prepared by Mahaanui Kurataiao Limited. This approach seeks to have location restrictions on commercial forestry within or near ngā wai, ngā tutohu whenua, ngā tūrangā tūpuna, wāhi tapu, and wāhi taonga sites.

Horticulture New Zealand

This stakeholder had the following comments:

- That orchards be addressed separately in the district plan, and should not be lumped in with amenity plantings, shelter belts, or plantations;
- Supports the inclusion of a term such as 'horticulture planting'.

Ellesmere Sustainable Agriculture Incorporated

This stakeholder made the following comments:

- Supports provisions that enable riparian planting projects;
- Believe Farm Environment Plans are a better tool for controlling vegetation plantings.

Department of Conservation

This stakeholder had the following comments:

- Requested that particular species of vegetation are prohibited from ONL areas. These species being:
 - o Contorta Pine;
 - o Corsican Pine;
 - o Scots Pine;
 - o Dwarf Mountain Pine and Mountain Pine;
 - o Larch Larix Decidua – except for sterile hybrids;
 - o Darwins Barberry;
 - o Wild Russell Lupin;
 - o Crack Willow; and
 - o Grey Willow.
- And only in the inland mountains and basins:
 - o Bishops Pine;
 - o Douglas Fir;
 - o Maritime Pine;
 - o Ponderosa Pine;
 - o Sycamore;
 - o Rowan;
 - o Ash;
 - o Holly;
 - o Silber birch;
 - o All Poplars – except Lombardy Poplars and male clones;
 - o All Alders;
 - o All Willow species around lakes and wetlands;
- Any other plantation species should be a discretionary activity, including Radiata Pine and sterile hybrids, and Larch.
- Plantings along State Highway 73 should be managed to prevent diminished viewing of the Southern Alps;
- Retain the present schedule of prohibited plants unable to be planted at Arthurs Pass Village;

- Control the planting of non-indigenous vegetation species on the margins of the beds or lakes, wetlands, and braided rivers in the district as a discretionary activity.

Rayonier/Matariki Forests

This stakeholder had the following comments:

- Didn't see any real issues, and achieves good alignment with the NES-PF;
- Supports the approach to redefine the plantation term to avoid confusion with the NES-PF, and suggested the use of 'horticultural plantings';
- Ensure there is clarity for species on a restricted list;
- Suggests that any afforestation within a ONL should be a restricted discretionary activity, and if in a pristine ONL then it should be non-complying;
- Made a statement that around the country ONLs have been expanding to include either forested areas, or areas where forestry can expand into.

3.0 Analysis of Feedback Received

3.1 Vegetation Planting Within ONL/VALs:

Analysis

The preferred option includes provisions that would see certain vegetation types restricted on the basis of protecting the visual amenity of the area, through controls on the planted form of the vegetation, and on the potential for the species to spread.

While some landowners within the ONL have commented that they do not want to see restrictions on vegetation plantings within the ONL, other submitters have provided comments in support of this.

Stakeholders including commercial forestry representatives have made comments supporting the restriction of forestry within ONL areas, with DOC also including a list of species they would like to see restricted in particular areas.

While the reluctance of landowners to have restrictions placed on their land is understandable, the protection of ONLs is a Section 6 (matters of national importance) matter in the Resource Management Act, which requires councils to prevent inappropriate use and development within them. As covered in the baseline and preferred option reports, certain species and/ or the shape of the planting can have significant effects on the visual amenity of an ONL. For this reason, the district plan is required to address the potential adverse of vegetation planting on the values of both ONL and VAL areas.

Conclusion

It is recommended that the approach in the preferred options report is continued through to the draft section 32 report and plan provision stage, including integration with the ONL workstream.

3.2 Definitions:

Analysis

As highlighted in the background work to date, the presence of the NES-PF and its introduction of a definition for 'plantation forestry' has the potential to cause confusion. An option could be to redefine the term 'plantation' but retain the same general meaning.

On carrying out further assessment on this aspect, and regarding the content of the feedback received, another option may be more effective. This being to split up the potential vegetation that would have been covered by 'plantations' into 'orchards', 'woodlots' and 'vineyards'. While this would expand the text of any plan provision it does provide greater clarity and flexibility.

Conclusion

It is recommended that the preferred option recommending the refinement of the 'plantation' term be progressed to the section 32 report and plan drafting stage, with this mostly likely being in the form of devolving the planting types covered by this term.

4.0 Recommended Option Post Engagement

The Project Team recommends that:

- The Preferred Option previously endorsed by DPC progresses to the 'Drafting and Section 32 Evaluation Phase'.

RU209 Vegetation planting – communications and engagement summary plan (post engagement report)

Key messages

(as of 26 November 2018)

Background

- As part of the Selwyn District Plan Review, policies and rules managing vegetation planting in the district are being reviewed.
- Following the Council’s District Plan Committee’s endorsement of the preferred option report, the Council consulted on the draft changes related to vegetation planting as part of the initial public consultation between August and October 2018.
- The detailed provisions will be found in the Proposed Plan’s Rural chapter.

Current District Plan

- Within the current District Plan vegetation planting covers amenity plantings, plantations, and shelter belts. Amenity plantings are defined as vegetation that is immediately around a dwelling for the purposes of visual screening, shelter, or for aesthetic reasons. Additionally amenity plantings can include woodlots, orchards, and vineyards that are under four hectares in size and are only used by the household ie not for commercial gain. Shelter belts are lines of vegetation no greater than 20 metres in width for the purpose of providing shelter from the wind. Plantations is a catch-all definition that captures all vegetation that is not covered by the other two definitions. Rules for vegetation covered under plantations are usually more restrictive than for other types of vegetation.
- Plantation forestry ie commercially harvested forestry blocks over one hectare in size are covered by the National Environmental Standards for Plantation Forestry (NES-PF).
- The current District Plan also covers the spread of wilding trees ie invasive trees by restricting certain trees from being planted in the district.

About endorsed preferred option

- Key proposed changes:
 - A potential reduction in the amenity planting/plantation threshold of four hectares.
 - Redefine the term ‘plantations’ for the new District Plan to avoid confusion with the NES-PF defined ‘plantation forestry’ term.
 - Increase the maximum width of a ‘shelter belt’ from 20 metres to 30 metres.
 - Amend the wilding tree species restriction list to be consistent with regional documents.
 - All significant vegetation would continue to be generally permitted unless located in an area of high landscape value (Outstanding Natural Landscapes (ONL) or Visual Amenity Landscapes (VAL) areas) or a noted cultural site.
 - Place restrictions on certain vegetation within ONL, VAL, and noted cultural areas, such as:
 - Plantation forestry being a non-complying activity within an ONL and a controlled activity within a VAL.
 - Controls on amenity plantings, shelter belts, and plantations within ONL/VAL and cultural site areas, depending on the nature of the planting. For example, domestic garden and native vegetation local to the area would be permitted while on the other hand there would be restrictions on woodlots or orchards.

Recommended changes following consultation on endorsed preferred option

- No changes to the endorsed preferred option.

Audiences¹

Internal	Partners	Key stakeholders ²	Landowners /occupiers ³	General public
DPC	ECan	Horticulture NZ	University of Canterbury	Selwyn ratepayers
Consent and Compliance Teams	Te Ngāi Tuāhuriri Rūnanga (represented by Mahaanui Kurataiao)	Federated Farmers	Ahuriri Farm	News media
Assets (SDC Forests)	Te Taumutu Rūnanga (represented by Mahaanui Kurataiao)	Department of Conservation	Matariki/Rayonier	Wider public
		Ellesmere Sustainable Agriculture		
	Mahaanui Kurataiao Limited	SCION		

Legend	High level of interest/ High level of influence (“Manage closely”)	High level of interest/ Low level of influence (“Keep informed”)	Low level of interest/ high level of influence (“Keep satisfied”)	Low level of interest/ Low level of influence (“Watch only”)

¹ “...Differing levels and forms of engagement may be required during the varying phases of consideration and decision-making on an issue, and for different community groups or stakeholders. The Council will review the appropriateness and effectiveness of the engagement strategy and methods as the process proceeds.” [Significance and Engagement Policy: Adopted 26 November 2014; p.6]

² Key stakeholders are “the organisations requiring engagement and information as the preferred options for the Draft District Plan are being prepared.” (District Plan Review Community Engagement Implementation Plan; p.6))Key stakeholders “...will advocate for or against decisions that will need to be made...” and “For the District Plan Review, stakeholders include any party that can influence decisions or be influenced by decisions made on policies or rules.” (DPR Engagement Framework)

³ Landowners are “the individuals and businesses that could be affected by the proposed changes in the District Plan.” (District Plan Review Community Engagement Implementation Plan; p.6)

Engagement until early 2020
(from the time initial public consultation period finishes and Proposed District Plan is notified)

Review phases	Internal	ECan	Rūnanga	Key stakeholders	Landowners/occupiers	General public
Preferred option consultation						
Post engagement report update						
Draft provisions consultation						
Proposed District Plan formal public consultation						

2018 – 2020 communications and engagement approach

Audiences	August & September 2018 (post PO report’s endorsement by DPC and until initial public consultation period finished)	December 2018 (engagement following endorsement of post engagement report)	January – May 2019 (engagement on detailed draft provisions)	Early 2020 (Proposed District Plan gets notified for formal public consultation)
ECan	Direct contact via email, phone and face to face meetings	Direct contact via email, phone and face to face meetings	Direct contact via email, phone and face to face meetings	
Rūnanga	Direct contact via email, phone and face to face meetings	Direct contact via email, phone and face to face meetings	Direct contact via email, phone and face to face meetings	
Key stakeholders	Part of initial public consultation	Direct contact via email/letter	Direct contact via email/letter	
Landowners/occupiers	Part of initial public consultation			
General public	Part of initial public consultation	Post engagement report published on Your Say Selwyn		
DPC			DPC workshop	

10. Post Engagement Report and updated Communications and Engagement Summary Plan for Managing Wildfire Risk

Author:	Robert Love, Strategy & Policy Planner
Contact:	(03) 347 1821

Purpose

To brief the Committee on the post engagement report for the 'Managing Wildfire Risk' Topic, which summarises and analyses the feedback received and recommends changes to the Preferred Option(s).

The attached Communications and Engagement Summary Plan has been updated to outline the proposed communication and engagement activities from the time of initial public consultation through to the formal notification of the Proposed District Plan.

Recommendation

“That the Committee notes the report.”

“That the preferred options previously endorsed by DPC be amended to include the potential for an accessway setback to be developed, and to consider enabling improved pasture within the Port Hills Outstanding Natural Landscape.”

“That the updated Preferred Options described above progresses to the ‘Drafting and Section 32 Evaluation Phase.’

“That the Committee notes the updated summary plan.”

Attachments

'Post Engagement Report for: Managing Wildfire Risk'

'Wildfire risk – communications and engagement summary plan (post engagement report)'

POST ENGAGEMENT PREFERRED OPTION UPDATE REPORT TO DISTRICT PLAN COMMITTEE

DATE: 05 December 2018

TOPIC NAME: Natural Hazards

SCOPE DESCRIPTION: Managing Wildfire Risk

TOPIC LEAD: Robert Love

PREPARED BY: Robert Love

EXECUTIVE SUMMARY

Summary of Preferred Option Endorsed by DPC for Further Engagement:	<p>Option 2A: All new principal buildings should be setback from existing vegetation stands.</p> <p>Option 2B: Non NES-PF (National Environmental Standards for Plantation Forestry) plantation forestry and other vegetation should be setback from existing principal buildings and non-rural zones.</p> <p>Option 2F: Restrict the placement of shelter belts and amenity plantings near neighbouring principal buildings.</p> <p>Option 2H: Include in the matters of control and discretion the ability for the Consent Planner to assess the wild fire risk of amenity and landscape plantings.</p>
Summary of Feedback Received:	Generally supportive of the proposed provisions, with comments seeking the inclusion of accessway protection setbacks, and the enabling of pasture improvement in Outstanding Natural Landscapes (ONLs).
Recommended Option Post Engagement:	To maintain the existing preferred options, but to also include the potential for an accessway setback to be developed, and to consider enabling improved pasture within the Port Hills ONL.
DPC Decision:	



1.0 Introduction

1.1 Overview of Preferred Option Endorsed by DPC

Option 2a: Setbacks from new principal buildings to existing vegetation

This option has two components, the first being the setback to existing NES-PF defined plantation forestry, and the second being the setback to existing significant vegetation.

This option would see:

- Any dwelling being setback from an existing NES-PF defined plantation by 40 metres;
- All other principals buildings setback from existing NES-PF defined plantations by 30 metres;
- Dwellings and other principal builds to be setback from existing non- NES-PF defined vegetation by 30 metres.

Option 2b: Setbacks of new or replanted non NES-PF defined plantations to principal buildings and non-rural zones

As per the above option, a rule within the district plan would assist in keeping a suitable distance between non NES-PF plantations and existing buildings (excluding accessory buildings) and non-rural zones. The distance of this setback should be consistent with the value adopted in Option 2a.

Option 2f: Provisions restricting the placement of amenity plantings and shelter belts within 30 metres of existing buildings (dwellings)

This option addresses the potential for a reciprocal setback to that suggested in Option 2e. This setback would apply to any new shelter belt or amenity plantings. Any setback distance considered under a provision such as this should be consistent with the other setbacks distances. This option does have another part, in that it would restrict the placement of vegetation near another person's building so as to not increase the wild fire risk on them.

Option 2h: Additional matters of control and discretion for activities requiring consent.

This option would see the inclusion of additional matters of control and discretion for land use consents relating to the consideration of wild fire risk. In essence this would allow a Consents Planner when assessing a land use consent for a building to assess the fire risk by examining the layout of the landscaping and the plants used. Presently, there is no ability to make this assessment. However, this option would only capture activities which have triggered consent requirement

2.0 Summary of Feedback Received

2.1 Landowner/ Public Feedback

The following comments were received from this group:

- Would like to see buffers between dry vegetation types in the form of enabling green crops in areas of high fire risk. The plan should enable this form of land use and development.

- There was support for setbacks, but there were concerns about how smaller properties would be affected by this, and if a suitable building platform would still be a permitted activity. This was linked with only applying these rules on properties over a certain size.
- It was suggested that particular vegetation species be targeted and restricted, and to enable them to be replaced by fire retardant species.
- A comment requested that accesses to property were at least four metres in width, and strong enough to hold fire appliances.
- More education of property owners needs to occur to highlight their own wild fire risk and appropriate vegetation types.
- Any setback should be applied across the entire Rural Zone.
- That the following vegetation forms should be included: shelter belts, exotic plantations, and any vegetation stand with more than 25 trees.

2.2 Partner/Stakeholder Feedback

Canterbury Regional Council

This Partner had the following comments:

- They had no further comment on top of what has already been sent, other than they support the management of wildfire risk through using setbacks for new vegetation or new principal buildings.

Mahaanui Kurataiao Limited

This Partner did not comment.

Arthurs Pass Association

This stakeholder had the following comments:

- They were supportive of the preferred option, including setbacks for new vegetation from existing principal buildings, and vice versa.
- Supportive of any approach that would allow the flexibility of individual assessments, as in some cases a variance from the rule is required. This ability will strike the right balance between restricting either the location of vegetation, or buildings and the freedom for a landowner to plant or build on their own property.

Selwyn District Council (Property and Commercial)

This stakeholder believed the setbacks were reasonable and would achieve the goal of defensible spaces.

Fire and Emergency New Zealand

This stakeholder commented saying they would like to see vegetation setbacks from accessways to ensure egress routes are clear. As currently they attend fires where accessways are not clear, meaning they have had to pull back from the fire, sacrificing the structure.

Canterbury District Health Board

This stakeholder supports the recommendation of a wildfire setback of 30 metres.

3.0 Analysis of Feedback Received

3.1 Accessway setbacks:

Analysis

FENZ has requested that provisions be included into the district plan that requires vegetation be setback from accessways. This is to ensure clear points of egress are maintained when attempting to fight wildfires. While this request has merit, ultimately any effect by not having a clear accessway lays with the property owner. Therefore, the property owner has the ability to reduce the risk on themselves. A better course of action regarding this aspect would be the education of landowners around the fire risks on their own property, rather than regulating this aspect. This is consistent with the underlying principle of the RMA that the effects of an activity on oneself should be disregarded when making an assessment.

However, there are situations where properties may be located to the rear of other properties with access only along a narrow corridor linking to the road. These accessways are bordered by neighbouring land owners, who may decide to plant along these access ways. In these situations there is merit in including some form of provision to maintain clear and safe ways of egress for properties located to the rear. This could be in the form of restricting new plantings in relation to the location of existing neighbouring accessways. The actual distance of setback would be developed through the drafting stage in consultation with FENZ. However, it would not be envisioned that a setback would be comparable to the built structure setback of 30 metres, it may be closer to five metres.

Conclusion

To develop new vegetation setbacks from existing accessways as part of the preferred option.

3.2 Enabling the greening of ONL areas:

Analysis

Currently there are no restrictions on the 'greening' or improving of pasture within ONLs. However, this may change as the ONL and/or Indigenous Vegetation workstreams move through the district plan process. If restrictions on pasture type are placed into the Proposed District Plan, this would create situations where rank dry grass can make up significant parts of the ONL. This type of vegetation can have a significant wildfire risk.

By introducing greener crops the wildfire risk can be reduced. However, this does come with a potential adverse effect on landscape and indigenous biodiversity values of that particular area. Therefore a potential conflict arises between managing the natural hazard of wildfire, the landscape values of an ONL and indigenous biodiversity, all section 6 matters (matters of national importance).

In the Selwyn situation, there may be a case that there be no restriction on pasture type within the Port Hills ONL. This being due to its heavily modified landscape and its significant population number when

compared to the High Country ONL. This concession would enable land owners to lower the wildfire risk in this area of high consequence.

Conclusion

To maintain close communication with the ONL and Vegetation and Ecosystems Topic Lead to ensure integration between these three topics, and to consider enabling improved pasture within the Port Hills ONL area.

3.3 Restrictions verses appropriate property size

Analysis

Comments were made that they would not like to see restrictions placed on residential development which would render a plot of land unable to be built on as a permitted activity due to neighbouring vegetation setback restrictions.

While this may be an issue for unusually shaped or historically small (where a grandfather clause exists) plots of land these would be rare in the greater context. The smallest parcel of land within the Rural Zone (Inner Plains Area) that can be subdivided, and built on as a permitted activity is four hectares. This area of land should provide ample space to be able to accommodate a building platform as a permitted activity.

Additionally, these provisions do not prohibit the building of structures near vegetation, they only require a resource consent to be applied for, where wildfire risk can then be assessed.

Conclusion

To not include any allowance for property size in relation to the application of these setback provisions.

4.0 Recommended Option Post Engagement

The Project Team recommends that:

- The Preferred Option previously endorsed by DPC is amended as follows:
 - To develop vegetation setbacks for neighbouring accessways; and
 - Explore the potential for enabling improved pasture within the Port Hills ONL in consultation with the ONL Topic Lead.
- The updated Preferred Option described above progresses to the 'Drafting and Section 32 Evaluation Phase'.

NH204 Wildfire Risk – communications and engagement summary plan (post engagement report)

Key messages

(as of 26 November 2018)

Background

- As part of the Selwyn District Plan Review, policies and rules managing the wildfire risk within the Rural Zone are being reviewed.
- Wildfire is considered to be a fire which occurs in a rural area where typically there is a buildup of easily combustible vegetation. The most common causes of a wildfire are natural sources such as lightning, accidental man-made ignition such as a cigarette butt, sparking from the use of machinery or from an out of control rubbish fire, or arson. A fire lit for the purpose of agricultural crop burn-off would not be considered a wildfire unless the fire spread beyond the intended area.
- While the Port Hills, Malvern Hills and the High Country would traditionally have a higher wildfire risk due to their topography and vegetation densities, the sparseness of population means fire is less likely to be triggered. On the other hand, the plains area and in particular the Inner Plains area, which consists of many lifestyle blocks, is at a high risk of wildfire. This is due to vegetation densities as a result of amenity plantings, woodlots and shelterbelts, and the higher population densities, which increase the likelihood of a fire being triggered and the potential consequences of a wildfire.
- Following the Council’s District Plan Committee’s endorsement of the preferred option report, the Council consulted on the draft changes related to wildfire risk as part of the initial public consultation between August and October 2018.
- The detailed provisions will be found in Proposed Plan’s District Wide chapter – Natural hazards and Specific Area Matters Rural chapter.

Current District Plan

- The current District Plan doesn’t contain any specific rules for how wildfire risk in the Rural Zone should be managed.

About endorsed preferred option

- Key proposed changes:
 - To give the Council the discretion when assessing a land use consent for a sensitive activity to also assess the wildfire risk by examining the layout of the landscaping and the plants used.
 - Development of setbacks, which follow the Fire and Emergency New Zealand guidance, of:
 - 30 metres from neighbouring principal buildings for new or replanted vegetation such as shelter belts and certain plantations, such as vineyards, woodlots and orchards which are of a certain size. Plantation forestry at least one hectare in size and which is harvested commercially is covered by the National Environmental Standards – Plantation Forestry
 - 30 metres from existing vegetation on the neighbouring property for new principal buildings. This can be a dwelling as well as other buildings such as a church, school, or business. It excludes accessory buildings such as carports, farm buildings, garages, sheds, or greenhouses.

More detail on the proposed changes related to managing wildfire risk, including further setbacks, can be found on Your Say Selwyn website at www.selwyn.govt.nz/dprwildfire

Recommended changes following consultation on endorsed preferred option

- The endorsed preferred option is updated to reflect the following changes as a result of feedback received during the initial public consultation:
 - develop new vegetation setbacks from neighbouring accessways, in particular where properties may be located to the rear of other properties, with access only along a narrow corridor linking to the road. This is to ensure emergency vehicles can access the property.
 - explore the potential to continue having no restrictions on the ‘greening’ or improving of pasture within the Port Hills Outstanding Natural Landscape.

Audiences¹

Internal	Partners	Key stakeholders ²	Landowners /occupiers ³	General public
DPC	ECan	Fire and Emergency New Zealand (FENZ)	N/A	Selwyn ratepayers
SDC – Assets Team	Te Ngāi Tuāhuriri Rūnanga (represented by Mahaanui Kurataiao)	Federated Farmers		News media
	Te Taumutu Rūnanga (represented by Mahaanui Kurataiao)	Ellesmere Sustainable Agriculture		Wider public
	Mahaanui Kurataiao Limited			

Legend	High level of interest/ High level of influence (“Manage closely”)	High level of interest/ Low level of influence (“Keep informed”)	Low level of interest/ high level of influence (“Keep satisfied”)	Low level of interest/ Low level of influence (“Watch only”)

¹ “...Differing levels and forms of engagement may be required during the varying phases of consideration and decision-making on an issue, and for different community groups or stakeholders. The Council will review the appropriateness and effectiveness of the engagement strategy and methods as the process proceeds.” [Significance and Engagement Policy: Adopted 26 November 2014; p.6]

² Key stakeholders are “the organisations requiring engagement and information as the preferred options for the Draft District Plan are being prepared.” (District Plan Review Community Engagement Implementation Plan; p.6))Key stakeholders “...will advocate for or against decisions that will need to be made...” and “For the District Plan Review, stakeholders include any party that can influence decisions or be influenced by decisions made on policies or rules.” (DPR Engagement Framework)

³ Landowners are “the individuals and businesses that could be affected by the proposed changes in the District Plan.” (District Plan Review Community Engagement Implementation Plan; p.6)

Engagement until early 2020
(from the time initial public consultation period finishes and Proposed District Plan is notified)

Review phases	Internal	ECan	Rūnanga	Key stakeholders	Landowners/occupiers	General public
Preferred option consultation						
Post engagement report update						
Draft provisions consultation						
Proposed District Plan formal public consultation						

2018 – 2020 communications and engagement approach

Audiences	August & September 2018 (post PO report’s endorsement by DPC and until initial public consultation period finishes)	December 2018 (engagement following endorsement of post engagement report)	January – May 2019 (engagement on detailed draft provisions)	Early 2020 (Proposed District Plan gets notified for formal public consultation)
ECan	Direct contact via email, phone and face to face meetings	Direct contact via email, phone and face to face meetings	Direct contact via email, phone and face to face meetings	
Rūnanga	Direct contact via email, phone and face to face meetings	Direct contact via email, phone and face to face meetings	Direct contact via email, phone and face to face meetings	
Key stakeholders	Part of initial public consultation	Direct contact via email/letter	Direct contact via email/letter	
Landowners/occupiers	Part of initial public consultation			
General public	Part of initial public consultation	Post engagement report published on Your Say Selwyn		
DPC			DPC workshop	

11. Post Engagement Report and updated Communications and Engagement Summary Plan for Water

Author:	Andrew Mactier, Strategy & Policy Planner
Contact:	(03) 347 2802

Purpose

To brief the Committee on the post engagement report for the 'Water' Topic, which summarises and analyses the feedback received and recommends any change to the Preferred Option(s).

The attached Communications and Engagement Summary Plan has been updated to outline the proposed communication and engagement activities from the time of initial public consultation through to the formal notification of the Proposed District Plan.

Recommendation

“That the Committee notes the report.”

“That the preferred option previously endorsed by DPC be progressed to the Drafting and Section 32 Evaluation Phase.”

“That the Committee notes the updated summary plan.”

Attachments

'Post Engagement Report for: Water'

'Water – communications and engagement summary plan (post engagement report)'

POST ENGAGEMENT PREFERRED OPTION UPDATE REPORT TO DISTRICT PLAN COMMITTEE

DATE: 26 November 2018

TOPIC NAME: Water

SCOPE DESCRIPTION: NE006: Water

TOPIC LEAD: Andrew Mactier

PREPARED BY: Andrew Mactier

EXECUTIVE SUMMARY

<i>Summary of Preferred Option Endorsed by DPC for Further Engagement:</i>	<i>That the water provisions are updated to remove overlaps and duplications with Environment Canterbury regional plans, and that some additional specific provisions are included to address identified issues in the District.</i>
<i>Summary of Feedback Received:</i>	<ul style="list-style-type: none"> • General support for the preferred options from many stakeholders and the public. • That the Council manage land use activities, particularly agriculture/dairying, water abstraction, stock access to waterways and gravel extraction to stop the further degradation of the region's waterbodies • That the current lists of waterbodies where esplanade reserves and strips apply is sufficient. • Conflicting feedback on the need to increase the width of esplanade reserves or strips. • That there is no need for the District Plan to contain provisions that manage drains and reclamations in relation to Te Waihora /Lake Ellesmere as this is a Regional Council function.
<i>Recommended Option Post Engagement:</i>	<i>That the preferred option previously endorsed by DPC be progressed to the drafting and Section 32 evaluation phase.</i>
<i>DPC Decision:</i>	



1.0 Introduction

1.1 Overview of Preferred Option Endorsed by DPC

The changes recommended as the preferred option include updating existing objectives, policies and methods (including rules) to remove areas of overlap and duplication, and to tighten and focus them so that they relate more specifically to functions of the Selwyn District Council.

Proposed changes to the current District Plan approach would be to:

- Focus the Township strategy on managing water quality effects of land use development adjacent to rivers and streams, and maintaining natural character, ecological values and amenity values of streams and rivers close to or in Townships. The existing objectives and policies in relation to these matters need to be tightened and focused to give effect to this.
- Include relevant water related objectives and policies in the relevant Natural Environment section of the District Plan, and provide a cross-reference to the Subdivision Chapter in relation to water supply, sewerage disposal and stormwater management for new residential development.
- Maintain the current focus of the Rural volume strategy, but include additional policy and rule support for the improvement of Te Waihora, including for example:
 - rules to reflect the requirements of the National Water Conservation (Te Waihora/Lake Ellesmere) Order 1990 in relation to drainage or reclamation of the bed of the lake;
 - policies and rules to provide further support for riparian management in the Cultural Landscape/Values Management Area identified in the Canterbury Land and Water Regional Plan (which includes a 'lake area' adjacent to the lake itself, and a 'river area', a 20m strip on each side of a series of identified rivers and streams);
 - policies and rules to enable the lake restoration activities anticipated by Policy 11.4.20 of the Canterbury Land and Water Regional Plan;
 - policies and rules to enable the catchment restoration activities (such as those to protect springheads, and protect, establish or enhance riparian margins) anticipated by Policy 11.4.21 of the Canterbury Land and Water Regional Plan;
 - policies and rules to enable the managed aquifer recharge and targeted stream augmentation anticipated by Policy 11.4.22 of the Canterbury Land and Water Regional Plan.
- Consider widening the esplanade reserves/strips for the rivers listed in Appendix 12 and 17 of the Operative District Plan (which define waterbodies to which esplanade reserve and esplanade strip provisions will apply on subdivision), subject to an analysis of both the costs of this on affected landowners and the requirements of the Council's Open Spaces Strategy;
- Review which esplanade instrument (reserve or strip) is appropriate for the Hororata and Waikirikiri/Selwyn Rivers;
- Add the Rakaia and Tentburn Rivers to the list of waterbodies to which esplanade reserves and strips apply;

- Review the planning framework associated with the reasons for which an esplanade reserve or strip is taken to ensure that the policy reasons¹ are accurately reflected in the relevant rules and associated Schedules;
- Clearly identify matters that are the primary responsibility of Environment Canterbury (for example, management of the effects of land use on water quality, management of activities in the beds of lakes and rivers) or are addressed by other SDC strategies or bylaws (such as the Stormwater and Drainage Bylaw 2018) and direct District Plan users to the appropriate regional planning documents.

2.0 Summary of Feedback Received

2.1 Partner/Stakeholder Feedback

Feedback in support of the preferred approach endorsed by the District Plan Committee has been received from Environment Canterbury, the Canterbury District Health Board, Federated Farmers and the Waihora Ellesmere Trust.

Federated Farmers provided general support to the preferred approach but were undecided on whether additional rules to manage drains and reclamations in accordance with the National Water Conservation Order for Te Waihora are required, noting that the Water Conservation Order is the responsibility of Environment Canterbury, who would have provisions to manage these concerns. They also noted that Selwyn District Council holds a resource consent from ECan to maintain and manage the drains in the district, which would have conditions attached to this consent. They were of the view that rules should not be written to support what is essentially a Three Waters operational matter.

Ellesmere Sustainable Agriculture Incorporated considers that matters relating to water in the Selwyn District should be controlled by the regional authority, noting that further regulation may detract from stakeholders actively taking part in these projects and more could be gained from directing funding and stakeholder input into on-ground activities than creating more rules.

Ellesmere Sustainable Agriculture Incorporated also noted that the existing waterways listed in the operative District Plan relating to esplanade reserves and strips does not require further waterways added, including along the coastal area, and no further width expansion of reserves and strips is supported. Reasons provided for this position included for on-farm biosecurity and health and safety requirements.

2.2 Public Feedback

Public feedback predominantly indicated a desire for Council to manage land use activities, particularly agriculture/dairying, to 'stop any further degradation of the region's springs, streams, rivers, lakes and underground water'. Feedback also indicated there should be a halt to any further water takes for irrigation from any water source, as the District's water is now seriously over allocated.

¹ Current policies provide for the creation of esplanade reserves or strips to maintain and enhance water quality, riparian vegetation, and the natural character of waterbodies, where appropriate.

Other feedback identified the need for the Council to manage the invasion of weeds in waterways, the disturbance of waterways by gravel extraction and off road recreational vehicles, and to manage stock access to waterways.

Public feedback also noted that there is a need to increase marginal strips and esplanade reserves to ensure water quality, natural character, ecological, cultural, and recreational and amenity benefits are greatly improved.

3.0 Analysis of Feedback Received

3.1 Rules to Manage Drains And Reclamations and the National Water Conservation Order for Te Waihora:

- The Te Waihora/Lake Ellesmere Water Conservation Order is the responsibility of Environment Canterbury, who would have provisions to manage these concerns.
- Selwyn District Council holds a resource consent from Environment Canterbury to maintain and manage the drains in the district, which would have conditions attached to this consent. Rules should not be written to support what is essentially a Three Waters operational matter.

Analysis

While the provisions of the Te Waihora/Lake Ellesmere Water Conservation Order 1990 (the Water Conservation Order) primarily relate to the functions of Environment Canterbury, s75(4)(a) of the Resource Management Act 1991 (the Act) also sets out that the Selwyn District Plan must not be inconsistent with a Water Conservation Order.

Clause 6 of the Water Conservation Order notes that a resource consent shall not be granted under section 9 of the Act (restrictions on the use of land) if the effect would be that the provisions of the Water Conservation Order could not be observed.

The Water Conservation Order recognises that Te Waihora/Lake Ellesmere has or contributes to the following values which require protection:

- Habitat for wildlife, indigenous wetland vegetation and fish; and
- Significance in accordance with tikanga Maori in respect of Ngai Tahu history, mahinga kai and customary fisheries.

Conclusion

The feedback notes that Council has consent to manage and maintain the district's drainage infrastructure. However, the Council has only lodged consent with Environment Canterbury, with that consent currently on hold.

The fact that the Council, and other landowners who have drainage infrastructure on their land may be required to obtain resource consent for breaches of the Land and Water Regional Plan

may or may not be pertinent when considering whether the District Plan also needs District Plan provisions to ensure the Plan is not inconsistent with the Water Conservation Order.

Therefore, during the 'Drafting and Section 32 Evaluation Phase' of the District Plan Review, the Project Team will continue to consider the extent to which provisions are required in the District Plan to manage activities to ensure consistency with the Water Conservation Order, and which do not also duplicate Regional Council functions.

3.2 Esplanade Reserves/Strips and Listed Waterways:

- Existing waterways listed in the operative District Plan relating to esplanade reserves and strips does not require further waterways to be added. The provision for esplanade reserves or strips in the coastal environment is not supported. The reason cited is for biosecurity and health and safety requirements. Risk management objectives (of the adjacent properties) effectively limit access along high risk areas such as waterways.
- No further width expansion of esplanade reserves or strips is supported.
- There is a need to increase esplanade reserves and strips to ensure water quality, natural character, ecological, cultural, and recreational and amenity benefits are greatly improved.

Analysis

The Baseline Planning Assessment concluded that the existing list of waterways where esplanade reserves and strips was adequate and did not require amendment, other than adding the Rakaia and Tentburn Rivers to that list.

The Baseline Planning Assessment recommended that the width of any esplanade reserve or strip established along the listed rivers should be reviewed, and that the preferred instrument (esplanade reserve or esplanade strip) for the Hororata and Waikirikiri/Selwyn Rivers should be reviewed.

Conclusion

The 'Drafting and Section 32 Evaluation Phase' of the District Plan Review, will analyse:

- Whether adding additional rivers to Appendix 12 and 17 is justified or not;
- Whether there is justification to increase the width of esplanade reserves and strips established along the listed rivers;
- Which is the preferred instrument (esplanade reserve or strip) that will apply to the Hororata River, or the Waikirikiri/Selwyn River or part thereof;
- Whether there is a need for the policy framework to recognise that biosecurity, and health and safety issues are pertinent matters to be considered when assessing whether to take an esplanade reserve or strip at the time of subdivision.

3.3 Management of Land Use Activities, Activities in Waterbodies and Water Abstraction:

- Manage land use activities, particularly agriculture/dairying, to 'stop any further degradation of the region's springs, streams, rivers, lakes and underground water'.
- Halt to any further water takes for irrigation from any water source.
- Manage the invasion of weeds in waterways.
- Manage the disturbance of waterways by gravel extraction and off road recreational vehicles.
- Manage stock access to waterways.

Analysis

The matters to which this feedback refers to are all the responsibility of the Regional Council, and managed through Land and Water Regional Plan, or the Canterbury Regional Pest Management Plan.

Conclusion

No change to the preferred approach endorsed by the District Plan Committee is required.

4.0 Recommended Option Post Engagement

The Project Team recommends that:

- The Preferred Option previously endorsed by DPC progresses to the 'Drafting and Section 32 Evaluation Phase'.

NE206 Water – communications and engagement summary plan (post engagement report)

Key messages

(as of 26 November 2018)

Background

- As part of the Selwyn District Plan Review policies and rules managing water and waterbodies in the district are being reviewed.
- Major water resources in the Selwyn district include Te Waihora/Lake Ellesmere, rivers such as the Waikirikiri/Selwyn River, Hororata River and parts of the Hurutini/Halswell River, the Waimakariri and Rakaia Rivers which border the district, and the significant groundwater that underlies the Canterbury Plains.
- The Resource Management Act 1991 is somewhat ambiguous about the extent to which a District Plan should address water issues.
- Most of the management of groundwater and surface water is the responsibility of Environment Canterbury. However, the District Plan can help by managing activities near waterbodies to reduce the risk of accidental discharges, and by keeping the protected areas around wells and septic tank discharges within property boundaries.
- Following the Council’s District Plan Committee’s endorsement of the preferred option report, the Council consulted on the draft changes related to water and waterbodies as part of the initial public consultation between August and October 2018.
- The detailed provisions will likely be found in the Proposed Plan’s District Wide chapter – Natural Environment section (confirmed once new National Planning Standards are gazetted), and the Subdivision section of the Infrastructure and Energy Chapter.

Water in the current District Plan

- Relevant rules currently relate primarily to waterbody setbacks, restricting activities such as earthworks, buildings and tree planting within 20 metres of the bank of a waterbody, and structures and moorings that pass over or through the surface of any waterbody. Rules in the subdivision and zone chapters relate to water use in servicing allotments, and the creation of esplanade reserves and strips on subdivision.
- Key issues include:
 - The approach in the current District Plan is too broad and runs the risk of being confusing and overlapping with or duplicating regional planning documents. For example, existing rules for structures that pass over or through the surface of waterbodies, and managing effects of land use on water quality, directly overlap with Environment Canterbury functions.
 - The current District Plan does not recognise the significance of the restoration programme underway for Te Waihora/Lake Ellesmere and so does not support it where it could.
 - A consistent approach is needed between Selwyn and Christchurch councils for the management of activities affecting the Hurutini/Halswell River and Te Waihora/Lake Ellesmere, both of which cross district boundaries.
 - Specified widths for esplanade² reserves and strips for public access purposes could be increased in some instances as the current approach does not recognise the water quality, natural character and ecological and cultural benefits of esplanade reserves and strips.

About endorsed preferred option

- Key draft changes include:
 - updating existing rules to remove areas of overlap and duplication with the regional council’s functions, and to tighten and focus rules so that they relate more specifically to the district council’s functions
 - developing new rules for specific water issues in Selwyn district that are considered to be of sufficient significance. For example, develop rules to support the restoration of Te Waihora/Lake Ellesmere such as supporting the re-establishment of aquatic plants and lake margin wetlands, and managing drainage or reclamation in accordance with the National Water Conservation Order
 - considering widening the esplanade reserves/strips for the rivers listed in the current District Plan to which esplanade reserve and esplanade strip provisions apply on subdivision
 - reviewing which esplanade instrument (reserve or strip) is appropriate for the Hororata and Waikirikiri/Selwyn Rivers
 - adding the Rakaia and Tentburn Rivers to the list of waterbodies to which esplanade reserves and strips apply
 - clearly identifying matters that are primarily the responsibility of Environment Canterbury (for example, management of the effects of land use on water quality, management of activities in the beds of lakes and rivers) and direct District Plan users to the appropriate regional planning documents.

Recommended changes following consultation on endorsed preferred option

- No changes to the endorsed preferred option for this topic.

Audiences¹

Internal	Partners	Key stakeholders ³	Landowners /occupiers ⁴	General public
DPC	ECan	Department of Conservation	N/A	Selwyn ratepayers
SDC resource consent team	Te Ngāi Tuāhuriri Rūnanga (represented by Mahaanui Kurataiao)	Fish & Game		News media
SDC Asset Managers – Water Services, Open Space and Property	Te Taumutu Rūnanga (represented by Mahaanui Kurataiao)	Federated Farmers		Wider public
		Waihora Ellesmere Trust		
		Ellesmere Sustainable Agriculture		
		Selwyn-Waihora and Christchurch-West Melton Zone Committees		

Legend	High level of interest/ High level of influence (“Manage closely”)	High level of interest/ Low level of influence (“Keep informed”)	Low level of interest/ high level of influence (“Keep satisfied”)	Low level of interest/ Low level of influence (“Watch only”)

¹ “...Differing levels and forms of engagement may be required during the varying phases of consideration and decision-making on an issue, and for different community groups or stakeholders. The Council will review the appropriateness and effectiveness of the engagement strategy and methods as the process proceeds.” [Significance and Engagement Policy: Adopted 26 November 2014; p.6]

² Esplanade reserves, esplanade strips and access strips are statutory mechanisms to protect riparian and coastal margins. Riparian margins are strips of land identified along the edges of natural watercourses including streams, lakes and wetlands. The protection of these margins helps to conserve environmental values and provides opportunities for public access and recreational use, as provided for in the Resource Management Act (RMA).

³ Key stakeholders “...will advocate for or against decisions that will need to be made...” and “For the District Plan Review, stakeholders include any party that can influence decisions or be influenced by decisions made on policies or rules.” (DPR Engagement Framework)

⁴ Landowners are “the individuals and businesses that could be affected by the proposed changes in the District Plan.” (District Plan Review Community Engagement Implementation Plan; p.6)

Engagement until early 2020
(from the time initial public consultation period finishes and Proposed District Plan gets notified)

Review phases	Internal	ECan	Rūnanga	Key stakeholders	Landowners/occupiers	General public
Preferred option consultation						
Post engagement report update						
Draft provisions consultation						
Proposed District Plan formal public consultation						

2018 – 2020 communications and engagement approach

Audiences	August & September 2018 (post PO report’s endorsement by DPC and until initial public consultation period finishes)	Oct-Dec 2018 & Feb-March 2019 (engagement following endorsement of post engagement report)	January – May 2019 (engagement on detailed draft provisions)	Early 2020 (Proposed District Plan gets notified for formal public consultation)
ECan	Direct contact via email, phone and face to face meetings	Direct contact via email, phone and face to face meetings	Direct contact via email, phone and face to face meetings	
Rūnanga	Direct contact via email, phone and face to face meetings	Direct contact via email, phone and face to face meetings	Direct contact via email, phone and face to face meetings	
Key stakeholders	Part of initial public consultation	Direct contact via letter/email	Direct contact via letter/email	
Landowners/occupiers	Part of initial public consultation			
General public	Part of initial public consultation	Post engagement report published on Your Say Selwyn		
DPC			DPC workshop	

12. Preferred Option Report and Communications and Engagement Summary Plan – Stopbanks and defences against water

Author:	Rachael Carruthers (Strategy and Policy Planner)
Contact:	347 2833

Purpose

To brief the Committee on the Preferred Option Report, which is to investigate a range of options to manage the continued maintenance of existing, and establishment of new, stopbanks and related defences against water in Selwyn District.

The attached Communications and Engagement Summary Plan is to inform the Committee of the engagement activities to be undertaken in relation to the 'Stopbanks and defences against water' topic.

Recommendation

“That the Committee notes the report.”

“That the Committee endorses the Preferred Option for ‘Stopbanks and defences against water’ for further development and engagement.”

“That the Committee notes the summary plan.”

Attachments

‘Preferred Option Report for: Stopbanks and defences against water’

‘Stopbanks and defences against water’ – communications and engagement summary plan’

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

PREPARED BY: Rachael Carruthers

EXECUTIVE SUMMARY

<i>Issue(s)</i>	<i>Whether the operative provisions of the District Plan relating to stopbanks and related defences against water remain relevant and appropriate.</i>
<i>Preferred Option</i>	<i>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.</i>
<i>Recommendation to DPC</i>	<i>That the Preferred Option for 'Stopbanks and defences against water' is endorsed for further development and engagement</i>
<i>DPC Decision</i>	



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:
 - 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 Iwi 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
 - 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
 - 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 tāngata 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:
 - protect the stability, performance and operation of defences against water for activities in river and lake margins
 - 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
 - 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:
 - 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
 - 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:

3. 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
2. 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
3. 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
2. 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
4. 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
2. 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 Ngāi Tahu ownership of the Ngāi 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.

NH011 Stopbanks and defences against water– communications and engagement summary plan

Key messages

(as of 26 November 2018)

Background

- As part of the Selwyn District Plan Review, the Council has also been reviewing policies and rules managing existing and new stopbanks, and other defences against flood across the district. This topic needs to be considered together with the flooding topic.
- Stopbanks and related defences against flood are significant river flood management methods within Selwyn. Stopbanks can be found along parts of the Waimakariri and Selwyn Rivers. The majority of them are owned and maintained by the Canterbury Regional Council (Environment Canterbury), although Selwyn District Council maintains stopbanks at Arthurs Pass within the bed of the Bealey River, and there are also some isolated private stopbanks.

Current status

- Current District Plan only applies to defences against water located outside the beds of rivers within the district. Activities within the beds of rivers, including defences against water in these areas, are controlled by the Canterbury Regional Council through regional plans and bylaws.
- Upgrading, maintenance, operation and replacement of current stopbanks and defences against water is a permitted activity and not subject to any other rules, provided that their effects are the same or similar in character and scale to those which existed before the work commenced.
- Key issues identified:
 - While stopbanks and related defences against water fit within the current District Plan’s 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.
 - Current District Plan doesn’t fully address higher order documents, such as the Canterbury Regional Policy Statement.

About preferred option

- A comprehensive update of definitions, objectives, policies and rules relating to defences against water is recommended to give effect to higher order documents and to improve consistency with Christchurch City’s district plan where appropriate. This could include:
 - keeping current permitted activity status for the upgrading, maintenance, operation and replacement of existing defences against water and not being subject to compliance with any other performance standards, conditions or rules of the Plan
 - 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.

Audiences¹

Internal	Partners	Key stakeholders ²	Landowners /occupiers ³	General public
DPC	ECan	N/A	Where an existing stopbank is within or bordering their land.	Selwyn ratepayers
Council’s surface water engineers	Te Ngāi Tuāhuriri Rūnanga (represented by Mahaanui Kurataiao)			News media
Monitoring and enforcement staff	Te Taumutu Rūnanga (represented by Mahaanui Kurataiao)			Wider public

Legend	<i>High level of interest/ High level of influence (“Manage closely”)</i>	<i>High level of interest/ Low level of influence (“Keep informed”)</i>	<i>Low level of interest/ high level of influence (“Keep satisfied”)</i>	<i>Low level of interest/ Low level of influence (“Watch only”)</i>

¹ “...Differing levels and forms of engagement may be required during the varying phases of consideration and decision-making on an issue, and for different community groups or stakeholders. The Council will review the appropriateness and effectiveness of the engagement strategy and methods as the process proceeds.” [Significance and Engagement Policy: Adopted 26 November 2014; p.6]

² Key stakeholders are “the organisations requiring engagement and information as the preferred options for the Draft District Plan are being prepared.” (District Plan Review Community Engagement Implementation Plan; p.6) Key stakeholders “...will advocate for or against decisions that will need to be made...” and “For the District Plan Review, stakeholders include any party that can influence decisions or be influenced by decisions made on policies or rules.” (DPR Engagement Framework)

³ Landowners are “the individuals and businesses that could be affected by the proposed changes in the District Plan.” (District Plan Review Community Engagement Implementation Plan; p.6)

Engagement during review phases

Review phases	Internal	ECan	Rūnanga	Landowners/occupiers	General public
Preferred option development					
Preferred option consultation					

2018/2019 communications and engagement key tasks/milestones per month

(more detailed action plans to be developed for each major milestone or as required)

Audiences	Pre-December	December	December 2018 – March 2019
ECan	Consulted on preferred option report		Endorsed preferred option report is shared
Rūnanga	Consulted on preferred option report		Endorsed preferred option report is shared
Landowners/occupiers			Endorsed preferred option report is shared and feedback sought [in February/March 2019]
General public			Preferred option report is published on Your Say Selwyn website
DPC		Preferred option report goes to DPC for endorsement	

13. Preferred Option Report and Communications and Engagement Summary Plan for Coastal Hazards

Author:	Rachael Carruthers (Strategy and Policy Planner)
Contact:	347 2833

Purpose

To brief the Committee on the Preferred Options Report, which provides an update on the coastal hazard work that has been undertaken by Environment Canterbury since the release of the DOC and MfE guidance notes; and identifies preferred options for further development, including landowner and stakeholder engagement, s32 analysis and drafting.

The attached Communications and Engagement Summary Plan is to inform the Committee of the engagement activities to be undertaken in relation to the 'Coastal Hazards' topic.

Recommendation

“That the Committee notes the report.”

“That the Committee endorses the Preferred Options for ‘Coastal Hazards’ for further development and engagement, Section 32 evaluation and drafting phases.”

“That the Committee notes the summary plan.”

Attachments

‘Preferred Option Report for: Coastal Hazards’

‘Coastal Hazards’ – communications and engagement summary plan’

PREFERRED OPTION REPORT TO DISTRICT PLAN COMMITTEE

DATE: 28 November 2018

TOPIC NAME: Natural hazards

SCOPE DESCRIPTION: Coastal hazards

TOPIC LEAD: Rachael Carruthers

PREPARED BY: Rachael Carruthers

EXECUTIVE SUMMARY

<i>Issue(s)</i>	<i>The management of significant risks from natural hazards, including coastal hazards, is a matter of national importance that must be recognised and provided for when achieving the purpose of the RMA.</i>
<i>Preferred Options</i>	<p><u>Coastal erosion:</u> Option 2 – to replace the existing RPS Coastal Hazard Lines 1 and 2 with the potential coastal erosion area identified in the screening assessment.</p> <p><u>Coastal inundation:</u> Option 4 – include the coastal inundation area identified in the screening assessment in the PDP as a coastal high hazard overlay.</p> <p><u>Tsunami:</u> Option 7 – include the tsunami evacuation zones identified as a coastal hazard overlay in the PDP, together with consideration of tsunami risk for developments that involves vulnerable groups, or critical facilities.</p> <p><u>Rakaia Huts:</u> Option 9 – the development of additional modelling at Rakaia Huts to take account of the interaction between the coast, the hāpua and the river in the identification of high hazard and hazard areas.</p>
<i>Recommendation to DPC</i>	<i>That the Committee endorses the Preferred Options for 'Coastal Hazards' for further development and engagement, Section 32 evaluation and drafting phases.</i>
<i>DPC Decision</i>	

1.0 Introduction

1.1 Previous reports to DPC

As part of the District Plan Review, Council needs to undertake investigations to understand coastal hazards, and to manage those risks to people and property. This is to give effect to the Canterbury Regional Policy Statement (CRPS) and New Zealand Coastal Policy Statement (NZCPS), and is also a matter of national importance under s6(h) to the RMA. This was the subject of Issues and Options reports on flooding and coastal hazards considered by DPC at its meeting on 22 February 2017 and again on 6 December 2017.

In relation to coastal hazards, DPC agreed to the following on 22 February 2017, and confirmed on 6 December 2017:

‘That in relation to the scale, timing and cost of the technical investigations relating to flood risk and coastal hazards the Committee Adopts:

Coastal hazards – Option 6:

- *Incorporate coastal hazard lines contained in Appendix 5 to the Canterbury Regional Policy Statement into the district plan.*
- *The district plan to manage development seaward of these coastal hazard lines instead of the Regional Coastal Environmental Plan.’*

A key factor in recommending the above options was the anticipation that guidance was due to be published by the Department of Conservation (DOC) on implementing Policy 24 to the NZCPS, including guidance on the scale and methodologies for investigation of coastal hazards and processes. It was also anticipated the Ministry for the Environment’s (MfE) guidance on climate change would also soon be published.

Since the matter of coastal hazards was last considered by DPC, the DOC guidance on implementing Objective 5 and Policies 24 – 27 of the NZCPS (relating to coastal hazards) and the MfE guidance for local government on coastal hazards and climate change have been published, both in December 2017.

1.2 Purpose of this report

The purpose of this report is to:

- update the DPC with the coastal hazard work that has been undertaken by Environment Canterbury since the release of the DOC and MfE guidance notes; and
- identify preferred options for further development, including landowner and stakeholder engagement, s32 analysis and drafting.

2.0 Statement of Operative Plan approach to issue

As noted in the 22 February 2017 report to DPC, the Operative Selwyn District Plan (SDP) currently maps the Coastal Hazard 1 line. Development seaward of the line is managed by way of an assessment of natural hazard risk through consenting processes. The line itself is based on that contained in the Regional Coastal Environment Plan (RCEP), which was made operative in 2005. The mapping of this line and the information on which it is based are therefore over 10 years old and pre-date the requirements of the NZCPS, including taking into account the effects of climate change.

At Rakaia Huts, the erection of any new dwelling, part dwelling or other principal building on the lower river terrace (shown as Lots 58-108 in Appendix 24 of the SDP, Appendix A) is a non-complying activity. This control manages inundation from both the Rakaia River and the coast.

The SDP does not manage coastal hazards in any other way. In particular, coastal inundation other than at Rakaia Huts is not addressed, and tsunami risk is not addressed at all.

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

3.1 Resource Management Act 1991

As noted in earlier reports to DPC related to natural hazards, the management of significant risks from natural hazards is a s6 matter of national importance that must be recognised and provided for when achieving the purpose of the RMA. As such, coastal hazards must be addressed through the Proposed District Plan (PDP) to a much greater extent than they are currently.

3.2 New Zealand Coastal Policy Statement (NZCPS)

Section 75(3)(b) of the RMA directs that a district plan must give effect to any New Zealand coastal policy statement.

Objective 5 and Policies 24 – 27 of the NZCPS are the most relevant to natural hazards. They are attached as Appendix B to this report. Objective 5 seeks to ensure that the management of coastal hazards is risk-based and takes account of climate change. It requires proactive management: locating new development away from hazard-prone areas; considering managed retreat for existing hazard-prone development; and protecting and restoring natural defences.

Policy 24 lays the foundation for risk-based coastal hazard management. Areas that will potentially be affected by coastal hazards are to be identified (giving priority to high-risk areas). Hazard risks over at least the next 100 years are to be assessed for those areas (having regard to a range of factors that affect hazard risks and the effects of climate change on each of those factors). The identification of these risks is to take into account national guidance and the best available information on the likely effects of climate change on the district.

Policy 25 is the overarching policy for managing the risk of social, environmental and economic harm from coastal hazards. It applies to all areas in the coastal environment that are potentially affected by coastal hazards.

Policy 26 addresses the management of the large range of natural coastal landforms and features that provide natural defences, including beaches, estuaries, wetlands, intertidal areas, coastal vegetation, dunes and barrier islands.

Policy 27 specifically addresses areas with significant existing development. The opportunity to avoid the risks from coastal hazards has already passed for such areas. Under this policy, local authorities are encouraged to develop sustainable risk-reduction strategies in a way that includes assessing the range of strategic options as set out in Policy 27(1) and evaluating strategic options as set out in Policy 27(2). Policies 27(3) and (4) address the use of hard protection structures.

Department of Conservation guidance on the NZCPS

The December 2017 DOC guidance on Objective 5 and Policies 24 – 27 of the NZCPS (the DOC Guidance) provides more detailed advice about how to give effect to these requirements. The coastal hazard screening assessment undertaken by Environment Canterbury and discussed in Section 5 of this report has been undertaken in accordance with the requirements of NZCPS Policy 24.

In addition to the coastal erosion and inundation risks addressed in the coastal hazard screening assessment, the NZCPS includes a requirement to consider tsunami risk. The DOC Guidance recommends that, when considering targeted land-use planning provisions for tsunami, the Ministry of Civil Defence and Emergency Management Director's guidelines be followed. In line with the MCDEM guidance, Selwyn District has been assessed as containing Red and Orange Evacuation Zones (Appendix C). Within these areas, the DOC guidance recommends restricting:

- development that involves vulnerable groups, eg rest homes, pre-schools and schools
- critical facilities eg hospitals, emergency services and key infrastructure

Ministry for the Environment guidance for local government on coastal hazards and climate change

The Ministry for the Environment publication *Coastal Hazards and Climate Change: guidance for local government* (the MfE Guidance) was formally published in December 2017 and launched in mid-2018.

This guidance sets out a step-by-step approach to assessing, planning and managing the increasing risks facing coastal communities, along with an updated synthesis of information and tools and techniques to underpin the process. It also supports the implementation of relevant objectives and policies in the NZCPS and is complementary to the DOC Guidance.

The approach differs from previous editions, and from current coastal hazard management practice, in two significant ways – first, in how it deals with uncertainty and risk, and second, by placing community engagement at the centre of decision-making processes.

The approach is called *dynamic adaptive pathways planning*. As its name suggests, it identifies ways forward (*pathways*) despite uncertainty, while remaining responsive to change should this be needed (*dynamic*).

In the approach, a range of responses to climate change are tested against possible future scenarios. Pathways are mapped that will best manage, reduce or avoid risk. A plan is developed, with short-term actions and long-term options, and includes pre-defined points (triggers) where decisions can be revisited. This flexibility allows the agreed course of action to change if the need arises – such as if new climate change information becomes available.

By accommodating future change at the outset, this approach is intended to help avoid locking in investments that could make future adjustments difficult and costly. As such, it assists both longer-term sustainability and community resilience.

The dynamic adaptive pathways planning approach recognises that, first, climate change effects vary from place to place, and second, that decision-makers face unavoidable uncertainty about ongoing sea level rise. It is usually not possible, practical or sensible for them to wait until uncertainties are reduced before making decisions.

3.3 Canterbury Regional Policy Statement

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

The objectives and policies of the Canterbury Regional Policy Statement (RPS) relating to natural hazards are set out in Chapter 11. Those relevant to Selwyn District are attached as Appendix D to this report.

As the whole of Selwyn District is located within greater Christchurch (as opposed to Greater Christchurch, which encompasses the smaller RPS Map A area), the RPS requires the Proposed District Plan (PDP) to include objectives, policies and methods to give effect to RPS Policy 11.3.1 – avoidance of inappropriate development in high hazard areas, in relation to coastal hazards. The RPS definition of a high hazard area includes land likely to be subject to coastal erosion including the cumulative effects of sea level rise over the next 100 years, together with land subject to sea water inundation (excluding tsunami) over the next 100 years.

Council is directed to have particular regard to the effects of climate change when considering natural hazards, and to limit physical works to mitigate natural hazards to situations only where the natural hazard risk cannot reasonably be avoided, and any adverse effects of the works on the natural and built environment and on the cultural values of Ngāi Tahu are avoided, remedied or mitigated.

3.4 Canterbury Regional Coastal Environment 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)).

The objectives, policies and rules relating to natural hazards are set out on Chapter 9 of the Canterbury Regional Coastal Environment Plan (RCEP), and those that relate to Selwyn are attached as Appendix E to this report.

The RCEP identifies two coastal hazard areas – the area seaward of Coastal Hazard Line 1, and the area inland of Coastal Hazard Line 1 to Coastal Hazard Line 2. Coastal Hazard Line 1 is approximately parallel with the shoreline, set inland from mean high water mark springs, which contains the current active beach system and land that is at risk from coastal erosion within 50 years of the RCEP being produced. Coastal Hazard Line 2 marks land that is at risk from coastal erosion in the period 50 to 100 years of the RCEP being produced. The lines were last reviewed and updated for Selwyn in 2015, but the updated Coastal Hazard 1 Line has not been incorporated into the SDP maps.

Within both Coastal Hazard Line areas, permitted activities are limited to the following:

- the reconstruction or replacement of existing buildings and structures (including roads and rail lines) in limited circumstances
- the installation, maintenance, extension to, or removal of, network utility services, subject to standards
- fences
- disturbance of vegetation for the customary use of Rūnanga within their rohe

Within both Coastal Hazard Line areas, the following are restricted discretionary activities:

- The erection, reconstruction, placement, alteration, or extension of any structure;
- The disturbance (burning, grazing, or removal) of vegetation within active beach systems;
- The formation of access tracks (including board walks) across an active beach system;
- The artificial adjustment of a beach profile, (including dune re-contouring), within an active beach system;
- The excavation, filling, or disposal of spoil in volumes greater than 5 cubic metres per 100 square metres of land area;
- The removal of sand, rocks, shingle, shell, or other natural material from an active beach system in volumes greater than 5 cubic metres by any person within any 12 month period.

The matters for discretion consider: the effect of the proposal on coastal erosion; the transference of adverse effects onto any other property; and providing for removal of any structure that is rendered unusable through coastal erosion.

Within both Coastal Hazard Line areas, the following activities are prohibited:

- the construction of a landfill or the use of a landfill for the disposal of solid or hazardous waste;
- the construction of a new road or railway, but not including:
 - the reconstruction or realignment of an existing road or railway within the hazard zone; or

- the construction of a new road or railway that provides an access route to the Coastal Marine Area.

Within the Coastal Hazard Line 1 area, the following activities are also prohibited:

- the erection or placement of any habitable building with a floor area greater than 25 square metres, except where permitted
- the extension or alteration of any habitable building with a floor area of 25 square metres or less such that it causes the building to have a floor area greater than 25 square metres, except where permitted
- The production or storage of any hazardous substance, except in limited circumstances

3.5 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 Mahaanui Iwi Management Plan 2013 (IMP) is such a document.

As emphasized in the NZCPS (2010), tāngata whenua have a traditional and continuing cultural relationship with areas of the coastal environment, including places where nana whenua have fished and lived for generations. The association of Ngāi Tahu to the Canterbury coast is acknowledged through the listing of Te Tai o Mahaanui (the Selwyn Banks Peninsula Coastal Marine Area) as a coastal statutory acknowledgement area.

The objectives and policies relating to the coastal environment and Te Waihora seek to protect or improve the coastal environment, with an emphasis on cultural and ecosystem health, including water quality. Although the objectives and policies do not directly address coastal hazards, measures to manage coastal hazards would limit development in the coastal area and thereby assist in the achievement of the IMP objectives.

3.6 NES for Telecommunications Facilities

Regulation 57 of the Resource Management (National Environmental Standard for Telecommunication Facilities) Regulation 2016 (Appendix F) (the NESTF) prevents Council from making natural hazard rules that relates to an activity subject to the NESTF. This is on the basis that resilience is already factored into telecommunication industry practice, and that they will either avoid hazard areas or engineer structures to be resilient to the hazard risk.

As such, activities subject to the NESTF will not be subject to the rules of the PDP. However, should a resource consent be required under the NESTF, then district plan objectives and policies do apply, including those relating to natural hazards.

4.0 Summary of alternative management responses – other districts

4.1 Christchurch District Plan

As a consequence of the withdrawal of the coastal hazard provisions from the proposed Christchurch District Plan in November 2015, the provisions of the Christchurch City Plan and the Banks Peninsula District Plan that relate to coastal hazards still apply in Christchurch.

Within the area subject to the Christchurch City Plan, general objectives and policies relating to natural hazards are supplemented by specific policies seeking to avoid increased risk resulting from sea level rise, coastal erosion and coastal flooding. Buildings, earthworks and subdivision are managed to allow coastal hazards to be assessed.

Within the area subject to the Banks Peninsula District Plan, coastal hazard provisions relate only to subdivision, where the shape, size, orientation of sites and their access in relation to natural hazards is a matter for control or discretion.

Tonkin & Taylor have undertaken a coastal hazard assessment for Christchurch and Banks Peninsula, completed in October 2017. This report updates their original 2015 report and addresses the 2016 recommendations of the peer review panel, and will be used to inform a Plan Change to incorporate coastal hazards into the Christchurch District Plan.

4.2 Waimakariri District Plan

As noted in the report to DPC on 22 February 2017, Waimakariri District have prepared a draft plan change addressing natural hazards. In relation to coastal hazards, the draft plan change proposes to use the Coastal Hazard lines identified in the CRPS, with an option to review the mapped coastal hazard areas if and when the proposed National Policy Statement on managing natural hazard risk comes into effect. This draft plan change has not yet progressed to notification.

4.3 Hurunui and Ashburton District Plans

As noted in the report to DPC on 22 February 2017, the RPS only requires territorial authorities outside of Greater Christchurch to manage subdivision in relation to coastal hazards. For all other activities the RCEP remains the statutory plan.

5.0 Coastal hazard screening assessment

In line with the “regional-hazard screening” process recommended in the MfE Guidance to identify areas where further investigation is warranted, Environment Canterbury have undertaken a high-level, coastal hazard-exposure screening assessment for the Selwyn District coastline, entitled *A coastal hazard screening assessment for Selwyn District* (the screening assessment) and attached as Appendix G to this report. Its purpose is to summarise the existing

knowledge of contemporary and future coastal hazards in the District and to determine whether any additional information or more detailed assessments may be required to inform the DPR process.

The coastal hazard screening broadly identifies areas potentially exposed to coastal hazards and where more detailed assessments may need to be undertaken. It does not assess in any detail what settlements, land uses, assets (including cultural assets), infrastructure or future growth areas may be exposed to future coastal hazards.

The assessment is a collation of existing coastal hazard information for the District. The available information concerns both what is known about historic and contemporary coastal hazards, coastal processes and shoreline behaviour and an assessment of the potential future exposure of coastal land to climate change effects on coastal hazards.

A zone of potential coastal erosion hazard for the next 100-years was created. The extent of this zone extends approximately 120 metres from the current shoreline and includes productive land, coastal wetland areas, coastal drainage systems and important coastal culvert structures. The coastal culverts which drain spring water (and flood waters) to the sea are the assets most at risk from future coastal erosion and may require more regular maintenance and repair as sea levels rise. The eroding beach barrier will progressively overwhelm parts of the lowland drainage system which will have future implications for local land drainage.

The report notes that the prediction of future stability of the landward part of the coastline fronting the north Rakaia Huts hāpua, due to future climate change, needs to be treated differently than the open coastline of the District due to river and coastal process interactions.

An area of coastal land potentially exposed to coastal inundation from extreme storm events over the next 100 years has been identified by mapping low-lying land below a 4m mean sea level elevation contour. This is an indication of where low-lying land with potential for being affected by future sea level rise might be. Potential inundation exposure is greatest around the low-lying margins of Coopers Lagoon/Muriwai, including Tentburn and some parts of Taumutu.

The lower parts of the north Rakaia Huts settlement are currently susceptible to combined river and coastal flooding events and future sea level rise is likely to increase this susceptibility.

The report recommends that a more detailed coastal hazard assessment be carried out for the north Rakaia Huts settlement to better identify the future coastal hazard risk (erosion and inundation) and vulnerability.

The report also recommends that consideration could also be given to enhancing an existing open coastal erosion model to incorporate possible climate change-induced variability of other weather and oceanic coastal hazard drivers and coastal sediment supply, although this is not considered to be a priority.

The high-level coastal inundation assessment in this report does not consider detailed hydraulic connections between the open coast and inland areas and considers the areas mapped to be

conservatively high. A possible refinement to develop a “connected bath-tub¹” inundation model could be considered if more site-specific information at sensitive sites was required, for example around Taumutu and Ngāti Moki marae, which are within the potential 100-year inundation exposure area.

6.0 Summary of options to address issues

6.1 AREA OF POSSIBLE COASTAL EROSION

OPTION 1 – Incorporate the existing RCEP coastal hazard lines and provisions into the Proposed District Plan

Option 1 is to continue the interim approach selected at the 22 February 2017 DPC meeting, namely to incorporate the existing RCEP Coastal Hazard Lines 1 and 2 into the PDP, and to manage development seaward these lines in a manner consistent with the existing RCEP requirements (Appendix E).

Effectiveness in Addressing Issue:

Option 1 would give limited effect to the RPS, by transferring the existing Coastal Hazard Lines to the PDP. However, these lines were not calculated using the most recent projections of likely sea level rise, and so may provide a lower level of protection than required by the RPS and s6(h) RMA.

This approach was approved on 22 February 2017 on the basis that it was an interim measure until the DOC and MfE Guidance was available and considered.

Risks:

The Coastal Hazard Lines 1 and 2 do not take into account the most recent (December 2017) MfE Guidance projections of sea level rise. As such, Option 1 carries the risk that coastal high hazard areas are not identified and the roll-over of existing provisions into the PDP will be insufficient to meet Council’s s6(h) RMA obligations.

Budget or Time Implications:

The Coastal Hazard Line areas have already been identified and so, while there would be time and cost involved in developing appropriate objectives, policies and rules for incorporation in the PDP, this would be limited. As there would be no change from the existing provisions (other than the plan in which they sit), direct landowner engagement would not be required before notification of the PDP.

¹ A “bath-tub” model identifies all land that may be inundated if water levels rise, but assumes that all land would be affected evenly, regardless of its distance from the coast. A “connected bath-tub” model extrapolates the storm inundation level inland where there is a connection to the open coast i.e. natural or artificial drainage systems

Stakeholder and Community Interests:

This option essentially transfers existing provisions from the CREP to the PDP. As such, provided that the change is appropriately communicated to landowners, there is a reasonable likelihood of acceptance from this group.

Recommendation:

As Option 1 is considered insufficient to meet Council's obligations under s6(h) of the RMA, and would not give full effect to the RPS, and is not recommended for progression to the next stage of PDP development.

OPTION 2 – Incorporate the potential future coastal erosion area into the Proposed District Plan

Given the release of the DOC and MfE Guidance and the work that has been undertaken since, Option 2 is to replace the existing RPS Coastal Hazard Lines 1 and 2 with the potential coastal erosion area identified in the screening assessment as a coastal high hazard overlay, with the seaward boundary being the district boundary (mean high water springs).

The potential coastal erosion area identified in the screening assessment extends approximately 120m inland from the current shoreline and includes productive land, coastal wetland areas, coastal drainage systems and important coastal culvert structures. The area is similar to the existing Coastal Hazard 1 line for much of the district's coastline, but extends further inland in some areas.

Subdivision, use and development within the whole of this area would be subject to constraints broadly equivalent to the RCEP requirements (Appendix E).

Effectiveness in Addressing Issue:

The RPS definition of high hazard areas includes land within greater Christchurch likely to be subject to coastal erosion including the cumulative effects of sea level rise over the next 100 years. This includes (but is not limited to) the land located within Hazard Zone Lines 1 and 2. The screening assessment uses the updated projections for sea level rise included in the MfE Guidance, and so identifies a slightly larger area than the Hazard Zone Lines.

Using the potential coastal erosion area identified in the screening assessment to identify a coastal high hazard overlay would therefore give better effect to the RCPS and the NZCPS than Option 1.

Risks:

There is a potential for landowner disquiet if the change and the reasons for it are inadequately communicated.

Budget or Time Implications:

The potential coastal erosion area has already been identified therefore, while there would be time and cost involved in stakeholder engagement and developing appropriate policies for incorporation in the PDP, this would be limited.

Stakeholder and Community Interests:

There is a potential for landowner disquiet if the proposed change and the reasons for it are inadequately communicated.

Option 2 is supported by the Canterbury Regional Council.

Option 2 is supported by the Department of Conservation. The reasons for this support are that the proposed areas:

- implement the NZCPS; and
- accurately reflect the coastal hazards whereas the old coastal hazard line 1 in parts bisected wetlands behind the gravel beach barrier. The hazard line did not take into account storm surge and wave run over of the gravel beach barrier causing the shoreline to move onshore.

Recommendation:

That in relation to coastal erosion, Option 2 be adopted for targeted landowner and stakeholder engagement, s32 analysis and drafting.

6.2 COASTAL INUNDATION

OPTION 3 – Do not address in the Proposed District Plan

Almost none of the coastal inundation area identified in the screening assessment (land below 4m above mean sea level) is currently recognised within the SDP as a flood hazard area, although some is seaward of the Coastal Hazard 1 line and so is subject to development controls. Option 3 would continue the approach of not addressing risks associated with coastal inundation through the PDP.

Effectiveness in Addressing Issue:

The NZCPS requires coastal hazard risks to be managed, by locating new development away from areas prone to such risks. This includes the potential for inundation of the coastal environment, taking into account potential sources, inundation pathways and overland extent, over at least 100 years.

The RPS requires the PDP to include objectives, policies and methods to give effect to RPS Policy 11.3.1 – avoidance of inappropriate development in high hazard areas. The RPS definition of a high hazard area includes land likely to be subject to sea water inundation (excluding tsunami) over the next 100 years.

As such, Option 3 would not give effect to the NZCPS or the RPS.

Recommendation:

For the reasons outlined above, Option 3 is not recommended for progression to the next stage of PDP development.

OPTION 4 – Incorporate the modelled coastal inundation area as a coastal inundation high hazard overlay in the Proposed District Plan

Option 4 would see the coastal inundation area identified in the screening assessment included in the PDP as a coastal high hazard overlay, with associated provisions to limit development in the area.

Effectiveness in Addressing Issue:

As noted above, the RPS requires the PDP to include objectives, policies and methods to give effect to RPS Policy 11.3.1 – avoidance of inappropriate development in high hazard areas. At a national level, Policy 25 of the NZCPS seeks to avoid increasing the risk of social, environmental and economic harm from coastal hazards in areas potentially affected within the next 100 years, including avoiding redevelopment or land use change that would increase the risk of adverse effects from coastal hazards.

The NZCPS takes a fairly precautionary approach, in requiring activities to be managed within areas that are only potentially affected – a high level of certainty is not required. Option 4 would give effect to the NZCPS and the RPS.

Risks:

There is potential for landowner disquiet if the change and the reasons for it are inadequately communicated.

The screening undertaken has been at a high level, and does not incorporate hydraulic connections between the open coast and inland areas during extreme storm events.

Budget or Time Implications:

The potential coastal inundation area has already been identified so, while there would be time and cost involved in undertaking stakeholder engagement and developing appropriate provisions for incorporation in the PDP, this would be limited.

Stakeholder and Community Interests:

Option 4 is supported by the Canterbury Regional Council.

The Department of Conservation considers that Option 4 is appropriate as it gives effect to the NZCPS. The 4m above mean sea level coastal inundation line is strongly supported because of the uncertainties of future coastal geomorphology including the future gravel beach barrier breaches caused by storm waves rolling gravel over the gravel beach and into the backshore wetlands. At the mouth of Te Waihora at Taumutu, there is considerable uncertainty over the next 100 years whether the gravel beach barrier will remain as it part of eroding foreshore of Canterbury Bight. That is with sea level rise, Te Waihora could become an estuary. If the gravel beach barrier

remained, with rising sea levels, the opening of the Te Waihora mouth will become more difficult because of the reduction in the fall between the Te Waihora lake level and sea level on the open coast. The difficulties in opening the mouth could be compounded by high river inputs of freshwater into Te Waihora caused by strong southerly storm with large waves. That is, lake level peaks could be much higher.

Recommendation:

That in relation to coastal inundation, Option 4 be adopted for targeted landowner and stakeholder engagement, s32 analysis and drafting.

OPTION 5 – Undertake additional research to identify a coastal inundation hazard overlay in the Proposed District Plan

Rather than relying on the modelling that has already been undertaken, Option 5 would involve undertaking additional work to incorporate hydraulic connections between the open coast and inland areas during extreme storm events. This revised model would then identify the area to be included in the PDP as a flood high hazard overlay.

Effectiveness in Addressing Issue:

Selwyn's coastal environment is of limited distance and contains limited development opportunities, given the rural zoning everywhere except Rakaia Huts, and the Kāinga Nohoanga zoning proposed by Mahaanui Kurataiao Ltd for Taumutu. As such, additional research into coastal inundation would be of limited value to the District as a whole at this time.

The Regional Coastal Environment Plan was made operative in 2005, and is due for review. As the territorial authority with primary responsibility for coastal hazard management, Environment Canterbury will therefore be likely to review provisions relating to coastal inundation as part of that process.

It is considered that it would be ineffective and unnecessary to undertake additional modelling of areas that may be subject to coastal inundation at this time.

Budget or Time Implications:

Undertaking additional research and modelling would have significant additional budget and time implications which may have an adverse effect on Council's ability to deliver the PDP as planned.

Stakeholder and Community Interests:

By incorporating additional factors into the model, Option 5 would provide additional certainty for landowners and residents about the extent of the area that may be subject to coastal inundation within the next 100 years.

Recommendation:

Option 5 does not form part of the recommended approach.

6.3 TSUNAMI

The identification of the existing Orange and Red Zone tsunami evacuation areas for Selwyn District (Appendix C) was not undertaken with the same level of robustness as the evacuation areas for Christchurch. Environment Canterbury staff² have advised that the existing zones were based on a precautionary approach (that it is better to over-evacuate than under-evacuate), but that there was limited science associated with their identification.

A review and update by Environment Canterbury of the tsunami evacuation areas for Selwyn is currently planned for next year, and is anticipated to be completed before notification of the PDP. It is currently considered likely that the review will result in a reduction of the evacuation area.

OPTION 6 – Do not address in the Proposed District Plan

Option 6 would continue the current approach of not addressing risks associated with tsunami through the PDP. Tsunami risk would only be addressed through Council's Civil Defence and Emergency Management functions.

Effectiveness in Addressing Issue:

In addition to the coastal erosion and inundation risks addressed in the coastal hazard screening assessment, the NZCPS includes a requirement to consider tsunami risk. Option 6 would result in tsunami risk not being considered by the PDP, and so would not give effect to the NZCPS.

Recommendation:

Option 6 does not form part of the recommended approach.

OPTION 7 – Incorporate as a coastal hazard overlay in the Proposed District Plan

Option 7 would see the Orange and Red tsunami evacuation zones identified as a hazard overlay in the PDP, together with consideration of tsunami risk for developments that involves vulnerable groups, such as rest homes, pre-schools and schools, or for critical facilities such as hospitals, emergency services and key infrastructure.

Using the current evacuation zones as an interim measure, this would include amending the coastal hazard overlay area when Environment Canterbury have completed their planned 2019 review of the evacuation zones, such that the PDP includes the most recent information at the time of notification.

² Helen Jack, *pers comm* 26 October 2018

Effectiveness in Addressing Issue:

The sorts of activities that would require an assessment of tsunami implications are likely to require resource consent under the general rules of the PDP. As such, specific rules to require consent for identified activities, to allow tsunami risk to be considered, would not be necessary.

However, the area where tsunami needs to be considered would be shown on the planning maps as a coastal hazard overlay, with associated policy support for specific consideration of tsunami risk for activities in this area where the activity warrants it. This specific policy would be supported by the general natural hazard objectives and policies.

This approach would enable the PDP to give effect to the NZCPS and the RPS without creating additional rules that replicate other rules that have wider effect.

Risks:

Limiting the PDP provisions to policies only runs the risk that activities where tsunami needs to be considered could be permitted by wider zone rules and therefore not subject to consideration through the consent process. Care will therefore need to be taken with integration through the s32 and drafting process, to ensure that either: all such activities are subject to a consent process where tsunami can be considered without additional rules (discretionary or non complying status); or that rules are developed to require consideration of tsunami risk of a proposed activity if it is otherwise permitted.

Budget or Time Implications:

The initial Red and Orange evacuation areas have already been developed, and a review and update by Environment Canterbury is already planned for next year. There would therefore be no additional cost in identifying the policy area. While there would be time and cost involved in stakeholder engagement and developing appropriate provisions for incorporation in the PDP, this would be limited.

Stakeholder and Community Interests:

The Orange and Red evacuation zones were not developed with land use controls in mind. The extent of the evacuation zones will therefore need to be reviewed and the limited extent of the proposed controls would therefore need to be carefully communicated.

Option 7 is supported by the Canterbury Regional Council.

Option 7 is supported by the Department of Conservation, as it recognises the risk to vulnerable groups or critical facilities. DOC advises that Council should consider managing intensification of development in these areas – for example new subdivision under s106 RMA.

Recommendation:

That in relation to coastal inundation, Option 7 be adopted for targeted landowner and stakeholder engagement, s32 analysis and drafting.

6.4 RAKAIA HUTS

At Rakaia Huts the erection of a dwelling, part of a dwelling, or other principal building, is a non-complying activity on the lower river terrace, shown as Lot 58 – 108 in Townships Appendix 24 of the SDP (Appendix A). The existing provisions extend further upstream than the screening indicates is likely to be subject to coastal inundation, because of the risk of river flooding, but the screening indicates more extensive areas of vulnerability nearer the lagoon, including all of some properties, the carpark, and approximately half the campground.

All but one of the properties at Rakaia Huts already have a dwelling erected on them. The single bare section is identified in the screening assessment as subject to coastal inundation but not currently subject to any natural hazard constraints under the district plan, as it is on the eastern side of Pacific Drive.

There are three properties with sufficient land for subdivision, of which two are partly within the area identified in the screening assessment as potentially subject to coastal inundation. In both these cases it is unlikely that subdivision could result in a second building platform outside the lower terrace. The third is outside the area identified in the screening assessment as potentially subject to coastal inundation.

The screening assessment recommends that a more detailed coastal hazard assessment be undertaken for Rakaia Huts, to better identify coastal hazard risk and vulnerability.

OPTION 8 – Use the same provisions at Rakaia Huts as the rural area, without additional modelling

Consistent with Option 4 for the rural area, Option 8 would use the screening assessment modelling (land below 4m above mean sea level) to identify a coastal high hazard area.

There are limited additional development opportunities at Rakaia Huts. Reflecting this limited development potential, Option 8 is the ‘least cost’ option.

Effectiveness in Addressing Issue:

In contrast to the significant restrictions on subdivision, use and development of high hazard rural areas, the RPS anticipates some subdivision, use and development of high hazard areas in townships, provided that the hazard is avoided or appropriately mitigated.

Option 8 would identify areas where additional site-specific assessment and mitigation would be required as part of a development.

Risks:

The coastal erosion model used for the screening assessment was not considered appropriate to use for the coastal frontage adjacent to Rakaia Huts, as it does not take into account the interactions between the river and the coast. As such, coastal erosion has not been considered at Rakaia Huts.

Likewise, areas likely to be subject to inundation may not be identified, as the model does not take account of the interaction between the coast, the hāpua and the river.

Option 8 would be more open to challenge, as the screening assessment explicitly states that the modelling used was not appropriate for the more complex environment at Rakaia Huts.

However, there is only one section in Rakaia Huts that has not been built on.

Budget or Time Implications:

The screening assessment has been completed, and so while time and cost would be associated with landowner engagement, there would be limited additional time and cost associated with undertaking a s32 assessment and drafting of provisions.

Stakeholder and Community Interests:

The members of the Rakaia Huts community will have a significant stake in the provisions relating to the management of natural hazards in their community.

Recommendation:

On its own, Option 8 does not form part of the recommended approach. However, it may form part of a staged development of more targeted provisions, as outlined below.

OPTION 9 – Undertake additional modelling for Rakaia Huts as part of the DPR

Option 9 would see the development of additional modelling at Rakaia Huts to take account of the interaction between the coast, the hāpua and the river. This modelling would be used to identify high hazard and hazard areas where development controls might be required. In order to fulfil Council's RPS requirements in relation to high hazard and hazard areas, Environment Canterbury staff³ have advised that the additional work to identify land likely to be subject to coastal erosion and inundation over at least the next 100 years would involve:

- an analysis and evaluation of existing information and literature on contemporary and historic processes which shape the morphology of the Rakaia hāpua and have influenced any historic erosion and inundation events
- identifying and filling any knowledge gaps in physical processes that would better inform our understanding of the river mouth and hāpua dynamics in relation to river mouth behaviour, particularly any gaps which would be required to be filled to understand future river mouth morphology and associated shoreline movement
- incorporating the most recent national climate change and sea level rise guidance into an analysis of how contemporary processes (e.g. waves, river flows, river and longshore sediment, lagoon level variability) may change under future climate scenarios (as identified in the MfE Guidance)

³ Justin Cope, 21 November 2018

Once these areas have been identified through the further modelling, they would be subject to controls to avoid or mitigate risk, consistent with the approaches developed for other parts of the district.

Option 8 could be used as an interim 'holding pattern' measure until the additional modelling was completed.

Effectiveness in Addressing Issue:

Option 9 would enable the PDP to meet Council's RPS obligations in relation to coastal hazards, and would provide a basis to initiate engagement with the Rakaia Huts community to determine longer-term management options as anticipated by the NZCPS and outlined in more detail in the MfE Guidance.

Risks:

The additional complexity of the modelling proposed may make it more open to challenge of the component parts.

Budget or Time Implications:

Option 9 has not been costed, but would extend the timeframe before proposals for the management of natural hazards at Rakaia Huts were ready for inclusion into the PDP. However, objectives and policies about the management of high hazard and hazard areas in general could proceed with development in the meantime. Option 9 would also have increased costs over Option 8.

Stakeholder and Community Interests:

The members of the Rakaia Huts community will have a significant stake in the provisions relating to the management of natural hazards in their community.

Option 9 is supported by the Canterbury Regional Council.

Option 9 is supported by the Department of Conservation.

Recommendation:

That in relation to Rakaia Huts, Option 9 be adopted, followed by targeted landowner and stakeholder engagement, s32 analysis and drafting.

OPTION 10 – Undertake additional modelling for Rakaia Huts outside the DPR process

Option 10 is similar to Option 9 in undertaking additional modelling specific to Rakaia Huts, but Option 10 would see this undertaken outside the DPR process and incorporated into either the RCEP or the PDP, as appropriate to the outcome and timing of the results, through a variation or plan change.

Option 8 could be used as an interim measure until this additional work was completed.

Effectiveness in Addressing Issue:

Option 10 would allow more time to be taken to develop an appropriate model and for the Rakaia Huts community to consider the implications and options available to them. This option would enable Council to give best effect to both the RPS and the NZCPS requirements to avoid inappropriate development in areas subject to coastal hazards.

Risks:

As for Option 9. In addition, there is a risk with Option 10 is that the work would not be progressed if it is not subject to the same impetus as the full DPR.

Budget or Time Implications:

Option 10 would sit outside the DPR process and budget, and so would need to be provided for as a separate project with its own budget and timeframe.

Stakeholder and Community Interests:

The members of the Rakaia Huts community will have a significant stake in the provisions relating to the management of natural hazards in their community.

Recommendation:

Option 10 does not form part of the recommended approach.

7.0 Summary of partner/stakeholder engagement

7.1 Department of Conservation

The Department of Conservation supports each of the preferred options.

7.2 Canterbury Regional Council

The Canterbury Regional Council supports each of the preferred options.

7.3 Mahaanui Kurataiao Ltd

Mahaanui Kurataiao Ltd had not provided feedback by the time this report was finalised.

8.0 Conclusion

The SDP gives only limited consideration to coastal hazards, reflective of the legislative environment in which it was prepared. Since then, there have been significant changes to what is expected of district plans in relation to coastal hazards.

In order to give the required effect to higher order documents, provisions relating to:

1. coastal erosion need to be updated;

2. coastal inundation need to be expanded beyond the incidental protection provided at Rakaia Huts; and
3. tsunami need to be introduced, at a level reflective of the generally rural character and limited development opportunities within the affected area.

In addition, further work is required at Rakaia Huts to enable coastal high hazard and coastal hazard areas to be identified in accordance with the requirements of the RPS.

9.0 Preferred Option for further engagement

The Project Team recommends that the following options be adopted for targeted landowner and stakeholder engagement, s32 analysis and drafting:

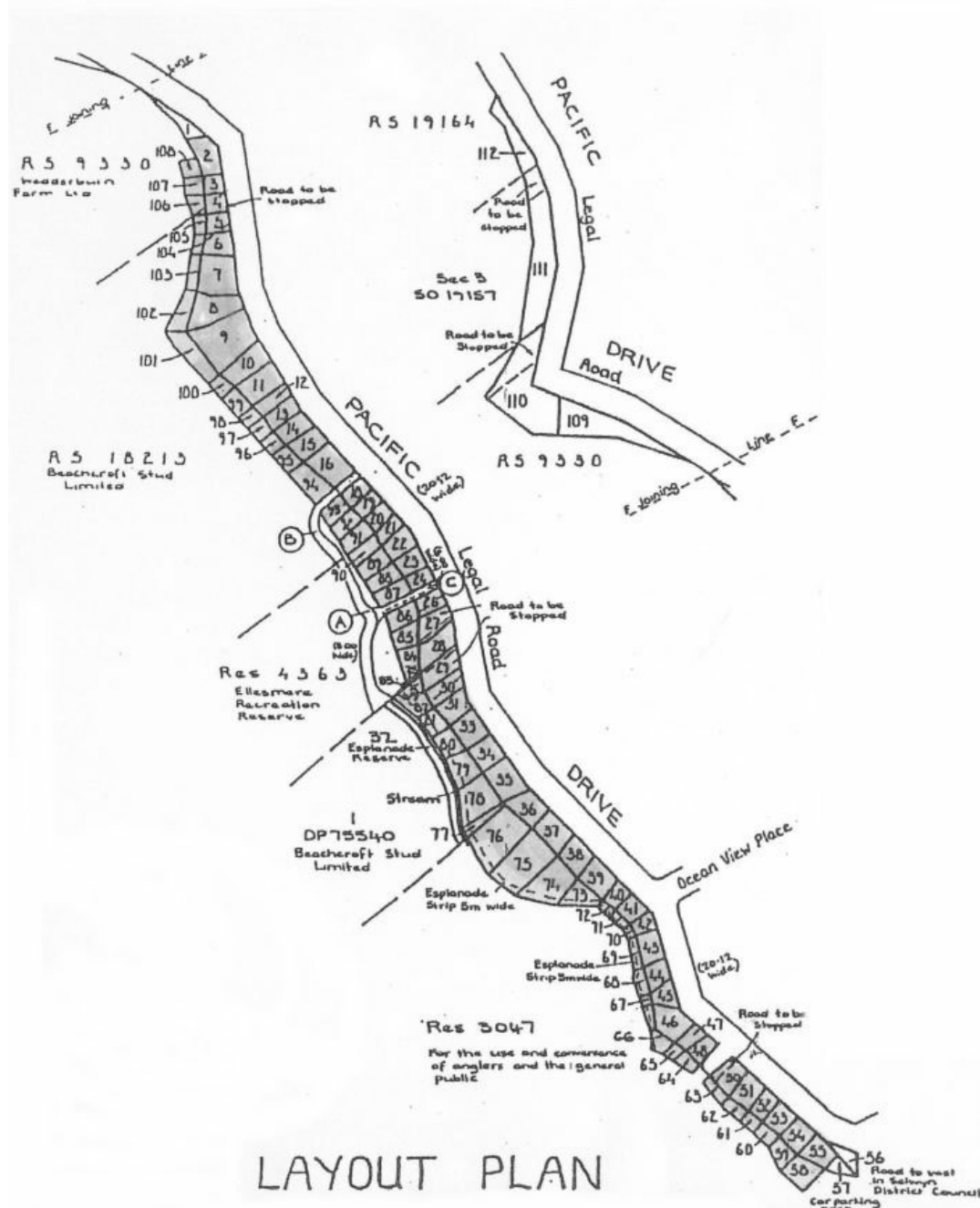
1. In relation to coastal erosion, Option 2, being the replacement of the RPS Coastal Hazard Lines 1 and 2 with the potential coastal erosion area identified in the screening assessment.
2. In relation to coastal inundation (other than tsunami), Option 4, being the incorporation of the coastal inundation area identified in the screening assessment in the PDP as a coastal high hazard overlay, with associated provisions to limit development in the area.
3. In relation to tsunami, Option 7, being the inclusion of the existing tsunami evacuation zones identified as a coastal hazard overlay in the PDP, together with consideration of tsunami risk for developments that involve vulnerable groups or critical facilities.

The Project Team also recommends that:

4. in relation to Rakaia Huts, Option 9 be adopted, being the development of additional modelling at Rakaia Huts to take account of the interaction between the coast, the hāpua and the river in the identification of high hazard and hazard areas.

Appendix A Appendix 24 of the Selwyn District Plan

PART E

APPENDIX 24**DWELLINGS AT RAKAIA HUTS**

Appendix B New Zealand Coastal Policy Statement 2010

Objective 5

To ensure that coastal hazard risks taking account of climate change, are managed by:

- locating new development away from areas prone to such risks;
- considering responses, including managed retreat, for existing development in this situation; and
- protecting or restoring natural defences to coastal hazards.

Policy 24 Identification of coastal hazards

- (1) Identify areas in the coastal environment that are potentially affected by coastal hazards (including tsunami), giving priority to the identification of areas at high risk of being affected.

Hazard risks, over at least 100 years, are to be assessed having regard to:

- (a) physical drivers and processes that cause coastal change including sea level rise;
- (b) short-term and long-term natural dynamic fluctuations of erosion and accretion;
- (c) geomorphological character;
- (d) the potential for inundation of the coastal environment, taking into account potential sources, inundation pathways and overland extent;
- (e) cumulative effects of sea level rise, storm surge and wave height under storm conditions;
- (f) influences that humans have had or are having on the coast;
- (g) the extent and permanence of built development; and
- (h) the effects of climate change on:
 - (i) matters (a) to (g) above;
 - (ii) storm frequency, intensity and surges; and
 - (iii) coastal sediment dynamics;

taking into account national guidance and the best available information on the likely effects of climate change on the region or district.

Policy 25 Subdivision, use, and development in areas of coastal hazard risk

In areas potentially affected by coastal hazards over at least the next 100 years:

- (a) avoid increasing the risk of social, environmental and economic harm from coastal hazards;
- (b) avoid redevelopment, or change in land use, that would increase the risk of adverse effects from coastal hazards;

- (c) encourage redevelopment, or change in land use, where that would reduce the risk of adverse effects from coastal hazards, including managed retreat by relocation or removal of existing structures or their abandonment in extreme circumstances, and designing for relocatability or recoverability from hazard events;
- (d) encourage the location of infrastructure away from areas of hazard risk where practicable;
- (e) discourage hard protection structures and promote the use of alternatives to them, including natural defences; and
- (f) consider the potential effects of tsunami and how to avoid or mitigate them.

[The NZCPS glossary states that 'Risk is often expressed in terms of a combination of the consequences of an event (including changes in circumstances) and the associated likelihood of occurrence (AS/NZ ISO 31000:2009 Risk management-Principles and guidelines, November 2009).]

Policy 26 Natural defences against coastal hazards

- (1) Provide where appropriate for the protection, restoration or enhancement of natural defences that protect coastal land uses, or sites of significant biodiversity, cultural or historic heritage or geological value, from coastal hazards.
- (2) Recognise that such natural defences include beaches, estuaries, wetlands, intertidal areas, coastal vegetation, dunes and barrier islands.

Policy 27 Strategies for protecting significant existing development from coastal hazard risk

- (1) In areas of significant existing development likely to be affected by coastal hazards, the range of options for reducing coastal hazard risk that should be assessed includes:
 - (a) promoting and identifying long-term sustainable risk reduction approaches including the relocation or removal of existing development or structures at risk;
 - (b) identifying the consequences of potential strategic options relative to the option of doing nothing;
 - (c) recognising that hard protection structures may be the only practical means to protect existing infrastructure of national or regional importance, to sustain the potential of built physical resources to meet the reasonably foreseeable needs of future generations;
 - (d) recognising and considering the environmental and social costs of permitting hard protection structures to protect private property; and
 - (e) identifying and planning for transition mechanisms and timeframes for moving to more sustainable approaches.
- (2) In evaluating options under (1):

- (a) focus on approaches to risk management that reduce the need for hard protection structures and similar engineering interventions;
 - (b) take into account the nature of the coastal hazard risk and how it might change over at least a 100-year timeframe, including the expected effects of climate change; and
 - (c) evaluate the likely costs and benefits of any proposed coastal hazard risk reduction options.
- (3) Where hard protection structures are considered to be necessary, ensure that the form and location of any structures are designed to minimise adverse effects on the coastal environment.
- (4) Hard protection structures, where considered necessary to protect private assets, should not be located on public land if there is no significant public or environmental benefit in doing so.

Appendix C Tsunami evacuation zones



Appendix D Canterbury Regional Policy Statement (Revised 2017)

Chapter 11 – Natural Hazards

Statement of local authority responsibilities

Section 62 of the Resource Management Act 1991 (RMA) requires that a regional policy statement must state the local authority responsible in whole or any part of the region for specifying the objectives, policies and methods for the control of the use of land to avoid or mitigate natural hazards.

Local authority responsibilities for the control of the use of land for natural hazards in the Canterbury Region are as follows:

1. The Canterbury Regional Council

Will be responsible for specifying the objectives, policies and methods for the control of the use of land in the following areas:

- (a) within the 100-year coastal erosion hazard zones outside of greater Christchurch, as defined by maps in the Canterbury Regional Coastal Environment Plan.
- (b) within areas in greater Christchurch likely to be subject to coastal erosion and sea water inundation including the cumulative effects of sea level rise over the next 100 years where provisions are not specified in an operative district plan; and
- (c) within the beds of rivers and lakes; and
- (d) within the coastal marine area for the purpose of avoiding or mitigating natural hazards.

2. Territorial authorities

Will be responsible for specifying the objectives, policies, and methods for the control of the use of land, to avoid or mitigate natural hazards in their respective areas excluding those areas described in 1(a), 1(c) and 1(d) above.

3. Joint Responsibilities

Local authorities will have joint responsibility for specifying the objectives, policies, and methods for the control of the use of land, to avoid or mitigate natural hazards in areas subject to seawater inundation. The Canterbury Regional Council will be limited to developing objectives, policies and non-regulatory methods. Territorial authorities will develop objectives, policies and methods which may include rules.

Objective 11.2.1 Avoid new subdivision, use and development of land that increases risks associated with natural hazards

New subdivision, use and development of land which increases the risk of natural hazards to people, property and infrastructure is avoided or, where avoidance is not possible, mitigation measures minimise such risks.

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.

Objective 11.2.3 Climate change and natural hazards

The effects of climate change, and its influence on sea levels and the frequency and severity of natural hazards, are recognised and provided for.

Objective 11.2.4 Effective integration of the management of, and preparedness for, natural hazards

The level of cooperation between agencies and organisations necessary to achieve integrated management of Canterbury's natural hazards, and preparedness for natural hazards is maintained or enhanced.

Policy 11.3.1 Avoidance of inappropriate development in high hazard areas

To avoid new subdivision, use and development (except as provided for in Policy 11.3.4) of land in high hazard areas, unless the subdivision, use or development:

1. is not likely to result in loss of life or serious injuries in the event of a natural hazard occurrence; and
2. is not likely to suffer significant damage or loss in the event of a natural hazard occurrence; and
3. is not likely to require new or upgraded hazard mitigation works to mitigate or avoid the natural hazard; and
4. is not likely to exacerbate the effects of the natural hazard; or
5. Outside of greater Christchurch, is proposed to be located in an area zoned or identified in a district plan for urban residential, industrial or commercial use, at the date of notification of the CRPS, in which case the effects of the natural hazard must be mitigated; or
6. Within greater Christchurch, is proposed to be located in an area zoned in a district plan for urban residential, industrial or commercial use, or identified as a "Greenfield Priority Area" on Map A of Chapter 6, both at the date the Land Use Recovery Plan was notified in the Gazette, in which case the effects of the natural hazard must be avoided or appropriately mitigated; or
7. Within greater Christchurch, relates to the maintenance and/or upgrading of existing critical or significant infrastructure.

Methods – the Canterbury Regional Council

Will

5. Identify areas subject to coastal erosion through the provisions of its Regional Plans until areas subject to coastal erosion in greater Christchurch are identified in an operative district plan.

Methods – Territorial authorities:

Will

7. (b) Within greater Christchurch: Within 5 years of Policy 11.3.1 becoming operative set out objectives, policies and methods, in district plans to give effect to Policy 11.3.1.

(c) Within greater Christchurch: Within 5 years of Policy 11.3.1 becoming operative identify high hazard areas through the provisions of their district plans. When identifying land likely to be subject to coastal erosion and sea water inundation over the next 100 years, may take into account the following criteria:

- (i) The effects of climate change including associated sea level rise.
- (ii) The location of areas subject to coastal erosion and sea water inundation including the cumulative effects of sea level rise over the next 100 years identified in district plans of neighbouring territorial authorities.

Should:

- 8. Promote the use of guidelines developed pursuant to Method 11.3.1(5) to guide the design and assessment of new development.

Methods – Local authorities:

Will:

- 9. Work together to investigate and define potential high hazard areas where information is uncertain or insufficient.

Policy 11.3.2 avoid development in areas subject to inundation

In areas not subject to Policy 11.3.1 that are subject to inundation by a 0.5% AEP flood event; any new subdivision, use and development (excluding critical infrastructure) shall be avoided unless there is no increased risk to life, and the subdivision, use or development:

- 1. is of a type that is not likely to suffer material damage in an inundation event; or
- 2. is ancillary or incidental to the main development; or
- 3. meets all of the following criteria:
 - (a) new buildings have an appropriate floor level above the 0.5% AEP design flood level; and
 - (b) hazardous substances will not be inundated during a 0.5% AEP flood event;

provided that a higher standard of management of inundation hazard events may be adopted where local catchment conditions warrant (as determined by a cost/benefit assessment).

When determining areas subject to inundation, climate change projections including sea level rise are to be taken into account.

Methods – Territorial authorities:

Will:

- 4. Set out objectives and policies, and may include methods in district plans to avoid new subdivision, use and development of land in known areas subject to inundation by a 0.5% AEP flood event, other than in the circumstances determined in Policy 11.3.2 clauses (1) to (3).

5. Ensure that flooding hazards are assessed before any new areas are zoned or identified, in a district plan, in ways that enable intensification of use, or where development is likely to cause adverse effects.
6. Where there is a known flooding risk, include provision in their district plans that require a 0.5% AEP flood event to be determined, and its effects assessed, prior to new subdivision, use or development of land taking place. Where the territorial authority has adopted a standard less frequent than a 0.5% AEP flood event, the expected flow and effects of that less frequent AEP flood event will be determined.

Policy 11.3.4 Critical infrastructure

New critical infrastructure will be located outside high hazard areas unless there is no reasonable alternative. In relation to all areas, critical infrastructure must be designed to maintain, as far as practicable, its integrity and function during natural hazard events.

Methods – Territorial authorities:

Will:

5. Set out objectives and policies, and may include methods in district plans to ensure that new critical infrastructure is located outside known high hazard areas, unless there is no reasonable alternative.

Should:

6. Where critical infrastructure is located in high hazard areas, encourage the provider to ensure that it will be able to be maintained and reinstated, if necessary, within a reasonable timeframe.
7. Ensure the potential effects of natural hazards are taken into account in the development of any new critical infrastructure.

Policy 11.3.5 General risk management approach

For natural hazards and/or areas not addressed by policies 11.3.1, 11.3.2, and 11.3.3, subdivision, use or development of land shall be avoided if the risk from natural hazards is unacceptable. When determining whether risk is unacceptable, the following matters will be considered:

1. the likelihood of the natural hazard event; and
2. the potential consequence of the natural hazard event for: people and communities, property and infrastructure and the environment, and the emergency response organisations.

Where there is uncertainty in the likelihood or consequences of a natural hazard event, the local authority shall adopt a precautionary approach.

Formal risk management techniques should be used, such as the Risk Management Standard (AS/NZS ISO 31000:2009) or the Structural Design Action Standard (AS/NZS 1170.0:2002).

Methods – Territorial authorities:*Will:*

3. Ensure that natural hazards are assessed before any new areas are zoned or identified in a district plan, in ways that enable intensification of use, or where development is likely to cause adverse effects.
4. Set out objectives and policies, and may include methods in district plans to ensure that subdivision, use or development of land will be avoided if the risk from natural hazards is unacceptable.
5. Set out objectives and policies, and may include methods in district plans to ensure that where subdivision, use or development occurs in an area where there is residual risk from natural hazards, appropriate mitigation is required to manage that risk.

Should:

6. Request applicants for privately initiated plan changes or resource consents, where relevant, to provide baseline information or fund investigation on risks or impacts of natural hazards such as flooding, land instability, coastal hazards or active faults at a local scale, in order that the environmental effects of the proposal or change can be adequately assessed at an appropriate level of detail. This may include working with the Canterbury Regional Council to gather information.

Policy 11.3.6 Role of natural features

The role of natural topographic (or geographic) and vegetation features which assist in avoiding or mitigating natural hazards should be recognised and the features maintained, protected and restored, where appropriate.

Methods – Local authorities:*Will:*

1. When setting out objectives, policies or methods in their regional and district plans, recognise the role of natural features in providing mitigation for the adverse effects of natural hazards and provide for the maintenance and protection of those features where appropriate.
2. Work with stakeholders; including Ngāi Tahu as tāngata whenua and landowners to encourage and promote the maintenance and enhancement of natural features that assist in the avoidance or mitigation of the effects of natural hazards.

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:

3. 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.

Policy 11.3.8 Climate change

When considering natural hazards, and in determining if new subdivision, use or development is appropriate and sustainable in relation to the potential risks from natural hazard events, local authorities shall have particular regard to the effects of climate change.

Methods – Local authorities:

Will:

1. When setting out objectives, policies or methods in regional and district plans, take into account the current projections on the effects of climate change.

Policy 11.3.9 Integrated management of, and preparedness for, natural hazards

To undertake natural hazard management and preparedness for natural hazard events in a coordinated and integrated manner by ensuring that the lead agencies have particular regard to:

1. the investigation and identification of natural hazards;
 2. the analysis and mapping of the consequential effects of the natural hazards identified;
 3. the effects of climate change and resulting sea level rise;
 4. the setting of standards and guidelines for organisations involved in civil defence and emergency management;
 5. the development and communication of strategies to promote and build community resilience;
- and

6. any other matters necessary to ensure the integrated management of natural hazards in the Canterbury region.

Methods – Territorial authorities:

Should:

5. Work with the Canterbury Regional Council, other partner organisations and members of their communities to address the matters relating to natural hazards identified in Policy 11.3.9 (1) to (6) which are of particular relevance to the areas for which each is responsible.

Methods – Local authorities:

Will:

6. Work with emergency response organisations and critical infrastructure providers, to prepare and implement emergency readiness plans pursuant to the Civil Defence Emergency Management Act 2002.

Should:

7. Raise public awareness of natural hazards, including provision and publicising of information about what natural hazards exist in various localities and what people can do to be prepared.
8. Initiate, coordinate and promote activities that assist communities to build resilience to the effects of natural hazards.
9. Assist vulnerable communities to adapt to the consequences of natural hazards, including those that are likely to be adversely affected by climate change and resultant sea level rise.

Glossary and Definitions

Critical infrastructure

Infrastructure necessary to provide services which, if interrupted, would have a serious effect on the communities within the Region or a wider population, and which would require immediate reinstatement. This includes any structures that support, protect or form part of critical infrastructure. Critical infrastructure includes:

1. regionally significant airports
2. regionally significant ports
3. gas storage and distribution facilities
4. electricity substations, networks, and distribution installations, including the electricity distribution network
5. supply and treatment of water for public supply
6. storm water and sewage disposal systems
7. telecommunications installations and networks

8. strategic road and rail networks (as defined in the Regional Land Transport Strategy)
9. petroleum storage and supply facilities
10. public healthcare institutions including hospitals and medical centres
11. fire stations, police stations, ambulance stations, emergency coordination facilities.

High hazard area

High hazard areas are:

1. flood hazard areas subject to inundation events where the water depth (metres) x velocity (metres per second) is greater than or equal to 1 or where depths are greater than 1 metre, in a 0.2% annual exceedence probability flood event;
2. land outside of greater Christchurch subject to coastal erosion over the next 100 years; and
3. land within greater Christchurch likely to be subject to coastal erosion including the cumulative effects of sea level rise over the next 100 years. This includes (but is not limited to) the land located within Hazard Zones 1 and 2 shown on Maps in Appendix 5 of this Regional Policy Statement that have been determined in accordance with Appendix 6; and
4. land subject to sea water inundation (excluding tsunami) over the next 100 years. This includes (but is not limited to) the land located within the sea water inundation zone boundary shown on Maps in Appendix 5 of this Regional Policy Statement.

When determining high hazard areas, projections on the effects of climate change will be taken into account.

Appendix 6 – greater Christchurch Coastal Hazard Zones: Definitions and explanations

Hazard Zone 1

(a) For stable or accretionary shorelines:

Where there is no evidence of shoreline erosion, the width of Hazard Zone 1 is the area landward of the Coastal Marine Area boundary to the landward limit of the active beach system. This position is determined either by ground survey, or from aerial photography.

(b) For most eroding shorelines:

The width of Hazard Zone 1 includes the active beach system and the area landward of this, which is likely to be part of the active beach system if contemporary erosion processes continue unaltered for the next 50 years. Hence, the landward limit of Hazard Zone 1 corresponds to the projected position of the landward toes of the active beach system.

The width of hazard zones has been determined by interpolating the rate of shoreline retreat between fixed determination points. For all determination points, except for some special situations listed below,

there was no evidence of a change in the longterm rate of shoreline retreat. Therefore, the longest term historical erosion rates have been used. These will include short term fluctuations.

Special situations where these factors do not apply:

(i) South Brighton Spit.

Hazard Zone 2

No Hazard Zone 2 is defined for stable or accreting shorelines.

For eroding shorelines, Hazard Zone 2 is landward of Hazard Zone 1, and covers areas that could become part of the active beach system within 50 to 100 years if the erosion rates used to calculate Hazard Zone 1 were to continue unaltered for 100 years.

Appendix E Regional Coastal Environment Plan

Chapter 9 Coastal hazards

Objective 9.1

- (a) To minimise the need for hazard protection works, and avoid or mitigate the actual or potential effects of coastal hazards by locating use and development away from areas that are subject to coastal erosion and sea water inundation.
- (b) To avoid, remedy or mitigate significant adverse effects on the environment as a result of measures used to manage coastal hazards.

Policy 9.1

- (a) New habitable buildings should be located away from areas of the coastal environment that are, or have the potential to be, subject to sea water inundation or coastal erosion.
- (b) Any new development in the coastal environment should be designed or located in such a way that the need for coastal protection works, now and in the future, is minimised.
- (c) The continued use and protection of essential infrastructure and services should be provided for, where no reasonable alternative exists, in areas subject to coastal hazards, provided adverse effects on the coastal environment are avoided, remedied or mitigated.
- (d) New coastal protection works for existing use and development should only be considered where they represent the best practical option for natural hazard mitigation or avoidance, and adverse effects can be avoided, remedied or mitigated.
- (e) Natural features that buffer the effects of coastal hazards should be protected.
- (f) Any significant adverse effects from the location, type and design of coastal hazard damage minimisation measures should be avoided, remedied or mitigated.
- (g) Environment Canterbury will provide information, including information on the incidence of natural occurrences, to encourage people to avoid locating in hazard prone areas.
- (h) New coastal protection works should be assessed, and measures taken or advocated as appropriate, to remedy or mitigate any significant adverse effects or remove redundant structures, to assist in restoration and rehabilitation of the natural character of the areas concerned.

Rule 9.1 Permitted Activities

The following activities are Permitted Activities within Hazard Zone 1 or within Hazard Zone 2:

- (a) The reconstruction or replacement of any structure, other than a structure damaged or destroyed by the action of the sea, provided that:
 - (i) the structure shall be reconstructed or replaced with one of the same or similar specifications; and
 - (ii) the structure shall not be reconstructed or replaced in a position that is further seaward than the original structure; and
 - (iii) if the structure is a habitable building, the floor area shall not be increased; and

- (iv) where the habitable building is reconstructed or replaced in a different position on the site pursuant to this rule, the habitable building shall be erected in accordance with the requirements of the zone (within Christchurch City the zone shall be the Living 1 Zone) in the Proposed or Operative District Plan with respect to site coverage, recession planes and setbacks.
- (b) The reconstruction or replacement of a habitable building damaged or destroyed by the action of the sea provided:
 - (i) the site (see definition) on which the habitable building is to be reconstructed or replaced has not eroded to less than 450m²; and
 - (ii) the habitable building shall be reconstructed or replaced with one of the same or similar specifications; and
 - (iii) the habitable building shall not be reconstructed or replaced in a position that is further seaward than the original habitable building; and
 - (iv) the floor area shall not be increased; and
 - (v) where the habitable building is reconstructed or replaced in a different position on the site pursuant to this rule, the habitable building shall be erected in accordance with the requirements of the zone (within Christchurch City the zone shall be the Living 1 Zone) in the Proposed or Operative District Plan with respect to site coverage, recession planes and setbacks.
- (c) In those parts of the coastal settlements of Gore Bay, Motunau Beach and Amberley Beach [as shown on planning maps]:
 - (i) The extension or alteration of a habitable building, providing that the floor area does not increase by more than 25 square metres over and above the floor area which existed at 1 July 1994;
 - (ii) The erection or placement of a non-habitable building that is 25 square metres or less in floor area and accessory to a residential building;
 - (iii) The extension or alteration of a non-habitable building, accessory to a residential building, provided that the floor area does not increase to more than 25 square metres over and above the floor area which existed at 1 July 1994.
- (d) The erection, reconstruction, placement, alteration, or extension of any fence;
- (e) The repair or maintenance of any structure, (including a road or railway and its associated protection works), provided that:
 - (i) all disturbed land not physically covered by a structure shall be reinstated to conform to the natural or physical state pertaining in the area before the activity permitted by this rule commenced; and
 - (ii) the structure shall substantially retain the same form and dimensions; and
 - (iii) if the structure is a habitable building the floor area shall not increase;
- (f) The disturbance of vegetation for the customary use of Runanga within their rohe;
- (g) The excavation, filling, or disposal of spoil, or the removal of sand, rocks, shingle, shell, or other natural material and associated vegetation clearance, in order to undertake earthworks for the installation, maintenance, extension to, or removal of, network utility services, excluding the cutting of an access track across an active beach system, provided that all disturbed land not

physically covered by any structure shall be reinstated to conform to the natural or physical state pertaining in the area before the activity permitted by this rule commenced.

Rule 9.2 Discretionary Activities for which Discretion is Restricted

Except where the activity is a Permitted Activity in accordance with Rule 9.1 of this Plan, or a Prohibited Activity in accordance with Rules 9.3 or 9.4 of this Plan, the following activities within Hazard Zone 1 or within Hazard Zone 2 are Discretionary Activities for which Environment Canterbury has restricted the exercise of its discretion:

- (a) The erection, reconstruction, placement, alteration, or extension of any structure;
- (b) The disturbance (burning, grazing, or removal) of vegetation within active beach systems;
- (c) The formation of access tracks (including board walks) across an active beach system;
- (d) The artificial adjustment of a beach profile, (including dune re-contouring), within an active beach system;
- (e) The excavation, filling, or disposal of spoil in volumes greater than 5 cubic metres per 100 square metres of land area;
- (f) The removal of sand, rocks, shingle, shell, or other natural material from an active beach system in volumes greater than 5 cubic metres by any person within any 12 month period.

Restriction of Discretion for Rule 9.2

Environment Canterbury restricts its discretion to the following matters when considering an application for a resource consent in accordance with Rule 9.2 of this plan and in imposing conditions in accordance with Section 108 of the Act:

- (a) whether the activity is likely to exacerbate coastal erosion; and
- (b) whether the activity is likely to lead to adverse effects from natural hazards on any other property, (where property has the same meaning as in Section 2 of the Building Act 1991);
- (c) provision for the removal of any structure or parts of any structure that are rendered unusable through coastal erosion.

Notification

In accordance with Section 94D(2) of the Act, an application for a resource consent for an activity that is sought in accordance with Rule 9.2 of this plan need not be notified in accordance with Section 93 of the Act, and in accordance with Section 94D(3) of the Act, notice of such an application does not need to be served.

Rule 9.3 Prohibited Activities for which no resource consent shall be granted

The following activities are Prohibited Activities within Hazard Zone 1:

- (a) the erection or placement of any habitable building with a floor area greater than 25 square metres, except as provided in rules 9.1(a) and 9.1(b) of this plan;
- (b) the extension or alteration of any habitable building with a floor area of 25 square metres or less such that it causes the building to have a floor area greater than 25 square metres, except as provided in rules 9.1(a) and 9.1(b) of this plan;
- (c) the construction of a landfill or the use of a landfill for the disposal of solid or hazardous waste;

- (d) The production or storage of any hazardous substance, except where:
- (i) The hazardous substance is being carried as cargo on a vehicle, rail wagon, vessel or aircraft; or
 - (ii) The storage is on a vehicle, rail locomotive, vessel or aircraft and is for the purpose of fuelling that vehicle, rail locomotive, vessel or aircraft; or
 - (iii) The storage is on a crane, or in or on a conveyor, or in a pipe or hose, that is being used to load or unload a vehicle, rail wagon, vessel, aircraft or storage container; or
 - (iv) The storage is such that the amount of the hazardous substance stored in any container, or stored in any building, or stored on or in any structure, is less than 1000 litres or less than one cubic metre in volume; or
 - (v) The production is such that the amount of the hazardous substance produced in any twelve-month period is less than 1000 litres or less than one cubic metre in volume.
- (e) the construction of a new road or railway, but not including:
- (i) the reconstruction or realignment of an existing road or railway within the hazard zone; or
 - (ii) the construction of a new road or railway that provides an access route to the Coastal Marine Area.

Notes

1. Hazard Zone 1 is shown on the Coastal Hazard Zone Maps in Volume 3 of this Plan.

2. Paragraph (d) of this rule shall only apply to the following Hazardous Substances:

- pesticides including: herbicides, insecticides and fungicides;
- chlorinated hydrocarbons including: bromodichloromethane, trichloroethene, chlorodibromomethane, 1,1,1 - trichloroethane, tetrachloroethene, trichloromethane, tetrachloromethane and tribromomethane;
- timber preservatives including: copper chromium, arsenic formulations, those using boron, other water-borne preservatives, light organic solvent preservatives and antisapstain chemicals;
- petroleum products including: petrol, waste oil, diesel, aircraft fuel, kerosene, heating oil; but not including liquefied petroleum gases; and compounds containing: benzene, xylenes, toluene or ethylbenzene;
- any substance containing one or more of the following chemicals: arsenic, cadmium, chromium, cyanide, lead, mercury, nickel or selenium.

Rule 9.4 Prohibited Activities for which no resource consent shall be granted

The following activities are Prohibited Activities within Hazard Zone 2:

- (a) the construction of a landfill or the use of a landfill for the disposal of solid or hazardous waste;
- (b) the construction of a new road or railway, but not including:
 - (i) the reconstruction or realignment of an existing road or railway within the hazard zone; or
 - (ii) the construction of a new road or railway that provides an access route to the Coastal Marine Area.

Appendix F NES for Telecommunications Facilities

Regulation 57 District rules about natural hazard areas disapplied

- (1) A territorial authority cannot make a natural hazard rule that applies to a regulated activity.
- (2) A natural hazard rule that was made before these regulations came into force, does not apply in relation to a regulated activity.
- (3) In this regulation, natural hazard rule means a district rule that prescribes measures to mitigate the effect of natural hazards in an area identified in the district plan as being subject to 1 or more natural hazards.

Appendix G A coastal hazard screening assessment for Selwyn District


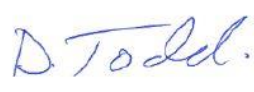

TECHNICAL REPORT Science Group

A coastal hazard screening assessment for Selwyn District

Report No. R18/68

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	Name	Signature	Date
Prepared by :	Justin Cope <i>Principal Science Advisor – Natural Hazards</i>		November 2018
Externally Peer Reviewed by :	Derek Todd <i>Principal Coastal and Hazards Scientist, Jacobs Consulting Ltd</i>		
Approved by:	Tim Davie <i>Chief Scientist</i>		



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200 Tuam Street
PO Box 345
Christchurch 8140
Phone (03) 365 3828
Fax (03) 365 3194

75 Church Street
PO Box 550
Timaru 7940
Phone (03) 687 7800
Fax (03) 687 7808

Website: www.ecan.govt.nz
Customer Services Phone 0800 324 636

Executive summary

Background

To help inform the Selwyn District Council's District Plan review process a "high-level" coastal hazard screening assessment is produced. The assessment is equivalent to the "regional-hazard screening" process recommended in the most recent Ministry for the Environment and Department of Conservation guidance on coastal hazards.

The problem

No previous coastal hazard screening assessment has been undertaken for the Selwyn District. The Selwyn District Council requires an assessment to broadly identify areas potentially subject to coastal hazards to assist in the identification of locations where more detailed hazard exposure (and ultimately risk and vulnerability) assessments may need to be undertaken.

What we found

This hazard screening assessment is a collation and discussion of existing coastal hazard information for the Selwyn District. The information concerns both what we know about historic and contemporary coastal hazards, coastal processes and shoreline behaviour as well as an assessment of the potential future exposure of coastal land to climate change effects on coastal hazards.

An area of potential coastal erosion hazard for the next 100 years is identified. The extent of this zone extends approximately 120 metres from the current shoreline. The eroding beach barrier will progressively overwhelm parts of the lowland drainage system which will have future implications for local land drainage.

The prediction of the future stability of the landward part of the coastline fronting the north Rakaia Huts hāpua due to future climate change needs to be treated differently than the open coastline of the District due to fluvial and coastal process interactions.

An area of coastal land potentially exposed to coastal inundation from extreme storm events over the next 100 years has been identified by mapping low-lying land below a 4 m mean sea level elevation contour. Potential inundation exposure is greatest around the low-lying margins of Coopers Lagoon/Muriwai, including Tentburn and some parts of Taumutu.

The lower parts of the north Rakaia Huts settlement are currently susceptible to combined fluvial and coastal flooding events. Future sea level rise is likely to increase this susceptibility.

What does it mean?

This high-level assessment broadly identifies areas potentially exposed to future coastal erosion and inundation hazards. It does not assess in any detail what settlements, land uses, assets (including cultural assets), infrastructure or future growth areas may be exposed to future coastal hazards. A next step could be a detailed exposure analysis/assessment to help refine (or rule out) locations along the District's coast where detailed coastal hazard assessments may be useful to support future land use planning.

If areas were identified that required a more detailed coastal hazard assessment, consideration could be given to enhancing an existing open coastal erosion model to incorporate possible climate change-induced variability of other weather and oceanic coastal hazard drivers and coastal sediment supply. Thought could also be given to considering hydraulic connections between the open coast and inland area to develop a "connected bath-tub" inundation model if more site-specific information was required.

We recommend Selwyn District Council consider undertaking a more detailed coastal hazard assessment for the north Rakaia Huts settlement to better identify the future coastal hazard risk (erosion and inundation) and vulnerability.

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1 Purpose

The purpose of this report is to provide a high-level, coastal hazard screening assessment for the Selwyn District coastline. It aims to summarise the existing knowledge of contemporary and future coastal hazards in the District and to provide an indication of areas where any additional information or more detailed assessments may be required to enable Selwyn District Council to inform their District Plan Review process. This assessment is equivalent to the “regional-hazard screening” process recommended in both the 2017 Ministry for the Environment’s Coastal Hazard and Climate Change guidance report (“the Guidance”, MfE 2017) and the Department of Conservation’s guidance notes on the 2010 New Zealand Coastal Policy Statement’s (NZCPS) coastal hazard objectives and policies (DOC, 2017). We take the term “regional” used in the MfE 2017 guidance to infer a high-level overview applied to the Selwyn District’s coastline rather than an assessment covering the entire coastline of the region.

Both the MfE 2017 and DOC 2017 guidance recommend regional (or district) hazard screenings be undertaken to identify areas that require more detailed assessments of coastal hazard exposure, for single or multiple coastal hazards. The purpose is to “broadly identify areas potentially exposed to coastal hazards and to show where more detailed hazard (and ultimately risk and vulnerability) assessments should be focused” (MfE 2017, pg 137).

2 The coastal hazard screening approach for Selwyn District

This hazard screening assessment is a collation and discussion of existing coastal hazard information for the Selwyn District. This available information includes what we know about historic and contemporary coastal hazards, coastal processes and shoreline behaviour along the Selwyn District’s coast as well as an assessment of the potential future exposure of coastal land to climate change effects on coastal hazards. No new information has been collected other than to update datasets or to better display the existing hazard information. This assessment is for the open coastline of the Selwyn District and does not consider other natural hazard issues such as flooding associated with Te Waihora/Lake Ellesmere or future pluvial flooding from potential sea level rise-induced rising groundwater levels.

The Selwyn District coast is susceptible to the effects of climate change. A national climate change coastal erosion and inundation sensitivity index (Goodhue *et al.*, 2012) rated the Selwyn coastline, based on its geomorphology and exposure to open coastal processes as moderately to highly sensitive to climate change induced coastal erosion and coastal inundation.

2.1 New Zealand Coastal Policy Statement 2010

Policy 24 of the NZCPS 2010 lays the foundation for risk-based coastal hazard management (DOC, 2017) and is of primary relevance for guiding the technical focus of coastal hazard assessments. Policy 24 directs Councils to give effect to the identification of areas in the coastal environment that are potentially affected by coastal hazards (including tsunamis), giving priority to the identification of areas at high risk of being affected.

MfE (2017) and DOC (2017) guidance identify the need for local authorities to undertake early screening assessments as a means of implementing the “giving priority” to the identification of high risk areas aspect of the policy. This screening assessment satisfies this need such that it will assist helping determine priority areas for more comprehensive hazard and risk assessments.

NZCPS Policy 24 lists the physical factors to be assessed when identifying a coastal hazard assessment. These factors are:

- Physical drivers and processes that cause coastal change including sea level rise,
- short-term and long-term natural dynamic fluctuations of erosion and accretion,
- geomorphological character,
- cumulative effects of sea level rise, storm surge and wave height under storm conditions,
- anthropogenic influences
- extent and permanence of built development
- the effects of climate change on the above matters, on storm frequency and intensity and on natural sediment dynamics.

This screening assessment takes these factors into consideration.

3 Coastal hazard drivers considered in this assessment

3.1 Adopted sea level rise value

MfE (2017) considers that ongoing sea level rise is the primary influence on the exacerbation of coastal hazards due to the increased exposure of coastal land to coastal storm inundation and erosion and to rising groundwater levels near the coast.

The Guidance recommends that regional hazard screenings use a high future sea level rise scenario, specifically the RCP8.5H+¹ scenario. RCP scenarios are expressed as a range with the H+ scenario being the upper 83rd percentile of the RCP8.5 range. The Guidance recommends using RCP8.5H+ for regional screening assessments as it reflects the possibility of future surprises due to a more rapid increase in the rate of sea level rise early next century as a result of possible instabilities in polar ice sheets.

Table 3-1 is reproduced from the MfE Guidance (2017). It presents decadal increments for projections of sea level rise for New Zealand for four RCP scenarios. In accordance with the Guidance we use the 2120 (approx. 100 years from present) RCP8.5H+ projected sea level of 1.36 m for this screening assessment.

For planning purposes, the use of the RCP8.5H+ sea level rise scenario enables consideration of land potentially affected by both current and climate change-exacerbated coastal hazards and a range of existing and future land uses. This range of potential land uses range from new short-lived assets with a functional need to be near the coast through to greenfield developments. It can also be used to incorporate planning for existing developments and/or changes in land use e.g. redevelopment or intensification.

3.2 Weather related drivers

Climate induced changes in storminess could affect the frequency and magnitude of storm effects that may influence the drivers of coastal hazards such as storm surges, wave heights and wave direction. Subtle changes in wave direction and storm frequency may influence the longshore transport of coastal sediments both onto and away from parts of the Selwyn coast. Climate change effects in river catchments such as the Rakaia catchment also have the potential to affect the amount of sediment delivery to the Selwyn coastline and ultimately affect future shoreline patterns of retreat (or advancement).

Weather related coastal hazard drivers such as storm surge, waves and winds and the frequency and intensity of storms are considered secondary to ongoing sea level rise as the principal effects of climate change on coastal hazards (MfE, 2017). The Guidance considers that current understanding of trends

¹ Representative Concentration Pathway (RCP) 8.5 is a climate change projection scenario which assumes there will be continuing high greenhouse gas emissions for at least another 100 years with associated global temperature increases and sea level rise.

and projections of future changes in these weather induced coastal and ocean drivers is not as clear or consistent as for sea level rise.

The Guidance recognises that even subtle changes in weather related coastal hazard drivers combined with sea level rise may have a substantial impact on shoreline processes. However, given that current projections of future changes in these drivers are “relatively modest or inconclusive” (MfE, 2017) and considering the purpose of this hazard screening as a higher-level overview, we have restricted our assessment to the impacts of sea level rise on coastal erosion and inundation and have not considered weather related drivers.

Table 3-1: Decadal increments for projections of sea-level rise (metres above 1986–2005 baseline) for the wider New Zealand region (from MfE, 2017)

NZ SLR scenario Year	NZ RCP2.6 M (median) [m]	NZ RCP4.5 M (median) [m]	NZ RCP8.5 M (median) [m]	NZ RCP8.5 H ⁺ (83rd percentile) [m]
1986–2005	0	0	0	0
2020	0.08	0.08	0.09	0.11
2030	0.13	0.13	0.15	0.18
2040	0.18	0.19	0.21	0.27
2050	0.23	0.24	0.28	0.37
2060	0.27	0.30	0.36	0.48
2070	0.32	0.36	0.45	0.61
2080	0.37	0.42	0.55	0.75
2090	0.42	0.49	0.67	0.90
2100	0.46	0.55	0.79	1.05
2110	0.51	0.61	0.93	1.20
2120	0.55	0.67	1.06	1.36
2130	0.60*	0.74*	1.18*	1.52
2140	0.65*	0.81*	1.29*	1.69
2150	0.69*	0.88*	1.41*	1.88

* Extended set 2130–50 based on applying the same rate of rise of the relevant representative concentration pathway (RCP) median trajectories from Kopp et al, 2014 (K14) to the end values of the Intergovernmental Panel on Climate Change Fifth Assessment Report (IPCC AR5) projections. Columns 2, 3, 4: based on IPCC AR5 (Church et al, 2013a); and column 5: New Zealand RCP8.5 H⁺ scenario (83rd percentile, from Kopp et al, 2014). Note: M = median; m = metres; NZ = New Zealand; SLR = sea-level rise. To determine the local SLR, a further component for persistent vertical land movement may need to be added (subsidence) or subtracted (uplift).

3.3 Tsunami

The effects of Tsunami have been modelled on the Selwyn coast for both a South American distant source tsunami (Power 2013a, 2013b; Lane *et al.*, 2014) and a regional Hikurangi subduction zone tsunami (Lane *et al.*, 2016). These reports model high return period, extreme scenarios in the order of 2500 years. Data from National Probabilistic Tsunami Model (Power, 2013a) have been used for evacuation planning purposes in the Selwyn District Tsunami Plan (2018). Evacuation zones have been developed based on worst case wave heights above sea level along the Selwyn coast in the order of 7 to 11 metres.

MfE (2017) and DOC (2017) guidance recommends that when assessing potentially affected coastal areas for the purposes of evacuation planning and mapping, and considering any targeted land-use planning provisions (e.g. the location of critical facilities), the Ministry of Civil Defence & Emergency Management (MCDEM) Directors guidelines (DLG 08/16) for the development of tsunami evacuation zones should be followed. This includes the identification of areas impacted by maximum credible tsunami events as is the case in the Selwyn District Tsunami Evacuation Plan (2018).

We do not consider tsunami inundation further in this review as the most up to date scientific advice has been used in the development of the Selwyn District evaluation plan. These zones should be regularly reviewed to take into account the latest research.

Put into a climate change context, it is worth noting that any rise in base sea level will also raise the elevation of tsunami waves arriving at the coast.

4 Selwyn coast overview

4.1 Coastal setting

The coastline of the Selwyn District occupies a 14 km section of the northern Canterbury Bight shoreline between the southern banks of the Rakaia River and Taumutu, near the mouth of Te Waihora/Lake Ellesmere (Figure 4-1). It includes the Rakaia River mouth and hāpua (coastal lagoon) and is dominated by a low-lying mixed sand and gravel beach ridge barrier² along its length. The coastline is backed by remnant lagoons and channels which historically comprised a continuous wetland system between the Rakaia River at Te Waihora/Lake Ellesmere.

4.2 Historic processes

The relevant historical process environment of the Selwyn District coastline and the Canterbury Bight shoreline in general can be thought of as starting approximately 6500 years ago following a period of rapid sea-level rise at the end of the last glacial period (Measures *et al.*, 2014). During the last glacial period ending around 15,000 years ago the Rakaia River built up a large glacial outwash fan which created a bulge in the coastline with the river in the centre. Over the last 6500 years the shoreline near the Rakaia River mouth has been eroding. The Canterbury Bight, as it still is now, was subject to high energy southerly storm waves that easily eroded the soft unconsolidated coastal gravels and sands and transported them northwards. These sediments were supplemented by sediment supplied directly to the coast by the Rakaia River.

This northwardly transported sediment became trapped up against Banks Peninsula and formed what is now known as Kaitorete Barrier. Over the Holocene³ period accumulation of beach sediments has continued at the north end of the barrier, with erosion continuing to the south along the Rakaia river coast at rates higher than those experienced today as a result of increased rates of longshore transport of beach sediments due to a greater disparity between wave direction and shoreline orientation. This erosion slowly changed the orientation of the shoreline, essentially a clockwise rotation around a “hinge point”⁴ (Figure 4-2). This hinge point is now located midway between Taumutu and Birdlings Flat, approximately (between profile site ECE 2515 and ECE2995, Figure 4-1 and Table 5-1).

² Beach ridge barrier: A single low, continuous mound or ridge of beach material predominantly built by the action of waves on the backshore of a beach (Goodhue *et al.*, 2012)

³ The current geological epoch which began around 12,000 years ago.

⁴ The “hinge-point” is the location where there is a change from shoreline advance to shoreline erosion. This is where sediment stops accumulating and where the shoreline begins to erode.

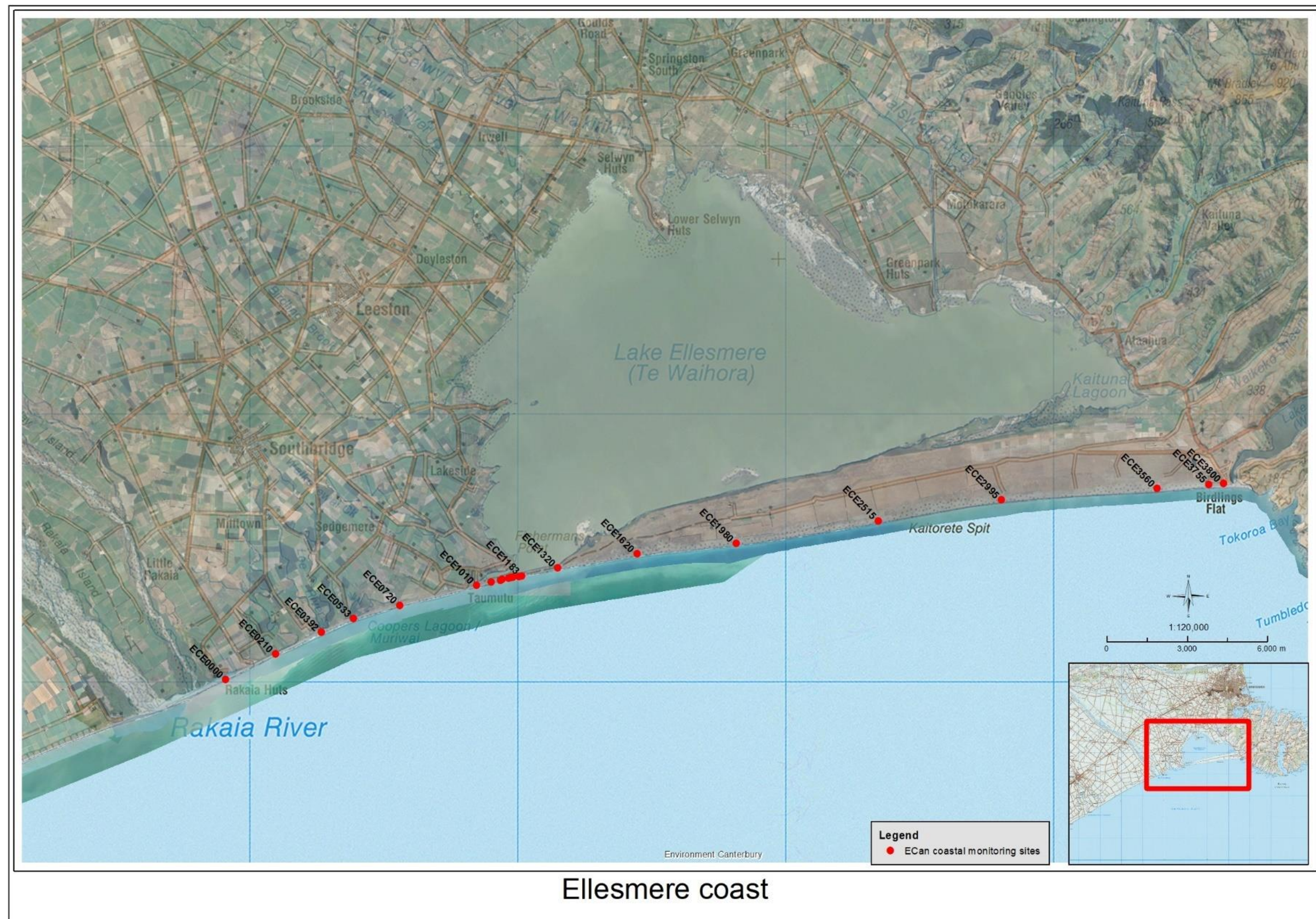


Figure 4-1: Overview of the northern Canterbury Bight shoreline with Environment Canterbury beach profile locations

4.3 Contemporary processes

The contemporary process environment is dominated by storm and swell waves from the south to southeast. Waves break close to the shore, generally in a single line of breakers, and form a line that delineates the foreshore from the nearshore seabed. Mixed sand and gravel beaches are different to sand beaches in that there is minimal transfer of gravel sediments on and offshore, and nearly all the coarse sediment (sands and gravels) is transported in the swash zone⁵. In contrast, fine sand is not resident on the beaches, being rapidly removed by wave action and transported in the nearshore and on the seabed, and removed from the beach, but is not transported or resident on the beaches (Single, 2006).

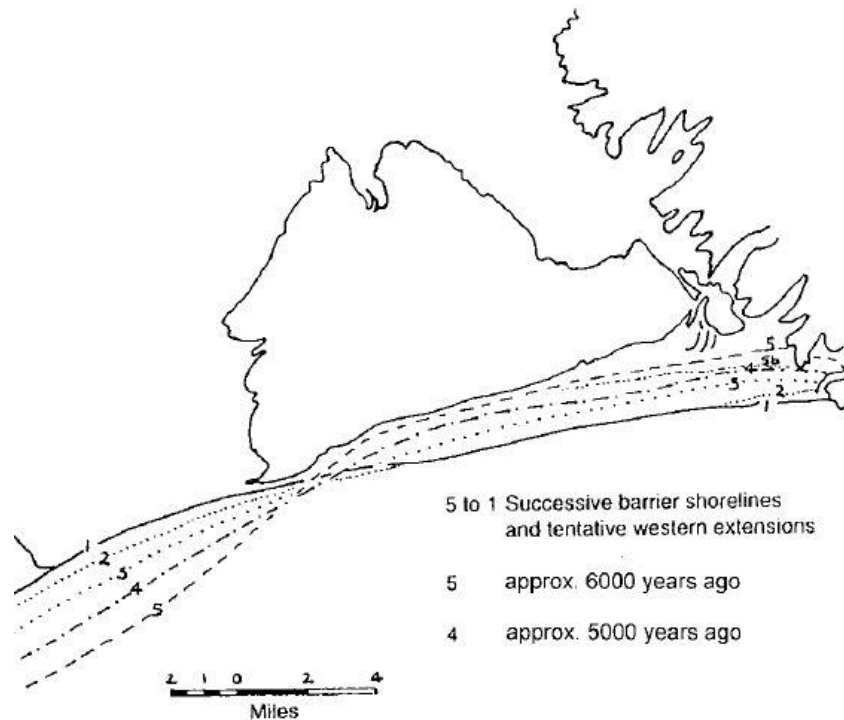


Figure 4-2: Historic clockwise rotation of the Rakaia – Birdlings Flat coastline around a hinge-point (reproduced from Kirk and Lauder (2000), after Kirk (1994))

From aerial photographic analysis described in Section 5.2, erosion of the coast over the past half century between the Rakaia River and Taumutu has occurred at an average rate of about 0.5 m per year. However, the rate of erosion is episodic and is generally greater during years with frequent coastal storms. In many places, the process of retreat is “beach rollover” due to storm waves washing over the crest of the beach and transferring sand and gravel from the foreshore to the backshore. It occurs when the barrier height is lower than the elevation of storm wave runup and where the barrier crest is narrow and backed by low ground, such as the span of shore from Coopers Lagoon/Muriwai to Taumutu (Hicks and Enright, 2010). Rollover results in retreat of both the barrier backshore and foreshore.

The rollover process is episodic. In between rare large wave events, the barrier is ‘repaired’ by waves that nearly reach the crest but don’t quite overtop. These waves deposit sediment that build the beach up again. In general, the lower the barrier on average, the more likely storm waves will overtop and the more rapid the rollover process is likely to be.

⁵ The zone on foreshore between the wave break point and the upper limit of the wave up-rush.

5 Historic and contemporary coastal erosion information

5.1 Beach profiles

Environment Canterbury undertakes regular monitoring of beach profiles at 22 locations along the northern Canterbury Bight between the Rakaia river mouth and Birdlings Flat. Six of these profile sites are within the Selwyn District (Figures 5-1 and 5-2, Table 5-1) and have been monitored since 1991. Before then, some surveys concentrated around culverts draining Muriwai/Coopers Lagoon were undertaken by the Ellesmere County Council in the 1940s and 1960s. However, there is uncertainty about the accuracy of directly comparing these earlier surveys with post-1991 surveys so they have not been considered in this analysis. The profile site (E0000) at the Rakaia River mouth is heavily influenced by river mouth processes so has not been included. The beach profile surveys are undertaken annually, generally in Autumn. From 1991 to 2015 survey data was captured using total station and prism. From 2016 the surveys have been captured using differential GPS.

To consider the Selwyn District coastline in the context of the entire northern Canterbury Bight process environment we also include an analysis of the remaining profile sites along Kaitorete Barrier between Taumutu and Birdlings Flat (Figures 4-1 and Table 5-1).

The surveys are undertaken relative to Lyttelton Vertical Datum 1937 (LVD-37), extend across the beach profile from the landward limit of the active beach and typically terminate and or beyond 1 m above vertical datum. Mean High Water Springs (MHWS) on the Selwyn Coast is at 1.04 m above Mean Sea Level LVD-37 (Stephens *et al.*, 2015).

Various shoreline parameters can be calculated from the beach profile data including horizontal shoreline movement (either positive, indicating accretion or negative, indicating erosion), beach volume, beach height, beach width and beach slope. Table 6-1 presents a summary of the linear regression rates of the MHWS and 5 m elevation contour and beach volumes at the 14 surveyed beach profile sites between the Rakaia River and Birdlings Flat⁶. The MHWS line is approximated by the 1.0 m elevation contour above LVD-37. The 5.0 m elevation contour approximates the storm tide runup extent on the beach and is comparable with the vegetation line shoreline proxy determined from aerial photographs as described further in Section 6.2. Beach volume is defined as the volume (per metre length of shore) enclosed by the surveyed profile, the 1 m above MSL LVD-37 datum and a fixed offset point determined to be landward of the active beach.

5.2 Historic aerial photography

Digitised shorelines were developed using geo-referenced historic aerial photographs from 8 aerial photograph runs between 1943 and 2016 (Table 5-2). This set of shoreline information provides a total of seven time-periods for analysing long-term trends over a 73-year period (1943–2016). The long-term rate of coastline movement includes both ongoing trends and long-term cyclical fluctuations. These may be due to changes in sea level, fluctuations in coastal sediment supply or associated with long-term climatic cycles (Tonkin and Taylor, 2015).

The historic shorelines are based on digitising a shoreline proxy, taken to be the seaward edge of vegetation. The seaward edge of the vegetation represents the landward toe of the beach. This shoreline proxy was chosen because the seaward extent of vegetation growth is a good indicator of the active beach system where storm waves are encroaching regularly enough to limit the growth of vegetation. The change in contrast from vegetation to beach sediments can more accurately be identified on the historic black and white aerial photographs rather than the water line. The mapping of the vegetation was also preferred as using the water or wetted line as a shoreline proxy is problematic due to the wetted line varying widely between photographs depending on antecedent tide and wave runup conditions.

⁶ There are 22 sites in total. However, sites influenced by multiple processes (i.e. Rakaia river mouth and Te Waihora lake mouth processes) have been omitted from the summary data for clarity.

The historic shoreline data was analysed using the GIS-based Digital Shoreline Analysis System (DSAS) to evaluate long-term trends. DSAS processes the shoreline data and calculates shoreline change statistics at user-determined intervals along the entire site. We chose 50 m intervals for the Selwyn coast. Rates of long-term shoreline movement are derived using linear regression analysis. By calculating trends along the entire shoreline, rather than at a low number of discrete points (i.e. beach profile surveys), alongshore variation in long-term trends can be determined more accurately (Tonkin and Taylor, 2015).

Table 5-1: Summary of results of beach profile linear trend movements of the MHWS and 5 m elevation contours (above MSL LVD-1937 datum) and beach volume over the 1991-2018 period for Canterbury Bight, Rakaia River to Birdlings Flat

Grey shaded rows are sites north of Taumutu and outside of the Selwyn District. The green shaded row marks the profile site closest to the approximate location of the accretion/erosion hinge point discussed in section 4.2.

Profile	5m Contour (m/yr)	MHWS Contour (m/yr)	Beach Volume (m ³ /m/yr)
ECE0210	0.53	0.42	3.20
ECE0392	-0.70	-0.16	-0.90
ECE0533	-0.52	-0.50	-2.41
ECE0720	-0.42	-0.40	-2.60
ECE1010	-0.61	-0.60	-2.68
ECE1183	-0.20	-0.57	-0.16
ECE1320	-0.74	-0.58	-4.63
ECE1620	-1.07	-0.93	-5.42
ECE1980	-0.84	-0.72	-4.10
ECE2515	-0.29	-0.15	-2.16
ECE2995	-0.07	0.13	0.74
ECE3560	0.90	0.96	6.98
ECE3755	1.17	1.18	8.75
ECE3800	1.36	1.47	10.93

Table 5-2: Summary of aerial photographs used to digitise historic shorelines

Date Captured	Run	Source
06/05/1943	SN224	Environment Canterbury
02/05/1952	SN804	NZAM
02/10/1966	SN1904	Environment Canterbury
17/09/1975	SN2860	Environment Canterbury
28/10/1984	SN8389	Environment Canterbury
01/07/2004	Ortho75	Environment Canterbury
01/07/2012	PGRM2392 Canterbury Rural	Environment Canterbury
28/12/2015	11236D01NON Mid Canterbury	Environment Canterbury

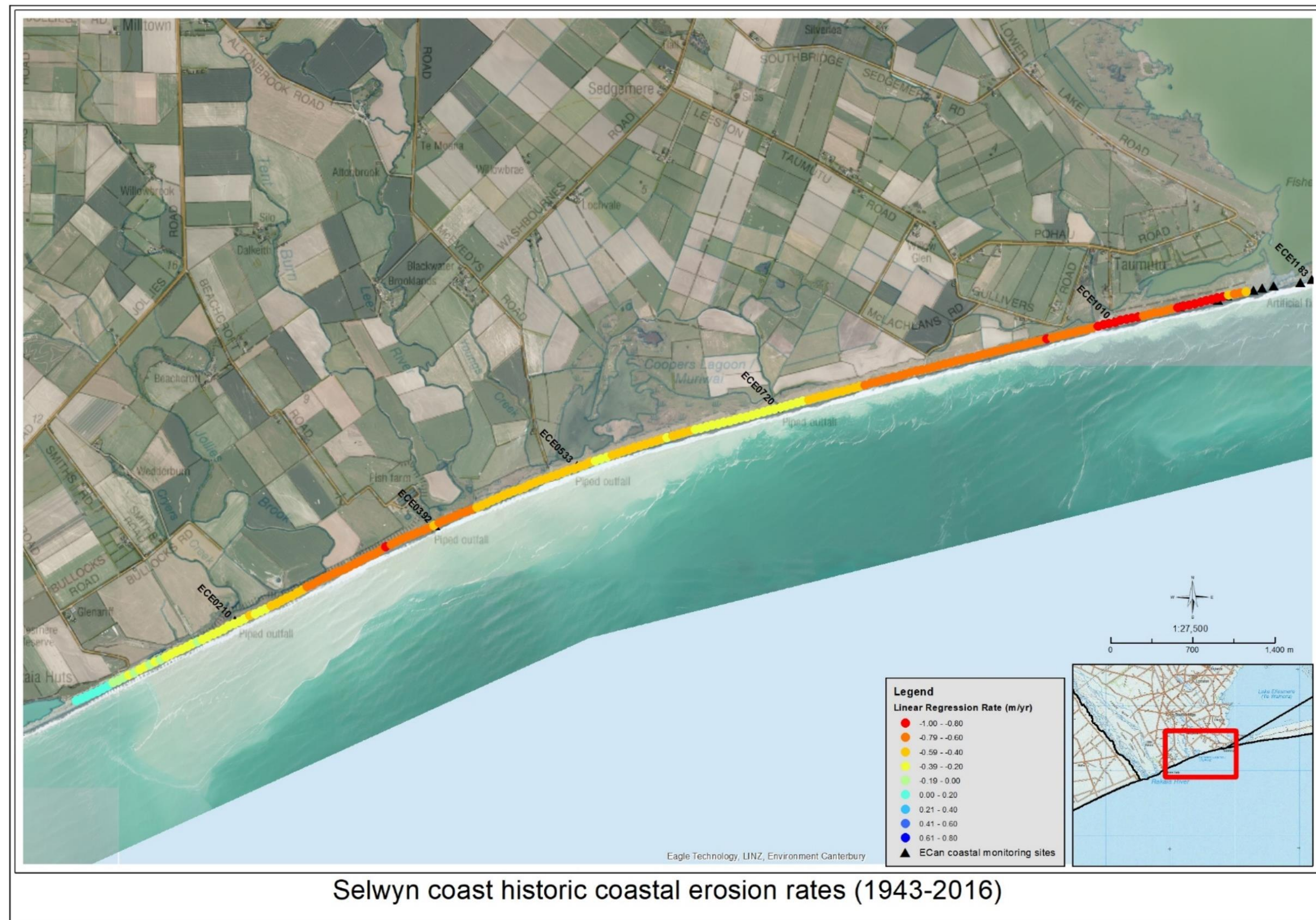


Figure 5-1: Erosion rates from DSAS historic aerial photography analysis and Environment Canterbury coastal profile monitoring sites

5.3 Erosion results and discussion

5.3.1 Historic digital shoreline analysis (DSAS)

Figure 5-1 shows the DSAS rate of shoreline change output results at 50 m intervals along the Selwyn shoreline. Figure 5-2 plots the linear regression rate of shoreline movement alongshore along with the more discrete and shorter term (27 years) survey data from Table 5-1. From the long term (73-year) data in Figure 5-1 and Figure 5-2 we see a coastline which is predominantly eroding, although with shoreline movement ranging between a small amount of accretion immediately north of the river mouth to -0.9 m/yr at Taumutu. The average long term linear rate of erosion is -0.53 m/yr.

Over the longer-term dataset, the shoreline immediately north of the river mouth has been stable to moderately erosional. The shorter-term survey data since 1991 indicates that the shoreline adjacent to the river mouth has accreted in both position and volume (Table 5-1 and Figure 5-2). This is consistent with the findings of Hicks and Enright (2010) and McHaffie (2010) who both noted an advancing shoreline at the Rakaia Mouth barrier. It appears that this shoreline advance at the river mouth also extends to the shoreline immediately north of the river mouth barrier. Hicks and Enright (2010) suggest that over recent decades there has been a temporary phase of relative dominance of river processes over coastal processes with the advancing river mouth deltas pushing the beach barrier forwards. Hicks and Enright (2010) note that this is a multi-decadal river mouth cycle between stability and erosion and that a change back to an erosional cycle is likely in the near future.

A distinct pattern of historic shoreline movement can be seen in Figure 5-1 and 5-2 with an obvious node of greater historic shoreline retreat focused around the Rakaia No. 2 Culvert at the Tentburn salmon farm (approximately 4 km north of the river mouth). Figure 5-2 shows that the shoreline elevation is lowest around the Tentburn node. Here, lower beach elevations have resulted in greater beach rollover and hence greater shoreline retreat. The surveyed beach profile at this site (E0392, Table 5-1 and Figure 5-2) show that the upper beach elevation retreated further than the lower beach but with beach volume losses less than sites to the north. This is symptomatic of a beach eroding through rollover due to regular overtopping.

Moving north from this Tentburn node of erosion, historic erosion rates reduce for 2-3 km before increasing again south of Taumutu (Figures 5-1 and 5-2).

5.3.2 Beach profiles

Beach profiles complement the historic shoreline analysis. The DSAS analysis of historic aerial photographs gives an overview of historic erosion rates over the past 73 years, but while only covering a third of the amount of time, the beach profile data set offers more nuanced information on trends in beach volume and geometry across the whole beach profile.

From Table 5-1 we see the same general trend in the shorter-term beach profile data as in the DSAS analysis except nearer the Rakaia river mouth where there is an accretional trend in the profile data at site ECE0210 compared to a slight erosional trend from the longer term DSAS data (Figure 5-1 and Figure 5-2). This is likely due to the multi-decadal river mouth cycles discussed in section 5.3.1.

The discrete profile sites also show the higher erosion rate around Tentburn (site ECE0392), the slight reduction in erosion rate at sites north of ECE0392, and the transition to higher rates of erosion towards Taumutu (site ECE1010). North of Taumutu and on to the Kaitorete Barrier coastline, shoreline retreat and beach volume losses increase and peak at site ECE1620, approximately 6 km north of Taumutu (Figure 4-1 and Table 5-1). North of ECE1620, rates of retreat and volume loss reduce until there is a complete switch to shoreline aggradation around profile site ECE2995. This coastline progradation continues for the final northern 10 km of Kaitorete Barrier. This transition between shoreline erosion and shoreline progradation is the hinge point where clockwise shoreline rotation is continuing to occur as discussed in section 4.2.

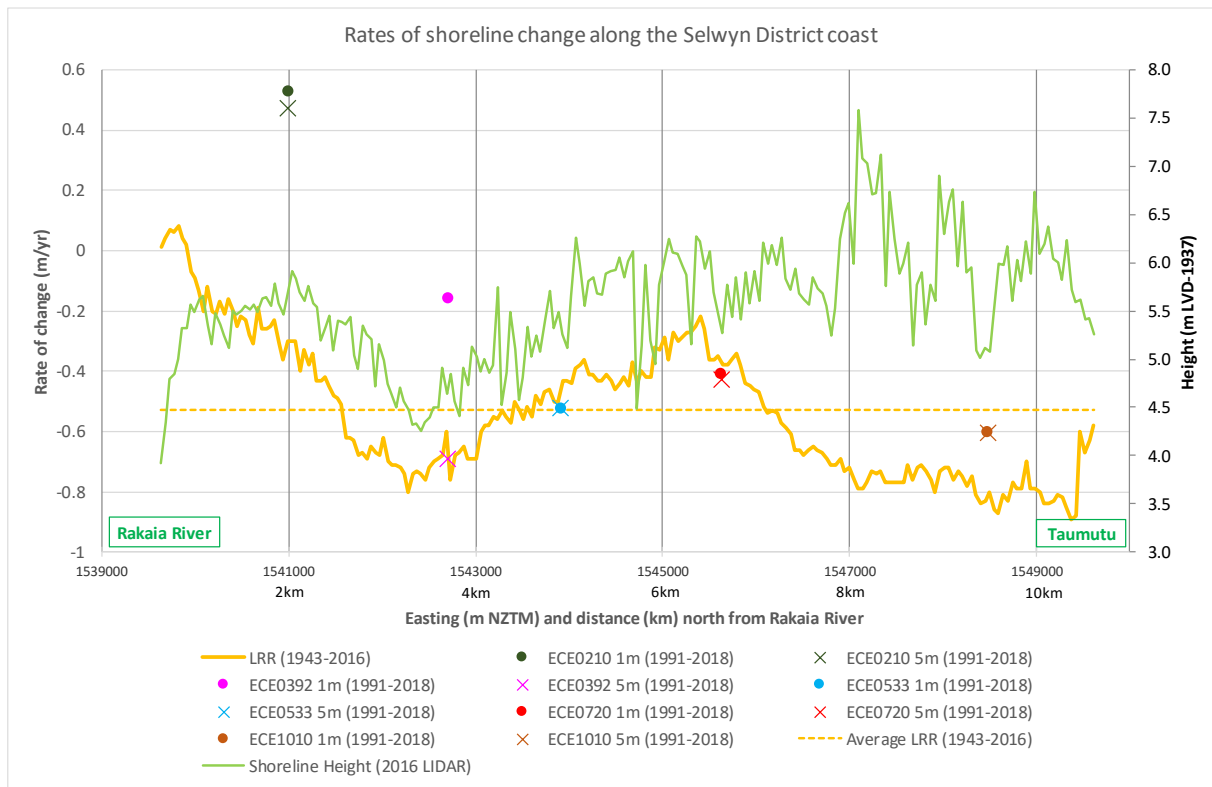


Figure 5-2: Linear regression rate (LRR) of shoreline movement along the Selwyn District coast. Discrete points of shoreline movement at the 5 m and MHWS contours are plotted as points. Shoreline heights at the shoreline proxy location (vegetation line) derived from the 2016 LiDAR digital elevation model are plotted in green

6 Future coastal erosion

Existing coastal erosion hazard zones in the Regional Coastal Environment Plan (RCEP) and the Canterbury Regional Policy Statement (CRPS) were identified using a methodology established in the early 1990s. The coastal erosion zones for Selwyn District were updated in 2015 using the same methodology. They identify land that is at risk from continued contemporary coastal erosion patterns within 100 years. The simple methodology used to establish the widths of these zones involved determining the historic rate of shoreline erosion and multiplying that by the specified planning timeframe (e.g. 100 years). This simple deterministic approach assumes that past erosion rates will continue and predicts a single future coastline.

This approach is now inconsistent with NZCPS (Policy 24), MfE and DOC guidance (2017) on coastal hazards and other national guidance (e.g. Ramsey *et al.*, 2012). For example, it does not include the possible effects of future accelerated sea level rise and its impact on future coastal erosion rates. This is a matter that Environment Canterbury will consider in a future RCEP review.

However, we are interested in which areas of Selwyn District could potentially be affected by future coastline retreat, including any additional erosion due to sea level rise. This will help to assess exposure and identify locations where more detailed coastal erosion assessments may be needed.

6.1 Future coastal erosion modelling for Selwyn – Measures *et al.* (2014)

Measures *et al.* (2014) have developed a “1-line” shoreline model for the 46 km span of shore between the northern end of the Rakaia hāpua and Banks Peninsula to predict shoreline movement over the next 100 years. A “1-line” model predicts the movement of the beach plan shape (a birds-eye view of the shoreline at a single reference point such as the MHS beach contour) through time. The model is run by inputting information about sediment volumes arriving and leaving the coastal cell (a sediment budget), the beach shape and waves.

The model also added a shoreline-response-to-sea-level rise component, specific to the mixed sand and gravel beach barrier characteristics of the Selwyn coast. The authors modelled what would happen to existing shoreline retreat in response to an increase in the rate of sea level rise from 2 mm/yr (observed historic sea level rise from the Lyttelton tide gauge) to 10 mm/yr, the equivalent of a 1 m rise in sea level by 2100. This 1 m sea level rise was determined from the 2008 Ministry for the Environment sea level guidance, now superseded by the 2017 guidance (MfE, 2017). Measures *et al.* (2014) found that modelled erosion rates increased by 22% when the rate of sea level rise was increased from 2 mm/yr to 10 mm/yr.

6.2 Area of potential coastal erosion hazard

We have taken the average long term historic erosion rate from the DSAS analysis (section 5.3.1) along the Selwyn District coast from Figure 5-2 (approximately -0.5 m/yr) and then increased that rate by 22% (to approximately -0.6 m/yr) as modelled by Measures *et al.* (2014). This is then projected forward 100 years from the 2016 mapped shoreline to create a potential 100-year shoreline (Figure 6-1).

There is uncertainty associated with determining a single shoreline, and by applying the average long-term rate of erosion across the whole of the district's coast there is an overprediction of future erosion at locations where historic erosion is less than the average rate and an underprediction where the historic erosion has been higher than the average. Therefore, we have incorporated this modelled shoreline information within a wider band of potential coastal erosion hazard. The seaward boundary of the zone is the mapped 2016 shoreline. The upper or landward limit of the zone is the highest long term historic erosion rate for the Selwyn coast at Taumutu (-0.9 m/yr) rounded up to -1 m/yr, increased by 22% (to -1.22 m/yr) and projected forward 100 years. While this approach may further overpredict future erosion at locations where historic erosion rates have been lower, we consider the added conservatism to be acceptable in line with the broad-brush approach of a hazard screening assessment.

The coastal erosion area has no level of quantifiable probability associated with it but indicates the potential area over which shoreline retreat could be experienced within the next 100 years.

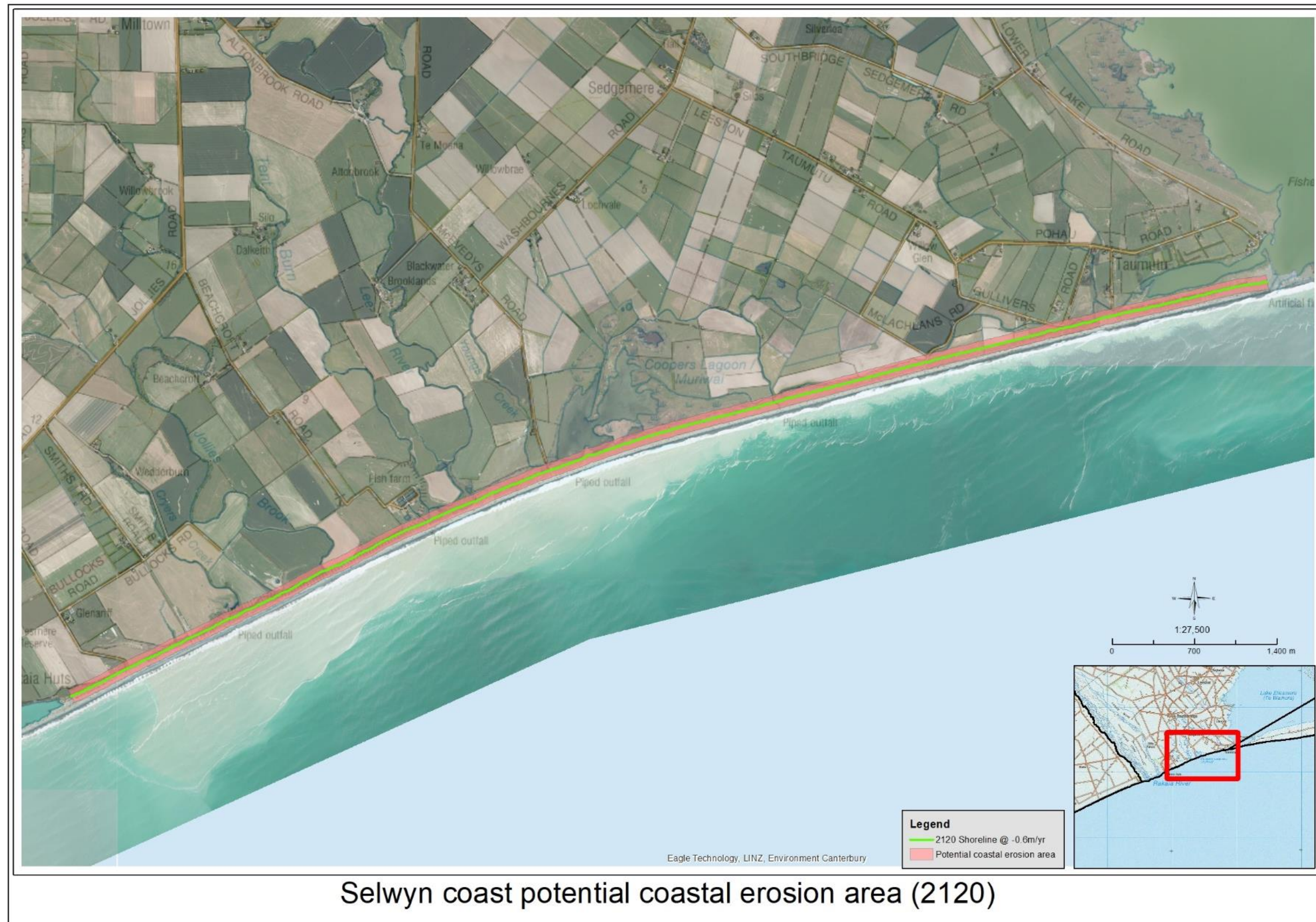


Figure 6-1: Area of potential coastal erosion for the Selwyn District coast to 2120. The green shoreline is the 2120 shoreline using Measures *et al.* (2014) modelled shoreline response to sea level rise with the average historic coastal erosion rate (total of -0.6 m/yr)

7 Coastal inundation

Coastal storm inundation, or flooding (excluding tsunami) usually occurs when higher than normal high tides correspond with a coastal storm event. The result is seawater encroachment onto land either directly through overtopping of the beach barrier or via waterway connections to the coast such as rivers, estuaries or artificial structures like culverts.

There are number of meteorological and astronomical phenomena that produce an extreme storm-tide and storm wave event. These processes can combine in several ways to cause coastal flooding and/or coastal erosion (Stephens *et al.*, 2015). Storm tide is the maximum level of the sea reached during a storm event from a combination of the astronomical tide, including the mean sea level anomaly, plus storm surge. Storm surge is the increase in sea level that occurs during storms where low barometric pressure draws up the sea surface and strong winds push water onshore. The mean sea level anomaly is the variability in the average level of the sea due to seasonal or climatic cycles such as La Niña/El Niño. The mean sea level anomaly can increase or decrease sea levels by a few tens of centimetres. Waves also raise the sea level at the coastline through the process of 'wave-setup' where the energy released by breaking waves increases average water level. On top of these processes, wave runup (the up-rush of broken water up the beach after waves break) also carries water to higher elevations on the beach. Figure 7-1 is a schematic of these meteorological and astronomical sea level components.

Sea level rise will increase the exposure of coastal land to coastal storm water inundation (MfE, 2017). The frequency of coastal flooding above the present-day level, for example the crest of the beach, will increase as sea levels rise and will cause inundation events to reach further inland.

The RCEP and CRPS identify seawater inundation zones in the coastal hazard zone planning maps. These zones only identify areas where historic coastal storm events have caused flooding and where the extent of that flooding has been recorded and mapped. Environment Canterbury does not hold any information on significant historic coastal flooding events for the Selwyn coast except for at the north Rakaia Huts which have flooded in the past due to extreme water levels in the coastal hāpua related to a combination of river and coastal interactions. On the open coast, past coastal inundation events have been localised and generally non-damaging. However, under future sea level rise the Selwyn coast may be more vulnerable to the effects of coastal flooding.

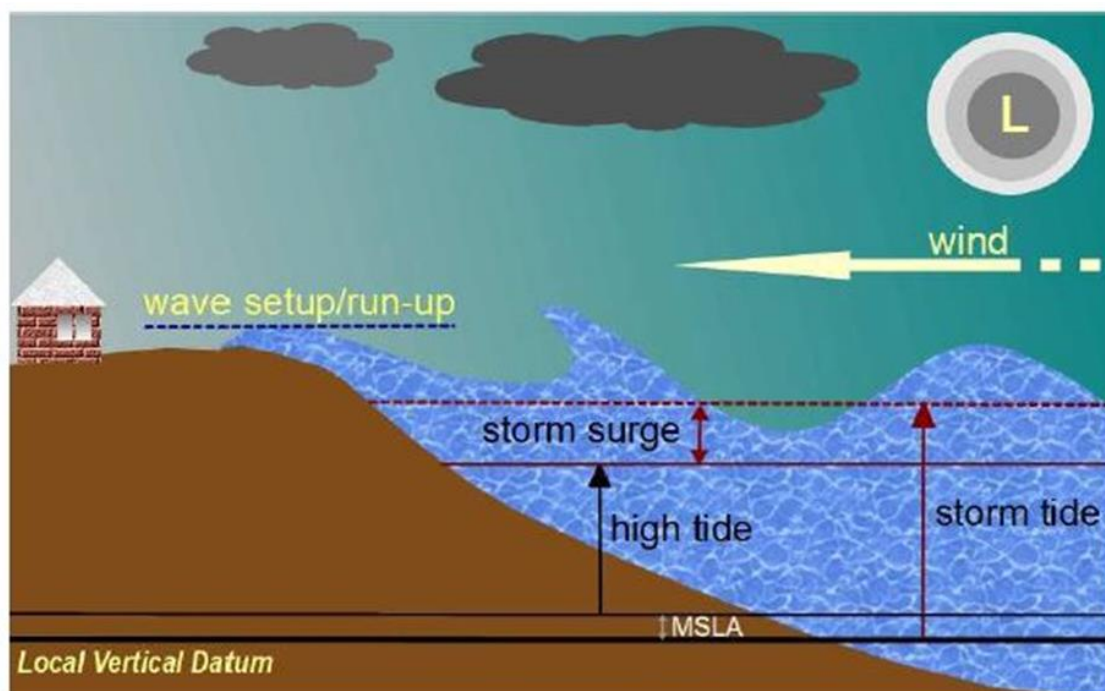


Figure 7-1: Schematic illustrating components of coastal inundation (from Stephens *et al.*, 2015)

7.1 Coastal inundation potential mapping

Potential inundation maps have been created within ArcGIS using extreme sea levels previously determined at output locations along the Selwyn coast by Stephens *et al.* (2015) (Figure 7-2). The water level used in this analysis was the joint probability 1% Annual Exceedance Probability (AEP) level of storm tide (astronomical tide, storm surge and wind setup) and coastal storm wave effects (wave setup). The 1% AEP is an event that is rare on an annual basis (it has a 1% chance of occurring or being exceeded in any given year) but that has an increasing likelihood of occurring over longer timeframes e.g. there is a 63% likelihood of a 1% AEP event occurring over a 100-year timeframe. The use of a 1% AEP event in coastal hazard assessments is supported by the MfE (2017) guidance as it overcomes potential over-prediction from treating storm surge and storm wave effects as independent components of extreme water levels (Stephens *et al.*, 2015).

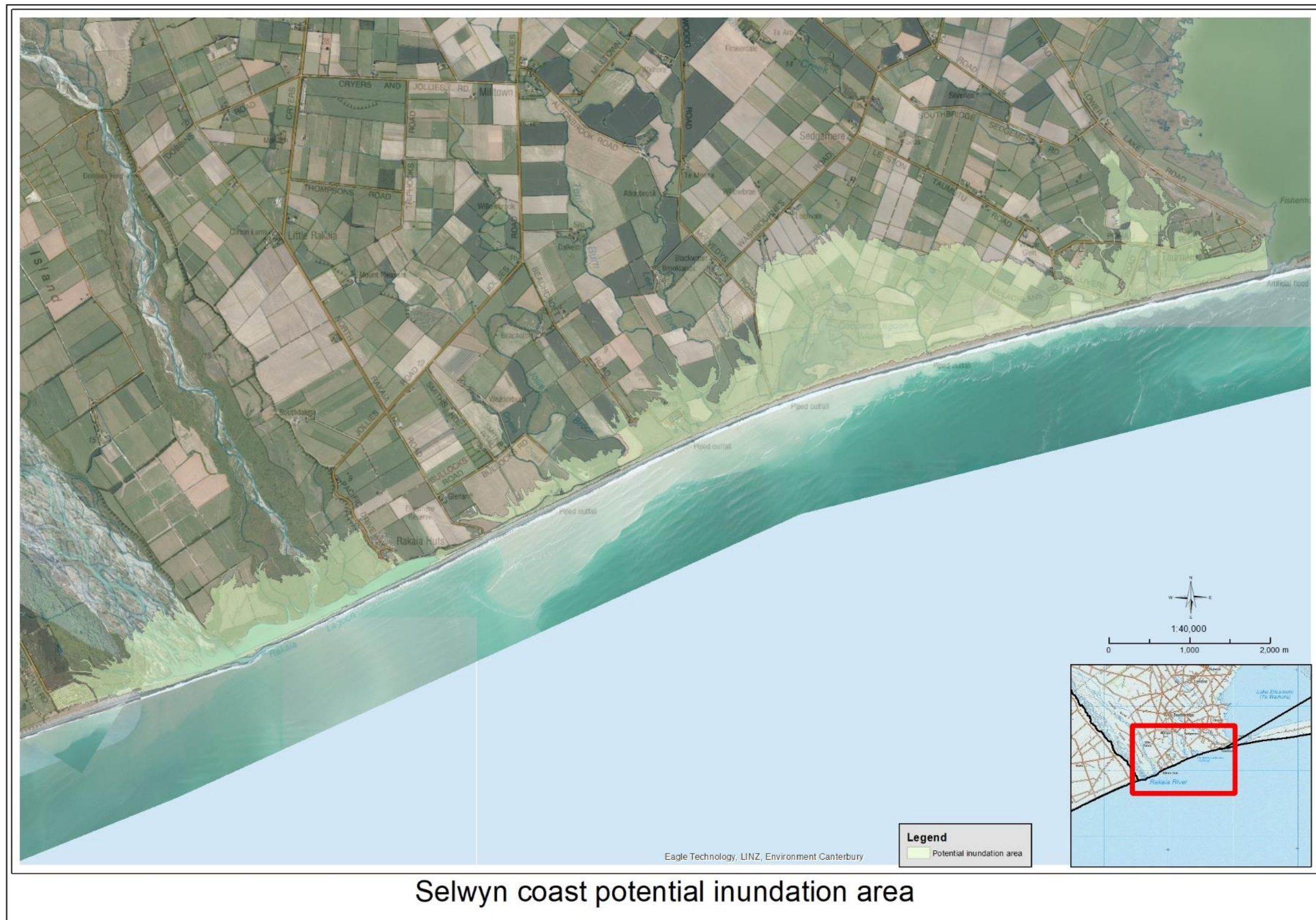


Figure 7-2: Coastal inundation map for Selwyn District showing land potentially exposed to coastal inundation from extreme storm events over the next 100 years (2120). Shaded area is land below the 4m elevation contour (LVD-1937)

The components of sea level used in the mapping for Selwyn District are presented in Table 7-1. The components were derived from the Stephens *et al.* (2015) coastal storm tide and wave runup calculator for the Canterbury region using a site-specific node at Taumutu. The 100-year (2120) RCP8.5H+ sea level (Section 3.1) was used as the sea level rise component. Storm tide and wave setup elevations were 1% AEP elevations derived from the statistical joint occurrence (joint probability) of storm tide and wave effects. The “datum offset” is an elevation correction to MSL (LVD-37) for the observed sea level rise that has occurred since this datum was established.

This assessment includes wave setup in the calculations for extreme sea-level elevations but does not include wave runup elevations. Wave setup is an integral component of the total water level that potentially could cause direct or near continuous inundation of coastal margins (MfE, 2017; Stephens *et al.*, 2016). Wave runup elevations can be significantly higher than wave setup. However, wave runup may not necessarily cause substantial flooding compared with more direct ‘green water’ flooding from wave setup (MfE, 2017) and storm-tide plus wave setup level is considered most important for largescale inundation mapping (Stephens *et al.*, 2016).

The potential inundation map for Selwyn (Figure 7-2) takes the 4 m extreme storm tide level from Table 7-1 and intersects this with a 2015 LiDAR derived digital elevation model (DEM) to create GIS polygons that identify land lower than the 4 m elevation scenario.

This technique can be described as a “conservative bathtub approach” (D. Todd (peer reviewer) personal communication). It is not the equivalent of what is often referred to as a “connected bathtub” model which extrapolates the storm inundation level inland where there is a connection to the open coast, i.e. natural or artificial drainage systems.

Bathtub models in general assume the inland area will be inundated to the equivalent static storm tide level as the adjacent open coast. Although we have attempted to remove any obvious low-lying ponding areas, we have not attempted to identify where possible connections exist between the open coast and inland areas during extreme storm events. For a high-level screening assessment, the use of the conservative bathtub approach is justified in that it incorporates any future uncertainty in future coastal geomorphology such as possible future barrier breaches, uncertainties around future barrier elevations as beach rollover continues and lowering base topography behind the barrier.

Therefore, our inundation map provides a conservatively high indication of areas where there is the potential for coastal storm inundation in the next 100 years. This is consistent with the high-level screening approach which can be used to assess exposure where high value assets or populated areas have the potential to be exposed to an inundation hazard and where more detailed coastal hazard assessments may be required.

Table 7-1: Sea level components used to derive coastal storm inundation mapping level. From the NIWA coastal calculator for Canterbury (Stephens *et al.*, 2015)

Sea level component	Contribution (m)
Storm tide (astronomical tide plus storm surge)	1.28
Wave setup	1.23
Sea level rise (RCP8.5H+ 2120 scenario)	1.36
Mean sea level datum offset	0.17
TOTAL	4.04

8 Discussion

8.1 Inundation

We have identified areas of the Selwyn coast potentially subject to coastal inundation from extreme storm events over the next 100 years by mapping a 4 m above mean sea level (LVD-37 datum) elevation band. These are areas potentially subject to coastal inundation in a 1% AEP coastal storm event with allowance for a 100-year sea level rise of 1.36 m (RCP8.5H+ scenario). Potential inundation is greatest around the low-lying margins of Coopers Lagoon/Muriwai, including Tentburn and north to include some parts of Taumutu.

8.1.1 North Rakaia Huts inundation

Some lower elevations of the north Rakaia Huts settlement are identified as potentially exposed to future inundation (Figure 8-1). However, we already know that the lower elevations of the Rakaia Huts are vulnerable to inundation under some present-day conditions due to river and coastal interactions at the hāpua/lagoon.

The state of the river mouth exerts a significant influence on lagoon water levels. If the mouth channel migrates and is offset (usually north) of the main river channel due to favourable wave conditions the mouth becomes restricted. This restricted mouth causes the lagoon level to become perched to provide enough hydraulic head for the outlet to remain open (Hicks, 2012). This high lagoon level can persist for months and can increase the potential for flood hazard at the Huts. If a moderate fresh occurs in the river when the lagoon level is sufficiently high, and the outlet does not immediately widen to accommodate the increased volume of water in the lagoon then flooding to a hazard level can occur.

An example of this type of flooding occurred in September 2013 (Figure 8-2). Unfortunately, the lagoon water level recorder was overwhelmed during this event, but estimated water levels reached approximately 4 m above MSL (LVD-37) (N. Griffiths, Environment Canterbury, pers. com. 2018). Coincidentally this is the level to which we have mapped future inundation. However, this inadequately reflects the potential future flood hazard when considering potential exacerbating effects of future sea level rise. Tide levels exert some temporary control over lagoon levels through a backwater effect and direct storm wave overtopping of the beach barrier also causes lagoon levels to rise, either independently of, or concurrently with river flood events (Hicks, 2012). Due to the control that oceanic processes have on lagoon water levels, we recommend that a more detailed assessment be undertaken on the influence of future sea level rise on the potential inundation hazard at the north Rakaia Huts.

8.2 Erosion

An area of potential coastal erosion out to 2120 has been identified (Figure 6-1). The maximum landward extent of this zone extends inland from the current coastline approximately 120 metres. This area can be used to identify coastal features, assets or land uses that could be affected by coastal retreat within the next 100 years.

For example, between Te Waihora/Lake Ellesmere and the Rakaia River there are four culvert structures draining spring water (and flood waters) to the sea. These culverts are known (from north to south) as Forsyth's Culvert, McEvedy's Culvert, Rakaia No.2 (McIlrath's) Culvert, and Rakaia No.1 Culvert. The culverts are exposed to a high-energy wave environment and all have a long history of damage from coastal storm events, exacerbated by ongoing coastal retreat. Regular maintenance and the landward extension of the culverts have been required in the past to maintain the function of these coastal structures (Measures *et al.*, 2014). As the beach rolls back, it will progressively overwhelm parts of the lowland drainage system, particularly around Tentburn, Jollies Brook and Coopers Lagoon/Muriwai.

8.2.1 North Rakaia Huts erosion

River and coastal process interactions at the Rakaia river mouth mean that the methodology used in this assessment to identify an area of potential coastal erosion for the Selwyn District is not applicable to the coastal frontage adjacent to the Rakaia Huts. McHaffie (2010) and Hicks and Enright (2010) have previously identified that the whole of the lagoon system, including the barrier shoreline and landward

shore has migrated seawards since 1952 (the date of the earliest aerial photograph analysed by McHaffie (2010)). Hicks and Enright (2010) attribute this shoreline advance over recent decades to multi-decadal river mouth cycles between stability and erosion and predict a switch back to an erosional cycle. This outcome is consistent with the findings of previous hāpua evolution research (Hart, 2009a and 2009b; Kirk and Lauder, 2000) which has shown that the landward shorelines of hāpua, although demonstrating some lag-time do eventually retreat in line with the adjacent coast to maintain their lagoon area. For the Rakaia hāpua the unknown factor is in the timing of when the next cycle of retreat will occur, particularly in the face of accelerated sea level rise. This could be an additional focus of the recommended work on future flood hazard for the Rakaia Huts.



Figure 8-1: North Rakaia Huts and Rakaia River hāpua indicating land below 4 m elevation (above mean sea level LVD-1937)



Figure 8-2: Flooding at north Rakaia Huts due to a moderate fresh and constricted hāpua outlet, September 2013. Source: Environment Canterbury

9 Summary and recommendations

Areas of potential future coastal erosion and coastal inundation have been identified as part of a high-level coastal hazard screening assessment for the Selwyn District. The coastal hazard screening broadly identifies areas potentially subject to coastal erosion and inundation and can be used to indicate locations where more detailed hazard exposure (and ultimately risk and vulnerability) assessments may need to be undertaken.

An area of potential coastal erosion hazard for the next 100 years is identified. The extent of this area extends approximately 120 metres from the current shoreline.

The prediction of future erosion of the landward edge of the hāpua fronting the north Rakaia Huts needs to be treated differently than the open coastline elsewhere in the district due to fluvial and coastal process interactions.

An area of coastal land potentially subject to coastal inundation during extreme storm events over the next 100 years has been identified by mapping low-lying land below a 4 m mean sea level elevation contour. Potential inundation is greatest around the low-lying margins of Coopers Lagoon/Muriwai, including Tentburn and some parts of Taumutu.

Land with lower elevations at the north Rakaia Huts settlement is currently susceptible to combined fluvial and coastal flooding events and future sea level rise is likely to increase this susceptibility.

Recommendations to Selwyn District Council for further work:

1. A more detailed coastal hazard assessment should be undertaken for the north Rakaia Huts settlement to better identify the future coastal hazard risk and vulnerability.
2. This high-level assessment broadly identifies areas potentially exposed to future coastal erosion and inundation hazards. It does not assess in detail what settlements, land uses, assets (including cultural assets), infrastructure or future growth areas may be exposed to these future hazards. A more detailed exposure analysis/assessment would help refine (or rule out) locations along the District's coast where detailed coastal hazard assessments may be useful to support future land use planning.

If further areas were to be identified in an exposure analysis (recommendation 2) and a more detailed hazard assessment undertaken, then consideration should be given to;

3. refining the Measures *et al.* (2014) open coastal erosion model to incorporate possible climate change-induced variability in other weather and oceanic coastal hazard drivers and coastal sediment supply. This would refine the shoreline modelling to consider in greater detail the physical factors identified in Policy 24 of the NZCPS,
4. refining the coastal inundation analysis to incorporate any hydraulic connections identified between the open coast and inland areas during extreme storm events, and
5. including an analysis of the combined influence of ongoing beach erosion and the potential effects that sea level rise may have on beach crest elevations and the related impact on future coastal inundation.

10 Peer Review

This report has been externally peer reviewed by Derek Todd, Principal Coastal and Hazards Scientist at Jacobs Consulting Ltd.

Mr Todd's general comment was that *"the report successfully collates the existing information and presents it in a manner that allows the SDC to identify locations where more detailed hazards assessments would be warranted."* Specifically, he states *"the recommendations on the high-level areas identified, and the need for more detailed assessment at North Rakaia Huts are appropriate"* and he considers *"the report meets the requirement of a regional/district coastal hazard assessment as per the MfE (2017) guidance and sets a good template for other similar assessments in other districts"*.

Mr Todd made some specific recommendations for improvement on the presentation and accuracy of some of the background information and suggests *"the coastal erosion section would greatly benefit from including results from beach profiles and aerial photo analysis for Kaitorete Barrier to put the results for Taumutu into a wider process/shoreline orientation context"* These recommendations have been accepted and included in the final report.

The relevant section of the peer review is attached in the Appendix.

11 Acknowledgements

Thank you to Bruce Gabites (Environment Canterbury) who undertook the DSAS historic shoreline analysis and created the GIS layers and maps.

Thank you to the Environment Canterbury reviewers Jane Doogue, Bruce Gabites and Tim Davie and an external reviewer Derek Todd (Jacobs Ltd) for the helpful comments, suggestions and recommendations for improvements.

12 References

Department of Conservation. 2017. NZCPS 2010 guidance note: Coastal Hazards Objective 5 and Policies 24, 25, 26 and 27. 100pp.

Goodhue, N, Rouse, H., Ramsay, D., Bell, R., Hume, T., Hicks, D.M. 2012. *Coastal Adaptation to Climate Change: Mapping a New Zealand Coastal Sensitivity Index*. Report prepared for MBIE, Contract C01X0802

Hart, D.E. 2009a. *River mouth lagoon science and management* in Beach management: Principles and practice, Earthscan, London, 267L280.

Hart, D.E. 2009b. *Morphodynamics of non-estuarine rivermouth lagoons on high-energy coasts*. Journal of Coastal Research, SI 56 (Proceedings of the 10th International Coastal Symposium), pg – pg. Lisbon, Portugal.

Hicks, D.M. and Enright, M., 2010. *Shoreline and beach volume changes along the Canterbury Bight 1991-2010*. Report prepared for Environment Canterbury. NIWA client report CHC2010-146

Hicks, D.M. 2012. *Statement of evidence of Darryl Murray Hicks. Hearing for application to amend the National Water Conservation (Rakaia River) Order 1988*. 29 June 2012.

Kirk, R.M. 1994: The origins of Waihora/Lake Ellesmere. Pg. 9-16 in Davies, J.D.G.; Galloway, L.; Nutt, A.H.C. (Eds) Waihora Lake Ellesmere, past present future.

Kirk, R.M. and Lauder, G.A., 2000. *Significant Coastal Lagoon Systems in the South Island, New Zealand: Coastal Processes and Lagoon Mouth Closure*, Wellington, New Zealand: Department of Conservation, 47p.

McHaffie, N. 2010. *A GIS analysis of changes in the Rakaia river hapua*, Canterbury. Geography 420 Dissertation, University of Canterbury.

Measures, R., Cochrane, T., Caruso, B., Walsh, J., Horrell, G., Hicks, D.M., Wild, M. 2014. *Analysis of Te Waihora lake level control options: A Whakaora Te Waihora science project*. Prepared for Ngāi Tahu and Environment Canterbury. NIWA Client Report No: CHC2014-076.

Ministry for the Environment, 2017. *Coastal hazards and climate change: guidance for local government*. Ministry for the Environment publication ME1341.

Ministry of Civil Defence and Emergency Management. 2016. *Tsunami Evacuation Zones: Director's Guideline for Civil Defence Emergency Management*. Wellington: Ministry of Civil Defence and Emergency Management

Power, W.L. 2013a. *Review of Tsunami Hazard in New Zealand (2013 Update)*, GNS Science Consultancy Report 2013/131.

Power, W.L. 2013b. *Tsunami hazard curves and deaggregation plots for 20km coastal sections, derived from the 2013 Nation Tsunami Hazard Model*. GNS Science Report GNS Science Report 2013/59.

Ramsay, D.L., Gibberd, B., Dahm, J., Bell, R.G. 2012. *Defining coastal hazard zones and setback lines. A guide to good practice*. National Institute of Water & Atmospheric Research Ltd, Hamilton, New Zealand.

Single, M. 2006. *Timaru to Banks Peninsula Coastal Report Status of Gravel Resources and Management Implications*. Report No R06/16, Environment Canterbury

Stephens, S., Allis, M., Robinson, B., Gorman, R. 2015. *Storm-tides and wave runup in the Canterbury Region*. Report prepared for Environment Canterbury. NIWA client report HAM2015-129.

Stephens, S., Wadhwa, S., Tuckey, B. 2016. *Coastal Inundation by Storm-tides and Waves in the Auckland Region*. Auckland Council Technical Report 2016/017.

Tonkin and Taylor 2017. *Coastal hazard assessment for Christchurch and Banks Peninsula*. Report prepared for the Christchurch City Council.

Appendix 1: Peer review



Level 2, Wynn Williams Building
47 Hereford Street
Christchurch Central
PO Box 1147, Christchurch 8140
New Zealand
T +64 3 940 4900
F +64 3 940 4901
www.jacobs.com

11 October 2018

Attention: Justin cope
Environment Canterbury
PO Box 345
Christchurch

Project Name: ECan Coastal Hazards Reviews
Project Number: IZ117900

Subject: Review of Draft Selwyn District Screening Report

Dear Justin

Please find attached my tracked changes review of this draft report.

My general comment is that the report successfully collates the existing information and presents it in a manner that allows the SDC to identify locations where more detailed hazards assessments would be warranted. Most of the comments and suggestions relate to the presentation and accuracy of the background information rather than the hazard results.

Regarding the matters set out in your request to review, my findings are:

- The technical information presented is largely appropriate (bearing in mind my suggestions for improvement). However, I think the coastal erosion section would greatly benefit from including results from beach profiles and aerial photo analysis for Kaitorete Barrier to put the results for Taumutu into a wider process/shoreline orientation context. After all, this section of shoreline is all one coastal cell, which the district boundary cuts in half. This wider context may alter your findings and discussion around the Taumutu erosion node and location of erosion/accretion hinge point; but is unlikely to alter the conclusions on the broad scale of hazard risk within the Selwyn District.
- Even bearing in mind the above points about applying a wider coastal cell approach to the analysis, I believe the recommendations on the high-level areas identified, and the need for more detailed assessment at North Rakaia Huts are appropriate.
- With the above-mentioned addition, I consider the report meets the requirement of a regional/district coastal hazard assessment as per the MfE (2017) guidance, and sets a good template for other similar assessments in other districts.

NH201 Coastal hazards– communications and engagement summary plan

Key messages

(as of 26 November 2018)

Background

- As part of the Selwyn District Plan Review, the Council has been reviewing policies and rules managing coastal hazards in the district. This includes coastal erosion and inundation risks, and tsunami risk.
- The management of significant risks from natural hazards, including coastal hazards, is a matter of national importance that must be recognised and provided for in the district plan.
- Selwyn’s coastal environment is of limited distance and contains limited development opportunities, given the rural zoning of the area, with the exception of Rakaia Huts, and the proposed Kainga Nohoanga Zone at Taumutu.
- Review of the current Selwyn District Plan needs to align with relevant regional (Canterbury Regional Coastal Environment Plan) and national (New Zealand Coastal Policy Statement) regulatory documents.
- The Canterbury Regional Coastal Environment Plan identifies two types of coastal hazard areas in New Zealand: the area seaward of Coastal Hazard Line 1, and the area inland of Coastal Hazard Line 1 to Coastal Hazard Line 2. Coastal Hazard Line 1 is approximately parallel with the shoreline and includes land that is at risk from coastal erosion within 50 years of the plan being produced. Coastal Hazard Line 2 marks land that is at risk from coastal erosion in the period 50 to 100 years of the plan being produced.
- At the end of 2017 the Department of Conservation and the Ministry for the Environment each published new guidance for local government on managing coastal hazards and climate change, which follows the New Zealand Coastal Policy Statement.
- Following this new guidance Environment Canterbury (ECan) has this year undertaken a high-level coastal hazard assessment for the Selwyn district coastline to identify areas potentially exposed to coastal hazards over the next 100 years and where more detailed assessments may need to be undertaken. Areas identified by ECan form a zone which extends approximately 120 metres from the current shoreline.
- The preferred option report on coastal hazards uses ECan’s report as a basis for its recommended changes to the current District Plan.

Current status

- The key mechanism for managing coastal hazards in the current District Plan is a map of the Coastal Hazard 1 line for Selwyn district which hasn’t been updated to the 2015 line. Any development on land between the line and the sea requires a resource consent to enable an assessment of natural hazard risk.
- At Rakaia Huts, the erection of any new dwelling, part dwelling or other principal building on the lower river terrace is a non-complying activity. This control manages inundation from both the Rakaia River and the coast.
- The current District Plan doesn’t manage coastal inundation other than at Rakaia Huts, and tsunami risk is not addressed at all.

About preferred option

Coastal erosion

- The coastal culverts which drain spring water (and flood waters) to the sea are the most at risk asset from future coastal erosion and may require more regular maintenance and repair as sea levels rise. The eroding beach barrier will progressively overwhelm parts of the lowland drainage system which will have future implications for local land drainage.
- Key draft changes include:
 - Replacing the existing Coastal Hazard Lines 1 and 2 with the ECan’s identified potential coastal erosion area. This area includes the cumulative effects of sea level rise over the next 100 years.
 - The potential coastal erosion area extends approximately 120 metres inland from the current shoreline and includes productive land, coastal wetland areas, coastal drainage systems and important coastal culvert structures. The area is similar to the existing Coastal Hazard 1 line for much of the district’s coastline, but extends further inland in some areas.
 - Subdivision, use and development within the whole of this area being subject to rules broadly equivalent to current requirements of the Canterbury Regional Coastal Environment Plan.

Audiences¹

Internal	Partners	Key stakeholders ²	Landowners /occupiers ³	General public
DPC	ECan	Department of Conservation	Landowners in potential coastal erosion area	Selwyn ratepayers
Council’s Assets Team	Te Ngāi Tuāhuriri Rūnanga (represented by Mahaanui Kurataiao)	Federated Farmers	Landowners in potential coastal inundation area (excl Rakaia Huts)	News media
	Te Taumutu Rūnanga (represented by Mahaanui Kurataiao)	Ellesmere Sustainable Agriculture	Landowners in tsunami evacuation area	Wider public
			Rakaia Huts landowners	

Legend	<i>High level of interest/ High level of influence (“Manage closely”)</i>	<i>High level of interest/ Low level of influence (“Keep informed”)</i>	<i>Low level of interest/ high level of influence (“Keep satisfied”)</i>	<i>Low level of interest/ Low level of influence (“Watch only”)</i>

¹ “...Differing levels and forms of engagement may be required during the varying phases of consideration and decision-making on an issue, and for different community groups or stakeholders. The Council will review the appropriateness and effectiveness of the engagement strategy and methods as the process proceeds.” [Significance and Engagement Policy: Adopted 26 November 2014; p.6]

² Key stakeholders are “the organisations requiring engagement and information as the preferred options for the Draft District Plan are being prepared.” (District Plan Review Community Engagement Implementation Plan; p.6))Key stakeholders “...will advocate for or against decisions that will need to be made...” and “For the District Plan Review, stakeholders include any party that can influence decisions or be influenced by decisions made on policies or rules.” (DPR Engagement Framework)

³ Landowners are “the individuals and businesses that could be affected by the proposed changes in the District Plan.” (District Plan Review Community Engagement Implementation Plan; p.6)

Coastal inundation

- ECan’s report has identified an area of coastal land potentially exposed to coastal inundation from extreme storm events over the next 100 years by mapping low-lying land (ie less than 4 metres above mean sea level).
- Potential inundation exposure is greatest around the low-lying margins of Coopers Lagoon/Muriwai, including Tentburn and some parts of Taumutu.
- It’s proposed that this potential coastal inundation area is to be shown in the Proposed Plan as a flood high hazard overlay, with associated rules to restrict development in the area.

Tsunami

- Selwyn District has Red and Orange tsunami evacuation zones.
- Key draft changes include:
 - showing the existing Orange and Red tsunami evacuation zones as a tsunami hazard policy overlay on the planning maps in the Proposed District Plan.
 - considering policies which require any developments within this hazard overlay that involve vulnerable groups, such as rest homes, pre-schools and schools, or for critical facilities, such as hospitals, emergency services and key infrastructure, to consider tsunami risk as part of their resource consent applications.
 - amending the hazard overlay area once ECan has completed its review of the evacuation zones to ensure that the Proposed Plan includes the most recent information at the time of notification.

Rakaia Huts

- The lower parts of the north Rakaia Huts settlement are currently susceptible to combined river and coastal flooding events and future sea level rise is likely to increase this susceptibility.
- Based on ECan’s report it’s recommended that a more detailed coastal hazard assessment be carried out for Rakaia Huts settlement to better identify the future coastal hazard risk (erosion and inundation) and vulnerability of the area.

Engagement during review phases

Review phases	Internal	ECan	Rūnanga	Key stakeholders	Landowners/occupiers	General public
Baseline assessments						
Preferred option development				[DOC only]		
Preferred option consultation						

2018/2019 communications and engagement key tasks/milestones per month

(more detailed action plans to be developed for each major milestone or as required)

Audiences	Pre-December	December	March 2019
ECan	Consulted on preferred option report	Endorsed preferred option report is shared	
Rūnanga	Consulted on preferred option report	Endorsed preferred option report is shared	
Key stakeholders	DOC consulted on preferred option report		Endorsed preferred option report is shared and feedback sought
Landowners/occupiers			Endorsed preferred option report is shared and feedback sought
General public			Endorsed preferred option report is published on Your Say Selwyn website
DPC		Preferred option report goes to DPC for endorsement	

14. RESOLUTION TO EXCLUDE THE PUBLIC

Recommended:

1. *'That the public be excluded from the following proceedings of this meeting. The general subject matter to be considered while the public is excluded, the reason of passing this resolution in relation to the matter, and the specific grounds under Section 48(1) of the Local Government Official Information and Meetings Act 1987 for the passing of this resolution are as follows:*

General subject of each matter to be considered		Reasons for passing this resolution in relation to each matter	Ground(s) under Section 48(1) for the passing of this resolution
7.	Flooding <ul style="list-style-type: none"> • Preferred Option Report • Communications and Engagement Summary Plan 	<i>Good reason to withhold exists under Section 7</i>	<i>Section 48(1)(a)</i>

This resolution is made in reliance on Section 48(1)(a) of the Local Government Official Information and Meetings Act 1987 and the particular interest or interests protected by Section 6 or Section 7 of that Act or Section 6 or Section 7 or Section 9 of the Official Information Act 1982, as the case may require, which would be prejudiced by the holding of the whole or the relevant part of the proceedings of the meeting in public are as follows:

10 & 12	Maintain the effective conduct of public affairs through: <ol style="list-style-type: none"> (i) the free and frank expression of opinions by or between or to members or offices or employees of any local authority, or any persons to whom section (5) applies, in the course of their duty; (ii) The protection of such members, officers, employees and persons from improper pressure or harassment. 	Section 7(2)(f)
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2. *That appropriate officers remain to provide advice to the Committee.*