

Introduction to the Natural Hazards Plan Change 3

The current natural hazards chapter is outdated. The flood maps only apply to specific areas of the Kaikoura District where detailed flood modelling has been undertaken, whereas the plan change anticipates a broader, district wide approach as flooding also occurs elsewhere in the district. Since the 2016 Kaikoura earthquake event, new assessments fault rupture, liquefaction, debris inundation and debris flow fan information have been undertaken. The plan change anticipates a district wide approach for all of the natural hazards included.

The provisions rely on a separate set of hazard-specific planning maps, titled Proposed District Plan Map Series.

Coastal hazards are not covered as part of this Plan Change. The existing Operative Plan coastal hazards provisions have therefore been carried over into a restructured new Chapter 8 as set out. As coastal hazards are not within the scope of this plan change the Council is not anticipating any submissions on the coastal hazards provisions.

As it focusses on natural hazards, this plan change does not propose changes to other matters where change may be required as part of a broader district plan review, such as for contaminated sites where the RMA has changed the responsibilities of territorial authorities.

This natural hazard plan change involves targeted changes to the Operative Plan – they do not entirely follow the format required under the National Planning Standards (NPS) which would require more significant structural change. The Council anticipates updating the plan in the future to the NPS format.

The plan change primarily affects Chapter 8 of the Kaikoura District plan, but also includes amendments to other chapters. Text that is proposed to be deleted is written in ~~bold with a strikethrough~~. Text that is being added is in **bold and underlined**. Text that has no proposed changes is replaced with (...)

The following chapters to be amended as follows

- Chapter 1: Introduction
- Chapter 2: Policy and legal framework
- Chapter 3: Users guide
- Chapter 4: Definitions
- Chapter 7: Development and Tourism
- Chapter 13: Subdivisions

The following chapters to be deleted entirely and replaced as follows:

- Chapter 8: natural hazards

Instruction: Amend all district plan maps to remove the following legends: Kowhai River Flood Hazard Areas; etc, etc, etc. And add a new set of planning maps titled Proposed District Plan Map Series, for natural hazards as additional planning maps which can be found at the following URL address.

Chapter 1: Introduction

Amend Section 1.3.1 as follows:

1.3.1 The Kaikoura District

(...)

The major river systems in the District are the Clarence River, the Kowhai and Hapuku Rivers, with smaller systems including the Mt Fyffe Streams, Kahutara River and the Oaro River. Some of these river systems have been subject to flooding in extreme climatic events. Other natural hazards from which the Kaikoura District is at risk include earthquakes, **fault rupture, liquefaction, landslide debris** inundation, **debris fan flows**, tsunamis, **wild fire**, high winds and other extreme climatic events.

(...)

Amend section 1.3.2 as follows:

1.3.2 The Management Role of the Kaikoura District Council under the Resource Management Act

The Kaikoura District Council's role in managing the District's natural and physical resources is prescribed by section 31 of the Resource Management Act. This section states functions to which every territorial authority shall adhere in giving effect to this Act. These include:

(...)

- The control of any actual or potential effects of the use, development, or protection of land, including for the purpose of the avoidance or mitigation of **natural hazards** ~~any adverse effects of the storage, use disposal, or transportation of hazardous substances~~. The control of subdivision of land.

(...)

Amend section 1.7 as follows:

(...)

The Council has developed zones which recognise that different areas of the District have different resources, characteristics, levels of amenity, and different environmental outcomes which the community desires for these areas. The zones provide opportunities for future development in keeping with the character and amenity sought for each area. **The Council has also identified natural hazards overlays**. Any particular activity must comply with the rules applicable to the zone **and overlay** in which it is situated, as well as the general rules covering a range of matters such as subdivision, heritage values and transportation.

(...)

Chapter 2: Policy and Legal Framework

Amend 2.3 status of activities as follows:

2.3 Status of Activities

(...)

Prohibited activities are activities which may not be undertaken under any circumstances. Resource consent will not be granted, and no resource consent may even be applied for. The only prohibited activities in this Plan relate to ~~activities in the Flood Hazard Areas 1 and 1a and~~ the number of residential and low density residential allotments allowed in the Ocean Ridge Comprehensive Zone. ~~Refer to section 8 (Natural Hazards), Rule 13.11.4 (Subdivision) and to the Planning Maps (Part 4).~~

Chapter 3: User's guide

Amend Section 3.2.1 Drawings to add new clause S

Drawings

(...)

- r. a floor plan of each building (at a scale of not less than 1:100) showing:
 - use of all parts of the building, including basements, parking, lift towers, storage or service areas;
 - room layout of the building, if this is known, and a clear identification of the use of different rooms or parts of a floor.

s. – the location of any known natural hazards in relation to the land.

(...)

Amend section 3.2.2 Subdivision Consent Applications - Information to be Included - Plans section as follows:

(...)

The site plan should also show where relevant:

- a. topographical information (including New Zealand map grid references), wherever possible in terms of the Kaikoura Datum, together with a certificate as to its origin and accuracy;
- b. details of hazardous areas (for example, uncompacted filling, **areas potentially subject to liquefaction, landslide debris inundation, debris flow fans, fault rupture,** or ~~flooding prone areas~~);

(...)

Chapter 4: Definitions

Insert new definition for Average Recurrence Interval (ARI)

Average Recurrence Interval (ARI)

means the average time period between natural hazard events of a certain size.

Note:

- For example, a 500 year ARI flood will occur once every 500 years on average.
- The size of natural hazard events can also be described using Annual Exceedance Probability (AEP).
- A 500 year ARI flood has a 0.2% chance of occurring in any given year, and therefore it is also referred as having a 0.2% AEP.
- A 100 year ARI flood has a 1% chance of occurring in any given year, and therefore it is also referred as having a 1% AEP.

Insert new definition for critical infrastructure as follows:

Critical Infrastructure

means 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 installation, 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.

Replace the existing earthworks definition with the National Planning Standards Earthworks definition as follows:

Earthworks

means the alteration or disturbance of land including by moving, removing, placing, blading, cutting, contouring, filling or excavation of earth (or any matter constituting the land including soil, clay, sand, and rock); but excludes gardening, cultivation, and disturbance of land for the installation of fenceposts

Insert new definition for hazard mitigation works as follows:

Hazard Mitigation Works

means works intended to control the effects of natural hazards

Insert new definition for hazard sensitive building as follows:

Hazard Sensitive Building

means any building or buildings which:

1. **is/are used as part of the primary activities on the site; or**
2. **contains habitable rooms; or**
3. **which are serviced with a sewage system and connected to a potable water supply,**

For the purposes of clause 1, buildings such as the following are not included:

- i. **farm sheds used solely for storage;**
- ii. **carports;**
- iii. **garden Sheds; and**
- iv. **any buildings with a dirt/gravel or similarly unconstructed floor.**

Insert new definition of High Flood Hazard Area from the CRPS:

High Flood Hazard Area

High Flood Hazard Areas are 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 exceedance probability flood event.

Insert new definition for land disturbance as follows:

Land Disturbance

means the alteration of land, (or any matter constituting the land including soil, clay, sand and rock) that does not permanently alter the profile, contour or height of the land.

Insert new definition for liquefaction area as follows:

Liquefaction Hazard

means land potentially at risk from liquefaction and lateral spread during an earthquake

Replace the existing definition of natural hazard with the RMA definition as follows:

Natural Hazard

means any atmospheric or earth or water related occurrence (including earthquake, tsunami, erosion, volcanic and geothermal activity, landslip, subsidence, sedimentation, wind, drought, fire, or flooding) the action of which adversely affects or may adversely affect human life, property, or other aspects of the environment.

Insert definition for Natural Hazard Mitigation Works

Natural Hazard Mitigation Works

means works intended to control the effects of natural events

Insert new definition for natural hazard overlays as follows:

Natural Hazard Overlays

identifies areas subject to a natural hazard. Natural hazard overlays include:

- a. Urban Flood Assessment Overlay
- b. Non-urban Flood Assessment Overlay
- c. Fault Avoidance Overlay
- d. Fault Awareness Overlay
- e. Landslide Debris Inundation Overlay
- f. Debris Fans Overlay
- g. Liquefaction Hazard Overlay

Insert new definition for operational need as follows:

Operational Need

means the need for a proposal or activity to traverse, locate or operate in a particular environment because of technical, logistical, operational characteristics or constraints.

Insert new definition for Plantation Forestry (as per NES definition):

Plantation forestry

plantation forest or plantation forestry means a forest deliberately established for commercial purposes, being—

(a) at least 1 ha of continuous forest cover of forest species that has been planted and has or will be harvested or replanted; and

(b) includes all associated forestry infrastructure; but

(c) does not include—

- (i) **a shelter belt of forest species, where the tree crown cover has, or is likely to have, an average width of less than 30m; or**
- (ii) **forest species in urban areas; or**
- (iii) **nurseries and seed orchards; or**
- (iv) **trees grown for fruit or nuts; or**
- (v) **long-term ecological restoration planting of forest species; or**
- (vi) **willows and poplars space planted for soil conservation purposes**

Insert new National Planning Standards definition for structure as follows:

Structure

means any building, equipment, device or other facility, made by people and which is fixed to land; and includes any raft.

Insert definition for shelterbelt as follows:

Shelterbelt

means any trees planted primarily to provide shelter for stock, crops, or buildings from wind, and which are no greater than 20m wide.

Insert new definition of woodlot as follows:

Woodlot

means a stand of trees for the purposes of firewood, the creation of other wood products, a carbon sink, erosion control, pest, or wilding tree management purposes, but excluding plantation forestry.

Chapter 7: Development and Tourism

Amend Policy 7.2.2(1) as follows:

7.2.2 Policies

1. To accommodate additional urban development only where the risk from **natural hazards flooding, land instability and coastal erosion or inundation** is **acceptable low**.

(...)

Amend section 7.2.3 Implementation methods as follows:

(...)

2. Provision of rules and performance standards relating to the following:
 - Connection to reticulated potable water supply and sewage treatment and disposal systems within urban areas where such systems exist.
 - Development within areas **prone to affected by natural hazards flooding and land instability**.

(...)

Amend explanation and reasons as follows:

(...)

Parts of Kaikoura township and surrounding land have a high probability of being flooded from the Kowhai River and other streams in the Kaikoura Plains catchment. Other natural hazards prevalent in the District include the threat of coastal erosion or inundation in coastal areas, **landslide debris inundation, debris flow fans, fault rupture, liquefaction** and **other** seismic hazards **and wildfire**.—In order to reduce risks to life and property, it is important that urban development **only occurs where the risk of natural hazards is acceptable**. ~~**does not take place in areas at high risk of being affected by natural hazards. For flood hazard and inundation, low flood risk generally means land which is outside the risk areas as indicated on the flood hazard maps, or for areas not included in these maps, where the probability of a flood event is less than a 10% chance in 50 years (0.2% Annual Exceedance Probability)**~~. The risk from coastal erosion is low on land outside the Coastal Hazard Lines, as shown in the Regional Council's Proposed Regional Coastal Environment Plan.

(...)

Instruction: Delete all of chapter 8, with the exception of the coastal hazards provisions.

Instruction: Undertake consequential re numbering to the coastal hazards provisions (the content of the coastal hazards provisions remains unchanged)

Insert new provisions in their entirety as follows:

8. Natural Hazards

8.1 Introduction

The Kaikoura District is susceptible to a wide range of natural hazards, including flooding, fault rupture, liquefaction, tsunami, debris flow fans, landslide debris inundation, and coastal inundation. Natural hazard events can damage property and infrastructure and can lead to injury or loss in human life. It is therefore important to identify areas subject to natural hazards and to restrict or manage subdivision, use and development.

This chapter focuses on the following natural hazards as they present the greatest risk to people and property, and the future effects can be addressed through appropriate land use planning measures.

- **Flooding:**
- **Landslide debris inundation,**
- **Debris flow fans:**
- **Fault rupture:**
- **Liquefaction: and**
- **Wildfire**

Some natural hazards are influenced by climate change. It is predicted that rainfall events will become more intense, storm events will become more common and sea level will rise. The flooding assessments required by this chapter will incorporate current climate change predictions based on the International Panel on Climate Change's advice and current practice in local government.

The district is also susceptible to other natural hazards such as severe winds, wildfires and ground shaking from earthquakes. These hazards are primarily managed by other statutory instruments or processes. For example, the Building Act 2004 deals with severe winds by use of building materials during construction.

The Canterbury Regional Policy Statement (CRPS) recognises that for existing urban areas the community has already accepted some natural hazard risk in order to support the ongoing development of the district's existing communities. The CRPS accordingly requires development in high hazard areas in these locations to be either avoided or mitigated.

Risk

Risk is a product of both the consequences (for example, loss of life or damage to properties) and likelihood from a natural hazard occurrence. A risk-based approach to natural hazards balances allowing for people and communities to use their properties and undertake activities, while also ensuring that their lives or significant assets are not likely to be harmed as a result of a natural hazard event.

The level of risk can be considered to be either acceptable or unacceptable. This is determined by:

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- The likelihood of the natural hazard event;
- The potential consequence of the natural hazard event for people and communities, property and infrastructure and the environment, and the emergency response organisations; and
- The consent process with the hazard overlays identifying areas for assessment.

This chapter anticipates the use of mitigation measures where it is appropriate to do so. These measures can reduce the consequences from natural hazards and reduce the associated risk.

Potential mitigation measures that can be incorporated into developments to reduce the consequences of natural hazards include:

- Building design and location (for example minimum floor levels or the ability for buildings to be relocated);
- Raising ground levels;
- The creation of flood water detention areas;
- The introduction, retention or improvement of existing natural systems that mitigate natural hazard effects;
- Use or size of materials in infrastructure design and building construction and location;
- The types of activities within buildings and structures;
- Provision of access to water sources for fire fighting
- Private mitigation works and community mitigation works

The chapter sets out a framework for determining where development in certain hazard areas should be avoided, including in areas identified as High Flood Hazard.

The District Council is required under the Resource Management Act to control any actual or potential effects of the use, development, or protection of land including for the purpose of the avoidance or mitigation of natural hazard events.

The District Council and the Regional Council both have functions for avoiding or mitigating natural hazard events in the District.

This section has been removed from the flooding paragraph and replaced into the introduction of Chapter 8 and amended as follows:

The areas **potentially** at **most** risk from flooding are shown on the Proposed District Plan Map Series **as Flood Hazard Assessment Overlays Part 4. Outside of the District Plan, the Regional Council also maintains flooding maps that indicate likely flow paths and depths for areas where more detailed flood modelling has been undertaken.** These areas are based on a geomorphological studies undertaken by the Regional Council **and LIDAR information** which incorporate historical flood data. While the flood hazard maps are based on the best available information, plan users should be aware that in extreme events, localised flooding or ponding may still occur on areas not marked as at-risk areas. ~~In addition, the flood hazard maps relate to the Kaikōura Plains~~

~~only, and there may be other areas in the District at risk from flood events.~~ If there is any doubt as to the flood risk, it is recommended that developers check with the Regional Council prior to planning any building project.

This paragraph is an Operative District Plan section that has been included as part of the replacement Chapter 8, but is greyed out as coastal hazards are outside the scope of this Plan Change

Coastal erosion and inundation from the sea and tsunamis

Several sections of the Kaikoura coastline are subject to coastal erosion, and this erosion poses a threat to the main transport links which pass through the District. The November 2016 7.8M earthquake resulted in significant damage to Kaikoura where parts of the coast were uplifted. The North Canterbury Transport Infrastructure Recovery (NCTIR) has rebuilt the Road and Railway corridor to provide additional resilience to the coastal transport corridor.

Coastal erosion is widespread along the Kaikoura coastline and varies from -0.67 m/yr at Goose Bay to -0.29 m/yr at Oaro Beach. However, these rates are likely to vary significantly due to high intensity storms which can rapidly erode coastal areas. As a consequence of extreme weather events, some areas are potentially prone to inundation from the sea.

8.2 Objectives

8.2.1: Risk from natural hazards

New land use and development:

- 1. is managed in the Urban Flood Assessment Overlay to ensure the risk to people and property is avoided or mitigated and the ability of communities to recover from natural hazards is maintained;**
- 2. is avoided in High Flood Hazard Areas outside of the Urban Flood Assessment Overlay; and**
- 3. is managed in in all other Hazard Overlays outside of High Flood Hazard Areas to acceptable level.**

8.2.2 Infrastructure

- 1. Upgrading maintenance and replacement of existing infrastructure and new non-critical infrastructure within all-natural hazard overlays is enabled where the infrastructure does not increase the risk to life or property from natural hazard events, or transfer the risk to another site; and**
- 2. New critical infrastructure avoids High Flood Hazard Areas, but where this is not possible or is impractical, is designed to maintain its integrity and ongoing function during and after natural hazard events or can be reinstated in a timely manner.**

8.3 Natural Hazard Policies

8.3.1 Identification of natural hazards

- 1. Identify areas that may be susceptible to natural hazards through the use of natural hazard overlays, and use the most up to date information available to provide site specific natural hazard assessments;**

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2. Recognise that climate change will alter the frequency and severity of some natural hazard events, and ensure that natural hazard assessments, and any mitigation works take into account the effects of climate change

8.3.2 Risk based approach

Take a risk based approach to managing natural hazards commensurate with the scale of development, whereby the level of risk is assessed as the combination of the likelihood of a natural hazard event occurring and the consequences of that event – for people and communities, property and infrastructure.

8.3.3 Additions to buildings in all hazard overlays

Provide for additions to existing hazard sensitive buildings within all natural hazard overlays where it can be demonstrated that:

1. the change in onsite risk resulting from the building addition to life and property is not unacceptable; and
2. the change in risk resulting from the building addition to adjacent properties, activities and people is not unacceptably increased.

8.3.4 Hazard mitigation works

Hazard mitigation works:

1. undertaken by or on behalf of the Crown, Canterbury Regional Council or the Council are enabled for the purpose of reducing the risk to life and property from flooding where area wide mitigation is necessary to protect existing communities from natural hazard risk which cannot be reasonably avoided; or
2. not undertaken by the Crown, Canterbury Regional Council or Council, will only be acceptable where;
 - a. natural hazard risk cannot be reasonably avoided;
 - b. any adverse effects of those works on the natural and built environment and on the cultural values of Ngati Kuri are avoided, remedied or mitigated; and
 - c. the mitigation works do not transfer or create unacceptable hazard risk to other people. Property. Infrastructure or the natural environment.

8.3.5 Natural features providing natural hazard resilience

Restore, maintain or enhance natural features, such as natural ponding areas, coastal dunes, wetland, water body margins, and riparian vegetation, where they assist in avoiding or reducing natural hazards.

8.3.6 Operation, maintenance, replacement and repair of all infrastructure

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Enable the operation, maintenance, replacement, repair or removal of all existing infrastructure in all identified natural hazard overlays

8.3.7 New and upgrading of non-critical infrastructure

- 1. Enable the development of new non-critical infrastructure and upgrading of existing non-critical infrastructure in flood hazard assessment overlays only where the infrastructure does not increase flood risk on another site; and**
- 2. Provide for the development of new non-critical infrastructure and upgrading of existing non-critical infrastructure in all other identified natural hazard overlays**

8.3.8 Critical infrastructure

- 1 Enable the upgrading of existing critical infrastructure in Flood Assessment Overlays only where the infrastructure does not increase flood risk on another site;**
- 2 Provide for upgrading of existing critical infrastructure in all other identified Natural Hazard Overlays;**
- 3 Manage new critical infrastructure in all Natural Hazard Overlays which are outside of High Flood Hazard Areas to ensure that there is a low risk to life and property damage;**
- 4 Avoid new critical infrastructure in High Flood Hazard Areas unless:**
 - a. Avoidance is impossible or impracticable, in which case critical infrastructure must be designed to maintain, as far as practicable, its integrity and ongoing operation during and after natural hazard events, or be able to be reinstated in a timely manner; and**
 - b. The critical infrastructure does not significantly increase the natural hazard risk to life, or increase risk to life and property on another site**

8.3.9 Earthworks

Manage earthworks to avoid significant offsite effects associated with the displacement of floodwaters.

8.3.10 High Flood Hazard Areas within the Urban Flood Assessment Overlay

Avoid land use and development for hazard sensitive buildings in High Flood Hazard Areas of the Urban Flood Assessment Overlay, as determined by a flood assessment certificate unless it can be demonstrated that;

- 1. the nature of the activity means the risk to life and potential for damage from flooding is acceptable; or**
- 2. minimum floor levels are incorporated into the design of the development to ensure buildings are located above the flood level so that the risk to life and potential for property damage from flooding is mitigated; and**
- 3. the risk to surrounding properties is not significantly increased.**

8.3.11 High Flood Hazard Areas outside of the Urban Flood Assessment Overlay

Avoid land use and development for Hazard Sensitive Buildings outside of the Urban Flood Assessment Overlay in High Flood Hazard Areas as determined by a Flood Hazard Assessment Certificate, unless:

- 1. the activity incorporates mitigation measures so that the risk to life and property damage is acceptable**
- 2. the risk to surrounding properties is not increased; and**
- 3. the activity does not require new or upgraded community scale mitigation works.**

8.3.12 Flooding outside of High Flood Hazard Areas

Provide for land use and development for Hazard Sensitive Buildings outside of High Flood Hazard Areas as determined by a Flood Hazard Assessment Certificate where it can be demonstrated that;

- 1. the nature of the activity means the risk to life and potential for damage from flooding is acceptable; or**
- 2. the activity is ancillary to the existing main development; or**
- 3. buildings are located above the flood level so that the risk to life is acceptable and potential for property damage from flooding is mitigated; and**
- 4. the risk to surrounding properties is not significantly increased.**

8.3.13 Debris Flow Fan Overlay and Landslide Debris Inundation Overlay

Land use and development is avoided for Hazard Sensitive Buildings in the Debris Flow Fan Overlay and Landslide Debris Inundation Overlay which results in unacceptable risk to either life or property.

8.3.14 The Fault Avoidance Overlay and Fault Awareness Overlay

Land use and development is:

1. enabled only where there is an acceptable risk to life and property;

2. avoided for Hazard Sensitive Buildings in the Fault Avoidance Overlay where these result in an unacceptable risk to life and property;

3. managed for Hazard Sensitive Buildings in the Fault Awareness Overlay by locating the building away from the fault or where it can be demonstrated that mitigation measures will result in an acceptable risk to life and property;

8.3.15 Other natural hazards

Encourage the consideration of other natural hazards such as wildfire as part of land use and development.

This section is an Operative District Plan section that has been included as part of the replacement Chapter 8, but is greyed out as coastal hazards are outside the scope of this Plan Change:

8.4 Coastal Hazards

Coastal erosion, tsunami, storm events and saltwater inundation have the ability to cause damage to property and threaten life.

Objective 1

To avoid damage to assets or infrastructure, disruption to the community and loss of life as a result of coastal hazard events.

Policies

- 1. To avoid subdivision, use and development that increases the risk to people and property from coastal hazard events.**
- 2. To permit the establishment of new protection structures in the coastal environment only where they are the best practicable option for the future and so that adverse effects are avoided to the extent practicable. When considering any application to renew or replace existing structures, the abandonment or relocation of those structures will be considered among the options.**
- 3. To recognise and enhance the ability of natural features such as hard rock shorelines, beaches, sand dunes and wetlands to protect the built environment from coastal hazard events and to recognise that some natural features may migrate inland as the result of dynamic coastal process including sea level rise.**
- 4. To recognise the possibility of sea level rise, to monitor predictions and research relating to sea level rise, and to vary or amend the District Plan as and when necessary so that effects of sea level rise are mitigated or avoided.**

Implementation Methods

- 1. To control subdivision in areas subject to coastal hazards.**
- 2. Co-operate with the Regional Council, and consultation with interested people and organisations, including Te Runanga o Ngai Tahu, in the maintenance and construction of coastal protection works.**
- 3. Support the inclusion of rules in Regional Plans of the Regional Council, in relation to activities located in areas subject to the effects of coastal erosion and inundation.**
- 4. Avoid the duplication of relevant provisions, including rules, in the Proposed Kaikoura District Plan and Regional Council plans.**
- 5. Through the Council's annual planning process discourage activities which increase the rates of coastal erosion by providing information or advice to adjacent landowners.**

Explanation and Reasons

Past experience indicates that once assets are threatened by coastal erosion and inundation, there is pressure to provide physical protective works, especially where high value assets are involved. However, such works are often ineffectual, costly and have an adverse effect on the environment. Such structures should only be established when they are the best practicable option. Therefore, where possible, it is preferable to locate assets away from hazard prone areas rather than build protective works. This is consistent with the direction taken by the New Zealand Coastal Policy Statement.

8.5 Natural hazard rules

Activities

Activities specified in the following table shall be assessed as permitted, restricted discretionary, or non-complying as shown.

<p><u>8.5.1</u> <u>All zones</u></p>	<p><u>Any plantation forestry, woodlot or shelterbelt that complies with the following separation distances, measured from the outside extent of the canopy:</u></p> <p>a. <u>30m from any hazard sensitive building on an adjoining property.</u></p> <p><u>Activity status when compliance is not achieved</u></p>	<p><u>Permitted</u></p> <p><u>Restricted discretionary</u></p>
<p><u>8.5.2</u> <u>All zones within the:</u> <u>URBAN FLOOD HAZARD ASSESSMENT OVERLAY</u></p>	<p><u>The establishment of any hazard sensitive building where it:</u></p> <p>a. <u>Is located on land outside of High Flood Hazard Areas;</u></p> <p>b. <u>Has a finished floor level equal to or higher than the minimum floor level;</u></p> <p><u>as stated in a FLOOD ASSESSMENT CERTIFICATE issued in accordance with activity standard 8.6.1</u></p> <p><u>Activity status when compliance is not achieved</u></p>	<p><u>Permitted</u></p> <p><u>Restricted Discretionary</u></p> <p><u>Matters of discretion are restricted to:</u></p> <ol style="list-style-type: none"> 1. <u>The likely extent of flooding on the site</u> 2. <u>the nature, design, and intended use of the building and its susceptibility to damage;</u> 3. <u>proposals to mitigate any risk arising from natural hazards on the site, including risk to the health and safety of occupants;</u>

		4. <u>the extent of any positive effects from the proposal.</u>
<p>8.5.3</p> <p><u>All zones within the:</u></p> <p><u>NON-URBAN FLOOD HAZARD ASSESSMENT OVERLAY</u></p>	<p><u>The establishment of any new hazard sensitive building where it:</u></p> <p>a. <u>Is located on land outside of High Flood Hazard Areas;</u></p> <p>b. <u>Has a finished floor level equal to or higher than the minimum floor level;</u></p> <p><u>As stated in a FLOOD ASSESSMENT CERTIFICATE issued in accordance with activity standard 8.6.1</u></p> <p><u>Activity status where compliance with rule 8.5.2.a is not achieved</u></p> <p><u>Activity status where compliance with rule 8.5.2.b is not achieved</u></p>	<p><u>Permitted</u></p> <p><u>Non-complying</u></p> <p><u>Restricted discretionary</u></p> <p><u>Matters of discretion are restricted to:</u></p> <ol style="list-style-type: none"> <u>The likely extent of flooding on the site;</u> <u>The nature, design and intended use of the building and its susceptibility to damage;</u> <u>Proposals to mitigate any risk created by any failure to meet minimum finished floor levels, including risk to the health and safety of the occupants;</u> <u>the extent of any positive effects from the proposal.</u>
<p>8.5.4</p> <p><u>All zones within the:</u></p> <p><u>DEBRIS FLOW FAN OVERLAY; or</u></p> <p><u>LANDSLIDE DEBRIS INUNDATION OVERLAY</u></p>	<p><u>The establishment of any new hazard sensitive building</u></p>	<p><u>Restricted discretionary</u></p> <p><u>Matters of discretion are restricted to:</u></p> <ol style="list-style-type: none"> <u>The extent of debris flow or landslide inundation hazards on the site;</u> <u>The nature, design and intended use of the building, or structure and its susceptibility to damage;</u> <u>Proposals to mitigate any risk arising from debris flow or landslide debris inundation hazards on the site;</u> <u>Whether there is unacceptable risk to either life or property.</u>

<p><u>8.5.5</u></p> <p><u>All zones within the:</u></p> <p><u>FAULT AVOIDANCE OVERLAY; or</u></p> <p><u>FAULT AWARENESS OVERLAY</u></p>	<p><u>The establishment of any new hazard sensitive building</u></p>	<p><u>Restricted discretionary</u></p> <ol style="list-style-type: none"> 1. <u>The likely fault rupture hazards on the site;</u> 2. <u>The nature design and intended use of the building or structure and its susceptibility to damage;</u> 3. <u>Proposals to mitigate any risk arising from fault rupture hazards on the site, including risk to the health and safety of occupants.</u>
<p><u>8.5.6</u></p> <p><u>All zones within the:</u></p> <p><u>URBAN FLOOD ASSESSMENT OVERLAY; or</u></p> <p><u>NON-URBAN FLOOD ASSESSMENT OVERLAY; or</u></p> <p><u>DEBRIS FLOW FAN OVERLAY; or</u></p> <p><u>LANDSLIDE DEBRIS INUNDATION OVERLAY; or</u></p> <p><u>FAULT AVOIDANCE OVERLAY; or</u></p> <p><u>or FAULT AWARENESS OVERLAY</u></p>	<p><u>Additions to existing hazard sensitive buildings that:</u></p> <ol style="list-style-type: none"> a. <u>do not increase the floor area by more than 25m² in any continuous 5-year period; or</u> b. <u>If located within a flood assessment overlay, have a finished floor level equal to or higher than the minimum floor level as stated in a FLOOD ASSESSMENT CERTIFICATE issued in accordance with activity standard 8.6.1.</u> <p><u>Activity status when compliance is not achieved</u></p>	<p><u>Permitted</u></p> <p><u>Restricted discretionary</u></p> <p><u>Matters of discretion are restricted to:</u></p> <ol style="list-style-type: none"> 1. <u>The natural hazard risk on the site</u> 2. <u>The nature, design and intended use of the building or structure and its susceptibility to damage;</u> 3. <u>Proposals to mitigate any risk arising from natural hazards on the site, including risk to the health and safety of occupants;</u> 4. <u>The potential to exacerbate natural hazard risk, including to any other site; and</u> 5. <u>The extent of any positive effects from the proposal.</u>
<p><u>8.5.7</u></p> <p><u>All zones within the:</u></p> <p><u>URBAN FLOOD</u></p>	<p><u>Above ground earthworks, buildings and new structures that</u></p> <ol style="list-style-type: none"> a. <u>will not worsen flooding on another property through the</u> 	<p><u>Permitted</u></p>

<p><u>ASSESSMENT OVERLAY; or</u></p> <p><u>NON-URBAN FLOOD ASSESMENT OVERLAY</u></p>	<p><u>diversion or displacement of floodwaters; or</u></p> <p><u>b. meet the definition of land disturbance</u></p> <p><u>Activity status when compliance is not achieved</u></p>	<p><u>Restricted discretionary</u></p> <p><u>Matters of discretion are restricted to:</u></p> <ol style="list-style-type: none"> 1. <u>The likely extent of flooding on the site;</u> 2. <u>The potential for the activity to exacerbate flooding on any other site; and</u> 3. <u>The extent to which the earthworks or new structure impedes the free passage of floodwaters</u>
<p><u>8.5.8</u></p> <p><u>All zones within the:</u></p> <p><u>URBAN FLOOD ASSESMENT OVERLAY; or</u></p> <p><u>NON-URBAN FLOOD ASSESMENT OVERLAY</u></p>	<p><u>New infrastructure, or upgrading of infrastructure and critical infrastructure where:</u></p> <ol style="list-style-type: none"> a. <u>The activity does not result in permanent raising of the ground level.</u> <p><u>Activity status when compliance is not achieved</u></p>	<p><u>Permitted</u></p> <p><u>Restricted discretionary</u></p> <p><u>Matters of discretion are restricted to:</u></p> <ol style="list-style-type: none"> 1. <u>The likely extent of flooding on the site;</u> 2. <u>The nature, design and intended use of the infrastructure and its susceptibility to damage;</u> 3. <u>The potential for the activity to exacerbate natural hazard risk, including to any other sites; and</u> 4. <u>The extent of any positive effects from proposal.</u>
<p><u>8.5.9</u></p> <p><u>All zones within the:</u></p> <p><u>URBAN FLOOD ASSESMENT OVERLAY; or</u></p> <p><u>NON-URBAN FLOOD ASSESMENT OVERLAY; or</u></p> <p><u>LANDSLIDE DEBRIS</u></p>	<p><u>New critical infrastructure</u></p>	<p><u>Restricted discretionary</u></p> <p><u>Matters of discretion are restricted to:</u></p> <ol style="list-style-type: none"> 1. <u>The extent to which infrastructure exacerbates the natural hazard risk or transfers the risk to another site;</u> 2. <u>The ability for flood water conveyance to be maintained;</u> 3. <u>The extent to which there is a functional or operational requirement for the infrastructure to be located in the High Flood Hazard Overlay and there are no practical alternatives;</u> 4. <u>The extent to which the location and design of the infrastructure address relevant natural hazard risk and appropriate measures that have been</u>

<p><u>INUNDATION OVERLAY; or</u></p> <p><u>FAULT AVOIDANCE OVERLAY; or</u></p> <p><u>or FAULT AWARENESS OVERLAY</u></p>		<p><u>incorporated into the design to provide for the continued operation</u></p>
<p><u>8.5.10.</u></p> <p><u>All zones within the:</u></p> <p><u>URBAN FLOOD ASSESSMENT OVERLAY; or</u></p> <p><u>NON-URBAN FLOOD ASSESSMENT OVERLAY</u></p>	<p><u>The change of use of any existing building that is not currently a hazard sensitive building to a hazard sensitive building where the activity:</u></p> <p style="margin-left: 20px;">a. <u>Is located on land outside of High Flood Hazard Areas; and</u></p> <p style="margin-left: 20px;">b. <u>Has a finished floor level equal to or higher than the minimum floor level.</u></p> <p><u>As stated in a FLOOD ASSESSMENT CERTIFICATE issued in accordance with activity standard 8.6.1</u></p> <p><u>Activity status when compliance with rule 8.5.9.a is not achieved</u></p> <p><u>Activity status when compliance with rule 8.5.9.b is not achieved</u></p>	<p><u>Permitted</u></p> <p><u>Non-complying</u></p> <p><u>Restricted discretionary</u></p> <p><u>Matters of discretion are restricted to:</u></p> <ol style="list-style-type: none"> 1. <u>The likely extent of flooding on the site;</u> 2. <u>The nature, design and intended use of the building or structure and its susceptibility to damage with reference to the hazard sensitivity classification 8.6.1</u> 3. <u>Proposals to mitigate any risk created by the failure to meet minimum finished floor levels, including risk to the health and safety of occupants;</u> 4. <u>The proposals for the activity to exacerbate natural hazard risk, including to any other sites; and</u> 5. <u>The extent of any positive effects from the reduction in floor levels</u>
<p><u>8.5.11</u></p>	<p><u>The change of use of any existing building that is not currently a</u></p>	<p><u>Restricted discretionary</u></p> <p><u>Matters of discretion are restricted to:</u></p>

<p><u>All zones within the:</u></p> <p><u>DEBRIS FLOW FAN OVERLAY; or</u></p> <p><u>LANDSLIDE DEBRIS INUNDATION OVERLAY; or</u></p> <p><u>FAULT AVOIDANCE OVERLAY; or</u></p> <p><u>FAULT AWARENESS OVERLAY</u></p>	<p><u>hazard sensitive building to a hazard sensitive building</u></p>	<ol style="list-style-type: none"> 1. <u>The nature, design and intended use of the building or structure;</u> 2. <u>An assessment of natural hazards on the site;</u> 3. <u>Proposals to mitigate any risk arising from natural hazards on the site, including risk to the health and safety of occupants;</u> 4. <u>The potential for the activity to exacerbate natural hazard risk, including to any other sites; and</u> 5. <u>The extent of any positive effects of the proposal.</u>
<p><u>8.5.12</u></p> <p><u>All zones within the:</u></p> <p><u>URBAN FLOOD ASSESSMENT OVERLAY; or</u></p> <p><u>NON-URBAN FLOOD ASSESSMENT OVERLAY</u></p>	<p><u>The establishment of any new camping grounds where:</u></p> <ol style="list-style-type: none"> 1. <u>the land is not susceptible to flooding in a 500 year ARI flood event:</u> <p><u>as stated in a FLOOD ASSESSMENT CERTIFICATE issued in accordance with activity standard 8.6.1.</u></p> <p><u>Activity status when compliance is not achieved</u></p>	<p><u>Permitted</u></p> <p><u>Restricted discretionary</u></p> <p><u>Matters of discretion are restricted to:</u></p> <ol style="list-style-type: none"> 1. <u>An assessment of natural hazards on the site;</u> 2. <u>Proposals to mitigate any risk arising from natural hazards on the site, including risk to the health and safety of occupants;</u> 3. <u>The potential for the activity to exacerbate natural hazard risk, including to any other sites; and</u> 4. <u>The extent of any positive effects of the proposal.</u>
<p><u>8.5.13</u></p> <p><u>All zones within the:</u></p>	<p><u>The establishment of any new Camping grounds</u></p>	<p><u>Restricted Discretionary</u></p> <p><u>Matters of discretion are restricted to:</u></p> <ol style="list-style-type: none"> 1. <u>An assessment of natural hazards on the site;</u>

<p><u>FAULT AVOIDANCE OVERLAY; or</u></p> <p><u>LANDSLIDE DEBRIS INUNDATION OVERLAY</u></p>		<p>2. <u>Proposals to mitigate any risk arising from natural hazards on the site, including risk to the health and safety of occupants;</u></p> <p>3. <u>The potential for the activity to exacerbate natural hazard risk, including to any other sites; and</u></p> <p>4. <u>The extent of any positive effects of the proposal.</u></p>
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8.6 Natural hazards standards

8.6.1 Flood assessment certificate within the Urban and Non-urban Flood Assessment Overlays

A flood assessment certificate will be issued by Council (that is valid for three years from the date of issue) which specifies:

1. whether or not the activity is located on land that is within a High Flood Hazard Area; and
2. where the activity is located on land that is within the Urban Flood Assessment Overlay, a minimum finished floor level for any new building or extension (or part thereof) that is 300mm above the 500 year ARI flood level; and
3. where the activity is located on land that is within the Non-Urban Flood Assessment Overlay outside of High Flood Hazard Areas, a minimum finished floor level for any new building or structure (or part thereof) that is 300mm above the 500year ARI flood level; or
4. for campgrounds, whether the land is susceptible to flooding in a 500 year ARI flood event

The above will be determined with reference to:

- a. The most up to date models and maps held by Kaikoura District Council or Canterbury Regional Council; and
- b. Any relevant field information

Amend note 1 as follows and add in new note, note 3:
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Note:

1. Subdivision of any land located within the ~~Natural Hazard Overlays flood hazard areas 1, 1a, 2, 2a, or P~~ is controlled addressed in ~~Section Chapter~~ 13 Subdivision, ~~Rule 13.11.2.~~

(...)

~~3. 0.2% AEP Annual Exceedence Probability equates to a 10% chance in 50 years of a building or site being subject to inundation from a flood event.~~

Proposed Natural Hazards Plan Change 3 to the Kaikōura District Plan

Amend 13.2 Issue 1 as follows:

Chapter 13: Subdivision

13.2 Issue 1 - Natural Hazards

Land ~~may likely to~~ be subject to damage by erosion, subsidence, **fault rupture, liquefaction, flooding, landslide debris inundation, debris flow fans, slippage or flooding, inundation from any source** ~~should not be subdivided unless the adverse effects can be avoided, remedied or mitigated.~~

Amend 13.2.1 Objective 1 as follows:

13.2.1 Objective 1

To avoid subdivision in localities where it is likely to increase risk to people or property from erosion, sea level rise, subsidence, **fault rupture, liquefaction, flooding, landslide debris inundation and debris flow fans** ~~slippage or inundation from any source~~, unless this risk can be remedied, avoided or mitigated without significant adverse effects on the environment.

Insert new subdivision policy as follows:

13.2.2 Policies

(...)

7. **Manage subdivision within all natural hazard overlays to ensure risk to life and property is acceptable**

Subdivision Rules

Amend 13.11.1 as follows:

13.11 Subdivision Activities

13.11.1 Controlled Subdivision Activities

Except as provided for in 13.11.2, 13.11.3, ~~and~~ 13.11.4 **and 13.11.5** below, any subdivision which complies with all performance standards shall be a Controlled subdivision activity with Council's control being reserved to the following matters:

(...)

Natural Hazards

- Provision of protection works, and measures to avoid, remedy or mitigate effects of such works, the location and type of services, building location, and location and quantity of filling and earthworks that could be affected by the following natural hazards or which could affect the impact of those natural hazards on the site or other land in the vicinity.

(...)

- **Liquefaction within the Liquefaction Hazard Overlay, with the matters of control restricted to:**

1. **Geotechnical recommendations from a site-specific geotechnical assessment of liquefaction hazard, including testing of soils;**
2. **Location, size and design of the subdivision, roads, access, services;**
3. **Recommendations for foundations for future buildings;**
4. **Remediation and ground treatment**

(...)

Insert new 13.11.2 restricted discretionary activity rule as follows:

13.11.2 Restricted Discretionary Subdivision Activities

Subdivisions locating a new hazard sensitive building platform within:

1. **the Urban Flood Assessment Overlay;**
2. **the Non-Urban Flood Assessment Overlay outside of a High Flood Hazard Area as stated in a FLOOD ASSESSMENT CERTIFICATE issued in accordance with activity standard 8.6.1;**
3. **the Debris Flow Fan Overlay;**
4. **the Landslide Debris Inundation Overlay; or**
5. **the Fault Awareness Overlay.**

Matters of discretion are restricted to:

1. **Geotechnical recommendations from a site-specific geotechnical assessment of hazards, including testing of soils;**
2. **Flooding mitigation recommendations from a site-specific flooding assessment;**
3. **Location, size, and design of the subdivision, roads, access, services and the extent to which natural hazard risk is managed;**
4. **Recommendations for foundations for future buildings and ground remediation;**
5. **The level of risk;and**
6. **The potential effects of mitigation measures.**

Renumber 13.11.2 Discretionary Subdivision Activities to 13.11.3

Renumber 13.11.3 Non-complying Subdivision Activities to 13.11.4 and amend as follows:

13.11.4 Non-complying Subdivision Activities

Proposed Natural Hazards Plan Change 3 to the Kaikōura District Plan

(...)

4. **Any subdivision locating a platform for a new hazard sensitive building within the Fault Avoidance Overlay;**
5. **Any subdivision locating a platform for a new hazard sensitive building within a High Flood Hazard Area within the Non-urban Flood Assessment Overlay as stated in a FLOOD ASSESSMENT CERTIFICATE issued in accordance with activity standard 8.6.1.**

Renumber 13.11.4 to 13.11.5

Make consequential amendments to numbering cross references to Table 13.12.1.a